

Englische Philologie

A Corpus-based Contrastive Approach for the Analysis of Tense and Aspect  
in Translation from English into Mandarin Chinese

Inaugural-Dissertation

zur Erlangung des Doktorgrades

der

Philosophischen Fakultät

der

Westfälischen Wilhelms-Universität

zu

Münster (Westf.)

vorgelegt von

Mimi Shi

aus Dalian, Liaoning, China

2011

**Tag der mündlichen Prüfung: 12.05.2011**

**Dekan: Prof. Dr. Christian Pietsch**

**Referent: Prof. Dr. Wolf Paprotté**

**Korreferent: Prof. Dr. Reinhard Emmerich**

## **Abstract**

Temporal expression is a fascinating topic in linguistics as it is a universal feature in all natural languages but is realized in a variety of different forms. Comparative studies of temporal expression usage within languages and comparing translations between languages are of importance to understanding both individual languages and the accuracy and efficiency of translation. In this dissertation, I examine the topic of tense and aspect usage in English and Mandarin Chinese, two important languages that belong to distant families and have substantial differences in tense and aspect formalization.

I investigate three general questions regarding the translation of English tense and aspect into Mandarin Chinese. First, how and to what degree are English tense and aspect translated into Mandarin Chinese? Second, is the translated text target text oriented, source text oriented, or a third code? And finally, are the features of translation universals applicable? These questions, although well studied with translations between western languages, remain debated for English - Mandarin Chinese translation.

In order to address these questions, one needs to compare English and Mandarin Chinese translations, and to compare original and translated Mandarin Chinese. Taking a quantitative and non-biased approach, I collect data from two corpora: the Babel English-Chinese Parallel Corpus for translation patterns, and the Lancaster Corpus of Mandarin Chinese for L1 Mandarin Chinese data. Sentences are manually annotated for tense and aspect classification and distribution. Statistical tests, e.g., chi-square test, are applied to compare distributions and conclude their differences.

The results suggest that English tense and aspect are translatable into Mandarin Chinese, but each tense and aspect can be translated by different elements, with certain elements preferred over others. For example, context is preferred to translate the English present; perfective aspect markers are preferred to translate the English past; and temporal adverbials are preferred to express the English perfect and progressive. Additionally, aspect shift is observed in translation, since Mandarin Chinese has different aspectual domains than English aspect. Translated Mandarin Chinese is shown to be different from both English source text and original Mandarin Chinese in terms of tense and aspect usage and distribution, which leads to the conclusion that translated Mandarin Chinese is a third code. Based on monolingual comparable data, differences between translated Mandarin Chinese and original Mandarin Chinese support the feature of normalization, but not the feature of explicitation.

This dissertation presents a systematic comparative study in translation of English tense and aspect into Mandarin Chinese, with a corpus-based quantitative approach. The study demonstrates how linguistic theories built based on western languages can or cannot be extrapolated into Mandarin Chinese.

The discussion in this dissertation comprises the following parts: Part I Chapter one is a general introduction; Part II offers theoretical preliminaries, containing three chapters, Chapter two discusses tense and aspect in English, Chapter three discusses the Mandarin Chinese aspectual system, and Chapter four investigates the conventional rule of tense and aspect in English-Mandarin Chinese translations. Part III describes the presented research, containing four chapters, Chapter five introduces research questions and aims, Chapter six describes the methodology in this study, Chapter seven presents data results, including translated and original Mandarin Chinese and Chapter eight performs statistical analysis of the results. Part IV Chapter nine is conclusions and outlooks.

**To my parents**

Dianmin Shi and Huijun Yang

史殿敏 and 杨慧君

## Acknowledgements

子曰：“三人行，必有吾师焉”。

Confucius once said, “among every three people, there will be someone I can learn from”.

Ten years have passed since I started my Magister and PhD studies at the Westfälische Wilhelms-Universität Münster, Germany. I have been extremely fortunate to have many talented and dedicated teachers from whom I have learned not only about scholarship, but also about how to be a scholar and how to enjoy research. Particularly, I want to express my greatest appreciation to my advisor, Prof. Dr. Wolf Paprotté of the Institute for Englische Philologie at the Westfälische Wilhelms-Universität Münster. His profound knowledge in linguistics has sparked my interests in the field of translation studies and contrastive linguistics. Special acknowledgements also go to Prof. Dr. Reinhard Emmerich of the Institute for Sinologie und Ostasienkunde at the Westfälische Wilhelms-Universität Münster, whose mastery of Chinese highly inspires and motivates me to explore deeper and broader in my mother tongue. I also owe many thanks to Dr. Charles Sanft of the Institute for Sinologie und Ostasienkunde at the Westfälische Wilhelms-Universität Münster, for his critical comments and advices on my writing. Dorit Hahn has been helpful for reading the dissertation summary in German. Without their generous help and encouragement, it would not have been possible for me to make achievements and progresses as presented in this dissertation.

My parents Dianmin Shi and Huijun Yang, who have been always supportive and encouraging for every aspect of my life and study in Germany, are the source of my inspiration and motivation. I also owe so much to my husband, Dr. Xian Zhang, who is extremely supportive of my academic career. Last but not least, I want to thank my closest friends, Bin Huang, Prof. Dr. Jianhua Yang, Dr. Jun Lu, Jiening Shan, Wenjia Zhu, Lili Fortun, Yuwei Wang, and Haili Yang, for their inspiration, help, and company.

**Table of Contents**

List of Tables .....I  
List of Diagrams .....V  
List of Illustrations .....VI  
Abbreviations .....VII

**PART I INTRODUCTION**

**Chapter 1 Introduction ..... 1**  
    **1.1 Background..... 1**  
    **1.2 Theoretical Basis ..... 4**  
    **1.3 Research..... 6**  
        1.3.1 Previous Results and Current Questions ..... 6  
        1.3.2 Methods ..... 8  
        1.3.3 Results ..... 10

**PART II THEORETICAL BASIS**

**Chapter 2 Tense and Aspect in English ..... 12**  
    **2.1 Previous Studies ..... 12**  
        2.1.1 Tense ..... 13  
        2.1.2 Aspect ..... 21  
    **2.2 Tense in English..... 33**  
        2.2.1 Two-model Classification ..... 33  
        2.2.2 Simple Present ..... 34  
        2.2.3 Simple Past ..... 40  
    **2.3 Aspect in English ..... 44**  
        2.3.1 The Perfect..... 44  
        2.3.2 The Progressive ..... 47  
    **2.4 Summary..... 52**  
**Chapter 3 Aspect in MC..... 55**  
    **3.1 Previous Studies ..... 55**  
        3.1.1 Tense or Aspect in MC ..... 55  
        3.1.2 Problem of Aspectual System..... 57  
    **3.2 Aspectual Marking in MC..... 64**  
        3.2.1 Aspect Marker..... 64  
        3.2.2 Temporal Adverbial ..... 73  
        3.2.3 Lexical Verbs ..... 76  
        3.2.4 Context..... 79  
    **3.3 Summary..... 81**

<b>Chapter 4 Tense and Aspect in English-MC Translation.....</b>	<b>82</b>
<b>4.1 Translating English Tense and Aspect into MC .....</b>	<b>82</b>
4.1.1 Conventional Rules of Translation Equivalence .....	82
4.1.2 Interim Summary .....	90
<b>4.2 Features of Translated Languages.....</b>	<b>92</b>
<b>4.3 Summary.....</b>	<b>93</b>
<b>PART III RESEARCH</b>	
<b>Chapter 5 Research Aims.....</b>	<b>96</b>
<b>5.1 Problem of Previous Results in English-MC Translation.....</b>	<b>96</b>
5.1.1 Comparison between English and MC .....	96
5.1.2 Relationship between Original and Translated MC.....	98
<b>5.2 Current Aims .....</b>	<b>99</b>
5.2.1 Aim 1 .....	99
5.2.2 Aim 2 .....	101
5.2.3 Aim 3 .....	102
<b>Chapter 6 Methodology.....</b>	<b>104</b>
<b>6.1 Previous Approaches in Cross-linguistic Research .....</b>	<b>104</b>
6.1.1 Main Areas of Cross-linguistic Research .....	104
6.1.2 Intuition-based Approach .....	105
6.1.3 Machine Translation Approach.....	106
<b>6.2 Corpus-based Cross-linguistic Research .....</b>	<b>108</b>
6.2.1 What is a Corpus?.....	109
6.2.2 Applications.....	116
<b>6.3 Corpus Databases.....</b>	<b>121</b>
6.3.1 BECPC Corpus .....	122
6.3.2 LCMC Corpus .....	123
<b>6.4 Data Collection .....</b>	<b>126</b>
6.4.1 Collection of MC Translation Patterns of English.....	127
6.4.2 Collection of L1 MC.....	129
6.4.3 Chi-square Test for Comparing Linguistic Element Distribution.....	131
<b>6.5 Summary.....</b>	<b>131</b>
<b>Chapter 7 Data Results .....</b>	<b>133</b>
<b>7.1 Results of Translating English Tense and Aspect into MC.....</b>	<b>133</b>
7.1.1 MC Equivalence of the English Simple Present.....	133
7.1.2 MC Equivalence the English Simple Past .....	146
7.1.3 MC Equivalence of the English Perfect .....	157
7.1.4 MC Equivalence of the English Progressive .....	169
<b>7.2 Results of Aspectual Marking in L1 MC .....</b>	<b>178</b>
7.2.1 Perfective Aspect .....	179
7.2.2 Imperfective Aspect.....	185



## Table of Contents

---

7.2.3 Modality.....	191
<b>7.3 Summary.....</b>	<b>193</b>
<b>Chapter 8 Contrastive Studies.....</b>	<b>195</b>
<b>8.1 Comparing English with Translated MC.....</b>	<b>195</b>
8.1.1 Translation Pattern.....	195
8.1.2 Aspectual Domains.....	202
8.1.3 Interim Summary.....	209
<b>8.2 Comparing Translated MC with L1 MC.....</b>	<b>210</b>
8.2.1 Distribution of Aspect and Modality.....	210
8.2.2 Distribution of Aspectual Marking.....	215
8.2.3 Usage of Aspectual Marking.....	217
8.2.4 Interim Summary.....	219
<b>8.3 Summary.....</b>	<b>220</b>
<b>PART IV CONCLUSION</b>	
<b>Chapter 9 Conclusion and Outlook.....</b>	<b>222</b>
<b>REFERENCES.....</b>	<b>226</b>
<b>APPENDICES.....</b>	<b>249</b>
Appendix 1: Lebenslauf.....	249
Appendix 2: Zusammenfassung in deutscher Sprache.....	250
Appendix 3: Sentence ID of Corpus Data.....	255

**List of Tables**

Number	Title	Page
Table 1	Regular Verb Form	14
Table 2	Irregular Verb Form	15
Table 3	Verb Classifications	22
Table 4	Differences between State and Event	23
Table 5	Temporal Features of Situation Types	25
Table 6	Telicity and Atelicity	26
Table 7	Linguistic Constrains	28
Table 8	Non-progressive and Progressive	32
Table 9	Perfective and Imperfective Viewpoints	33
Table 10	Non-progressive Verbs in English	48
Table 11	Tense and Aspect in English	53
Table 12	Aspect in MC	59
Table 13	A Fourfold Classification of Verbs	61
Table 14	Event vs. Activity	62
Table 15	Dynamic Verb vs. Static Verb	62
Table 16	A Two-fold Classification of Verbs	63
Table 17	Linguistic Form of Aspect and Tense in English	83
Table 18	Perfective Aspect Marker in English Translation	84
Table 19	Imperfective Aspect Marker in English Translation	86
Table 20	MC Temporal Adverbials in English Translation	87
Table 21	RVC/Verb Reduplication in English Translation	88
Table 22	Auxiliary Verb in English Translation	88
Table 23	Future-oriented Verb in English Translation	89
Table 24	MC Translation Patterns of English	94
Table 25	McEnery/Xiao/Tono (2006)'s Results	98
Table 26	Parallel, Monolingual, Comparable Corpora	113

## List of Tables

Table 27	The BECPC Corpus	122
Table 28	The LCMC Corpus	124
Table 29	Compare LCMC with BECPC	126
Table 30	Distribution of the English Simple Present	134
Table 31	Simple Present Translated as Marked/Unmarked Means in MC	135
Table 32	English Present Translated as Aspect Marker	136
Table 33	English Present Translated as Temporal Adverb	138
Table 34	Position of Temporal Adverb in English and MC	140
Table 35	English Present Translated as Lexical Verb	142
Table 36	English Present Translated as Context	144
Table 37	MC Translation Pattern of the English Simple Present	145
Table 38	Aspectual Meaning in Translating English Present into MC	146
Table 39	Distribution of the English Simple Past	147
Table 40	Simple Past Translated as Marked/Unmarked Means	148
Table 41	English Past Translated as Aspect Marker	149
Table 42	English Past Translated as Temporal Adverbial	150
Table 43	Position of Temporal Adverb in English and MC	151
Table 44	The Combination of Aspect Marker and Temporal Adverbial	152
Table 45	English Past Translated as Lexical Verb	153
Table 46	English Past Translated as Context	155
Table 47	MC Translation Pattern of the English Simple Past	156
Table 48	Aspectual Meaning in MC of Translating English Past	157
Table 49	Distribution of the English Perfect	158
Table 50	Perfect Translated as Marked/Unmarked Means	158
Table 51	English Perfect Translated as Aspect Marker	159
Table 52	English Perfect Translated as Temporal Adverb	160
Table 53	Position of Temporal Adverbs in English and MC	163
Table 54	The Combination of Adv and Already	164

## List of Tables

Table 55	The Combination of Temporal Adverb and Aspect Marker	165
Table 56	English Perfect Translated as Lexical Verb	166
Table 57	English Perfect Translated as Context	167
Table 58	MC Translation Pattern of the English Perfect	168
Table 59	Aspectual Meaning in MC of Translating English Prefect	168
Table 60	Distribution of the English Progressive	169
Table 61	English Progressive Translated as Marked/Unmarked Means	170
Table 62	English Progressive Translated as Aspect Marker	171
Table 63	English Progressive Translated as Temporal Adverb	172
Table 64	English Progressive Translated as Lexical Verb	175
Table 65	English Progressive Translated as Context	176
Table 66	Translation Pattern from English Progressive into MC	177
Table 67	Aspectual Meaning in MC of Translating English Progressive	178
Table 68	Semantic Usage of L1MC Perfective Aspect	179
Table 69	Concordance of the Perfective Aspect in L1 MC	180
Table 70	Aspect Marker in L1 MC Perfective Aspect	181
Table 71	Temporal Adverbial in L1 MC Perfective Aspect	183
Table 72	Lexical Verb in L1 MC Perfective Aspect	184
Table 73	Context in L1 MC Perfective Aspect	185
Table 74	Distribution of L1 MC Imperfective Aspect	186
Table 75	Aspectual Marking in L1 MC Imperfective Aspect	187
Table 76	Aspect Marker in L1 MC Imperfective Aspect	188
Table 77	Temporal Adverbial in L1 MC Imperfective Aspect	190
Table 78	Context in L1 MC Imperfective Aspect	191
Table 79	Auxiliary Verb in L1 MC Modality	192
Table 80	MC Translation Patterns of the English Tense and Aspect	193
Table 81	Aspect and Modality in L1 MC	194

## List of Tables

Table 82	MC Concordances of English Tense and Aspect	196
Table 83	Translating English Tense and Aspect into MC	197
Table 84	Common Ways in MC Translation Concordances	198
Table 85	Features of English and Translated MC	199
Table 86	English Tense and Aspect in MC Marked vs. Unmarked Means	200
Table 87	Distribution of English Tense and Aspect	203
Table 88	Aspect in Translated MC	204
Table 89	Most Frequent Ways to Translate English Aspect into MC	205
Table 90	Features of Aspect in English and MC	206
Table 91	Aspect Shift in Translated MC	208
Table 92	Aspect and Modality in Translated MC	211
Table 93	Aspect and Modality in L1 MC	212
Table 94	Perfective vs. Imperfective Aspect in Translated and L1 MC	212
Table 95	Perfective Aspectual Marking in Translated and L1 MC	213
Table 96	Imperfective Aspectual Marking in Translated and L1 MC	214
Table 97	Modality in Translated and L1 MC	214
Table 98	English Translated Marked vs. Unmarked in MC	215
Table 99	Marked vs. Unmarked in L1 MC	215
Table 100	Aspectual Marking in Translated and L1 MC	216
Table 101	Marked vs. Unmarked in Translated and L1 MC	216
Table 102	Perfective Aspect Marker in Translated and L1 MC	217
Table 103	Imperfective Aspect Marker in Translated and L1 MC	218
Table 104	Temporal Adverbial in Translated and L1 MC	218
Table 105	Lexical Verb in Translated and L1 MC	219
Table 106	Context in Translated and L1 MC	219

**List of Diagrams**

Number	Title	Page
Diagram 1	The Six-term Paradigm	16
Diagram 2	The Past	18
Diagram 3	The Present	18
Diagram 4	The Future	18
Diagram 5	Tense and Temporal Anchoring	19
Diagram 6	A Classification of Situation Type	24
Diagram 7	Classification of Aspectual Opposition	29
Diagram 8	Perfective Viewpoint in Universal Grammar	30
Diagram 9	Possible Imperfective Viewpoints	31
Diagram 10	The Basic Meaning of the Present	36
Diagram 11	The Basic Meaning of the Past	41
Diagram 12	The Present Progressive	49
Diagram 13	The Past Progressive	50
Diagram 14	Temporal Schema of Perfective Aspect Markers	65
Diagram 15	Temporal Schema of Imperfective Aspect Markers	70

**List of Illustrations**

Number	Title	Page
Illustration 1	Google Translate	107
Illustration 2	Search Results via KWIC	115
Illustration 3	Search Results via ParaConc	115
Illustration 4	The BECPC Parallel Concordancer	123
Illustration 5	The LCMC Corpus Web Concordancer	125
Illustration 6	Examples in the BECPC Parallel Concordancer	127
Illustration 7	Search Results	128
Illustration 8	The LCMC Corpus Web Concordancer	130

**Abbreviations**

Abbreviation	Term
adj	Adjective
adv	Temporal adverbial
acc	Accomplishment
BECPC	the Babel English-Chinese Parallel Corpus
CLAWS	Constituent-Likelihood Automatic Word Tagging System
CES	the Corpus Encoding Standard
COS	Change of state
CL	Contrastive linguistics
DTS	Descriptive translation studies
-ed	Past tense or past participle
F	Final endpoint
Freq	Frequency
FLOB	the Freiburg-LOB Corpus of British English
FROWN	the Freiburg-BROWN Corpus of American English
-guo	Experiential aspect marker -guo
I	Initial endpoint
Imperf	Imperfective aspect
-ing	Participle of progressive
KWIC	Key word in context
LVM	Lack viewpoint morpheme
LCMC	the Lancaster Corpus of Mandarin Chinese
L1 MC	Original Mandarin Chinese
-le/le	Verbal suffix-le/Sentence-final le
MT	Machine translation
MC	Mandarin Chinese
POS	Parts of speech



---

PEK	Peking University
Perf	Perfective aspect
Prog	Progressive
Pres	Present
RVC	Resultative verb compound
S	Speech time
ST/SL	Source text/source language
-s/es	the third person singular
TT/TL	Target text/target language
TS	Translation studies
TC	Tertium comparationis
VVG	-ing participle of lexical verb
VHO	have, base form (finite)
VVZ	-s form of lexical verb
VVD	Past tense of lexical verb
VVO	Base form of lexical verb
zai	Progressive aspect marker zai
-zhe	Durative aspect marker -zhe

## **PART I INTRODUCTION**

### **Chapter 1 Introduction**

As a general introduction to the dissertation and a sketch of the presented study, chapter one summarizes the linguistic background, current understandings and open questions, proposed research, and study methods under the headings of background, theoretical basis, and research.

#### **1.1 Background**

A natural language is a set of rules for "encoding and decoding" information in oral and written forms in human society. In linguistics, the term language is used to conceptualize the human cognitive facility of the systematic creation and usage of sounds, symbols and words to carry thoughts and ideas.<sup>1</sup> That is, a language usually appears as a tool for human communication. With the rapid development of globalization, intercultural communication is becoming more and more important on the international stage. Translation is a linguistic activity between languages to achieve mutual understanding. Translation consists of reproducing information from the source language to the target language. However, translation is a complex process which involves linguistic, cultural, and subjective factors. These factors can influence the translation process and constitute a major source of translation difficulties between languages.

One of the elements among these factors is the notion of time. The notion of time is a major cognitive concept in all human languages. From a cross-cultural point of view, time affects cultural ways of doing things. In the West, time tends to be seen as "quantitative, measured in units that reflect the

---

<sup>1</sup> Linguistics is the scientific study of natural language, which is mainly subdivided into the study of language structure and meaning.

## Chapter 1 Introduction

---

march of progress”.<sup>2</sup> In the East, time feels like it has “unlimited continuity, an unravelling rather than a strict boundary”.<sup>3</sup> The item time is embedded in people’s understandings which inform perceived common sense about how to proceed in cross-cultural communication. Different ideas of time may result in communication challenges between Western and Eastern culture. To indicate time from a grammatical standpoint, languages apply two related and yet distinct linguistic categories, tense and aspect, which can be expressed on the surface lexically or morpho-syntactically.<sup>4</sup> For example, English and German often use tense to indicate time. *He goes to the city every day* (English) or *Er geht zur Stadt jeden Tag* (German) indicates present time. *He worked yesterday* (English) or *Er arbeitete gestern* (German) indicates past time by overt past tense morphemes. Mandarin Chinese (hereafter MC), however, often expresses temporal information by aspect markers, temporal adverbial constructions, lexical verbs or context. *他每天去城里* (*He goes to the city every day*) indicates the present tense by the temporal adverb *每天* (*everyday*). *他昨天去上班了* (*He went to work yesterday*) signals the past tense by the temporal adverb *昨天* (*yesterday*) and the aspect marker *le*. In MC, the aspect marker *-le* has various usages. Another example of using tense to indicate time is how to indicate the progressive. In MC, *他在写信* (*He is writing a letter*) shows the progressive tense by means of the progressive marker *zai*. The combination of the temporal adverb *正在* (*in the process*) and the aspect marker *-zhe*, such as *他正在听着音乐* (*He is listening to the music*), indicates durative aspect in MC. English uses the construction *be+V-ing* to express the imperfective aspect, such as *I am working now* or *I was working while he*

---

<sup>2</sup> LeBaron (2003) means that time in West is “logical, sequential, and present-focused, moving with incremental certainty toward a future the ego cannot touch and a past that is not a part of now”.

<sup>3</sup> LeBaron (2003) means that time in East is “there is a certain timeless quality to time, an aesthetic almost too intricate and vast for the human mind to comprehend”.

<sup>4</sup> Comrie (1985) defines tense and aspect as: “tense relates the time of the situation referred to some other time, whereas aspects are different ways of viewing the internal temporal constituency of a situation”.

*came in*. German, interestingly, has no imperfective aspect and instead uses adverbs *gerade*, *da*, *jetzt*, etc, such as *Ich schreibe gerade einen Brief (I am writing a letter)*.

Applying tense and aspect to express the concept of time may seem straightforward to a native speaker, but their language-specific forms and multiple functions pose significant challenges for both language learning and cross-cultural communication. Even within a language, there are a variety of verb forms, adverbs and temporal expressions. One time concept can be indicated by multiple temporal expressions, and one temporal expression can indicate different time concepts depending on the particular context. Tense and aspect can be better appreciated when they are compared across languages. Thus, it is necessary to describe and compare phenomena of tense and aspect for accurate translation justification and realization between languages.

In this dissertation, I study and compare tense and aspect usage in English and MC, as they are the most widely used and arguably the most important languages in the world. At a first glance, MC and English have little in common. They belong to two distinct language families: English is classified as a member of the Indo-European language family, while MC belongs to the Sino-Tibetan language family. Each of the two languages has many distinctive features absent in the other. On the grammatical level, for example, English is an inflectional language, characterized by a degree of inflection. In contrast, MC is an isolating language, characterized by a lack of inflection. The distinction between English and MC is most evidently demonstrated by their employment of tense and aspect, which presents a major challenge in translation and cross-culture communication and thus is the topic of this dissertation.

Besides analysing and comparing English tense and aspect with its MC

translation counterparts, I will also investigate features of translated MC that deviate from original MC owing to the translation process. The results of these comparisons will help elucidate the characteristics of English and MC temporal expressions, improve our understanding of translation accuracy and efficiency, and contribute to exploring theoretical and practical issues in corpus-based contrastive and translation studies.

## **1.2 Theoretical Basis**

This section summarizes problems of tense and aspect in English and MC, and the tendency to compare languages; and discusses previous results in terms of translating tense and aspect in English into MC.

As a tense-prominent language, English expresses temporal information explicitly, by means of verbal inflection (Comrie 1976; Quirk 1985; Smith 1997; Bhat 1999). Verbal suffixes are obligatory and involved in agreement within a given sentence. However, two issues remain debatable: one issue focuses whether English tense should be classified as two-model (present/past) or three-model (present/past/future); the other issue is the relationship between lexical aspect and situation type, and between grammatical aspect and viewpoint aspect. Thus, the classification of English tense and aspect needs to be discussed systematically. In this dissertation, English grammatical tense is classified into two categories: simple present and simple past. Due to lack of the inflectional form, future is not classified as tense but as a category of modality. The meaning of tenses is based on three times: present, past, and future time. English tense has basic and special usages. The other temporal reference in English is grammatical aspect, including the perfect and the progressive. The meanings of two grammatical aspects are associated with viewpoint aspect. The English perfect normally is understood as having a perfective viewpoint, while the

progressive is the typical use of imperfective viewpoint aspect.

As for MC, there is no general agreement on the aspect system, although it has been studied intensively. Some linguists argue that MC has both tense and aspect (Ross 1995; Wong/Li/Yuan 1999), while others suggest that MC has only aspect, i.e., it is a tenseless language (Li/Thompson 1981; Norman 1988; Feng et al. 1992; Smith 1997; McEnery/Xiao 2004). In addition, the debate about the use of aspectual marking has generated interest from a semantic-functional view. Particularly, the confusion of aspect markers has attracted a large amount of discussions. Due to the discrepancies among understandings, it is necessary to conceptualize the aspect system in MC more accurately. In this dissertation, MC is recognized as an aspect language, as it contains no verbal inflections. Perfective aspect conveys resultative and completive senses, and is marked explicitly by the aspect markers *-le*, *-guo*, temporal adverbs, or RVCs. Imperfective aspect refers to on-going, durative or habitual states, and is marked explicitly by the aspect markers *zai*, *-zhe*, temporal adverbs, or auxiliary verbs. Implicit context forms can be expressed by perfective or imperfective aspect, depending on the translator's choice.

Translation patterns are valuable resources for contrastive studies between English and MC, since translation studies can explore how information is transferred across languages. In translations, there are some conventional patterns that can be described as tendencies. For example, i) the English present is often translated into the MC zero form; ii) the English past is usually translated into the perfective aspect marker *-le*; iii) the English perfect is mostly translated into the experiential aspect marker *-guo*; iv) the English progressive is often translated into the imperfective aspect markers *zai* or *-zhe*.

### 1.3 Research

#### 1.3.1 Previous Results and Current Questions

From an empirical point of view, there have been few studies focusing on tense and aspect in English-MC translation and using a corpus-based methodology. Xiao/McEnery (2002) propose that the perfect of persistent situation and past habitual situations are most frequently marked by the LVM form. Both situations can be explicitly marked in MC, so why do implicit LMV contexts most frequently occur in their data? In McEnery/Xiao/Mo (2003)'s study, one of their contrastive results is that aspect markers in English and MC show strikingly similar distribution patterns, especially across the two broad categories of narrative and expository text. The very notion *aspect marker* may cause confusion in English-MC translation. McEnery/Xiao/Tono (2006) investigate the translation of the progressive, the perfect/perfect progressive, the simple present, and the simple past, and conclude that MC most frequently uses context to express English tense and aspect. Why does translational MC tend to use implicit instead of explicit devices to signal temporal expressions? Investigation of MC translation patterns is closely connected to studying the features of translated MC. Translated texts have special properties due to the translation process, including simplification, explicitation, normalization, and levelling-out. These features are what Baker (1993) called *translation universals*. Wang/Qin (2010) suggest that some features of features of translational MC contradict the translation universals. Xiao/He/Yue (2010) propose that the asserted tendencies toward simplification and the normalization are not supported by the MC data, while the explicitation hypothesis is supported. The above discussions are all based on lexical features. In terms of tense and aspect, however, few investigations of features in MC translated texts have been done.

Three general questions are to be investigated regarding translation of English tense and aspect into MC. Question 1: how and to what degree does English tense and aspect translate into MC? Question 2: is the translated text target text oriented, or source text oriented, or a third code? Question 3: are the features of translation universals applicable? In order to address these questions, the aims of this dissertation are to compare the usages of tense and aspect between: i) English and MC; ii) translated MC and original MC.

English and MC are compared in terms of translatability and acceptability. Although the translatability between English and MC is debatable as they are distant languages with distinct features, English tense and aspect are assumed to be translatable into MC since the notion of time is a universal concept in natural languages without cultural or linguistic differences. However, questions remain as how MC translates English tense and aspect. Specifically, does the presence of tense and aspect across languages indicate the possibility of one-to-one transfer in English-MC translation? The acceptability and adequacy of English and MC translation equivalents are also to be discussed. Translated texts often contain features of what is usually referred to as “translationese”, which leads to the question of whether English source text influences the choice and usage of aspectual marking in translated MC. In other words, is translated MC target text oriented or source text oriented? Baker (1993) argues that translated texts have some universal features that distinguish them from original texts. In other words, specific linguistic features have been hypothesized to "characterize all translations, which make translated language different from the original target language". Since this theory is built on the studies of closely related European languages, it remains to be tested in English-MC translation. The features of normalization and explicitation will be examined in this study with special attention to tense and aspect.



### 1.3.2 Methods

This dissertation uses a corpus-based approach to study and compare tense and aspect in English and MC. The data used in this study are mainly collected from two corpora: a parallel, English/MC corpus for translation patterns; and a monolingual corpus for sampling L1 MC data.

There are two main areas of cross-linguistic research: contrastive linguistics and translation studies. Previous studies in cross-cultural linguistics have been based on intuition and contrastive statements or machine translation. Owing to the limitations of intuition-based and machine translation approaches, cross-linguistic study requires a more accurate method to approach natural language problems such as tense and aspect resolution.

In this study, I apply a corpus-based method, focusing on the complementary relationship between translation studies and contrastive linguistics. My first aim is to illustrate how MC translates English tense and aspect. A parallel English/MC corpus can provide examples of translation equivalences. My second aim is to compare L1 MC with translated MC texts by means of a comparable corpus in order to test Baker's (1993/1996) translation universals. A monolingual comparable corpus can provide original L1 data.

Two corpora are used as the research subjects in this dissertation, the Babel English-Chinese parallel corpus (hereafter BECPC), and the Lancaster Corpus of Mandarin Chinese (hereafter LCMC). The BECPC is used to draw from MC translation concordances of English, which is aligned at the sentence level by *ParaConc* software tools.<sup>5</sup> The English source texts in the parallel corpus are annotated for parts of speech and POS tagged using the CLAWS tagger. The MC data are tokenized and POS tagged on the basis of

---

<sup>5</sup> The Babel English-Chinese Parallel Corpus is designed on the research project *Contrasting on English and Chinese*. <http://www.lancs.ac.uk/fass/projects/corpus/babel/babel.htm>

the PKU (Peking University) tagset. The monolingual LCMC is used for collecting original MC data, which is tokenized and tagged for POS. The LCMC uses the LCMC tagset, which has an accuracy rate of ca. 98% (Xiao 2005). The corpora of translated MC and L1 MC have the following common points: i) the pairs of translated MC and L1 MC corpora include roughly the same range of text types and forms, and same domains (i.e., both corpora are composed of literary texts, technical and scientific materials. Both are written MC); ii) they were created around the same time (i.e., translated MC: 2005-2008; L1 MC: 2004); iii) they have similar sizes;<sup>6</sup> iv) POS tagging and use of similar tagsets ensure comparability. The analysis procedure consists of two parts: i) 800 sentences are collected from the BECPC (200 for the English simple present, 200 for the English simple past, 200 for the English perfect, and 200 for the English progressive), followed by manual annotation and classification, and lastly statistical comparison between English and MC translation. ii) 800 sentences are drawn randomly from the LCMC, followed by manual annotation and classification, and lastly statistical comparison between original and translated MC.

To sum up, I apply a combination of automatic and manual approaches to collect data, and use quantitative and statistical methods to analyse data. This combined approach helps improve the accuracy of data results. Compared to previous methods, analysis based on corpus data is more representative, authentic, and has fewer translation errors.<sup>7</sup> It should be noted that the representativeness of corpora is relatively limited, as they represent only a small section of linguistic reality (Machniewski 2006). In addition, machine readable texts are subject to copyright and other propriety restrictions, which impose constraints on their availability for research (Leech 2002).

---

<sup>6</sup> Although No. of tokens is different (translated MC: 287,462 Chinese tokens; L1 MC: 1 million words), I choose 800 sentences as samples from both corpora.

<sup>7</sup> Statistical MT systems typically perform miserably to translate Chinese into English in which tense is grammatically marked with inflectional morphemes (Xue 2008).

### 1.3.3 Results

The use of parallel corpus-based research makes it possible to map correspondences between English and MC in great detail, and results in several interesting observations. In my data, all situations in English can be transferred into MC by different linguistic devices (e.g., aspect markers, lexical verbs, and context) or even by the same means by which it is represented in English (e.g., temporal adverbials). Thus, one-to-one translation equivalence exists in English-MC translation. MC prefers using temporal adverbs to translate English tense and aspect, especially for the English perfect and progressive. The data also suggest that MC often uses context to translate the English present, since stative situations are not marked aspectually in MC. MC prefers using aspect markers to express the English past. The most common means to translate both the English perfect and progressive is the use of temporal adverbials in a clause. In many translated sentences, MC will add typical temporal adverbials that do not occur in the English original, such as *正在* (*in the process of*) or *已经* (*already*). Thus, the source English text does not influence the choice of MC target text. Translated MC is not ST-oriented. Since MC lacks tense, aspectual domains contain different perspectives in English and MC. Owing to different aspectual domains, aspect shifts occur in translations, but do not change the meaning of the clause.

There are statistical differences between L1 MC and translated MC in terms of the distribution of aspect and aspectual markers. Translated MC is not TT-oriented. Compared with L1 MC, translated MC uses fewer lexically explicit means and more frequently the implicit zero form, which hints at the existence of complexity. It is shown that explicitation in translated MC contradicts the translation universals. Temporal adverbials are used most frequently in L1 MC, which can be seen as its most typical feature. Temporal

adverbials in translated MC appear more often than in L1 MC, and also more often than other means. This phenomenon supports the feature of normalization.

In conclusion, translated MC is different from both the English source language and the original target MC. Thus, translated MC seems to be a third code. Some but not all features of translation universals are observed in translated MC, which suggests that these features might be language specific.

## PART II THEORETICAL BASIS

### Chapter 2 Tense and Aspect in English

All natural languages have various ways to express time. Klein (1994) considers several ways: the verbal categories of tense and aspect, inherent lexical features of the verb, and various types of temporal adverbs. In English, these devices interact or partly interact to form temporal expressions.<sup>8</sup> The verbal category of tense and aspect is, however, the key component in expressing time in English. The following part will focus on the description of English tense and aspect. The formation and usage of English tenses and aspects summarizes description found in previous and current studies.

#### 2.1 Previous Studies

Previous studies mainly focus on describing problems of tense classification and aspect classification. Tense classification is usually explained from a morphological or a semantic view, leading to the conclusion that that English has a two-model or a three-model classification of tenses. The first task in this section is to discuss the conditions under which these two different classifications are used. For the aspect classification, it is primarily to distinguish the definitional items that may cause confusions. The second task in this section is to review the relationship between traditional classification and Smith's (1997) classification.

---

<sup>8</sup> Temporal expressions include time-denoting expressions and event-denoting expressions. Schilder/Hable (2001) distinguish time-denoting expressions from event-denoting expressions as followed: Time-denoting expressions can be stated with reference to a calendar or clock system. Syntactically speaking, these expressions are mainly expressed by prepositional, adverbial or noun phrase (e.g. *on Friday* or *today* or *the fourth quarter*). Event-denoting expressions refer to event. These expressions are verb or noun phrase (e.g. *increased* or *the election*).

### 2.1.1 Tense

Debating the number of English tense types has a long tradition in the Western grammatical studies. Given the diversity of tenses in English, is there a reliable generalization about the number of tenses in English? In general, two classification systems coexist: i) two classes based on verb morphology, and ii) three classes based on time. This section will examine these predominate issues of tenses based on these two different systems.

#### 2.1.1.1 Two-model Classification

It has been often claimed that English has two tenses based on inflected verbal forms, namely present and past (Quirk et al. 1998; Huddleston/Pullum 2002). Whether there is an English future tense is always hotly debated. Since tense is morphologically bound, the particle *will* belongs to the class of auxiliary that marks mood rather than an inflectional morphology marking tense (Huddleston/Pullum 2005). Thus, "English has no morphological future tense" (Michaelis 2006). Some grammarians also argue that English has two tenses, but they call them past and non-past. They prefer the term non-past to present because the present is often realized by the base or uninflected form of the verb (Quirk et al. 1985; Declerck 1991; Kroeger 2005).

The study of grammar divides into syntax and morphology. *Syntax* deals with the combination of words to make sentences, while *morphology* is concerned with the forms of the words themselves (Huddleston/Pullum 2002). The term *inflectional morphology* refers to the inflectional forms of variable lexemes. Inflectional morphology describes how a verb is formed from its lexical base, which manifests in the form of a suffix or vowel changes, such as the way *worked* is formed from the base *work* by adding the suffix *-ed*, and *sang* from *sing* by changing its vowel. That is, English verbs

## Chapter 2 Tense and Aspect in English

---

distinguish regular from irregular verbs forms. From a morphological point of view, English tenses are classified as present and past. To clarify this division, an introduction to inflectional categories of the verb characterizes the generalization of regular and irregular verb forms.

### ***Regular Verb Forms***

In English, verbs can function as the head of a clause, and may vary in terms of tense, aspect, mood, voice, etc. Verbs have a variety of inflectional forms, which include regular verb and irregular verb forms. Regular full verbs have four different forms, as shown in Table 1.

(1) Table 1: Regular Verb Form

Base	-s Form	-ed Form (past/participle)	-ing Participle
work	works	worked/worked	working
cry	cries	cried/cried	crying

Table 1 illustrates the generalization of regular verb forms in the *-s* form, *-ed* form either in the past or the past participle, and the *-ing* participle. Except for the above general rules, the spelling of regular verb inflections includes the following three means: i) doubling of consonant before *-ing* and *-ed*, as in *occur-occurring-occurred*; ii) deletion of and addition of *-e*, as in *create-creating-created*; iii) treatment of *-y*, as in *try-tried-tying* (Quirk et al. 1985).

### ***Irregular Verb Forms***

Unlike regular verb forms, irregular verbs have a number of distinct forms. The following Table 2 illustrates the irregular verb forms from a morphological point of view.

(2) Table 2: Irregular Verb Form

Base	-s Form	-ed Form (past/participle)	-ing Participle
give	gives	gave/given	giving
win	wins	won/won	wining
feel	feels	felt/felt	feeling
swear	swears	swore/sworn	swearing
show	shows	showed/shown	showing
bet	bets	bet/bet	betting

The above table lists the irregular verbs. In contrast to regular verbs, irregular verbs have a complex inflectional form to some extent. However, characteristics postulate certain rules, which will be illustrated in the following part. In addition, a typological classification of irregular form is also provided in the dictionary.

### ***A Six-term Paradigm***

Huddleston/Pullum (2002) summarize a six-term paradigm, which illustrates the set of inflectional forms of a variable lexeme in a systematic way. This six-term paradigm contains two parts: primary and secondary. The following illustrates the concept.



## Chapter 2 Tense and Aspect in English

## (3) Diagram 1: The Six-term Paradigm

		take	want	hit	
Primary	preterite	took	wanted	hit	
	present tense	3 <sup>rd</sup> sg	takes	wants	hits
		plain	take	want	hit
Secondary	plain form	take	want	hit	
	gerund-participle	taking	wanting	hitting	
	past participle	taken	wanted	hit	

As shown above, the primary preterite contains irregular and regular verb forms. In regular verbs, it is marked by the suffix *-ed*, such as *wanted*. In irregular verbs, it is marked according to different rules, such as *took*. The preterite lacks agreement with the subject. The present tense form occurs with *-s* or plain form, such as *wants* or *want*. The choice between them lies in the agreement with the subject. The 3<sup>rd</sup> person singular subject is combined with *-s* form, while the plain form agrees with the 1<sup>st</sup> and 2<sup>nd</sup> person and plural subjects. The gerund participle in the secondary is identical with the present participle, which is used in the construction of the progressive auxiliary, as in *be+wanting*. The past participle is used in two constructions: the perfect *have+wanted* and the passive *be+wanted*.

***Syncretism***

As shown in the above diagram, the preterite and the past participle realize the same form *wanted* between the past and the perfect. This phenomenon is

the referred to as *syncretism*. In linguistics, syncretism is "the situation where one morphological form corresponds to two or more morphosyntactic descriptions".<sup>9</sup> Syncretism can lead to the morphological change. The meaning of the verbal tense is considered to recognize the whole clause rather than only the inflectional form. The justification for syncretism is based on certain principles, which may not cause problems in inflectional distinctions.

### **2.1.1.2 Three-model Classification**

This section describes three models of English tense: present, past, and future. To clarify this division, a general introduction to time introduces this issue from a semantic point of view. According to Comrie (1985), tense is a grammaticalized location in time. Simple tenses code for relations among three times: speech time, reference time, and event time. In a tense category, *speech time* is the point of view from which the situation at reference time is considered (Johnson 1981). *Reference time* is "the time for which, on some occasion, a claim is made" (Klein 1992: 535). *Event time* refers to the time of the situation that the speaker is describing.<sup>10</sup>

Linguists who agree that English has three tenses basically rely on this semantic distinction. The general term *tense* applies to "a system where the basic or characteristic meaning of the terms is to locate the situation, or part of it, at some point or period of time" (Huddleston/Pulum 2002). In the following, basic and special meanings of the tenses are examined with reference to these three times on the timeline.

#### ***Basic Meaning***

To describe the basic meaning of tense, a sentence is oriented to speech time,

---

<sup>9</sup> <http://www.glottopedia.de/index.php/Syncretism>

<sup>10</sup> Reichenbach 1947 in Michaelis 2006.

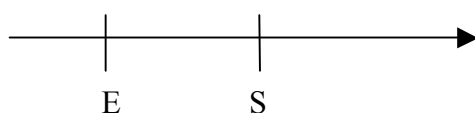
## Chapter 2 Tense and Aspect in English

---

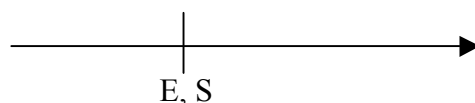
reference time, and event time. From a semantic point of view, these three times on the time line account for temporal references in an English sentence by means of fixing the event time-speech time (ES) relation. Diagrammatic representations of the basic tense meanings can be illustrated as in diagram (4) (Kamp/Reyle 1993; Smith 2006):

### (4) Diagrammatic Representation of Tense Meanings

i) Diagram 2: The Past (She worked.)



ii) Diagram 3: The Present (She works.)



iii) Diagram 4: The Future (She will work.)



In (4i), the past indicates an event *work* coinciding with the reference time, which precedes the time of speaking. The present tense in (4ii) denotes the event *work* that coincides with both the reference time and the time of the speech act. In (4iii), the future refers to an interval of time following the literal present point in time. The syntactic construction is “*shall/will + verb plain form*”.

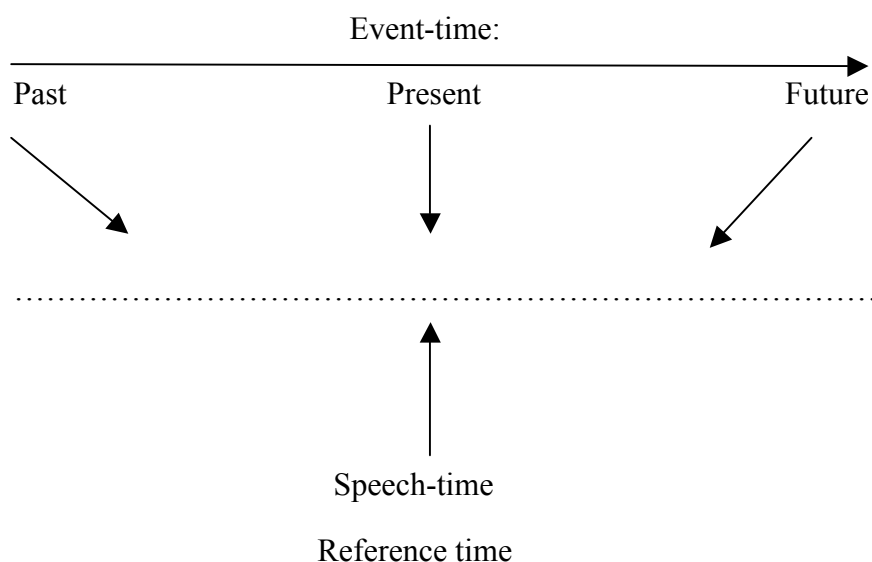
The relationship between event time and speech time describes the meaning of tenses. Time is also lineally ordered on the timeline, and any

## Chapter 2 Tense and Aspect in English

---

point is prior to, subsequent to, or simultaneous with any other specific point. A *past* situation is conceived of as being temporally located before the present; a *present* situation is temporally located in the present; a *future* situation is temporally located after the present. Within the framework of Reichenbach (1947), Givón (2001: 286) represents diagrammatically the temporal relationship as follows.

(5) Diagram 5: Tense and Temporal Anchoring



### ***Special Meaning***

#### ***I Temporal Meaning***

Semantic complexity describes a form that embodies more than one meaning. For example, the basic meaning of present tense refers to present time. In addition, it can also signal future time and timeless situations.

- (6) a. The sun rises tomorrow at 6:10. (Future time)  
 b. Exams start next week. (Future time)  
 c. The Earth revolves on its axis once every 24 hours. (Timeless situation)

## Chapter 2 Tense and Aspect in English

---

Sentences (6a) and (6b) show that the incompatibility between the simple present tense and future meaning. Both events are arranged in advance, which signaled by *tomorrow at 6.10* and *next week*. The expression of future time is not restricted to the future tense, as the present acquires future meaning by means of temporal adverbials. Example (6c) is timeless present. The situation happens not only in the present time, but also in the past and future time. This kind of transferred interpretation can be explained by a deictic principle, which is also seen as a general pragmatic use. Jaszczolt (2002: 91) provides the definition of deixis in the following,

Deixis is the phenomenon of encoding contextual information by means of lexical items or grammatical distinctions to provide this information only when paired with this context. In other words, it means lexicalizing or grammaticalizing contextual information, which is making it into obligatory grammatical or lexical distinctions.

The term deixis deals with the certain deictic expressions, comprising several subcategories, including: person deixis, place deixis, time deixis, discourse deixis, and social deixis.<sup>11</sup> The three features of place, time, and person references of an utterance directly relate to the situation in which the utterance is made.

In time deixis, tenses identify the point of communication in terms of grammaticalization. The deictic nature of tense is closely associated with the propositional function, such as tense morphemes and temporal adverbials. For example, what is referred to as a present situation *today* may have referred to a past situation *yesterday*, and might have referred to as a future

---

<sup>11</sup> *Person deixis* encodes the role of participle in the speech events such as speaker, addressee, and other entities. *Place deixis* encodes spatial locations relative to the interlocutors (demonstratives-proximal and distal in English, adverbs of place: “here” and “there”). *Time deixis* encodes temporal units relative to the time of the utterance *coding time* (time of utterance), and *receiving time* (time of the recovering of the information by the hearer). *Discourse deixis* encodes reference to portions of discourse. *Social deixis* encodes social relationships and other social distinctions (forms of addressing people). <http://people.pwf.cam.ac.uk/kmj21/Deixis.H.08-09.pdf>

situation *tomorrow*. This explains the timeless/eternal truth in the English present.

### ***II Non-temporal Meaning***

Except for temporal meanings, tenses may have non-temporal meanings in certain contexts (Iatridou 2000; Smith 2006). The simple past signals a distance between the requester and listener, making the request more polite. In this way, it is easier for the person being asked a favor to deny it, such as in the sentence *could you give me a cup of coffee?*

### **2.1.2 Aspect**

Traditionally, there is a distinction between lexical aspect and grammatical aspect.<sup>12</sup> Smith (1997) distinguishes aspect between situation type and viewpoint aspect. While linguists label different items regarding defining aspect, the classification of aspect makes a few distinctions. This section aims at presenting the concept of the two issues to show the relationship between two items, namely between lexical aspect and situation type, and between grammatical aspect and viewpoint aspect.

#### **2.1.2.1 Lexical Aspect and Situation Type**

*Lexical aspect* is "an inherent property of an eventuality".<sup>13</sup> In English, the feature of lexical aspect is based on Vendler's (1967) verb classification, which holds that the verb is the aspectual centre of a clause. Situation types are known as *Aktionsarten* or lexical aspects, which are expressed by its verb constellation.<sup>14</sup> The classification of situation type is based on verb classification. The difference is that temporal features of verb categories are

---

<sup>12</sup> The term lexical aspect is also called *Aktionsart*, and the term grammatical aspect is also called viewpoint aspect.

<sup>13</sup> [http://en.wikipedia.org/wiki/Lexical\\_aspect](http://en.wikipedia.org/wiki/Lexical_aspect)

<sup>14</sup> Verb constellation includes the verb and its arguments.

described in situation types.

### *Lexical Aspect*

Aspect is "an inherent feature of verbs or verb phrases and is determined by the nature of the situation that the verb describes".<sup>15</sup> The characteristics of verb actions can be divided into four major groups: activity, accomplishment, achievement and state. A classification of English verbs is summarized in the following table (Vendler 1967; Mourelatos 1981; Bybee/ Perkins/ Pagliuca 1994; Givón 2001).

(7) Table 3: Verb Classifications

Category	Characteristic	Example
Activity	Activity verbs involve no culmination or anticipated result. The event coded by such verbs may be of considerable duration.	run, walk, write, drive, seek, listen to, look for
Accomplishment	Verbs in this group code the completion of an event. The event itself may be of longer duration than in the case of compact verbs.	paint a picture, draw a circle, run a mile, write a letter
Achievement	Events coded by such verbs are instantaneous events without duration.	recognize, find, lose, die, understand, arrive, graduate
State	A state involves no dynamics.	know, love, have, desire, be tall

This verb classification is confined to the lexical level, given that verb phrases are proposed from a semantic point of view. In fact, activity, achievement, and accomplishment have features of events. State has no dynamic features, and thus is seen as stative. The distinctive features of state and event are discussed in the following sections.

<sup>15</sup> [http://en.wikipedia.org/wiki/Grammatical\\_aspect](http://en.wikipedia.org/wiki/Grammatical_aspect)

***Situation Type******I Classification***

The two basic situation types are state and event. *A state* refers to the relation between part and whole, and *an event* refers to the property of dynamism. Compared to states, events are discrete and bounded entities. The concept of boundedness implies that an event has initial and final endpoints. In contrast, states are cumulative and unbounded, and consist of an undifferentiated period. The following table shows these differences:

(8) Table 4: Differences between State and Event

Situation	Feature
State	the relation between part and whole
	cumulative and unbounded
	involves its reference point
Event	the property of dynamism
	discrete and bounded
	follows its reference point

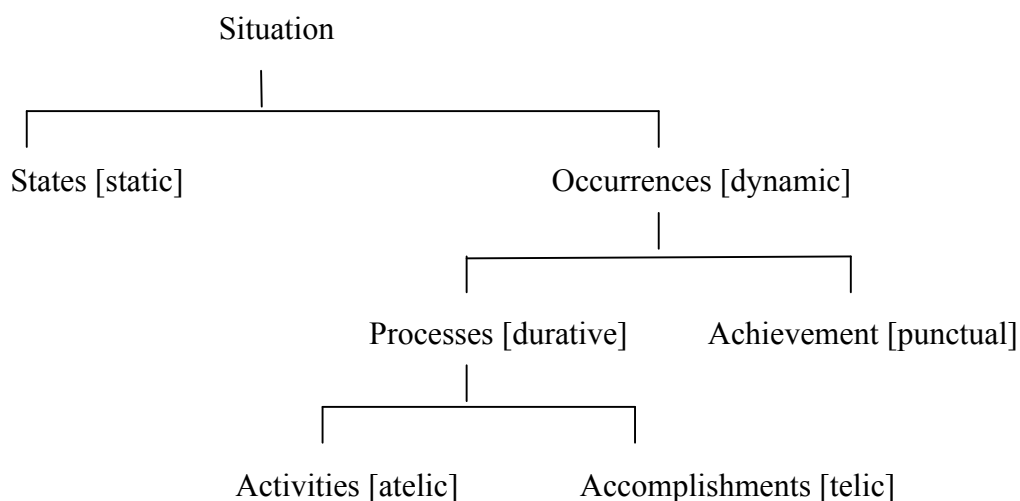
The two items state and event have two important differences.<sup>16</sup> The following generalized trichotomy appears as a binary contrast of a situation (Smith 1981; Huddleston/Pullum 2002):

---

<sup>16</sup> Several simple tests are listed for distinguishing states from events in English (Kroeger 2005). (a) First, events can be said to “happen”, while states cannot. (b) Second, only events can normally be expressed in the progressive aspect. When states are expressed in this form, the result is normally ungrammatical. (c) A third test involves the use of the simple present tense. In English, events which are expressed in the simple present tense take on a habitual interpretation, whereas states do not.



## (9) Diagram 6: A Classification of Situation Type



As the diagram shows, situation type indirectly classifies a sentence as expressing a state or an occurrence of a certain type with distinctive temporal properties (Smith 1981). *An occurrence* is dynamic and shows actions over time, which includes processes and achievements, respectively. *Achievement* is considered punctual, whereas *process* is considered durative. Durative situation types are characteristically combined with the progressive. The corresponding examples illustrate states in (10a), activities in (10b), accomplishment in (10c), and achievement in (10d).

- |                         |                  |
|-------------------------|------------------|
| (10) a. He knows it.    | (State)          |
| b. He runs.             | (Activity)       |
| c. He paints a picture. | (Accomplishment) |
| d. I found him.         | (Achievement)    |

The interpretation of tense and aspect is based on the kind of situation expressed in a given clause. The situation types are distinguished by temporal feature. For example, the two kinds of process, namely achievements and activities, are distinguished by the relations between telic and atelic forms.

**II Temporal Feature**

"Three two-valued temporal features" distinguish the four classes of situations. These temporal features are dynamic/static, telic/atelic, and durative/punctual.

(11) Table 5: Temporal Features of Situation Types<sup>17</sup>

Situation	Static	Durative	Telic
State	[+]	[+]	[-]
Activity	[-]	[+]	[-]
Accomplishment	[-]	[+]	[+]
Achievement	[-]	[-]	[+]

(Quirk et al. 1985; Smith 1997; Smith/Erbaugh 2002)

Dynamic/static is used to describe the feature of a situation type in general. Considering the static type of situation, the distinction is drawn between quality and states. Quality is generally incompatible with the progressive. In the situation type of dynamic, the classification is made between durative and punctual. The durative type can combine with the progressive, while the punctual theoretically can not. Consider the following sentences:

- |                                |            |           |
|--------------------------------|------------|-----------|
| (12) a. He is tall.            | (Quality)  | } Stative |
| b. He thinks that he is young. | (State)    |           |
| c. It is raining.              | (Durative) | } Dynamic |
| d. The bus is coming.          | (Punctual) |           |

Qualities are related to “relatively permanent and inalienable properties of the subject referent” (Quirk et al. 1985). If the verb in (12a) occurs with the progressive, the sentence *he is being tall* introduces less permanent situation. The intellectual states, such as in (12b), is always followed by a nominal clause.

<sup>17</sup> The symbol + means contain.  
The symbol – means does not contain.

## Chapter 2 Tense and Aspect in English

Sentence (12c) shows the ongoing, durative situation type. Sentence (12d) involves a transitional event. The punctual use in the progressive means *a period leading up to the change of state*.

The notion of dynamic characterizes both telic and atelic. Of all these temporal features, telic and atelic are under the most discussion (Vendler 1967; Comrie 1976; Dowty 1979; Binnick 1991; Dahl 1994; Dürich 2005). The following table shows the references between telicity and atelicity by various authors (Dürich 2005).

(13) Table 6: Telicity and Atelicity

Author	References between Telicity and Atelicity
Vendler (1967)	Atelic: activities/ situations “which have no set terminal point” telic: activities which “have a ‘climax’, which has to be reached if the action is to be what it is claimed to be”
Comrie (1976)	puts forward the following examples and explanations: <i>John is singing</i> is atelic, the singing can be stopped at any time and it would always be true that <i>John sang</i> , whereas <i>John is making a chair</i> is telic, it “is built on a terminal point, namely that point at which at which the chair is complete, when it automatically terminates; the situation described by <i>sing</i> has no such terminal point.”
Dahl (1994)	On the Definition of the Telic -Atelic (Bounded -Non-bounded) Distinction “A situation, process, action etc has the P property if it has the T property and the goal, limit, or terminated point in question is or is claimed to be actually reached.” Telicity as a subset of atelicity.
Binnick (1991)	Following Mourelatos, he refers to atelic situations as processes, activities, non-terminative states of affairs, and to telic situations as events, performances, terminative states of affairs.
Klein (1994)	“An elementary clause-type content such as <Chris read in the book>, when used in an utterance is a SELECTIVE description of the situation. The situation has many more properties which are not made explicit [...] but the lexical content says nothing about the boundaries, nor about the duration of the situation.”

As the above table mentions, grammarians define the terms telic and atelic from their own usages. Undoubtedly, a situation is telic if it has a natural completion or endpoint of the action. In fact, temporal adverbials can differ from types of situation types to some extent.

### ***III Temporal Adverbial in Situation Type***

Temporal adverbs are optional, universal, and provide evidence for reference time. They may relate a situation to speech time *yesterday*, or to reference time *then*, *3 days earlier*, or to another situation *when*, *before*. By means of temporal adverbials, the flexibility of situation types is a crucial feature of aspectual component in a language.

Dowty (1979) lists several tests for distinguishing telic from atelic events, such as the adverbial test. Atelic predicates occur quite naturally with phrases expressing duration, such as *for*-adverbials; whereas telic predicates occur naturally with phrases expressing a time limit, such as *in*-adverbials. Telic events have natural endpoints, whereas durative atelic events or activities have arbitrary and potential endpoints. Semantically, adverbials may affect situation types by means of compositional rules to some extent. For example,

- |         |  |                         |
|---------|--|-------------------------|
| (14) a. | Jane walked to school in ten minutes.    | (Telic: accomplishment) |
| b.      | Mary walked to the park for ten minutes. | (Atelic: activity)      |
| c.      | John ran a mile in an hour.              | (Telic/bounded)         |
| d.      | John was running for hours.              | (Atelic/unbounded)      |
|         |  | (Smith 1997)            |

As (14) shows, *In*-adverbials deal with accomplishment rather than with activity. *For*-adverbials are acceptable with activity rather than with accomplishment. Sentence (14d) is atelic and unbounded, which is typically compatible with non-inclusive duration adverbials, such as *for hours*. Non-inclusive duration adverbials answer the question of how long. Sentence

## Chapter 2 Tense and Aspect in English

(14c) is telic and bounded, which form is typically concerned with inclusive duration adverbials, such as *in an hour*. Duration adverbials can answer the question *within what time*.

In addition, situation types may shift as supported by the context as well. A situation can change from stative to inchoative, activity to ingressive, or activity to stative.<sup>18</sup> The corresponding examples are listed (Smith 1997):

## (15) Stative-inchoative

- a. Teresa understood the problem. (Stative)  
 b. At that moment Teresa understood the problem. (Inchoative)

## Activity-ingressive

- a. Mary walked down the beach. (Activity)  
 b. (Then) Mary walked down the beach. (Ingressive)

## Activity-stative

- a. The ship moved. (Activity)  
 b. The ship was in motion. (Stative)

## Achievement-accomplishment

- a. The old man died. (Achievement)  
 b. The old man finally finished dying. (Accomplishment)

These four sentence pairs all have similar verb constellations, but different situation types. The situation types are realized at the clause level "by the verb and its arguments". On one hand, the verb constellation can be associated with a given situation type in terms of temporal adverbials.<sup>19</sup> On the other hand, situation types are dependent on the context in the light of the above sentences.

<sup>18</sup> Inchoative refers to change into a state. Ingressive means the beginning of an event.

<sup>19</sup> Table 7: Linguistic Constrains (Siegel 1997)

If a verb can occur:	...then it must be:
In the progressive	Extended event
With a temporal adverb (e.g., then)	Event
With a duration in -PP (e.g., in an hour)	Telic event
In the perfect tense	Telic event or State

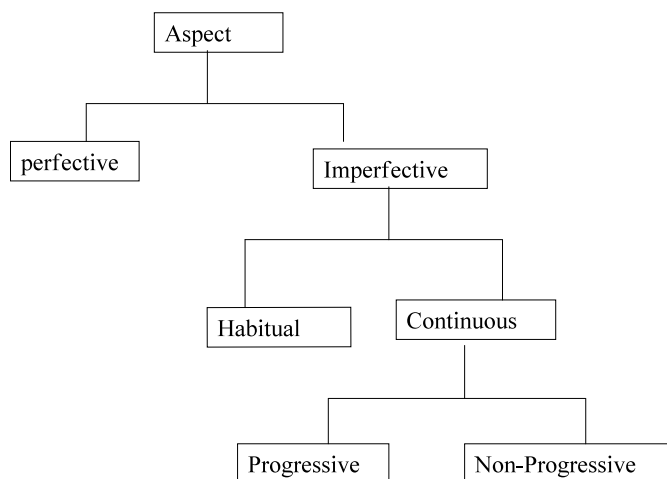
### 2.1.2.2 Grammatical Aspect and Viewpoint Aspect

Grammatical aspect can be seen as the formation of aspect. Viewpoint aspect can be used to explain the meaning of aspect. These two items are correlated with each other. The following section will deal with the features of grammatical and viewpoint aspects.

#### *Grammatical Aspect*

As Comrie (1976: 3) defines, a grammatical category involves the marking of “different ways of viewing the internal temporal constituency of a situation”. The classification of aspectual category is illustrated in the following diagram.

(16) Diagram 7: Classification of Aspectual Opposition



(Comrie 1976)

*Grammatical aspect* is a property of a specific verb form, which is determined by inflectional morphology, aspect markers, adverbs or other

syntactic constructions.<sup>20</sup> In English, the perfective aspect is indicated by a combination of the auxiliary *have* with the *-ed* particle of the verb. The imperfective aspect is combined *be* with *-ing* form. Thus, the English perfect is the subcategory of the perfective aspect. The progressive belongs to the English imperfective aspect.

### ***Viewpoint Aspect***

Viewpoint aspect in English includes perfective and imperfective aspects. Both aspects have their functions, which will be detailed in the following.

### ***I Perfective Aspect***

Smith (1997: 3) explains that “perfective viewpoints focus a situation in its entirety, including both initial and final endpoints”. The choice of the perfective viewpoint may suggest a continuing result, as well as short duration, limited duration, ingressive meaning and resultative meaning. The span of the unmarked perfective viewpoint is represented in (17):

(17) Diagram 8: Perfective Viewpoint in Universal Grammar



(Smith 1997)

As diagrammed, the perfective viewpoint includes "both initial and final endpoints" of a situation, and the situation is closed. The perfective is used when the event is viewed as a bounded whole, and is associated with three implications or connotations: i) that the relevant time zone leads up to the present; ii) that the event is recent; iii) that the result of the action still obtains

<sup>20</sup> [http://en.wikipedia.org/wiki/Grammatical\\_aspect](http://en.wikipedia.org/wiki/Grammatical_aspect)

at the present time (Quirk et al. 1985).

### *II Imperfective Aspect*

Imperfective viewpoints focus on "part of a situation, without initial or final endpoints". There are three possible foci: internal, prior to the initial endpoint, follows the final endpoint (Smith 1995). This usage can be indicated schematically in (18):

(18) Diagram 9: Possible Imperfective Viewpoints

a) I.....F	b) .....I.....F.....
/////	/////      ///

(Smith 1997)

Imperfective aspect can be divided into two types, habitual and continuous (Comrie 1976). Habituality means the repetition of a situation; an example of the English past habitual situation expressed by the past tense is one such as: *Raine used to say I was like another daughter to her*. The English present habitual situation is indicated by the temporal adverbial, such as in *I go swimming everyday*. Habituality in English is subject to the present and past tense.

Unlike habituality, continuity can be either non-progressive or progressive. The progressive is the typical use of imperfective aspect in English. The differences between progressive and non-progressive are illustrated in the following table.



(19) Table 8: Non-progressive and Progressive

Non-progressive	Progressive
<i>He nodded.</i> A state is punctual: There is just one nod.	<i>He was nodding.</i> It conveys the idea of a sequence of nods.
<i>He is very tactful.</i> A state: describe his characteristics.	<i>He is being very tactful.</i> “ <i>He is behaving tactfully.</i> ” A dynamic component of meaning: interpret in terms of behavior rather than character.
<i>She lives with her parents.</i> A state	<i>She is living with her parents.</i> It conveys the situation is a relatively temporary one- it is progressing towards its end.
<i>She reads the ‘New Scientist’.</i> A state: regular, habitual reading	<i>She is reading the ‘New Scientist’.</i> A single reading in progress at the present moment.

(Huddleston/ Pullum 2005)

In many cases, a stative verb is not combined with the progressive. This is due to the fact that a state cannot express progress. However, some states can appear in the progressive in a certain context, such as *He is being very tactful* is similar to the meaning in *He is behaving very tactfully*.

To sum up, the imperfective and perfective viewpoints have their own properties which are summarized in the following table.

(20) Table 9: Perfective and Imperfective Viewpoints

Aspect	Properties	Definitions
Perfective	Inchoative	Indicates the initiation of some process action.
	Resultative	Indicates the result of some situation.
	Semelfactive	Indicates that an event takes place only once.
	Punctual	Indicates that a situation might occur at a certain time.
Imperfective	Dynamic	Indicates a change in the state of a situation.
	Transitory	Binnick does not provide definitions for this term, yet from the meaning of the word, it is understood to refer to a change of state as well.
	Progressive	Indicates the continuation of a situation.
	Iterative	Indicates that a situation occurs repeatedly.
	Habitual	Indicates that something is done habitually.
	Static and permanent	Indicates a persistent situation, without change of state.

(Binnick 1991; Dürich 2005)

In any particular language perfective viewpoints appear with sentences of all situation types which have a consistent variable meaning, whereas imperfective viewpoints focus on part of a situation which gives no information about its endpoint (Smith 1997). In English, the perfective aspect is resultative, while the imperfective aspect signals a progressive meaning.

## 2.2 Tense in English

This section gives the results of the classification of the English tense in previous studies. In this dissertation, the English tense is classified into two models, according to verbal inflectional categories. The meanings of the two tenses, namely simple present and simple past, are described from a semantic view, depending on time.

### 2.2.1 Two-model Classification

The two models of classifying tenses are related to the grammatical category

of tense (i.e., form). In this dissertation, English is classified as possessing two grammatical tenses, namely simple present and simple past, for three reasons.

First, all tenses make use of an inflectional tense morpheme which expresses either past or present. There is no inflectional future tense morpheme in English. The future tense is formed with the help of the auxiliary *will*, i.e., a free morpheme rather than a bound one. Thus, there is no future tense morpheme in English. Secondly, tense is closely associated with time. However, there is no obvious future tense in English corresponding to the time. Instead future time is rendered by means of the simple present, progressive, or modal forms. The future auxiliaries *shall* and *will* developed from their use as forms expressing present non-epistemic modality, more specifically some kind of volition (Declerck 2006: 147). Thirdly, three models of classification according to a time-based analysis are devoted to explain the basic meaning of tenses.

## 2.2.2 Simple Present

### 2.2.2.1 Form

According to the six-term paradigm, the present tense has two forms. One is inflected by suffix *-(e)s*, and the other is the plain form. The first and second person singular and the plural agree with the plain form of verb, while the third person takes the suffix *-(e)s*. For example,

- (21) a. I/You/We/They go to school everyday. (Plain form)  
 b. He/She goes to school everyday. (Suffix *-es*)

Plain present tense is syncretized with the plain form, as in sentence (21a). The plain form in present tense is considered to be a distinct inflectional form. The auxiliary *be*, however, does not have syncretism

between the plain form and the present. Consider the following examples:

- (22) a. Be on your guard.  
 b. You are on your guard.

(Huddleston/Pullum 2002)

Compare *be* in (22a) with *are* (22b), there is no syncretism between the imperative and the present tense. The principle for deciding how much syncretism to allow is based on the following issues:

- i) An inflectional distinction is accepted between two forms only if there is at least one lexeme with a stable contrast in realization between those two forms. ii) Inflectional distinctions involving agreement properties are not generalized from one lexeme to another.

(Huddleston/Pullum 2002)

Constructions with the plain form, such as imperative, subjective, and infinitive, differ from the plain present form. There is syncretism only between the verbal present tense and the plain form. The auxiliary *be* is not included in this usage.

### **2.2.2.2 Meaning**

Simple present has various uses. The basic meaning is based on the notion of time. Special usages can be seen as extended interpretations of the basic meaning, or even non-temporal.

#### ***Basic Meaning***

The simple present is basically related to present time. The relation between event time and speech time corresponds to the category of the present in the following manner:

## (23) Diagram 10: The Basic Meaning of the Present



The above diagrammatic representation of time is adequate for an account of English tense. As Diagram (10) shows, event time is simultaneous with speech time on the timeline. That is, the present tense is used when the event time overlaps with the speech time. The stative present signals the basic meaning of the English simple present as well as the instantaneous present.

***I Stative Present***

Stative present means the present time coinciding with the time of utterance, while the reference time includes the moment of speaking. In this case, the situation referred to is stative rather than dynamic. Consider:

- (24) a. I think you are right.  
 b. He wants a cup of coffee.

English uses the stative present for thoughts and feelings. The stative verbs include *see, hear, feel, smell, agree, believe, doubt, remember, know, think, understand, love, hate, forgive, prefer, hope, want, seem, belong, contain, depend, etc.*

***II Instantaneous Present***

The instantaneous present refers to a single action begun and "completed approximately at the moment of the speech" (Quirk et al. 1985). Unlike the stative present, the instantaneous present occurs only with dynamic verbs which signify an event simultaneous with the present. The verb in performatives is often used in this case.

- (25) a. I advise you not to embarrass your son.  
 b. I predict her to win.

Performative verbs are used in sentences (25) which offer advice or make predictions. These two sentences describe speech acts of which are the doing of a certain kind of action.

### ***Special Meaning***

The relation between the grammatical category of tense (form) and the semantic category of time (meaning) is highly complex. A present situation may be applicable to non-present time. That is, the present tense can refer to general timeless statements, future time, or even past time.

### ***I Present Tense Referring to Present, Past, and Future Time***

#### ***a. Eternal Truth***

Present tense without reference to specific time is used where "there is no limitation on the extension of the state" through the present into the past and the future. Eternal truth has this usage, which is always used for statements about rules of nature and the way the world is. Considering,

- (26) a. Two and two make four.  
 b. The Earth revolves on its axis once every 24 hours.

Sentences in (26), present time signals any period of time, short, long or eternal that includes the present moment. Such a statement includes scientific, proverbial, mathematical, or geographic statements.

#### ***b. Habitual Present***

The habitual present is particularly associated with dynamic verbs, and implies repetition of an event. As Comrie (1985) argues, "sentences with habitual

aspectual meaning refer not to a sequence of situations recurring at intervals, but rather to a habit, a characteristic situation that holds at all times”.

- (27) a. The club survives and organizes reunions every year.  
 b. Millions of tourists often visit it.  
 c. We come in every day.  
 d. I always do my best.

According to the examples above, habitual present implies the frequency of the repetition. In this case, using a frequency adverb is important to the clause. Without an adverb in the habitual present, the sentence is incomplete. A habitual present activity can extend into the past as well as the future. Thus, the frequency adverb can occur not only in the present, but also in the past and the future. Sentences in (28) show this use.

- (28) a. I always went swimming last year.  
 b. As a result 5,000 farmers are going out of business every year.

Sentence (28a) is related to the habitual past, and (28b) is progressive futurate. These two phenomena will be discussed in the following section.

### ***II Present Tense Referring to Future Time: Present Futurate***

In English, present tense forms can be used for future situations if “the constitution, order, schedule, habit of things [are] such that the occurrence can be expected to take place” (Langacker 1991). This use refers to future events in a restricted set of situations which is called the futurate, such as in (28).

- (29) a. The musical opens next week.  
 b. Tomorrow is Monday

In sentences (29), the present futurate involves two components: a future

component *next week* or *tomorrow* associated with the situation itself, and a present component *opens* or *is* associated with the state of affairs in which the occurrence of the future situation appears. The use of temporal adverbs leads to a shift of temporal perspective, and hence to allow the sentence achieve a particular semantic effect.

In English, the present futurate may represent a situation in which the reference is extended from the present to a future event, excepting weather conditions. Take the following sentences into account:

- (30) \*a. It rains tomorrow.  
 b. It will rain tomorrow.

Since weather conditions cannot be planned in advance (Ogihara 1996), sentence (30a) is ill-formed. However, sentences *It is going to rain tomorrow* or *It will rain tomorrow* are acceptable.

### ***III Present Tense Referring to Past Time: Historical Present***

The historical present can express past time situations, i.e., referring to events that took place in the past (Carlson 1981; Comrie 1985; Quirk et al. 1985; Labeau 2005). In other words, past time can be denoted by the present sector. This kind of temporal shifting is often used in English "in a certain contexts, such as in fiction, for hot news (as in headlines), and in everyday conversation" (Huddleston/Pullum 2002). For instance,

- (31) a. Heathcliff, who is taken in by the wealthy Earnshaw family as a child,  
 falls in love with their daughter, Catherine. (*Wuthering Heights*)  
 b. I tell her that he has gone. (Verbs of communication)

Fictions are generally described "using the present tense rather than the past tense", such as in (31a). This is because the description of narratives is considered to come alive when read. (31b) contains a communication verb,



which can express the persistency in the present of the effects of a past communication (Quirk et al. 1985). Communication verbs are included *tell, hear, learn, write, etc.* Roughly, (31b) means *I have told her that he has gone.*

### 2.2.3 Simple Past

#### 2.2.3.1 Form

The past tense morpheme in English can be used to describe situations that obtained in past time. Unlike the present, the past lacks the agreement with the subject. In regular verbs, they are marked by the suffix *-ed*, such as *wanted*. Irregular verbs are marked according to different rules.

Much of the complexity that is involved in the derivation of verbal forms occurs in the past tense. The following lists several groups of irregular past tense forms.

- i) no change in past tense: hit-hit
- ii) change of vowel only: run-ran
- iii) change of whole word: go-went
- iv) change of vowel and change of consonant : buy-bought,
- v) change of *ŷ* to *id*: pay-paid
- vi) addition of *t* to the stem with no other change: learn-learnt

#### 2.2.3.2 Meaning

The meaning of the past tense can be explained in different ways. Most linguists hold that the basic meaning of the past tense is related to past time. Modal uses, however, are a special use (Huddleston/Pullum 2002). Others point out that the past tense refers to remoteness or distance. That is, the basic meaning of the past tense is the expression of distance from present reality rather than past time (Palmer 1987; Declerck 1991; Binnick 1991).

Following Huddleston/Pullum (2002) and the notion of time, the basic meaning of the past tense is related to past time in this dissertation. Special usages contain the temporal and non-temporal meaning.

**Basic Meaning**

The basic use of the past tense is to show that event time is before speech time.

The following diagram illustrates this use (Kamp/Reyle 1993; Smith 2006).

(32) Diagram 11: The Basic Meaning of the Past



The past tense is mainly related to past time which combines three subcategories: "event past, state past, and habitual past" (Quirk et al. 1985; Huddleston/ Pullum 2005).

**I Event Past**

The *event past* means that "a signal definite event took place in the past" or "in a definite time". For example,

(33) a. I *swore* at Martin *yesterday*.

b. The US Food and Drug Administration *announced* earlier *this month* that it was likely to initiate a ban against farm use of the antibiotic.

In (33a), the verb *swore* describes a whole event that has already been concluded in the definite time *yesterday*. The dynamic verb *announced* in (33b) identifies a single event in the past *this month*. Adverbial *yesterday* can only be used in the past tense, while *this month* can be used both in the past and the present perfect.

The adverb follows the past tense, which is "the so-called *cataphoric* use of the definite past", such as in (33a). Otherwise, if the adverb occurs in the beginning of the sentence, it is the so-called *anaphoric* reference, such as in *Yesterday, I swore at Martin*.

**II State Past**

The *state past* refers to a stative verb referring to "a state in the past" or "in a definite time".

- (34) a. Mr. Horn *was* not available for comment *yesterday*.  
 b. She also *had* a wonderful sense of humor.

The stative verb of *be* and *have* denote stative past. Sentence (34b) has no temporal adverbial, which means the state exists no longer at an indefinite time.

Both event past and state past have two features: i) the event/state must "exist in the past, with a gap between its completion and the present moment"; ii) The speaker or writer must "have in mind a definite time at which the event/state took place" (Quirk et al. 1985; Huddleston/ Pullum 2005). As for the first feature, the past tense denotes a single act located as a whole in past time. The second feature represents the event as temporally distant from the moment of speech.

**III Habitual Past**

The habitual past denotes that "a habit or state that existed in the past" (Quirk et al. 1985). For instance,

- (35) a. She *usually* got up at 7.  
 b. She *used to* get up at 7.

The frequency temporal adverb *usually* shows that the action happens as a habit in the past. The construction "*used to+verb*" can also substitute the habitual past. In general, dynamic verbs often occur in a habitual past as well as in an event past. The construction *used to* implies the habitual repetition in the past, which can distinguish habitual past from event past.

***Special Meaning***

Semantic complexity relates to a form that embodies more than one meaning. Except for basic meanings, the past tense signals the present time in terms of backshift. Past tense can also refer to non-temporal reference, such as modal remoteness.

***I Past Tense Referring to Present Time: Backshift***

The use of backshift shows up in indirect reported speech (Quirk et al. 1985; Huddleston/Pullum 2005). It is a special grammatical principle concerning the use of the past tense inflection. This phenomenon does not represent the past, but the present in order to accommodate a matrix structure. For example,

- |   |                   |
|---|-------------------|
| (36) a. Kim has blue eyes.              | (Direct speech)   |
| b. I told Stacy that Kim had blue eyes. | (Indirect speech) |
| c. He says you look well.               | (Direct speech)   |
| d. He said you looked well.             | (Indirect speech) |

Sentences (36a/c) are a simple sentence in present tense, whereas the past tense sentences (36b/d) are used in an indirect speech with the present time reference. The use of *had/looked* is determined by the past tense form *told/said*.

***II Past Tense Referring to Non-temporal Reference: Modal Remoteness***

Modal use conveys the meanings of unreality, uncertainty, distance, and politeness (Quirk et al. 1985; Palmer 1965/1987; Hüllen 1989).<sup>21</sup> Compare the following sentences:

- |   |                        |
|---|------------------------|
| (37) a. I <u>would appreciate</u> it if you could come. | (I will appreciate...) |
| b. I <u>wondered</u> if you could help me.              | (I wonder...)          |
| c. <u>Could</u> you give me a cup of coffee?            | (Can you...)           |

---

<sup>21</sup> Quirk et al. (1985) use the term *attitudinal past* to express the same meaning.

All of these three sentences describe the modal use of the past, i.e., to express the attitude rather than time. The past tense is more polite than the present tense.

## 2.3 Aspect in English

Grammatical aspect is related to a property of a specific verb form. Aspect in English can be classified as having two main categories: the perfect and the progressive. The meaning of the perfect and the progressive can be explained by viewpoint aspects on the sentence level, and by situation types on the lexical level.

### 2.3.1 The Perfect

#### 2.3.1.1 Form

In English, aspect functions in combination with tense, so the perfect comprises the present perfect and the past perfect. The present perfect indicates an event which is closer to the utterance time than the one denoted by the simple past form, such as *have/has written*. This is due to the fact that an immediate event would have a greater degree of present relevance than a non-immediate one. The past perfect views the past situation from the perfective aspect, which derives from the combination of the meanings of the double anteriority, such as *had written*.

#### 2.3.1.2 Meaning

The situation of the present perfect extends to the present time, which indicates a present condition as a result of some past action, i.e., past with current relevance. Compare the following pairs of sentences,

- (38) a. Since 1986 it has offered a wide range of programmes. (Present perfect)  
 b. It offered a wide range of programmes. (Past tense)  
 c. She has lived for 12 years. (Present perfect)  
 d. She lived for 12 years. (Past tense)

Sentence (38a) shows that the result of an offering still obtainable by using *since 1986*, whereas sentence (38b) signals that the action has finished. Similarly, sentence (38c) indicates that the residence persists up to the present time, whereas sentence (38d) shows that the residence has ended.

The past perfect indicates the concluded aspect in some past time, i.e., past-in-the-past. The basic meaning of the past perfect expresses the temporal relation of anteriority, such as *He had lived here for 10 years when I met him*. With the use of conjunction *after*, the past perfect and the past are interchangeable. For example, *I ate my lunch after she came/had come home*.

### 2.3.1.3 Four Types

In English, the perfect occurs in different types. "The semantic extension of the original semantic properties" is shown by perfect of result, experiential perfect, perfect of persistent situation, and perfect of recent past (Comrie 1976; Dürich 2005).

#### *Perfect of Result*

The perfect of result is "a present state [which] is referred to as being the result of some past situation" (Comrie 1976: 56). It indicates that the resultant state begins at the time of occurrence of the past situation and continues through into the present. The perfect of result is seen in (39):

- (39) a. Warwickshire has already closed all its residential provisions for children in care.  
 b. Those days have been already gone.

In sentence (39a), the action *closing all its residential provisions* leads to *its residential provisions* is being closed. In sentence (39 b), the result is that those days will never appear again.

***Experiential Perfect***

The experiential perfect indicates that “a given situation has held at least once during some time in the past leading up to the present” (Comrie 1976: 58). For example,

- (40) a. Pretty has finally got over his mid-life crisis.  
 b. Member has now put the record straight.

In the experiential perfect, the use of adverbs *now/finally* unambiguously conveys that the completion of an accomplishment takes place.

***Perfect of Persistency***

The perfect of a persistent situation describes a “situation that started in the past but continues (persists) into the present” (Comrie 1976: 60). Compare the following sentences:

- (41) a. I have lived here for 10 years.  
 b. I have lived here since 1994.

Sentence (41) expresses the continuative perfect by means of time adjuncts *since* and *for*, which specify a span of time extending to *now*.

***Perfect of Recent Past***

The perfect of recent past is used “where the present relevance of the past situation referred to is simply one of temporal closeness, i.e. the past situation is very recent” (Comrie 1976: 61). Adverbs, such as *recently* or *just*, signal the perfect of recent past. Consider the following examples,

- (42) a. My husband and I have recently returned from our holiday.  
 b. I have just bought Esquire for the first time.

Temporal adverbs play an important role in determining time reference of verbs. The adverb *recently/just* indicates that a past time orientation is intended.

### 2.3.2 The Progressive

#### 2.3.2.1 Form

The progressive basically entails the temporal meaning of being in progress at a certain given moment in the present or past. The present progressive is *am/is/are+doing*, while the past progressive is *was/were+doing*. The following instances illustrate this:

- (43) a. I am working. He/she is working. We are working.  
(Present progressive)  
b. I /he/she was working. We were working.  
(Past progressive)

In English, not all verbs have a progressive form. Non-Progressive verbs or stative verbs are not likely to occur in the progressive. The following table summarizes verbs which generally are not use in the progressive in English.



(44) Table 10: Non-progressive Verbs in English<sup>22</sup>

Senses	Emotional	Mental	Possession	Existence
feel*	amaze	believe	belong	appear*
hear	appreciate	desire	have*	be*
see*	astonish	doubt*	own	consist of
smell*	care*	feel*	possess	contain
taste*	dislike	forget*		cost*
know	envy	imagine*		exist
	fear	know		include*
	hate	mean*		look*
	like	realize		matter
	love	recognize		owe
		remember*		resemble
		suppose		seem
		think*		sound
		understand		weigh*
		want*		

### 2.3.2.2 Basic Meaning

In English, the progressive is the main subcategory of the imperfective aspect. The progressive presents part of a situation, with no information about its endpoints. Huddleston/Pullum (2005) argue that the central meaning of the progressive is "an action in progress", including two properties: i) It has duration rather than being instantaneous or punctual;<sup>23</sup> ii) It is dynamic rather than static; states simply hold or obtain.<sup>24</sup> The following sentences explain these properties.

- (45) a. I was reading a book when he came in. (Past progressive)  
 b. I am reading a book. (Present progressive)

In sentences (45 a & b), the progressive conveys the idea that events have duration and are or were ongoing. Sentence (45a) expresses an idea that an

<sup>22</sup> Verbs with an \* can sometimes be used, but it has a special meaning.

<http://www.english-zone.com/verbs/prgverbchrt.html>

<sup>23</sup> Present instantaneous: Mr. Stafford Smith does his best to reserve the growing trend.

<sup>24</sup> Static: This jug holds two pints.

## Chapter 2 Tense and Aspect in English

---

event has duration taking place over a limited period, due to the *when* adjunct. Sentence (45b) is an on-going event.

Like the perfect, the simple present and past can combine with the progressive. The present and past progressive each have their own functions. In addition, the perfect can also combine with the present/past progressive, namely the present/past perfect progressive.

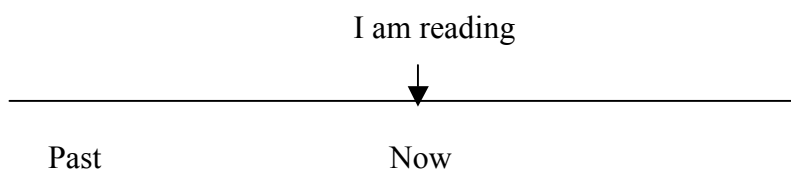
### ***Present Progressive***

The present progressive is used to describe an action or event which happens now, namely a situation ongoing at the moment of the utterance itself (Dürich 2005). For example,

- (46) a. I am reading.           (Active in progress)  
       b. I am living alone.   (A temporary situation)

Diagrammatically, the present progressive can be illustrated as (Murphy 2003):

### (47) Diagram 12: The Present Progressive



The action *reading* is not completed. The action is happening at or around the time of speaking. That means *I am in the middle of reading*, or *I have started reading it and I have not finished yet*.

### ***Past Progressive***

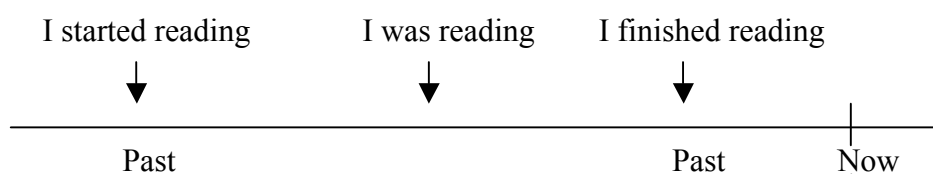
The past progressive is used to "describe an action or event which was happening continuously or repeatedly" within or at a certain time. For example,

## Chapter 2 Tense and Aspect in English

- (48) a. I was reading at 8 this morning.  
 (An action "in progress at a specific point of time in the past")<sup>25</sup>
- b. I was reading when he came in.  
 (An action in progress with some other event usually stated in the simple past)
- c. He is coughing all night alone.  
 (Repetition of some ongoing past action)

Diagrammatically, the past progressive can be illustrated as (Murphy 2003):

(49) Diagram 13: The Past Progressive



The past progressive shows the referent "in the middle of doing something at a certain time". The action of *reading* "had already started before this time, but had not finished" (Murphy 2003).

### ***Perfect Progressive***

The perfect progressive expresses a similar continuous nature of some action. It denotes a temporary action leading to the present moment. It should be noted that the progressive indicates incompleteness. Compare the present perfect with the present perfect progressive,

- (50) a. I have been reading the book.  
 (I am stilling reading it, and the action does not finish)
- b. I have read the book.  
 (I have finished reading the book.)

<sup>25</sup> <http://en.wiktionary.org/wiki/Appendix:Glossary>

### 2.3.2.3 Special Meaning

#### *Development/Change a Situation*

Normally, the progressive applies to dynamic descriptions rather than stative ones. Thus, verbs expressing states do not have progressive forms (Vendler 1967; Mourelatos 1981; Vlach 1981; Smith 1997). However, some sentences present states as dynamic situations. Consider:

- (51) a. Susan *is liking* this play a great deal.  
 b. Peter *is believing* in ghosts these days.  
 c. Charles *is being* silly.

(Smith 1997)

Verbs occurring in sentence (51) are intellectual state verb *believe*, states of emotion or attitude verb *like* and the so-called *verbs of being and having*.<sup>26</sup> The above sentences can be called the progressive state, which has been coerced into a dynamic eventuality.<sup>27</sup> The interpretation of the progressive state is combined with special effects, such as tentativeness or behavior. In this sense, the progressive state can be seen as a transfer of the basic durative meaning of a clause.

#### *Progressive Referring to Future Time*

The present progressive can denote future time reference. The use is called futurate progressive, such as in *She is coming tomorrow*. A temporal adverbial is often used to clarify in which meaning the verb is being used. Considering,

---

<sup>26</sup> 'Private' states can only be subjectively verified: i.e., states of mind, volition, or attitude, which distinguish from the four types (Quirk et al. 1985):

a. intellectual states (e.g., know, believe, think, wonder, suppose, imagine, realize, understand)  
 b. states of emotion or attitude (e.g., intend, wish, want, like, dislike, disagree, pity)  
 c. states of perception (e.g., see, hear, feel, smell, taste)  
 d. states of bodily sensation (e.g., hurt, ache, tickle, itch, feel cold)

<sup>27</sup> Moens/Steedmann (1988) argue that progressive is a type of state that can be called progressive state which describes the process as on-going at the reference time.

- (52) a. She is leaving next week. (Future time)  
b. She is leaving now. (On-going)

"A special form of this function of the present progressive is the *going to* future" (Dürich 2005), such as in *She is going to Basel on Saturday*. This periphrastic construction *be+going to+infinitive* denotes future and intention.

## 2.4 Summary

Based on the fact that verbal systems of tense are marked inflectionally on the verb, in this dissertation English is considered to have two tenses, the simple present and simple past. The main evidence for this is that all tenses carry either a past or a present tense morpheme. There is no future tense morpheme. The basic meaning of present/past tense is temporal, while the special meanings are either temporal or non-temporal.

The perfect has four types, which can be distinguished by temporal adverbials. The progressive means part of a situation, with no information about its endpoints. The progressive contains both basic and special meanings. The following table shows the form and meaning of tense and aspect in English.

## Chapter 2 Tense and Aspect in English

(53) Table 11: Tense and Aspect in English

Tense/Aspect	Form	Basic Meaning	Special Meaning
Present	V-s	Present time I Stative present <i>I think you are right.</i> II Instantaneous present <i>I advice you to go there.</i>	Past time Historical present <i>Heathcliff, who is taken in by the wealthy Earnshaw family as a child, falls in love with their daughter, Catherine.</i>
			Present, past, future time I Habitual <i>I go swimming everyday.</i> II Eternal truth <i>The earth revolves on its axis once every 24 hours.</i>
			Future time Present futurate <i>Tomorrow is Monday.</i>
Past	V-ed	Past time I Event past <i>I went swimming yesterday.</i> II State past <i>I had a book.</i> III Habitual past <i>I used to go there.</i>	Present time Backshift <i>I told her he had blue eyes.</i>
			Non-temporal Modal remoteness <i>Could you give me a cup of coffee?</i>
Perfect	Have/ had+ V-ed	Perfect of result <i>I have already/yet finished it.</i>	-
		Perfect of experience <i>I have never/ever done it.</i>	
		Perfect of persistency <i>I have known her since 1994/for 10 years.</i>	

## Chapter 2 Tense and Aspect in English

		Perfect of recent past <i>I have just/recently read it.</i>	
Progressive	Be+V-ing	On-going <i>I am doing homework.</i> <i>I was reading when he came in.</i>	Future time <i>She is coming tomorrow.</i>
			Development <i>She is being silly.</i>

### **Chapter 3 Aspect in MC**

Chapter 3 discusses aspect in MC in three parts. The first is to review previous studies focused on problems of the aspectual system in MC. Then, to give an accurate and complete account of the aspectual system, I will outline and interpret four aspectual markings in MC, with reference to corresponding, English equivalents. At last, the contrast of aspectual expressions is provided between English and MC from a cross-linguistic view.

#### **3.1 Previous Studies**

Previous studies of MC have not been able to reach a general agreement about its aspectual system. Whether MC has tense or not is always under discussion. This disagreement leads to the typology of the MC aspectual system, and the general term of the MC aspectual expressions. Additionally, problems of aspect are treated with emphasis on the semantic interpretation and realization of the MC aspectual markings. Since all studies can provide an adequate description of certain uses, it is necessary to examine the MC aspectual system again.

##### **3.1.1 Tense or Aspect in MC**

Languages can be broadly classified as tense languages or aspect languages depending upon how they denote time relations (Xiao/McEneery 2004). English is no doubt a tense language, as in Chapter 2 noted. However, whether MC is a tense language or an aspect language has always been discussed from two approaches. This section attempts to discuss the typology in MC in order to verify the nature of the MC aspectual interpretations.



### 3.1.1.1 Tense in MC

Languages are classified into three ideal types: tense-prominent, aspect-prominent and mood-prominent language types in light of the typological distinctions involved. As Bhat (1999:7) defines,

Tense as indicating the location of an event on a linear time scale (as before, simultaneously or after a particular reference point which may be deictic or non-deictic), aspect as denoting the temporal structure of the event (as complete or on-going, beginning or ending, occurring once or several times, etc.) and mood as denoting the actuality of the event (as real or not real, seen, heard, or inferred, possible, probable or certain, necessary or unnecessary, etc.)

Semantically, tense is “a temporal linguistic quality expressing the time at, during, or over which a state or action denoted by a verb occurs”.<sup>28</sup> Syntactically, the nature of a tense language is to use tense morphemes to signal temporal references. As discussed, English is unambiguously considered as a tense language due to its verbal morphology. Undoubtedly, English has also two grammatical aspects. In the case of degree of prominence, whether tense exists in MC or not is an important question as it determines whether MC is a tense language or an aspect language.

In the recent literature, two claims about the temporal system of MC have been put forth. On the one hand, some linguists argue that MC has both tense and aspect (Ross 1995; Wong/Li/Yuan 1999). Ross (1995) argues that “V-le in MC can be characterized in terms of both perfective aspect and past tense”.<sup>29</sup> In other words, Ross suggests that MC has both tense and aspect. However, MC lacks an overt tense-marking verbal morphology (Chen 2009: 108). The marker -le is not related to a verbal tense morpheme but is rather a lexical aspect marker. Since MC is not inflected through verb forms, MC is

---

<sup>28</sup> [http://en.wikipedia.org/wiki/Grammatical\\_tense](http://en.wikipedia.org/wiki/Grammatical_tense)

<sup>29</sup> V-le refers to verbal suffix -le.

without tense.

On the other hand, most linguists argue that MC is an aspect language, i.e., it is a tenseless language (Comrie 1976; Li/Thompson 1981; Dahl 1985; Norman 1988:163; Fang 1992; Smith 1997: 263; McEnery/Xiao 2004: 115). As is commonly noted, MC has no inflectional verbal morphemes. This leads to the recognition that MC has no grammatical features of a tense language. Thus, MC is generally described as not only an aspect language, but also a tenseless language. In the following section, it is essential to examine how aspectual expressions are established in MC. Furthermore, it is also necessary to investigate how English tenses are expressed by MC aspectual means.

### **3.1.1.2 Aspect in MC**

MC is assumed to be an aspect language. Thus, lexical means rather than verbal morphemes are used to imply aspectual information in MC. According to Xiao/McEnery/Tono (2006), MC employs three devices to express aspectual meanings, in which aspect is: i) marked explicitly by aspect markers; ii) marked adverbially; iii) or is marked covertly, i.e., taking the lack-viewpoint-morpheme (LVM). The lack-viewpoint-morpheme is also called neutral viewpoint (Smith 1997), which gives enough information to allow a perfective or imperfective viewpoint. In addition, typical lexical verbs, such as RVCs and verb reduplications, can also express perfective meanings in MC (McEnery/Xiao 2003).

### **3.1.2 Problem of Aspectual System**

In MC, there is little agreement on what aspectual classifications are expressed. In addition, among all aspectual markings, aspect markers and lexical verbs (i.e., verb classification) have focused exclusively on the investigations of the distribution and functions from many different views.

### 3.1.2.1 Problem of Aspect Classification

The category of aspect is classified into three groups according to distinctive approaches. First, Li/Thompson (1981) argue that MC has four aspects: the perfective aspect, the durative aspect, the experiential aspect and the delimitative aspect. Second, Smith (1997) proposes that MC has three aspects: perfective, imperfective, and neutral aspects. Finally, aspect is divided into two types by Xiao/McEnery (2004), namely imperfective aspect and perfective aspect.

Semantically, aspect languages are concerned with “whether the action is completed or not, whether the action is in progress or not. The plotting of action, so important in tense languages, is not important in Chinese” (Norman 1988). Thus, aspectual meaning in MC is in general related to completed and on-going states. Owing to entirety and holisticity, the experiential aspect, the completive aspect, and the delimitative aspect may belong to the perfective aspect.<sup>30</sup> Owing to their on-going features, the durative aspect and the progressive aspect are further divided into the imperfective aspects. For Smith (1997), the neutral aspect appears without overt perfective and imperfective morphemes, which spans the initial point and at least one internal stage of a situation. The following sentence shows the interpretation of the neutral aspect.

- (1) 约翰到家的时候，玛丽写工作报告。
- a. When John arrived at home, Mary began to write the work report.
  - b. When John arrived at home, Mary was writing the work report.

No aspect marker appears in sentence (1). Thus, the interpretation of this sentence has two meanings. Sentence (1a) has a perfective meaning, while (1b) contains an imperfective meaning in habitual or conditional situation.

---

<sup>30</sup> “Holisticity is common feature of perfective viewpoints. The holistic feature of the delimitative aspect lies in the fact that the viewpoint from which a situation is presented is located externally so that the internal structure of the situation is viewed as an inseparable whole.” (Xiao/McEnery 2004)

Since there are no marked aspectual markers in a neutral aspect sentence, the interpretation of a clause depends on the context.

In this dissertation, aspect in MC is generally assumed to include both perfective and imperfective aspect. The neutral aspect is separated into perfective aspect or imperfective aspect depending on context. The following table shows the aspect category and the mostly used aspectual markings.

(2) Table 12: Aspect in MC

Aspect	Aspectual Marking
Imperfective Aspect	the durative aspect: -zhe
	the progressive aspect: zai
Perfective Aspect	the perfective aspect: -le/le
	the experiential aspect: -guo
	the completive aspect: RVC
	the delimitative aspect: Verb reduplication

### 3.1.2.2 Problem of Aspectual Marking

As a typical aspect language, MC applies various lexical means to express aspect, such as aspect markers, temporal adverbs, lexical verbs, and context. Among these four devices, aspect markers and lexical verbs have generated the most discussion.

#### *Aspect Marker*

MC has four aspect markers: the imperfective aspect markers zai and -zhe, the perfective aspect marker -le/le and -guo.<sup>31</sup> Concerning all aspect markers, the confusion of the aspect marker -le/le has generated much more interest in MC (Li/Thompson 1981; Chu/Chang 1987; Huang/Davis 1989; Shi 1990; Smith 1994/1997).

<sup>31</sup> -le means verbal suffix-le. Le means sentence-final le.

Syntactically, the aspect marker *-le/le* has three positions, while other markers have only one fixed position in a clause. Semantically, the aspect marker *-le/le* has a variety of meanings according to its different positions, while others have relatively restricted usages. As a consequence, there is much controversy surrounding the form and function of the aspect marker *-le/le*. Since all studies can provide an adequate description of certain uses, it is necessary to limit the usage of the aspect marker *-le/le* in this dissertation. The other perfective aspect marker *-guo* is called the experiential aspect marker, which is usually used to translate the English experiential perfect. The experiential aspect marker *-guo* can be replaced by the aspect marker *-le* under certain conditions, to indicate the completive meaning.

The imperfective aspect marker *zai* is called the progressive marker, and is often used to translate the basic English progressive. The other imperfective aspect marker *-zhe* is called the durative aspect marker, and is usually used to translate the stative progressive usage. The imperfective aspect marker is combined with the usage of a lexical verb. In MC, not all verbs have an imperfective meaning. In other words, the progressive aspect marker *zai* combines with the activity verbs, while the durative aspect marker *-zhe* often follows after the posture verb or stative verb resulting from an activity.

Accordingly, in MC the same aspect can be expressed by different aspect markers, and one aspect marker can have different meanings depending on the context. Compared with English tense morphemes, the usage of aspect markers in MC is much more complicated, which makes translating English tense and aspect into MC challenging.

### ***Lexical Verbs***

It is typical in MC to use lexical verbs to express aspectual expressions.

## Chapter 3 Aspect in MC

These lexical verbs are related to RVCs, verb reduplications, future-oriented verbs, or even auxiliary verbs. Previous studies on the classification of verbs in MC have made two arguments: one is related to Vendler's fourfold category as discussed by Western-Sino linguists (Verkuyl 1993; Smith 1997); the other is the two-part categorization used by Chinese-Sino linguists (Shen/Zheng 1995; Hu 1995).

Western linguists have tried to analyse MC based on Vendler's theory, which classifies verbs into four groups at the lexical level based on their temporal characteristics.

Table 13: A Four-fold Classification of Verbs

Category	Characteristic	Example
State	Static and without changing	知道(know), 爱(love), 相信(believe), 占有(posses)
Activity	Durative and atelic	跑(run), 走(walk), 游泳(swim)
Achievement	Punctual and atelic	认识(recognize), 找到(find), 打破(break)
Accomplishment	Durative and telic	画幅画 (paint a picture), 盖一个桥 (build a bridge)

Chinese-Sino linguists list MC verbs from different approaches. Shen/Zheng (1995) distinguishes bounded from unbounded situations. He thinks that MC verbs can be seen as events or activities.

(4) Table 14: Event vs. Activity

Category	Characteristic	Example
Event	Bounded Dynamic: has a natural final boundary	写几个字 (write several characters)
Activity	Unbounded Stative: has no natural final boundary	读书 (read books) 写字 (write characters)

Hu (1995) distinguishes dynamic verbs from static verbs. Dynamic verbs include action and result, while static verbs refer to attribute, mentality, ambiguity and position.

(5) Table 15: Dynamic Verb vs. Static Verb

Category	Characteristic		Example
Dynamic	Action	Instantaneous	咳嗽 (cough)
		On-going	死 (die)
	Result	Instantaneous	看(see)
		On-going	变化 (change)
Static	Attribute		是 (be)
	Mentality		知道 (know)
	Ambiguity		躺 (lie)
	Position		拿 (take)

To sum up, the notion of activity in Shen/Zheng's classification means unbounded and stative. This has led to a controversy in terms of activity in Smith's position, which holds that activity is not stative. Hu uses the terms dynamic verb and static verb to avoid the controversy. However, special verb types in MC, such as RVC or verb reduplication, are not included in his classification.

Considering all classifications, a situation in MC is classified into two groups in present studies, which can be seen as a combination of both Western and Chinese-Sino linguists. These two groups are states and events. Like in English, the classification of verbs in MC depends on the temporal

semantic structure of verbs, including static, dynamic and telic. The following table shows the detail.

(6) Table 16: A Two-fold Classification of Verbs

Category	Characteristic		Example
State	Static	Adjectival verb	胖 (fat)
		Copular (attribute)	是 (be)
	Durative	Intransitive verb (mentality)	希望 (hope)
Event	Dynamic	Activity	跑 (run)
		Accomplishment	建造 (build)
	Durative Telic	Result: RVC	完成 (finish)
		Ambiguity	穿 (put on/wear)

The temporal feature of state is static, while events are dynamic. States can be expressed by adjectival verbs, a copula or an intransitive verb.<sup>32</sup> Events include accomplishments, activities, ambiguities and results. The so-called resultative verb compound (RVC) and the ambiguity verb are special in MC. In MC, ambiguous verbs can be seen as both events and states (Hu 1995; Wong/Li/Yuan1999). The usage of these lexical verbs will be explained in the following section.

Events and states have their own grammatical features, which can be distinguished by negatives. Static verbs can be negated by 不 (*not*), while dynamic verbs are negated by 没 (*not*). For instance,

- (7) a. 他胖。 (Static verb: adjectival verb)  
He is fat.
- b. 他不胖。 (Negated by 不)  
He is not fat.
- c. 他写了作业。 (Event:-le)  
He wrote homework.
- d. 他没写作业。 (Negated by 没)  
He did not write his homework.

<sup>32</sup> In Mandarin Chinese, adjective can function as verbs, such as 我胖 (*I am fat*).



The negation word 不 is used to deny the existence of the state, such as in sentence (7b). Sentence (7c) uses the perfective aspect marker -le to express the completion of an action. A verb with the aspect marker -le cannot be negated with 没 (*not*). The reason is that the perfective aspect marker -le signals a bounded event, and a non-occurred event cannot be bounded in general. Thus, the aspect marker -le disappears in the negation sentence (7d).

### **3.2 Aspectual Marking in MC**

Based on previous studies, this section will describe the characteristics of the perfective and imperfective aspectual marking of MC in a systematic way, including consideration of aspect markers, lexical verbs, temporal adverbials, and context. In addition, MC translation patterns of English equivalents will be shown to provide for contrastive purposes.

#### **3.2.1 Aspect Marker**

##### **3.2.1.1 Perfective Aspect Marker**

In general, the aspect marker -le/le is seen as the perfective aspect marker, and -guo as the experiential perfect aspect marker. Although the aspect markers -le/le and -guo mark the perfective aspect, they have different focuses. Specially, the aspect marker -le/le focuses on the "actuality" of a situation, while the aspect marker -guo emphasizes on its "experientiality". Diagrammatically, the meaning of aspect markers -le/le and -guo can be illustrated in the following way:

## (8) Diagram 14: Temporal Schema of Perfective Aspect Markers

## i) Temporal Schema of the Aspect Marker -le

a.  $I F/E$  <sup>33</sup>

//////// (RVC)

b. *Le* (S) makes visible a situation S at interval I. For times  $t_{i,j}$ ,  $t_n$ , included in I: there is a time  $t_i$  that coincides with I and a time  $t_j$  that coincides with *F*, or a time  $t_j$  that coincides with *E*. there is to time  $t_{i-1}$  that precedes *I/E*.

(Smith 1997: 266)

## ii) Temporal Schema of the Aspect Marker -guo

a.  $I \dots \dots F/E \quad F+I$  <sup>34</sup>

////////////////////

b. *Guo* (S) makes visible a situation S at interval I. For times  $t_{i,j}$ ,  $t_n$ , included in I: there is a time  $t_i$  that coincides with I; and /or a time  $t_j$  that coincides with *F/E*, and a time  $t_n$  that follows *F/E* and coincides with *F/E* and coincides with *F+I*. there is no time  $t_{i-1}$  in I that precedes *I/E*.

(Smith 1997: 269)

***Perfective Aspect Marker -le/le***

Aspect marker -le/le is one of the most important and controversial means to signal aspectual expressions in MC. This section will review the grammaticality of aspect markers on the sentence level.

Syntactically, the aspect marker -le/le has two positions: verbal suffix and sentence-final. For instance,

(9) a. 她造就了一个完整的我。 (Verbal suffix -le)

She made me whole.

b. 客观条件就改善了。 (Sentence-final le)

The conditions have improved.

Both the verbal suffix -le in (9a) and the sentence-final le in (9 b) have

<sup>33</sup> *I* indicates initial points, *F* indicates final points, *E* denotes a single-stage event. The dots denote internal stage, and the slashes denote the interval process.

<sup>34</sup> *F+I* denotes a post-final change of state.

## Chapter 3 Aspect in MC

the perfective meaning. Both events are viewed in their entireties. However, the verbal suffix *-le* can give more than one meaning depending on context. For example,

- (10) 我今天写了了两封信。  
 a. I wrote two letters today.  
 b. I have written two letters today.

Sentence (10a) means that the action is entirely finished, while the action in (10b) has still not been finished. In this case, the correct English equivalent will depend on context. In addition, the use of the sentence-final *le* is also ambiguous. The occurrence of the marker *-le/le* in sentence (11) illustrates this problem.

- (11) 炸弹爆了。 (-le or le?)  
 The bomb exploded.

In sentence (11), the aspect marker occurs in two positions: after the verb and at the end of the clause. According to the English correspondent, *-le/le* in (11) is seen as the perfective aspect marker rather than the COS particle.<sup>35</sup> This is due to the fact that this sentence conveys an end point rather than a currently relevant state. In addition, the verbal suffix *-le* is to be negated by the negative particle 没 / 没有 (*not*), while the sentence-final *le* can be negated by the negative particle 不 (*not*) (Huang 1988; Shi 1990). Consider the following sentences:

- (12) a. 炸弹没有爆（了）。  
 The bomb did not explode.  
 \*b. 炸弹不爆了。

Sentence (11) can be negated by 没有 (*not*), as (12a) shows. The use of 不 (*not*) in (12b) is ungrammatical. Thus, *-le/le* in (11) is considered to be an

<sup>35</sup> COS means the change-of-state particle.

aspect marker rather than a particle.

Li/Thompson (1981) argue that “ since perfective -le is used for signaling bounded events, a sentence-final le can be just the perfective -le only with verbs that have an end point as part of their inherent meaning, such as 灭 (*extinguish*), 死 (*die*)”. In fact, sentence-final le is often seen as the change-of-state (COS) marker (Xiao/McEnergy 2004). For example,

- (13) 已经过去很长时间了。 (the COS marker)  
It has been a while.

In (13), the marker le is defined as the COS marker since it occurs after the object rather than the predicate. As above examples show, the grammaticality of the sentence-final le sees the whole sentence as a scope, while the verbal suffix -le takes the verb phrase as its scope. However, the perfective suffix -le and the COS marker le can appear together in a sentence. For instance,

- (14) a. 我在那里住了两个月了。  
I have lived there for two months.

(Li/Thompson 1981)

- b. 我们吃了饭了。  
We have eaten.

(Xiao/McEnergy 2004)

The combination of the verbal suffix -le and the sentence-final le lets the sentence have the resultative meaning. The COS le and the perfective -le, i.e., double le, denote "a previous situation continuing into the present", which can translate into the English perfect.

To sum up, the aspect marker -le/le has three syntactic positions in a clause: verbal suffix, sentence final, and in both positions simultaneously. The verbal suffix -le is mostly used to express the perfective meaning in MC

as it can be used to translate the English past. Sentence-final *le* is seen either as an aspect marker or a COS particle in a clause depending on the context. The combination of double *le* can express the meaning of the English perfect.

### ***Experiential Aspect Marker -guo***

The experiential aspect emphasizes that a subject "has had the experience of doing an action at least once prior to the time mentioned" (Li/Thompson 1981; Xiao/McEnery 2004; Lin 2007). In other words, the aspect marker *-guo* focuses on "experientiality and discontinuity", which means that the action has happened or been experienced at least once. The experiential marker *-guo* indicates an external viewpoint of the situation described and thus implies the culmination of an event. Unlike the aspect marker *-le*, the meaning of the aspect marker *-guo* is not ambiguous. In general, the experiential marker *-guo* corresponds to the English perfect. Compare the following sentences:

- (15) a. 我今年选了武教授的课。 (Verbal suffix *-le*)  
 I took Professor Wu's class this year.  
 I am taking Professor Wu's class this year.
- b. 我今年选过武教授的课。 (-*guo*)  
 I have taken Professor Wu's class this year.

(Li/Thompson 1981)

According to the English translations, the use of the verbal suffix *-le* expresses two meanings in (15a): the past tense and present progressive. The aspect marker *-le* means that *I do not take the class now, or the action of taking the class is still ongoing*. However, not all verbs can occur with the aspect marker *-guo*. The following sentences are all ill-formed.

## Chapter 3 Aspect in MC

- (16) \* a. 他死过。 (die -guo)  
 \* b. 他老过。 (grow old -guo)  
 \* c. 1956年, 他在北京大学毕过业。 (graduate -guo)

(Li/Thompson 1981; Dai 1997)

All situations in sentences (16) are ungrammatical since *dying, growing old and graduating* cannot be repeated. In addition, the aspect marker -guo cannot appear in future or imperative situations. For instance,

- (17) \*a. 明天他摔断过腿。 (Future: tomorrow+ break+guo)  
 \*b. 喝过茶! (Imperative: drink+guo please)

(Li/Thompson 1981)

In sentence (17a), the use of the adverb *明天 (tomorrow)* with the aspect marker -guo is incompatible since the marker -guo conveys that "a situation happened anterior to a specific reference time". The imperative generally refers to a command, a request or a suggestion. Such use involves a situation not yet experienced. Thus, the use of the marker -guo in imperatives is not right, as (17b) shows.

The aspect marker -le/le and the aspect marker -guo are interchangeable in certain contexts.

- (18) a. 昨天我吃过饭以后找过你。 (Verb+guo)  
 I went to see you after I had supper yesterday.  
 b. 昨天我吃了饭以后找过你。 (Verb+le)  
 I went to see you after I had supper yesterday.

Sentences (18a) and (18b) show that the interchangeability of -le and -guo in situations with past reference time, as reflected in the English translations. However, the aspect marker -le/le and the aspect marker -guo are not identical in some scenarios.

- (19) a. 我摔断了腿。  
I broke my leg (it's still in a cast).  
b. 我摔断过腿。  
I have broken my leg (it has healed since).

Sentence (19a) means that *my leg is still broken*. On the contrary, sentence (19b) implies *that the breaking action happens in the past*, and now *my leg is well*. In this case, the interchange between -le and -guo is not possible due to the semantic meaning.

### 3.2.1.2 Imperfective Aspect Marker

In MC, the imperfective aspect markers are the progressive aspect marker *zai* and the durative aspect marker *-zhe*. The two imperfective aspect markers differ in distribution and meaning. The aspect marker *zai* normally expresses the dynamic progressive, while the aspect marker *-zhe* is available neutrally to statives. Diagrammatically, the meaning of aspect markers *-zhe* and *zai* is illustrated in the following.

#### (20) Diagram 15: Temporal Schema of Imperfective Aspect Markers

##### i) Temporal Schema of the Aspect Marker *-zhe*

- a.  $I/E \dots\dots\dots$   
/// Stat
- b. *-Zhe* [S] presents a moment or interval of a situation S that includes neither endpoint, and does not precede *I/E*. Intervals focused by *-zhe* have the [+static] property.

(Smith 1997: 276)

##### ii) Temporal Schema of the Aspect Marker *zai*

- a.  $I \dots\dots\dots F$   
//// [+Stage]
- b. *Zai* S presents an internal interval of a dynamic situation S that includes neither *I* or *F*; and that does not precede *I* nor follow *F*. The interval has the [stage] property.

---

(Smith 1997: 272-273)

The imperfective aspect markers *-zhe* and *zai* view the situation from after the endpoint of the event, i.e., endpoint is excluded. It is likely that the aspect markers *zai* and *-zhe* both interact with the imperfective aspect, while each of them has its own focuses.

***Progressive Aspect Marker zai***

Unlike others, the progressive aspect marker *zai* is placed before the verb. The basic meaning of this aspect marker is to express the on-going meaning in progress. Given that activity verbs have dynamic features, the aspect marker *zai* can be combined with activity verbs to indicate the progressive aspect. For instance,

- (21) a. 你在干什么? (Zai+verb)  
           What are you doing?  
       b. 我在读书。 (Zai+verb)  
           I am reading a book.

In (21), the construction *zai +verb* expresses the progressive aspect, equivalent to the English. The verbs 干 (*do*) and 读 (*read*) have the semantic characteristics of activity verbs.

In MC, adjectival verbs can also contain progressive meaning. Compare,

- (22) a. 她瘦。 (Adjectival verb=predicate)  
           She is slim.  
       \*b. 她在瘦。 \*(Zai+adjectival verb)  
       c. 她在变瘦。 (Zai+变+adjectival verb)  
           She is getting slim.

In MC, an adjective can be seen as a predicate, such as in (22a). In (22b), the construction *zai+adjectival verb* makes no sense. If the verb 变



(*get/become*) is added before the adjectival verb, such as in sentence (22c), it conveys the message that the subject is actively taking part in a dynamic action.

The aspect marker *zai* cannot occur with verbs of state directly, as in (23b). This is because stative verbs do not signal the active participation of the subject. Similarly, the progressive *zai* cannot be placed before RVCs because the situation of RVC is associated with an endpoint, as in (23d). In MC, a stative verb can appear alone in a clause, such as in (23a), while an RVC can occur with the perfective aspect marker *-le*, such as in (23c). Consider:

- |         |                              |                     |
|---------|------------------------------|---------------------|
| (23) a. | 他知道。                         | (Stative verb)      |
|         | He knows.                    |                     |
| *b.     | 他 <u>在</u> 知道。               | *(Zai+stative verb) |
| c.      | 他 <u>完成</u> 了作业。             | (RVC+le)            |
|         | He <u>finished</u> homework. |                     |
| *d.     | 他 <u>正在</u> 完成作业。            | *(Zai+RVC)          |

### ***Durative Aspect Marker -zhe***

The imperfective aspect marker *-zhe* follows location verbs, which can express durative meaning. For example,

- (24) 她就那样坐着。 (Verb+zhe)  
She was just sitting.

In (24), *坐着* (*sitting*) focuses on a state with a position. The durative aspect marker *-zhe* involves the change from event to state, which is referred to as the resultative state. The resultative state appears after the occurrence of the action.

In certain contexts, the aspect markers *zai* and *-zhe* are interchangeable with different focuses. For example,

- (25) a. 他在穿大衣。 (On-going: zai+verb)  
       He is putting on his coat.  
       b. 他穿着大衣。 (Durative: verb+zhe)  
       He is wearing his coat.  
       c. 他在听收音机。 (On-going: zai+verb)  
       He is listening to the radio.  
       d. 他听着收音机睡觉了。 (Background: verb+zhe)  
       He fell asleep listening to the radio.

The ambiguous verb 穿 has two meanings which convey different focuses. The use of the aspect marker *zai* in (25a) means that the action *putting on his coat* is still in progress. However, sentence (25b) denotes the state of *wearing his coat*. In sentence (25c), the action is still in progress, while in (25d) the ongoing action *listening to the radio* is seen as a background event. If the durative aspect marker *-zhe* provides a durative background for another event in complex sentence, it does not have a progressive interpretation in English, such as 她哭着离开这里了 (*She left here crying.*)

To sum up, the imperfective aspect markers *zai* and *-zhe* differ in distribution and in meaning. The differences occur because of the properties they inherit. *Zai* inherits the stage property from the temporal schema of events. States are the basic domain of the stative imperfective *-zhe*.

### 3.2.2 Temporal Adverbial

Conventional uses of temporal adverbials can also override the lack of morphological suffixes of MC verbs to provide aspectual information. Aspect markers are language-specific in MC, while most temporal adverbials have similar usage in English and MC.

#### 3.2.2.1 Temporal Adverbial in Perfective Aspect

From a semantic point of view, temporal adverbs can be assigned into groups

## Chapter 3 Aspect in MC

that express time span, duration, location, frequency, or those fitting none of the above class like *already* and *still* (Klein 1994; Li /Chu/Chen 2005). Most temporal adverbials have restricted uses with temporal expressions. Considering the perfective aspect, the temporal adverb *已经/已* (*already*) or *曾经* (*ever*) always signals a resultative meaning. Location temporal adverbials, such as *刚刚* (*just*) or *在...前* (*ago*), can express the completive meaning of the clause more clearly. For instance,

- (26) a. 我已经去过北京。  
I have already gone to Beijing.  
b. 她三年前回来了。  
She came back three years ago.

The temporal adverb *已经/已* (*already*) can be used in reference to an event continuing into the present. The English equivalent of (26a) is the perfect. In sentence (26b), the temporal adverb *三年前* (*three years ago*) refers to a past time period. Thus, the English translation of the sentence (26b) is in the simple past.

The compatibility of temporal adverbs with aspect markers verifies the correctness of the English translation equivalents. For example, the temporal adverb *已经/已* (*already*), it can be combined with the aspect marker *-guo* or *-le/le* with different focuses.

- (27) a. 她已经去过北京。 (已经+verb+guo)  
She has already been to Beijing.  
b. 她已经去了北京。 (已经+verb+le)  
She has already gone to Beijing.

As shown in (27), the temporal adverb *已经/已* (*already*) is associated with the aspect markers *-le* and *-guo*. In (27a), the combination *已经+guo* indicates that *she was in Beijing, but now she came back*. In (27b), *已经+le* indicates that *she is now in Beijing*.

### 3.2.2.2 Temporal Adverbials in Imperfective Aspect

In MC, the temporal adverbial *正在* (*in the process of*) alone can signal the on-going imperfective aspect. It is only used with telic verbs that describe events with inherent endpoints. For example,

- (28) a. 她正在寻找创造性的方法。 (Adv+verb)  
She is looking for creative methods.

The temporal adverbial *正在* (*in the process of*) has a fixed position, and appears only before the verb. This temporal adverbial cannot combine with the progressive aspect marker *zai* in a clause.

The perfect progressive can be classified under the imperfective aspect. The combination of a durational temporal adverb, such as *几十年来* (*for decades*), and the aspect marker *zai* can be translated into the English perfect progressive.

- (28) 他几十年来一直在工作。 (Adv+zai+verb)  
He has still been working for decades.

Others, such as *正* (*just right*), have to associate with the durative aspect marker *-zhe*. In addition, *仍然* (*still*) can be used either with *zai* or *-zhe* together.

- (29) a. 她仍然在工作。 (仍然+zai+verb)  
She is still working.  
b. 墙上仍然挂着一副画。 (仍然+verb+zhe)  
A picture is still hanging on the wall.  
c. 墙上正挂着一副画。 (正+verb+zhe)  
A picture is just right hanging on the wall.

When generalizing habitual states, frequency adverbs are often added to express the sense of the clause. Such kind of adverbs includes *总/总是* (*always*), *常常* (*often*), or *每天* (*every day*). Considering:

- (30) a. 她每天早晨5点起床。  
She rises at 5 a. m. everyday.  
b. 她经常唱歌。  
She often sings.

### 3.2.3 Lexical Verbs

For sentences without a time adverb or aspect marker, lexical verbs can help determine the interpretation of a clause. Perfective aspect can be expressed by RVCs or verb reduplication. A future-oriented verb or auxiliary verb can indicate the meaning of the modality. However, there is no lexical verb to signal imperfective aspect in MC, except for in case of an adjectival verb combining with 变 (*get/become*).

#### 3.2.3.1 Lexical Verbs in Perfective Aspect

The usage of resultative verb complements (RVCs) or verb reduplication can determine a perfective meaning in a clause. RVCs express the sense of completiveness, which verb reduplication expresses delimitativeness.

#### *Resultative Verb Complements*

The usage of RVCs is special in MC. An RVC includes two elements, and “the second element signals some result of the action or process conveyed by the first element” (Li/Thompson 1981). The perfective aspect overlaps most frequently with RVCs. Xiao/McEnery (2004) identify three types of RVC: directional RVCs, completive RVCs and result-state RVCs. For example,

- (31) a. 他走进来了。 (Directional RVC)  
He entered.  
b. 我们好像是在剪辑过程中写完剧本的。 (Completive RVC)  
It was like we finished writing the script during the editing.  
c. 他洗干净了衣服。 (Result-state RVC)  
He washed his clothes clean.

In sentence (31a), the verb compound 走进来 (*walk-enter-come=enter*) is a directional verb, or a directional RVC. The first verb 走 (*walk*) implies displacement, and the second verb compound 进来 (*enter-come*) signals the direction where the subject *he* moves. In sentence (31b), the verb compound 写完 (*write-finish=finish writing*) is a completive RVC. The second verb 完 (*finish*) indicates the completion of the action 写 (*write*). The verb compound 洗干净 (*wash-clean= wash something clean*) in sentence (31c) is a result-state RVC, which denotes the result-state of a situation. In general, completive RVCs emphasize completion and imply resultant states, while result-state RVCs focus on resultant states and imply completion (Smith 1988; Zhang 1995). Completive RVCs mark the endpoint of a situation and express the completive aspect in MC. In this usage, the interchange of completive RVCs and the perfective aspect -le is acceptable. For example,

- (32) a. 他回答了三个问题。 (Verb+le)  
           He answered three questions.  
       b. 他回答完了三个问题。 (RVC+le)  
           He finished answering three questions.

The verb 回答 (*answer*) itself implies the whole completion of an action. That is, all complements signify completion with resultant situation. Thus, the perfective aspect marker -le and the RVC have the same meaning in certain contexts. However, not all verbs have such a function. For example,

- (33) a. 我们好像是在剪辑过程中写完剧本的。 (RVC)  
           It was like we finished writing the script during the editing.  
       b. 我们好像是在剪辑过程中写了剧本的。 (Verb+le)  
           It was like we wrote the script during the editing.

Sentence (33 a) signifies *the writing action* is completely finished, while the result of *the writing action* in (33b) is not clear. Both sentences describe the same situation but have different meanings.

Independently of any context, an RVC alone without a time adverb or aspectual marker can be easily construed as referring to the perfective meaning, such as in (38a). With temporal adverbials, RVC can also signal habitual meaning in MC. For instance,

- (34) a. 她打破一个花瓶。 (Perfective: RVC)  
       She broke a vase.  
       b. 她经常打破花瓶。 (Habitual: Adverb+ RVC)  
       She always breaks vases.

### ***Verb Reduplication***

Verb reduplication structurally includes a verb and its reduplicant, such as 试试 (*try-try*= *try it a little*), 睡睡 (*sleep-sleep*= *sleep a little*). Verb reduplication means doing an action a little or for a short period of time, which can signal as delimitativeness (Li/Thompson 1981), or to make a request milder (Smith 1997). Consider the following uses:

- (35) a. 你试试看。 (Milder request)  
       Try it a little.  
       b. 他睡睡就好。 (Milder request)  
       He will be well after sleeping a little.  
       c. 她尝了尝。 (Perfective)  
       She has tasted.

Sentences (35a) and (35b) imply a future event, and are imperatives with a milder request or suggestion. This use of verb reduplication denotes the mildness of the request to the hearer by saying that the action can be done just a little. Sentence (35c) means that *the tasting action* has been tried. The marker-*le* is placed between the two verbs.

### **3.2.3.2 Auxiliary and Future-oriented Verbs in Modality**

In MC, auxiliary verbs can signal modality. They do not take aspect markers, and also cannot be modified by intensifiers, such as 很 (*very*). Consider the

following examples:

- (36) a. 他会切面包。 (Auxiliary verb+verb)  
           He can slice into the loaf.  
       b. 她能唱歌。  
           She can sing.

In (36a), the verb 会 has two functions in MC. One is used as a verb which means *master* and the other is considered an auxiliary verb meaning *can/will*. The verb 会 in (36a) implies modal usage. In MC, modal usage can be expressed by more than one auxiliary verb. For example, the auxiliary verb 能 has the same meaning as 会.

- (37) 他能唱歌。 / 他会唱歌。  
       He can sing.

In MC, some verbs have the meaning of immediately or in the immediate future, which are called future-oriented verb. Considering,

- (38) 公司计划明年接纳Mac平台。 (Future-oriented verb+verb)  
       The company plans to accommodate the Mac platform next year.

The future-oriented verb 计划 (*plan to*) conveys a future time orientation in (38). The combination of the adverb 明年 (*next year*) and the future-oriented verb 计划 (*plan to*) specifies the future time of the clause.

### 3.2.4 Context

MC sentences have to be interpreted in context for three reasons: i) each aspect marker has more than one meaning; ii) one aspect marker can be interchanged by another one in a certain context; iii) stative situations are often expressed by context.

The first reason is that one MC aspectual marker can imply different aspectual meanings. In other words, each aspect marker has a semantic core



meaning that interacts with contextual information and produces different aspectual, temporal and even modal distinctions. For example, the aspect marker *le* conveys different interpretations in different contexts. Consider the following sentence (Arin 2003),

- (39) 他喝咖啡了。 (Sentence-final *le*)  
 a. He has/had started to drink coffee.  
 b. He is/was drinking coffee now.  
 c. He drank coffee.  
 d. He has/had drunken coffee.

As shown, this single MC sentence has four possible English equivalents: (39a) means that *he did not drink coffee before*; (39b) refers to *an ongoing drinking activity*; (39c) denotes an anterior event in the past; while *the drinking action in (39d) continues into the present*. This variability is due to the fact that the sentence final *le* can be seen as a change-of-state particle in (39a), an imperfective aspect marker in (39b), and a perfective-aspect marker in (39c) and (39d). Thus, one simple aspect marker can be interpreted as more than one aspectual meaning, as the situational context plays an important role on the choice of the sentential meaning.

The interpretation of the meaning of perfective aspect markers relies on context. In fact, the perfective aspect maker *-le* and the experiential aspect maker *-guo* have different focuses. But they are interchangeable in certain contexts.

- (40) a. 昨天我吃过饭以后找过你。 (-*guo*)  
 I went to see you after I had supper yesterday.  
 b. 昨天我吃了饭以后找过你。 (-*le*)  
 I went to see you after I had supper yesterday.

Sentences (40a) and (40b) show the interchangeability of *-le* and *-guo* in situations with the past reference time, as also reflected on the English translation. However, the aspect marker *-le/le* and the marker *-guo* are not

identical in some scenarios.

- (41) a. 我摔断了腿。  
I broke my leg (it's still in a cast).  
b. 我摔断过腿。  
I have broken my leg (it has healed since).

Sentence (41a) means that *my leg is still broken*. On the other hand, sentence (41b) implies *that the breaking action happens in the past* and now *my leg is well*. The marker -guo expresses two different aspectual meanings in (41a) and in (41b) due to the different verbal situations. That is, each marker has a semantic core meaning, and also has special usages associated with certain contextual information.

In addition, stative situations are often expressed in MC by context. In MC, zero-marked predicates without a temporal adverb only allow aspectual stative present readings. Consider,

- (42) a. 他很忙。  
He is very busy.  
b. 她知道。  
She knows.

### 3.3 Summary

Chapter 3 discusses how MC, generally understood to be tenseless language, determines aspectual information. For sentences with an aspect marker, I discuss the aspectual meanings of perfective and imperfective aspect markers in detail. For sentences without aspect marker, I show that temporal information is correlated with lexical verbs or temporal adverbials. In addition, stative situations are expressed implicitly by context in MC.

## Chapter 4 Tense and Aspect in English-MC Translation

### 4.1 Translating English Tense and Aspect into MC

The following section will describe MC translation patterns of English tense and aspect from theoretical and empirical perspectives. Theoretically, conventional rules show MC translation patterns of English tense and aspect. From an empirical point of view, results of previous studies focusing on tense and aspect in English-MC translation are illustrated by corpus data, showing the frequency distribution of means in translational MC.

#### 4.1.1 Conventional Rules of Translation Equivalence

MC and English are languages in which tense and aspect are represented at different levels: MC they are realized at the word level, and in English at the morpheme level. In the following section, I will describe translation patterns between MC lexical expressions and English grammatical tense and aspect forms. English and MC examples are collected from grammar texts (Li/Thompson 1981; Huddleston/Pullum 2005), or generated by myself.

##### 4.1.1.1 Grammatical Forms in English

In English, tense and aspect are explicit grammaticalization of temporal information, which is a fixed grammatical form. Thus, English tense and aspect are obligatorily grammaticalized directly.

English uses verb affixes to signal the relation between speech time and event time. In English, present tense is denoted by the verbal suffix *-(e)s*; past tense is expressed by the verbal suffix *-(e)d*; the English perfect is signalled by the construction *have+V-ed*; and the progressive is marked by *be+V-ing*. In the following, the distributional tense and aspectual markers are illustrated in detail:

(1)Table 17: Linguistic Form of Aspect and Tense in English

Aspect	Tense	Description	Linguistic Form
Simple	Present	Simple present	V(-s)
	Past	Simple past	V-ed
Progressive	Present	Present progressive	Is/am/are+V-ing
	Past	Past progressive	Was/were+V-ing
Perfect	Present	Present perfect	Has/have+V-ed
	Past	Past perfect	Had+V-ed
Perfect Progressive	Present	Present perfect progressive	Have/has been+V-ing
	Past	Past present progressive	Had been+V-ing

Tense and aspect as reflected by different verb forms are important elements in the English sentence for expressing temporal references and for transforming situations into temporal logic operators.

#### 4.1.1.2 Lexical Means in Translational MC

Unlike English, MC does not use verb affixes to signal the relation between the time of the occurrence of the situation and the time that situation is referred to in speech (Li/Thompson 1981: 184). In other words, MC does not have grammaticalized tense and MC verbs are not morphological marked for tense. In the translation of English to MC, MC uses lexical means to express the English grammatical tense and aspect. The following part will describe MC marked or unmarked means for translating English, namely aspect markers, temporal adverbials, lexical verbs and context.

##### 4.1.1.2.1 Aspect Marker in English Translation

###### *Perfective Aspect Marker*

Perfective aspect in MC describes an action as complete and resultative. Among aspect markers, the complete meaning is mainly expressed by the perfective aspect marker -le, while the resultative meaning is generally

indicated by -le+le and the experiential aspect marker -guo.

The English simple past signals a completive meaning, which can be translated in MC by the perfective aspect marker -le. The English perfect means resultative, which can be translated by the construction -le+le, and the experiential aspect marker -guo. If a temporal adverb occurs with an aspect marker together, the meaning is determined by the temporal adverbial construction. For example, 去年 (*last year*)+*verb*+*guo* indicates completive meaning, while 已经 (*already*)+*verb*+*le* signals resultative meaning. The following table summarizes this phenomenon.

(2) Table 18: Perfective Aspect Marker in English Translation

Aspect	Meaning	Aspect Marking	Usage/Example
Perfective	Completive	Verb+le	When the verbal final -le means completion, it often describe past events. <i>她吃了<u>一条鱼</u>。</i> <i>She <u>ate</u> a fish.</i>
		Sentence-final le	When sentence-final le means completion, it can be translated into the English past. <i>炸弹爆<u>了</u>。</i> <i>The bomb <u>explored</u>.</i>
		Adv+verb+guo	When -guo appears with the specified reference time in the past, it can be translated into the English past. -Guo expresses relative anteriority. <i>去年我去过北京。</i> <i>I <u>went</u> to Beijing <u>last year</u>.</i>
		Verb+guo	-Guo is normally seen as an experiential perfect aspect marker, it can be translated into the English perfect. <i>我去过北京。</i> <i>I <u>have been</u> to Beijing.</i>

	Resultative	Verb+le+le	-le+le means resultative, which can be translated into the English perfect of persistency. 我们吃了饭了。 <i>We <u>have eaten</u>.</i>
		Adv+verb+le	When -le appears with the specified reference time like 已经 ( <i>already</i> ), it can be translated into the English perfect. 我已经去了北京。 <i>I have <u>already</u> gone to Beijing.</i>

### ***Imperfective Aspect Marker***

Imperfective aspect in MC has three meanings: on-going, durative, and habitual. Only the on-going and durative senses can be expressed by aspect markers, while the habitual is indicated by temporal adverbials. The progressive aspect marker *zai* signals an on-going activity, while the durative aspect marker *-zhe* indicates an on-going posture/durative situation or state resulting from activity.

The English progressive belongs to the imperfective aspect, which has several usages. Only the canonical usage in English can be translated by the Chinese progressive aspect marker *zai*. The English progressive state can be expressed by the durative aspect *-zhe*. However, if the aspect marker *-zhe* provides a durative background for another event in complex sentence, it does not contain a progressive interpretation in English.

(3) Table 19: Imperfective Aspect Marker in English Translation

Imperfective	Meaning	Aspect Marking	Usage/Example
Non-stative	On-going	Zai+Verb	When zai appears with activity verbs, it can be translated into the English progressive. <i>她在工作。</i> <i>She is working.</i>
	Durative	Verb+zhe	If -zhe appears with verbs of posture, it has the durative meaning and thus can be translated into the English progressive. <i>她在椅子上坐着。</i> <i>She is sitting on the chair.</i>
			If -zhe appears with an activity verb signalling a state, it can be translated into the English stative progressive. <i>墙上挂着一副照片。</i> <i>A picture is hanging on the wall.</i>
			If -zhe provides a durative background for another event in complex sentence, it has not a progressive interpretation in English. <i>她哭着离开这里了。</i> <i>She left here crying.</i>

To sum up, aspect marking is generally compatible with grammatical tense and aspect. The basic idea of the perfective aspect marker -le spans the situation as a whole, which can be translated into the English simple past. The experiential aspect marker -guo has the meaning of the English perfect. The imperfective aspect markers -zhe and zai view the situation after the endpoint of the event, which is compatible with the English progressive. The compatibility between aspect marking and grammatical tense/aspect contributes to efficiency and accuracy in translating English into MC.

#### 4.1.1.2.2 Temporal Adverbial in English Translation

As discussed above, the choice of English translation is determined by the relevant types of temporal adverbial constructions. A range of temporal adverbs is frequently combined with aspectual markers to convey direct aspectual information. The compatibility of temporal adverbs and aspectual markers can demonstrate the correctness of the temporal relation in a clause.

(4) Table 20: MC Temporal Adverbials in English Translation

Aspect	Meaning	Temporal adverbial
Perfective	Resultative	已经 ( <i>already</i> ), 近来 ( <i>recently</i> ) Both have the same usage as English does.
	Completive	刚刚/刚/刚才 ( <i>just</i> ), 在1998年 ( <i>in 1998</i> ), 三年前 ( <i>3 years ago</i> ) All have the same usages as English does.
Imperfective	On-going	正在 ( <i>in the process of</i> ) This is a typical one in MC. 仍然 ( <i>still</i> ) This has the same usage as English does.
	Durative	正 ( <i>just right</i> ) This is a typical one in MC. 仍然 ( <i>still</i> ) This has the same usage as English does.
	Habitual	总是 ( <i>always</i> ), 经常 ( <i>often</i> ) Both have the same usage as English does.

The above table shows that most temporal adverbials have the same usage in English and MC. However, MC also has some typical adverbials, such as 正在 (*in the process of*) or 正 (*right [now]*), which are often used in MC to express the English progressive. Temporal adverbials, such as 总是 (*always*) or 经常 (*often*), are usually used in MC to signal the English habitual sense.



#### 4.1.1.2.3 Lexical Verbs in English Translation

Lexical verbs in MC include RVC, verb reduplication, auxiliary verbs, and future-oriented verbs. RVCs and verb reduplication are typical in MC. RVCs often have a completive meaning, which is compatible with the English past tense. Verb reduplication signals delimitativeness, and is used to express the English perfect.

(5) Table 21: RVC/Verb Reduplication in English Translation

Lexical Verb	Usage	Example/Translation
RVC	Completiveness	他走进来了。 <i>He <u>entered</u>.</i>
Verb Reduplication	Delimitativeness	她尝了尝。 <i>She <u>has tasted</u>.</i>

An auxiliary verb in MC has the same semantic usage and syntactic position as in English, but the difference is that MC auxiliary verbs are composed of one or two characters, such as 要 (*need*) or 应该 (*should*). The following table shows this usage and the corresponding English translation patterns.

(6) Table 22: Auxiliary Verb in English Translation

Auxiliary Verb	English Translation	Example
应该, 该	should/ought to	她 <u>应该</u> 去。 <i>She <u>should</u> go.</i>
可以	may	她 <u>可以</u> 去。 <i>She <u>may</u> go.</i>
要	need	她 <u>要</u> 去。 <i>She <u>need</u> go.</i>
会, 能	can	她 <u>能</u> 去。 <i>She <u>can</u> go.</i>
必须	must	她 <u>必须</u> 去。 <i>She <u>must</u> go.</i>

Future-oriented verbs in MC indicate future time in a clause. In MC, their function is modal.

(7) Table 23: Future-oriented Verb in English Translation

Future-oriented Verb	Translation	Example
想/要	want	他 <u>想/要去</u> 。 <i>He <u>wants</u> to go.</i>
计划	plan	她 <u>计划去</u> 。 <i>She <u>plans</u> to go.</i>
希望	hope	我 <u>希望你</u> 去。 <i>I <u>hope</u> you go.</i>
继续	continue	我 <u>继续</u> 看书。 <i>I <u>continue</u> reading books.</i>
肯, 会	will	她 <u>会/肯</u> 去。 <i>She <u>will</u> go.</i>

#### 4.1.1.2.4 Context in English Translation

MC does not directly mark stative situations. Thus, context is used when translating the English states, especially the present state. For example,

- (8) a. I know him.  
我认识他。  
b. I understand.  
我明白。

To translate the states in the English past or perfect, marked means have to be used. For instance,

- (9) a. I knew him 10 years ago.  
10年前, 我认识了他。 (-le)  
b. I have known him for 10 years.  
我已经认识他十年了。 (Adv)

In addition, context is also used in MC to translate communicative verbs in the English historical present or indirect speech in the English past. Considering,

- (10) a. I tell her that he has gone.  
我告诉她, 他已经走了。  
b. He said you looked well.  
他说你看上去很好。

### 4.1.2 Interim Summary

Both English and MC have perfective and imperfective aspects. The domain and formation of MC aspects are very different from those of English. The present perfect indicates an event which is closer to the utterance time than the one denoted by the simple past form, such as *have/has done*. The past perfect views the past situation from the perfective aspect, which derives from the combination of the meanings of the double anteriority, such as *had done*. All in all, the English perfective aspect denotes result.

Aspect in MC relies heavily on a close association between perfective aspectuality and past time reference. Perfective aspect in MC conveys termination for all events except for stative events, i.e., resultative and completive situations. The aspect marker *-le/le*, RVCs, and achievement verbs have a completive meaning, which can signal the English past. The aspect marker *-guo*, double *le*, verb reduplication, and the temporal adverb *已经/已* (*already*) can signal the English perfect. For example,

#### (11) I English Perfect - MC Perfective (Resultative)

- a. I have already left here.  
我已经离开了这里了。 (Adverb: 已经)
- b. I have been to Beijing.  
我去过北京。 (-guo)
- c. We have eaten.  
我们吃了饭了。 (Double le)
- d. She has tasted. (Verb reduplication)  
她尝了尝。

#### II English Past - MC Perfective (Completive)

- a. I ate the apple.  
我吃了苹果。 (-le)
- b. I came here 3 days ago.  
我3天前来到这里。 (Adverb: 3天前)
- c. I washed the clothing clean.  
我洗干净衣服了。 (RVC)

In English, the progressive is the main subcategory of the imperfective aspect, which is composed by the construction *be+doing*. The progressive describes a meaning in progress at a certain given moment in time, in the present or past. The progressive form in English has progressive or non-progressive usage. Considering,

- (12) a. I am/was working. (Progressive: On-going)  
 b. I am/was feeling happy. (Progressive: Stative)  
 c. She is coming tomorrow. (Non-progressive: Future time)

(12a) is the typical on-going usage of the English progressive. In (12b), the sentence presents a state as a dynamic situation, and hence can be called the progressive state or stative progressive. The progressive form in (12c) has the meaning of the future time. This usage is a special usage of the English progressive.

Imperfective aspect in MC relies heavily on close association with present or past time reference. In MC, imperfective aspect includes stative and non-stative. Non-stative usage is related to on-going/progressive and durative situations. Habituality is related to stative in MC, and is imperfective by default, but it is not semantically restricted to the imperfective aspect. A habitual form can also be interpreted perfectly if the temporal adverbial signaling past time, such as *去年* (*last year*), occurs in a clause. For example, *去年他经常去游泳* (*He often went swimming last year*). In the following, imperfective aspect in MC is summarized (13):

## (13) MC Imperfective Aspect

- a. 我在玩。 (Non-stative: progressive/on-going)  
I am playing.
- b. 我正回忆着她的想法。 (Non-stative: durative)  
I am picturing her idea.
- c. 我经常去那里。 (Stative: Habitual)  
I often go there.
- d. 我知道。 (Stative)  
I know.

To sum up, the English progressive has the following MC equivalences.

## (14) I English Progressive - MC Imperfective (On-going/Durative)

- a. I am playing piano.  
我在弹钢琴。 (Zai+verb)
- b. A picture is right now hanging on the wall.  
墙上正挂着一副画。 (正+verb+zhe)
- c. She is becoming clever.  
她变聪明了。 (变+adj+le)

## II English Progressive - MC Modality

- d. She is coming tomorrow.  
她明天要来。 (Adj+auxiliary verb+verb)

According to above translation patterns, only the canonical usage in English can be expressed by an imperfective aspect marker or typical temporal adverb signalling an on-going situation, such as in (14a) and (14b). The progressive state in (14c) is signalled by sentence-final *le* and the adjectival predicate 变 (*to become*). The English sentence (14d) has progressive form but indicates future time. The translation pattern in MC is denoted by the auxiliary verb 要 (*will*). Since the MC auxiliary verb is a modal verb, the English sentence (14d) undergoes the so-called aspect shift.

## 4.2 Features of Translated Languages

Investigating features of translated language is mainly based on translation universals. Translation universals are strongly favoured by corpus-based

methodology, and were widely pioneered by Baker in the early 1990s. In this section, only Baker's definition of translation universal is discussed in detail since she pioneered the study of the features of translated texts by means of corpora. According to Baker (1993: 234), translation universals are defined as "features that typically occur in translated text rather than original utterances and which is not the result of interference from specific language system". Proposed translation universals concern the relation between translations and comparable non-translated text in the target language (Gerzymisch-Arbogast 2007). In other words, translated texts have special properties due to the translation process.

Potential translation universals include: simplification, explicitation, normalization, and levelling-out. Baker (1993: 176-177) defines that: i) Simplification means "the idea that translator subconsciously simplifies the language or message or both"; ii) Explicitation means "an overall tendency to spell things out rather than leave them implicit in translation"; iii) Normalization/conservatism refers to "the tendency to conform to patterns and practices which are typical of the target language, even to the point of exaggerating them"; iv) Levelling out refers to the "hypothesis that translated language and translated texts steer a middle course between any two extremes, converging towards the centre".

### **4.3 Summary**

Translation patterns from MC into English can be summarized as follows:

- i) MC sentences containing the perfective aspect marker *-le*, location adverbials expressing time, and RVCs, can often be translated into the English past;
- ii) MC sentences containing the combination of *-le* and *le*, the experiential aspect marker *-guo*, verb reduplication, and/or temporal

## Chapter 4 Tense and Aspect in English-MC Translation

adverbials such as 已经 (*already*) or 近来 (*recently*), can generally be translated into the English perfect;

iii) MC sentences with the progressive aspect marker *zai*, the durative aspect marker *-zhe*, and/or temporal adverbials such as 正/正在 (*in the process of*), can be translated into the English progressive.

The following table summarizes translation patterns of MC and English:

(15) Table 24: MC Translation Patterns of English

Tense/Aspect in English	Meaning in English	MC Translation Patterns
Present	Present time I Stative Present <i>I think you are right.</i>	Imperfective I Context 我想你是对的。
	II Instantaneous present <i>I advice you to go there.</i>	II Context 我建议你去那里。
	Present, past, future time I Habitual <i>I go swimming everyday.</i>	Imperfective I Temporal adverb 我每天去游泳。
	II Eternal truth <i>The earth revolves on its axis once every 24 hours.</i>	II Temporal adverb 地球每隔24小时围绕其轴线转。
Past	Future time Present futurate <i>Tomorrow is Monday.</i>	Imperfective Temporal adverb 明天是周一。
	Past time Historical present <i>I tell her that he has gone.</i>	Perfective le 我告诉她了, 他已经走了。
	I Event past <i>He went to school.</i>	I -le 他去了学校。
	II State past <i>I had a book.</i>	II Temporal Adverb 我曾经有一本书。
	III Habitual past <i>I used to go there.</i>	III Temporal Adverb 我曾经去了那里。

## Chapter 4 Tense and Aspect in English-MC Translation

	Present time Backshift <i>I told her he had blue eyes.</i>	Perfective le 我告诉她了，他有蓝眼睛。
	Non-temporal Modal remoteness <i>Could you give me a cup of coffee?</i>	Modality Auxiliary verb 你能给我一杯咖啡吗？
Perfect	Perfect of result <i>I have already finished it.</i>	adv+le 我 <u>已经</u> 完成了。
	Perfect of experience <i>I have never done it.</i>	adv+guo 我从未 <u>做</u> 过。
	Perfect of persistency <i>I have known her since 1994.</i>	adv+le <u>从1994年</u> ，我就认识她了。
	Perfect of recent past <i>I have recently read it.</i>	adv+guo 我 <u>近来</u> 读 <u>过</u> 它。
Progressive	On-going/ Durative <i>I am eating an apple. A picture is hanging on the wall.</i>	Imperfective zai 我 <u>在</u> 吃苹果。 -zhe 墙上挂 <u>着</u> 一副画。
	Development <i>She is becoming silly.</i>	le 她变 <u>了</u> 。
	Future time <i>She is coming tomorrow.</i>	adv+auxiliary verb 她 <u>明天</u> 要 <u>来</u> 。

Although MC and English have different means to express tense and aspect, there are translation patterns in English-MC translation. According to these grammatical rules, context is often used in translating the English present tense into MC. The English habitual past and the perfect of persistency have their own marked means rather than context in translational MC. Investigating features of translated MC is mainly based on translation universals: simplification, explicitation, normalization, and levelling-out.



---

## PART III RESEARCH

### Chapter 5 Research Aims

Translating between languages with different grammatical categories, such as between English and MC, is a critical and challenging question in translation studies. Three general questions are to be investigated regarding translation of English tense and aspect into MC. In order to address these questions, one needs to compare between English and MC translation, and to compare between original and translated MC.

#### 5.1 Problem of Previous Results in English-MC Translation

##### 5.1.1 Comparison between English and MC

Until recently, there have been few studies that focus on the topic of tense and aspect in English-MC translation and employ a corpus-based methodology. In the following, results by Xiao/McEnery (2002) are taken as a starting point. They use a unidirectional English-MC parallel corpus to collect data. The bilingual texts in the corpus are taken from *English World* from 2000 to 2001.<sup>36</sup> The following two arguments taken from Xiao/McEnery (2002) seem to be confusing: i) “the perfect of persistent situation is typical of English and imperfective by nature. Translation of this type of perfect mainly takes the LVM form”; ii) “past habitual situations referred to by the English simple past are not marked in Chinese translations”. As both situations can be explicitly marked by aspect marker or temporal adverbial in MC, why do implicit LMV contexts most frequently occur in their data?

McEnery/Xiao/Mo (2003) use two available English corpora (FLOB and FROWN) and create the LCMC for contrasting tense and aspect in English

---

<sup>36</sup> The web-based journal is from <http://www.bentium.net>.

and MC.<sup>37</sup> One of their contrast results is “while Chinese and English are typologically different, aspect markers in English and Chinese show a strikingly similar distribution pattern, especially across two broad categories of narratives and expository texts”.<sup>38</sup> This issue may be problematic because of the term aspect marker. First, if the usage of aspect markers is assumed to be clear in MC, using the same term to describe English is debatable since the distribution of aspect markers is not classified in English. Second, even if aspect markers in English generally mean suffix *-ed* in the perfect and *-ing* in the progressive, MC perfective aspect marker *-le* and *-guo* are in fact not always compatible with the English perfect aspect marker *-ed*. Similarly, the MC imperfective aspect markers *zai* and *-zhe* cannot be broadly given as the counterpart of the English progressive aspect marker *-ing*. Thus, the notion aspect marker causes confusion in English-MC translation.

Later, McEnery/Xiao/Tono (2006) explore three corpora for the study of aspect marking in English-Chinese translation. The first corpus is the English-Chinese Parallel Health Corpus for translation use, the second is the Chinese Health Corpus for L1 Chinese use, and the third is the Weekly Corpus to explore "the distribution of aspect markers in Chinese". In their study, they investigate the translation of the English progressive, the perfect/perfect progressive, the simple present, and the simple past. One of their results is that Chinese most frequently uses context to express the English tense and aspect.

---

<sup>37</sup> Their research was the first corpus-based study of aspect in Chinese (McEnery/Xiao/Mo 2003).

<sup>38</sup> Narrative texts are normally related to what happened in the past, whereas expository texts are typically non-past (McEnery/Xiao 2003).

(1) Table25: McEnery/Xiao/Tono (2006)'s Results

English	Translational Chinese	Marked: Context ratio	
Simple Aspect	Context	Present	0.16: 1
		Past	0.33:1
Perfect	Context	Result	0.78:1
		Experience	0.7:1
		Recency	0.2:1
		Persistency	0.09:1
Progressive	Context	Progressive	0.88:1
		Non-progressive	0.36:1

Their results show that unmarked context is used more frequently than other marked means in Chinese. As grammatical rules suggest, context is often expressed by the English present since Chinese does not aspectually mark states. Why does translational Chinese tend to use implicit instead of explicit devices to signal temporal expressions?

### 5.1.2 Relationship between Original and Translated MC

Since Mona Baker (1993) proposed translation universals in translation research, there has been a growing interest focusing on the language pair English and MC in this topic. Corpus-based research in China started much later than in the western world. Corpus-based studies of MC translated texts are relatively few compared to those of European languages.

Regarding features of translated MC, the following findings are described by Wang/Qin (2010)<sup>39</sup>: i) translational MC has "higher type-token ratio, and uses relatively longer sentence segments"; ii) there is a difference between original MC and translational MC in POS distribution, the former employing "more function words and fewer content words"; iii) translational MC tends to "exaggerate the compositional potentiality of some words or morphemes,

<sup>39</sup> Cf. ed. Xiao 2010

which results in the significantly frequent use of specific lexical bundles". Some of these features are contradictory to the so-called translation universals. Xiao/He/Yue (2010) utilize comparable corpora to examine the lexical features of translated MC, and find that "sentence length may not be reliable as an indicator of simplification. The explicitation hypothesis is supported by the MC data. However, normalization is not supported as it may be specific to particular language pairs".

In terms of tense and aspect, few investigations of features in MC translated texts have been done. Studies to investigate tense and aspect in the translation from English into MC have not examined the features of translated MC (McEnery/Xiao 2002; McEnery/Xiao/Mo 2003; McEnery/Xiao/Tono 2006).

## **5.2 Current Aims**

### **5.2.1 Aim 1:**

#### **How and to what degree are English tense and aspect translated into MC?**

Translation is "a kind of activity which inevitably involves at least two languages and two cultural traditions, i.e., at least two sets of norm-systems on each level" (Toury 1995: 56). If English tense and aspect can be translated into MC, the question is to ask how and to what degree. Does the presence of tense and aspect across languages indicate or preclude the possibility of one-to-one transfer in translation?

Since translation consists of reproducing information from the source language in the target language (Darwish 1989), the major problems associated with translation may generally lead to discussion of translatability and untranslatability. Some scholars suggest that translation is ultimately impossible because of cultural and linguistic untranslatability (Catford 1965:

94).<sup>40</sup> Linguistic untranslatability occurs “when a formal feature of the source language is functionally relevant in the source texts, and the target language has no formally corresponding feature” (Malmkjaer 2005). The different problem of cultural untranslatability arises “when a situational feature, functionally relevant for the SL text, is completely absent from the culture of which the TL is a part” (Catford 1965: 99).

By its nature, translation denotes a kind of transference between linguistic forms, or the process of putting a text “in other words” as Baker (2000: 53) says. The translatability hypothesis argues that any meaning can be expressed in any given language can also be expressed in any other language (von Newmark 1987; Fintel/Matthewson 2007). The nature of translatability is mostly understood as the capacity for certain meaning to be transferred from one language to another, i.e., it focuses on the source and the target of translation. Examination of their translatability can also imply translation equivalence. Appelo (1994) suggests that every part of the composition in one language should have a translation-equivalence in the other language. Toury (1980: 45) defines that the notion of equivalence as “the name given to the relationship, of whatever type and extent, between a translation and its source text, and the existence of such a relationship is axiomatic in the theory”. Equivalence is thus crucial to translation because it is the unique intertextual relation that only translations are expected to show among all interlingual language systems. The general view in translation studies considers equivalence as the relation between texts in two different languages.

Considering tense and aspect in translation, MC uses lexical means to express English grammatical tense and aspect. The notion of time is a

---

<sup>40</sup> Catford (1965) distinguishes two kinds of untranslatability: cultural and linguistic untranslatability. Cultural untranslatability is due to the absence in the target language culture of a relevant situational feature for the source text. Linguistic untranslatability occurs when there is no lexical or syntactical substitute in the target language for a source language item.

universal concept in natural language, regardless of cultural or linguistic differences. Thus, tense and aspect should be translatable in English-MC translations. If each tense and aspect in English can be translated into MC, the question is how MC translates English tense and aspect. Is unmarked context most frequently used in English-MC translations, or are explicit marked means (e.g., lexical verb, aspect marker or temporal adverbial) preferred in translation between the two languages?

### **5.2.2 Aim 2:**

#### **Is translated MC a ST/TT-oriented or a third code?**

Acceptability is a principle of translation where a translated text is converted in complete accordance with the linguistic and cultural norms of the target language. Acceptability is thus considered a TT-oriented principle. Toury (1985: 19) suggests that,

[...] any research into translation, [...] should start from the hypothesis that translations are facts of one system only: the target system. It is clear that, from the standpoint of the source text and source system, translations have hardly any significance at all, even if everybody in the source culture 'knows' of their factual existence (which is rarely the case anyway).

Furthermore, Toury (1995: 28) argues that “translations are facts of target cultures; on occasion facts of a special status, sometimes even constituting identifiable (sub)systems of their own, but of the target culture in any event”.

On the other hand, the concept of adequacy refers to the different systems of culture in source text (ST). In other words, adequacy is a principle of translation where the translator concentrates on the distinguished linguistic and cultural norms of the source language. Adequacy can therefore be considered ST-oriented. According to Hopkinson (2007), translational language retains, to varying degrees, some features of its source language, and it is “a non-standard version of the target language that is [...] affected by the source language”. For

example, translated texts often contain features of what is usually referred to as “translationese”, i.e., “deviance in translated texts induced by the source language” (Johansson / Hofland 1994: 26).

One fundamental question in translation studies is: are translations the same as non-translated texts, or is translation a “third code”, divergent from both the source text and L1 texts in the target language? As a language variant, translational language is distinct from both the source and target native languages, and is hence referred to as a “third code” in Frawley (1984). He thinks that

the translation itself [...] is essentially a third code which arises out of the bilateral consideration of the matrix and target codes: it is, in a sense, a sub-code of each of the codes involved.

(Frawley 1984: 168)

In addition, Baker (1993) also claims that “third code” means “translation in contradistinction to original non-translated text”.

It is thus interesting to investigate whether English source text influences the choice and usage of aspectual marking in translated MC. Comparing English with MC, I plan to examine whether translated MC is the same as L1 MC, or if translated MC texts are different from both English source texts and L1 MC.

### **5.2.3 Aim 3:**

#### **Are the features of translation universals applicable?**

Various translation universals, such as “*universal tendencies of the translation process, laws of translation and norms of translation*”, have been proposed in the literature (Blum-Kulka 1986; Baker 1993; Laviosa-Braithwaite 1998; Toury 2001). In this section, only Baker’s definition of translation universals is discussed in detail, since she pioneered the study of the features of translated texts by means of corpora.

Each feature of translation universals, Baker (1993: 246) argues, can be seen as "a product of constraints which are inherent in the translation process itself", which "accounts for the fact that they are universal". The fact that these features are universal means that they are not language-specific. In other words, these features occur generally in translated language, no matter what the source or target language is. As English and MC are unrelated languages, translation between them provides a great opportunity to test the general applicability of "translation universals", which are mainly derived from studies of translation between closely related languages, such as English and other European languages.

The leveling-out feature has not been studied in depth because it is the most difficult to measure. As a consequence, it has not been proven whether leveling-out is actually a universal feature of translated language. The feature of simplification is related to lexical richness/density and sentence length, which can not be examined in terms of tense and aspect, and thus is not discussed in this dissertation. Features of normalization and explicitation are examined in this study with reference to tense and aspect. As suggested in the hypotheses part, normalization is the impulse to adjust to "patterns and practices which are typical of the target language, even to the point of exaggerating them" (Yuan/Gao 2008). We can compare aspectual marking usage in L1 MC with that occurring in translated MC. If they are not different, the feature of normalization is supported and vice versa. Explicitation is the most thoroughly studied feature of translation, which means that translated languages use more explicit ways to convey meaning. Three lexically explicit means are aspect marker, temporal adverbial constructions, and lexical verbs, while the only lexically implicit means is the zero form. If translated MC uses explicit devices more than L1 MC, the feature of explicitation is supported by the translated MC data.



## Chapter 6 Methodology

Corpus-based approaches can be used in translation studies and contrastive studies for cross-linguistic research, as they can explore "how an idea in one language is conveyed in another language", and also compare "the linguistic features and their frequencies in translated and comparable L1 texts" (McEnery/Gabrielatos 2006; Aijmer 2009; Xiao/He/Yue 2010). This dissertation applies a corpus-based approach for translation and comparative studies on English and MC tense and aspect. Data in this study are mainly from two corpora: a parallel corpus for translation patterns between languages, and a monolingual corpus for sampling L1 data. The strength and limitation of this approach will be discussed at the end of this chapter.

### 6.1 Previous Approaches in Cross-linguistic Research

#### 6.1.1 Main Areas of Cross-linguistic Research

Concerning the areas of cross-linguistic research, James (1980: 4) argues:

There are thus three branches of two-valued (2 languages are involved) interlingual linguistics: *translation theory*-which is concerned with the process of text conversion; *error analysis*; and *contrastive analysis*-these last two having as the object of enquiry the means whereby a monolingual learns to be bilingual.

With the decline of contrastive analysis in 1970s, error analysis lost popularity (Fernandez 2007). There are thus two main areas belonging to cross-linguistic research, contrastive linguistics and translation studies. The relation between these two areas has always been a matter of discussion. Mauranen (2002: 166) argues that "translated language is one of the ways in which the contrast of two languages is acted out". Although both contrastive linguistics and translation studies have their own objects and disciplines, they are not independent. For example, Halliday (1964: 112) discusses translations studies within the domain of contrastive linguistics:

The theory and method for comparing the working of different languages is known either as “comparative descriptive linguistics” or as “contrastive linguistics”. Since translation can be regarded as a special case of this kind of comparison, comparative descriptive linguistics includes the theory of translation.

This argument implies both contrastive and translation studies may use a common method to attain their own individual goals of intercultural communication. However, previous approaches used in both have their own limitations.

### **6.1.2 Intuition-based Approach**

Originally, a translation or a comparison is produced based on linguists’ judgement about the syntax, semantics, and pragmatics of the two languages. The quality of the translation and comparison depends on the linguists’ intuitive ability, and thus the approach is referred to as intuition-based. The intuition-based approach must be applied only with caution because of the following two reasons:

First, it is possible to be influenced by one’s dialect or sociolect; what appears unacceptable to one speaker may be perfectly felicitous to another. Second, when one invents one example to support or disprove an argument, one is consciously monitoring one’s being production. Therefore, even if one’s intuition is correct, the utterance may not represent typical language use.

(McEney/Xiao/Tono 2006: 6)

In essence, due to the effects of subjectivity, research results may lead to over-generalization of language use, and limit the acceptability of the translation correspondences and contrastive results.

To avoid over-generalization, some linguists have begun to compare their

correspondences in a translated version of the original text to examine if the translation preserves semantic and textual equivalence while complying with the rules of the target language (Kaskin 1998; Espunya 2001).

### 6.1.3 Machine Translation Approach

Another approach to translation between languages is machine translation. Machine translation (hereafter MT) is “a sub-field of computational linguistics that investigates the use of computer software to translate text or speech from one natural language to another”.<sup>41</sup> MT approaches are generally rule-, example-, and statistical-based.<sup>42</sup> There are "many programs for translating natural language", such as *Google Translate*, which derives from "a proprietary statistical machine translation engine".<sup>43</sup>

In the following, I will examine the results of translation from English into MC by *Google Translate*, with special attention to the expression of tense and aspect.<sup>44</sup>

---

<sup>41</sup> [http://en.wikipedia.org/wiki/Machine\\_translation](http://en.wikipedia.org/wiki/Machine_translation)

<sup>42</sup> "The *rule-based* machine translation paradigm includes transfer-based machine translation, interlingua machine translation and dictionary-based machine translation paradigms; *Example-based* machine translation approach is often characterised by its use of a bilingual corpus as its main knowledge base, at run-time; *Statistical* machine translation tries to generate translations using statistical methods based on bilingual text corpora" ([http://en.wikipedia.org/wiki/Machine\\_translation](http://en.wikipedia.org/wiki/Machine_translation)).

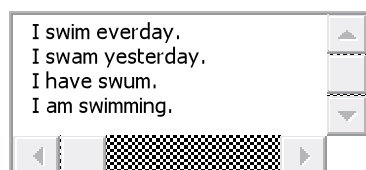
<sup>43</sup> Google "switched to a statistical translation method" in 2007. Recently, they improved their translation capabilities by inputting approximately 200 billion words from United Nations materials to train their system for the accuracy. [http://en.wikipedia.org/wiki/Machine\\_translation](http://en.wikipedia.org/wiki/Machine_translation)

<sup>44</sup> Google: <http://translate.google.com/#en/zh-CN>

## Chapter 6 Methodology

## (1) Illustration 1: Google Translate

Enter text or a webpage URL, or upload a document.



Translate from: English

Translate into: Chinese (Simplified)

Translate

## English to Chinese (Simplified) translation

我每天都游泳。

我昨天游。

我已游过。

我游泳。

Only the first English sentence has an accurate MC translation; the other three are neither complete nor accurate. The correct translation from English into MC should be the following:

I swam yesterday. 我昨天游（泳了）。

I have swum. 我已游过（泳了）。

I am swimming. 我（正在）游泳。

Compared with the *Google Translate* results, the perfective aspect marker 了 (*le*) and the temporal adverb 正在 (*in the process of*) have been added here, as indicated with parentheses. In addition, the word 游泳 (*swim*) is a

dissyllabic verb, so the two characters cannot be separated. *Google Translate* uses only one character 游 as the translation equivalence of *swim*, which is grammatically incorrect in MC. Although it is not possible to evaluate the quality of *Google Translate* between English and MC with just a few examples, one can note that MT approach between two distinct languages such as English and MC is prone to error.

As Qian (2005) argues, the cause of poor quality in MT is not only deficiency in language processing, but also deficiency in knowledge processing. For language processing, text segmentation and word-sense disambiguation are two of the most challenging problems. Text segmentation is required for any significant text parsing, and is particularly difficult for languages without single-word boundaries such as MC.<sup>45</sup> Segmenting words with more than one meaning is also complex as it requires interpretation of the context. For knowledge processing, it is difficult for MT to incorporate textual or cultural factors in order to establish functional equivalence in the translation, esp. between two unrelated languages.

Owing to the limitations of intuition-based and machine translation approaches, cross-linguistic study requires a more accurate method to approach natural language problems such as tense and aspect resolution. Because of the advantages of corpus-based linguistics, it has recently been applied in cross-linguistic research.

## **6.2 Corpus-based Cross-linguistic Research**

This section discusses the concept of corpus linguistics for the cross-linguistic research areas of translation studies and contrastive linguistics. This dissertation applies the corpus-based approach to address questions in both areas.

---

<sup>45</sup> The task of word boundary is to define “what constitutes a ‘word’ involves determining where one word ends and another word begins”. <http://en.wikipedia.org/wiki/Word>

## 6.2.1 What is a Corpus?

### 6.2.1.1 Definition of Corpus Linguistics

The definition of *corpus linguistics* is summarized as:

Corpus linguistics is an approach to investigating language that is characterized by the use of large collections of texts (spoken, written, or both) and computer-assisted analysis methods. The approach encompasses great diversity in the kinds of research questions addressed, the specific techniques employed, and the contexts in which it is applied. Furthermore, because it is a relatively new approach, new corpora and new techniques are constantly under development.

(Conrad 2003: 386)<sup>46</sup>

Belonging to empirical linguistics, *corpus linguistics* is a data-driven methodology for analysing large quantities of machine-readable running texts (Shlesinger 1998; Sampson 2001; McEnery/Gabrielatos 2006). In other words, corpus linguistics is the study of natural language through the analysis of corpus data. By adopting a statistics-based model, corpus linguistics can quantify and validate theoretic linguistic conclusions derived from linguists' intuition.

Corpus linguistics is not an end in itself but it is one source of evidence for improving descriptions of the structure and use of languages, and for various applications, including the processing of natural language by machine and understanding how to learn or teach a language.

(Kennedy 1998:1)

Corpus linguistics as an empirical methodology plays an important role in many fields of linguistic research. Corpus linguistics has evolved as "a common methodology" for both contrastive and translation studies, making it possible to combine disciplines and applying the results from contrastive

---

<sup>46</sup><http://mason.gmu.edu/~asherris/Portfolio/Coursework/Waysofknowing/EssayonCorpusLinguistics.pdf>

studies to improving translator training as well as assessing translation quality (Fernández 2007).

Corpus linguistics provides a tremendous potential [...] in refining understanding of how languages relate to one another. It also demonstrates the value of using multiple corpus sources: the researcher who makes use of both comparable and translation corpora will gain a more comprehensive picture of whatever phenomenon is under investigation [...] corpus analysis of languages in contrast and in translation is a rich discovery process and what has been uncovered so far is only the tip of the iceberg.

(Granger/Lerot/Petch-Tyson 2003: 12-13)

Similar to the use of corpus in translation and contrastive studies, the practical applications of corpus linguistics are primarily in natural language processing, lexicography, and language teaching (Aijmer/Altenberg 1996; Mair 1997; Leech 2002; Feng 2006).

### 6.2.1.2 Definition of Corpus

Bowker/Pearson (2002: 9) define the term *corpus* as “a large collection of authentic text that have been gathered in electronic form according to a specific set of criteria”. Central to the definition are the following features of a linguistic *corpus*:

A corpus primarily means a collection of texts held in machine readable form which can be analysed automatically or semi-automatically; A corpus may include both written and spoken texts; A corpus may include a large number of texts from a variety of sources by many writers and speakers, as well as on a multitude of topics.

(Baker 1996)

In summary, the main attributes of corpora are electronic form, large size, representativeness, and open-endedness. Only corpora with accessible

electronic forms and acceptable sizes can be used for “statistical analysis and hypothesis testing, checking occurrences or validating linguistic rules on a specific universe”.<sup>47</sup> The issue of representativeness is always under discussion in terms of specifying the boundaries and internal structure of a corpus (Biber 1993; Halverson 1998). An open-endedness corpus can be used to “select and use the texts of this corpus for different types of comparisons and studies” (Olohan 2004: 48).

Since a corpus is a sample of authentic texts and used as a quantitatively representative reference for linguistic research, a corpus-based study can offer the advantage of examining very large amounts of data with efficiency and accuracy (McEnery/Wilson 1996; Meyer/Nelson 2006).

### 6.2.1.3 Types of Corpora

The corpus-based approach is a research method, and is not bound to any linguistic theory. Granger et al. (2003: 19) bring contrastive and translation studies together by means of different types of corpora.

Researchers in CL [corpus linguistics] and TS [translation studies] have come to rely on corpora to verify, refine or clarify theories that hitherto had had little or no empirical support and to achieve a higher degree of descriptive adequacy. At the same time however, they do not always use exactly the same types of corpus and do not have the same research objectives.

However, the terminological diversity of corpora may cause ambiguity in linguistic research.<sup>48</sup> I will introduce and unify three types of corpora for this study on the basis of the form of the corpus: the parallel corpus, the monolingual corpus, and the comparable corpus, all of which are essential

---

<sup>47</sup> [http://en.wikipedia.org/wiki/Text\\_corpus](http://en.wikipedia.org/wiki/Text_corpus)

<sup>48</sup> For example, comparable corpora are usually multilingual (comparable original texts in different languages) in contrastive linguistics, while in translation studies they are usually monolingual (original and translated texts in the same language) (Granger)



tools for translation and contrastive linguistics.

A *parallel corpus* consists of “original, source language-texts in language A and their translated versions in language B” (Baker 1995: 230). A parallel corpus is a collection of informants’ judgements about the meaning of the linguistic forms in the source texts, and has the added advantage of being readily available to the linguist (Noël 2003). In this sense, a parallel corpus solves the problem of intuition-based approach, and is a key resource in translation research.

A *monolingual corpus* contains texts in a single language without translation. The most important function of a monolingual corpus is to identify features of a natural language.

A *comparable corpus* consists of “two separate collections of texts in the same language: one corpus consists of original texts in the language in question and the other consists of translations in that language from a given source language or languages” (Baker 1995: 234). The homogeneity of texts plays a crucial role in constructing comparable corpora: both sub-corpora must be composed of the same language, and should cover a similar domain, genre, and time span (Baker 1996; Person 2003). Analysis with comparable corpora helps to capture the contrast between translated and original texts, such as type-token ratio and lexical density, as well as syntactic and stylistic features.

The basic differences among three corpora are listed below:

(2)Table 26: Parallel, Monolingual, Comparable Corpora

	Parallel Corpus	Monolingual Corpus	Comparable Corpus
Definition	texts in source language A and their translations into language B	texts in a single language	texts in a single language
Feature	source texts and translations in parallel	no translation	translated texts and original texts
Application	translation studies; contrastive studies between source and target texts	contrastive studies; natural language learning	contrastive studies between L1 and translated texts

#### 6.2.1.4 Annotation

Corpora need to be annotated to improve organization and accessibility. In linguistics, *annotation* consists of “collection, transcription, standardization, segmentation, processing (POS-tagging, parsing) and often further hand-correction and adding material to text” (Wallis/Nelson 2001 Online).

Annotation plays an important role in standardization of text processing. An example of annotating a corpus is text collection, which includes different domains and text types to reflect the varied nature of language use. Another example of annotating a corpus is POS-tagging. Grammatical POS-tagging means attaching a grammatical tag to each word in the corpus.

Corpus tools, such as *WordSmith* or *Xara*, are frequently used to annotate a corpus. For example, *WordSmith* provides the following features (Bowker 1998 Online):

- i) a concordance, which finds and displays, in an easy-to-read format (e.g., KWIC)
- ii) a collocation viewer, which allows users to see which words go together
- iii) frequency operations, which provide statistical information about the centrality of a pattern.

Accordingly, corpus tools offer users a wide range of features that greatly facilitate linguistic analysis of large amounts of authentic language data.

#### **6.2.1.5 Concordance**

An analysis tool of the corpus focuses on a section of text to generate a word list, the type-token ratio, or KWIC concordance.<sup>49</sup> A concordance is one of the most powerful devices for retrieving translation information from a corpus, and includes both KWIC (key word in context) and *ParaConc* concordances. KWIC is a particularly convenient form of data display, in which each token of the target word is placed in the middle of a line of text, with the remainder of the line filled with its preceding and following context (Leech 2002). *ParaConc* enables users to "locate all occurrences of any expression along with the corresponding sentences in the other language" (McEnery/Xiao 2007). Additionally, in a parallel corpus, the sentence- or word-alignment can establish the link between the original texts and their translations at the sentence or word level.

The following illustration considers 在 as analyzed by a KWIC concordance from the LCMC (Lancaster Corpus of MC), and the *ParaConc* concordance from Babel (the Babel English-Chinese Parallel Corpus).

---

<sup>49</sup> *Xara* and *WordSmith* are two Unicode-compliant markup-aware corpus tools (Xiao et al. 2004).

## Chapter 6 Methodology

(3) Illustration 2: Search Results via KWIC<sup>50</sup>

或许，严同己	在	p 这忙碌中，开始算清了为那九十万斤粮票他应付出的巨大代价；
他又从这代价中学习着	在	p 学校中从未学过的知识，学习着人生。
他把自己关	在	p 小屋里，做出认真读书的样子，瞒哄母，而实际上，他正在无望中挣扎。

(4) Illustration 3: Search Results via ParaConc<sup>51</sup>

1	utfbifile0.txt_0044	We faced problems with the enemy that had continued to say for decades 'we will <u>never</u> negotiate with terrorists`.	我们曾面对对待敌人的问题，这些 敌人几十年来一直在说，"我们永远不和恐怖分子进行谈判"。
2	utfbifile0.txt_0046	It was through the ability to reconcile these two contradictions that we were able to bring about a peaceful transformation in our country, and to confound the prophets of doom who predicted that there would <u>never</u> be a peaceful change in our country, that any attempt to bring about changes would engulf South Africa in rivers of blood.	只有当我们能够解决这两对矛盾时，我们才得以实现国家的和平改造，得以挫败那些恶运预言家，他们预言 我国永远不能实现和平演变，任何改革企图只会使南非血流成河。

<sup>50</sup> <http://score.crpp.nie.edu.sg/cgi-bin/lcmc/conc.pl>

<sup>51</sup> <http://score.crpp.nie.edu.sg/cgi-bin/babel/paraconc.pl>

### 6.2.2 Applications

Corpus-based studies have often relied on huge amounts of data in order to provide quantitative empirical evidence and knowledge about the world of our experience (Sinclair 1991).

Efforts in the development of natural language processing (NLP) and information technology are converging on the recognition of the importance of some sort of corpus-based research as part of the infrastructure for the development of advanced language processing applications.

(Atkins/Clear /Ostler 1992: 1)

In this study, the empirical application of corpus-based methodology focuses on the function of corpora and the complemented relation between translation studies and contrastive linguistics.

#### 6.2.2.1 Corpora in Translation Studies

By adapting corpora, researchers can conduct qualitative and quantitative analysis in translation studies.

... a growing number of scholars in translation studies have begun to seriously consider the corpus-based approach as a viable and fruitful perspective within which translation and translating can be studied in a novel and systematic way.

(Laviosa 1998:474)

There are two approaches in corpus translation studies: descriptive translation studies (DTS) and Baker's (1993/1996) translation universals.

#### *Corpora in Descriptive Translation Studies (DTS)*

One of my research aims in using a corpus-based DTS approach is to illustrate how MC expresses English tense and aspect. Parallel corpora are employed to recognize translation patterns between languages since they can provide

valuable sources of information in descriptive translation research.

A DTS approach emphasises empirical data and translations as they actually occur (Kenny 2001; Olohan 2004; Aijmer 2009). The process and product of translation is correlated between at least two languages in interface. Corpus-based descriptive translation studies focus mainly on the comparison of translated and original texts in the same language.

The parallel corpus approach can be used for descriptive translation studies, as parallel concordances can describe how an idea in one language is conveyed in another (Baker 1996; Zanettin 2000; Laviosa 2002; Olohan 2004; McEney/Xiao 2007). Parallel corpora can map correspondences between source text (ST) and target text (TT) pairs with a considerable degree of accuracy, since the availability of a large amount of parallel equivalences assures representativeness in source and target languages. The authenticity of the texts serves to identify the translation norms, which can help investigate differences and similarities in language use (Malmkjaer 1998; Laviosa 1998a).

Corpora must be constructed in accordance with standards and measures in a translation study. Quantitative methods in parallel corpora go beyond counting frequencies. Investigations have used global frequency measures, such as type/token ratio as well as measures related to particular syntactic structures (Olohan/Baker 2000; Olohan 2001), and statistical significance can be calculated for the reliability of the concordance.

Parallel corpora also have some limitations for translation studies. Malmkjaer (1998) highlights the fact that a parallel corpus usually "holds only one translation for each source sentence". The concordance-generated analysis often "fails to provide sufficient linguistic context to examine whole-text features and semantic phenomena, with the result that only partial aspects of translation behaviours are revealed".

### ***Corpora in Translation Universals***

My other research aim is to compare L1 MC with translated MC texts by means of a corpus-based approach in order to test Baker's (1993/1996) translation universals.

A satisfying translation should be grammatically accurate and pragmatically sound natural to native speakers in the target language. According to Aijmer (2009), the quality of translations can be evaluated by studying a monolingual corpus in the language compared. The comparable L1 text can overcome translationese by populating the sampling frame with L1 texts (McEnergy/Xiao 2007).

To test translation universals, this study tests whether two universals *explicitation* and *normalization* hold with MC as target text by applying a contrastive approach to compare translated texts with L1 texts. Data are collected from parallel and monolingual corpora. "The distinctive features of translated language can be identified by comparing translations with comparable L1 texts" (Xiao 2007). The use of monolingual comparable corpus can not only improve the accuracy of translation, but will also help study the features of translated texts. However, it is not easy to build a comparable corpus because of the requirements of corpus size, text domain, and time span.

#### **6.2.2.2 Corpora in Contrastive Studies**

This dissertation applies a corpus-based contrastive in a study focusing on two perspectives: one is comparing English tense and aspect with MC aspect, and the other is to compare translated MC with L1 MC texts.

#### ***Definition of Contrastive Linguistics***

Contrastive linguistics is the comparison of two or more languages with the goal of describing their similarities and differences (Johansson 2000).

## Chapter 6 Methodology

---

Language comparison is of great interest in a theoretical as well as an applied perspective. It reveals what is general and what is language specific and is therefore important both for the understanding of language in general and for the study of the individual language compared.

(Johansson/Hofland 1994: 25)

### ***Problem of Equivalence***

Contrastive linguistics mainly comprises two things: tertium comparationis (TC) and translation equivalence. Tertium comparationis provides the initial requirement of contrastive study, and translation equivalence fulfills the contrastive study.<sup>52</sup> James (1980: 187) argues that "translation equivalence is the best available basis of comparison". Similarly, Santos (1996) suggests that "studies based on real translations are the only sound method for contrastive analysis". Translation studies and contrastive studies are considered complements to each other. Toury (1981) also argues that "any 'similarity' established in CL [Contrastive Linguistics] is to be rewritten as 'translatability' under invariance condition x". This argument suggests that the similarity in contrastive linguistics is linked to translatability in translation studies.

### ***The Role of Corpora***

Parallel corpora offer several advantages in contrastive studies, as listed by Aijmer/Altenberg (1996: 12):

they give new insights into the languages compared - insights that are likely to be unnoticed in studies of monolingual corpora; they can be used for a range of comparative purposes and increase our

---

<sup>52</sup> There are many different types of equivalences (Nida 1964; Koller 1979; Krzeszowski 1990). These are argued to be appropriate from different views. The concept of equivalence in contrastive linguistics is related to TC. Based on Johansson (2000), TC provides a common ground based on the meaning. It is the initial comparability requirement to the contrastive study, i.e., why two languages are worth comparing. The task of TC is to examine the grammar of the two languages and identifying a similar construction. It is necessary to determine the correspondence in terms of usage of the formal and semantic equivalent structures.



understanding of language-specific, typological and cultural differences, as well as of universal features; they illuminate differences between source texts and translations, and between native and non-native texts; they can be used for a number of practical applications, e.g. in lexicography, language teaching, and translation.

Parallel concordances are based on translation relations between texts, and can encourage learners to identify or highlight similarities and differences between languages, normally their mother tongue and a language they are learning (Aijmer 2009; Frankenberg-Garcia/Santos 2003). Thus, parallel concordances are also suited for contrastive studies as the most effective basis for comparing source texts with target texts. The source and translated texts in a parallel corpus are useful for exploring how the same content is expressed in two languages (Aijmer/Altenberg 1996).<sup>53</sup>

A parallel concordance aims at analysing the differences and similarities between the source and target languages. Since the translation process itself alters the features of translated language, a monolingual comparable corpus needs to be built for analysing features of translated texts. Comparable corpora have been considered as the most suitable corpus type that they provide contrastive linguists within authentic language data naturally occurring within native contexts (Fernández 2007).

### **6.2.2.3 Interim Summary**

Corpus-based approaches can be applied in both contrastive and translation studies. In this section, I discuss translation and contrastive studies by means of parallel and monolingual comparable corpora. Both corpora have the following advantages for cross-linguistic research: First, parallel corpora can reflect translation patterns between source and target languages for

---

<sup>53</sup> Quoted from McEnery/Xiao 2007.

translation studies. Equivalent expressions, including form and meaning equivalences, also have implications for contrasting two different languages. In other words, parallel corpora can provide data for contrasting either translation or function. Second, monolingual comparable corpora provide natural L1 data, which can be used to compare with translated texts, and to analyse the translation process. That is, the reliability and adequacy of comparable corpora can also indicate the translation acceptability, and thus they have applications in translator training or translation quality assessment.

With these advantages, linguists can rely on corpora to converge both translation and contrastive studies. Both studies are interested in investigating “how the same thing can be said in other ways, although each field uses this information for different ends” (Chesterman 1998: 39). The goals of this study are summarized as follows: i) Based on a corpus-based translational approach, this study aims at illustrating how MC aspect expresses English tense and aspect by parallel corpus. Translational data results are also used to compare English tense and aspect with MC aspect from a corpus-based contrastive view; ii) Applying a corpus-based contrastive approach, this study attempts to compare L1 MC with translated MC texts by monolingual comparable corpus. Contrastive data results are used to describe translation features in order to test translation universals.

### **6.3 Corpus Databases**

Two corpora are used as the research object in this dissertation, the BECPC corpus, and the LCMC corpus. Sampling from two corpora provides solid empirical data for analysis between languages.

### 6.3.1 BECPC Corpus

#### 6.3.1.1 Construction

The BECPC corpus is constructed using a collection of English texts issued from 2000 to 2001. The English texts are annotated for parts of speech using the CLAWS (Constituent-Likelihood Automatic Word Tagging System) tagger.<sup>54</sup> The CLAWS is "an automatic POS tagger for English developed at Lancaster University",<sup>55</sup> and "is reported to have achieved an accuracy rate of 97% on general written English" (Garside/Smith 1997). The translational Chinese data are tokenized and POS tagged on the basis of the Peking University tagset.

(5) Table 27: The BECPC Corpus

Language	English	Translated MC
Size	263,633 English words	287,462 Chinese tokens
Domain	116 texts from <i>World of English</i> 2000-2001 212 texts from <i>Time</i> 2000-2001	their translations
Medium	Written	Written
Construction Time	2006-2008	2006-2008
Annotation	POS tagging using the CLAWS C7 tagset <sup>56</sup>	POS tagging using the Peking University tagset <sup>57</sup>
Available	Babel website <a href="http://score.crpp.nie.edu.sg/cgi-bin/babel/paraconc.pl">http://score.crpp.nie.edu.sg/cgi-bin/babel/paraconc.pl</a>	

The BECPC corpus can be accessed via the Unicode-compliant version of *ParaConc Web*.<sup>58</sup> Users can search with either English or MC, and specify the output format concordances as POS-tagged or plain text. The

<sup>54</sup> At the linguistic level, corpora can be annotated, adding to each running word part-of-speech tagging (Zanettin 2000).

<sup>55</sup> Xiao/ McEnery 2002

<sup>56</sup> <http://ucrel.lancs.ac.uk/claws7tags.html>

<sup>57</sup> [http://www.lancs.ac.uk/fass/projects/corpus/babel/PKU\\_tagset.htm](http://www.lancs.ac.uk/fass/projects/corpus/babel/PKU_tagset.htm)

<sup>58</sup> *ParaConc* is a bilingual or multilingual concordance that can be used in contrastive analyses, language learning, and translation studies/training. <http://www.athel.com/para.html>

following summarizes how to search for a concordance in the BECPC corpus:

(6) Illustration 4: The BECPC Parallel Concordancer<sup>59</sup>

Search key:  Leave this field blank to search for any word

POS tag:  Leave this field blank to search for any tag

Output format:

Search language:

English  Chinese

### 6.3.1.2 Application

The BECPC corpus provides translation counterparts, which can be analysed quantitatively to present an objective picture of the degree of correspondence patterns. The quality of translation results plays an important role in the compilation of the BECPC corpus used for English and MC language learning. However, results from the BECPC corpus "hold only one translation for each source sentence"(Malmkjær 1998), and thus translated MC text may be the unrepresentative variant of the target language.

## 6.3.2 LCMC Corpus

### 6.3.2.1 Construction

The monolingual corpus used in this dissertation is the LCMC balanced corpus which was created in 2004 and designed as a match for the

<sup>59</sup> <http://score.crpp.nie.edu.sg/cgi-bin/babel/paraconc.pl>

FLOB/Frown corpora.<sup>60</sup> In the following, the general information of LCMC is described:

(7)Table 28: The LCMC Corpus

Language	Modern MC
Size	1 million words
Domain	16 written text categories in the 1990s 600 sample files
Medium	Written
Construction Time	2004
Annotation	POS tagging using the LCMC tagset
Available	LCMC website <a href="http://score.crpp.nie.edu.sg/cgi-bin/lcmc/conc.pl">http://score.crpp.nie.edu.sg/cgi-bin/lcmc/conc.pl</a>

Unlike *ParaConc* used in Babel, a web-based concordance (*WebConc*) was specifically developed for LCMC.<sup>61</sup> Output mode is either KWIC mode or sentence mode. Output format is plain text or POS tagged text. Corpus version is either character or pinyin. The following illustrates the LCMC web concordance:

<sup>60</sup> FLOB refers to British English, while Frown is related to American English. *A balanced corpus* means a corpus shall contain texts of different domain and different genres in reasonable proportions; the corpus thus can be a reasonable reflection of the language use (Cheng 2004).

<sup>61</sup> *WebConc* allows users to search in the standard character version or the pinyin version of the LCMC corpus using a token, POS tag or their combination (Xiao et al. 2004).

(8) Illustration 5: The LCMC Corpus Web Concorder<sup>62</sup>

Search key:  Leave this field blank to search for any word

POS tag:  Leave this field blank to search for any tag

Output mode:

Output format:

Corpus version:  Standard character version  Romanised Pinyin version

In the following, the structure of LCMC is presented (Xiao/McEnery 2004): i) corpus constituents and data formats: The corpus is marked up in XML conformant for written text files. XML has proved to be a sound basis for standardizing corpus and annotation formats to facilitate easy data linkage and transformation (Ide/ Priest-Dorman 2000; Xiao et al. 2004); ii) file structure, markup and annotation: Each LCMC file consists of the corpus header and the corpus text. The header provides general information about the corpus. The corpus text, i.e., the XML elements, is annotated by *text* (text category), *file* (sample file), *s* (sentence), and *w* (word token) (Xiao et al. 2004).<sup>63</sup> The annotation in LCMC includes word segmentation and POS tagging;<sup>64</sup> iii) character encoding: The Unicode system is applied to standardize the MC data into a single character set.<sup>65</sup> Two Unicode-compliant markup-aware corpus tools are *Xara* and *WordSmith version 4*. The combination of Unicode and XML is a general trend in corpus development (Xiao et al. 2004).

<sup>62</sup> <http://score.crpp.nie.edu.sg/cgi-bin/lcmc/conc.pl>

<sup>63</sup> As for the header part, the standard used is the Corpus Encoding Standard (CES) developed by EAGLES.

<sup>64</sup> Annotation of word boundaries of Chinese texts is also known as *word segmentation* (Cheng 2004).

<sup>65</sup> Unicode is "a computing industry standard for the consistent representation and manipulation of text expressed in most of the world's writing systems". <http://en.wikipedia.org/wiki/Unicode>

### 6.3.2.2 Application

Since corpus-based research began much later in China than in western countries, corpus-based studies of MC are less abundant than those of English. The LCMC is considered a sound basis for monolingual investigations of MC as well as for the cross-linguistic contrastive studies since it is designed as a Chinese match for the FLOB. Thus, the LCMC corpus can not only be used for modern MC learning, but also for contrastive research between translated MC and L1 MC.

The following table summarizes two corpora, which contain similar text categories, and time span.

(9)Table 29: Compare LCMC with BECPC

Corpus	LCMC	BECPC
Size	1 million words	644,096 words (263,633 English words and 287,462 Chinese tokens)
Domain	16 written text categories, 600 sample files from 2000 to 2001	mixed categories, 327 texts in the 1990s
Medium	Written	Written
Construction Time	2006-2008	2004
Annotation	POS tagging using the LCMC tagset	POS tagging using the Peking University tagset <sup>66</sup>
Available	LCMC website <a href="http://score.crpp.nie.edu.sg/cgi-bin/lcmc/conc.pl">http://score.crpp.nie.edu .sg/cgi-bin/lcmc/conc.pl</a>	BECPC website <a href="http://score.crpp.nie.edu.sg/cgi-bin/babel/paraconc.pl">http://score.crpp.nie.edu.sg/ cgi-bin/babel/paraconc.pl</a>

### 6.4 Data Collection

Two data collection procedures are applied in this study for different purposes: first, sampling a set of parallel texts from the BECPC in the translation from English into MC; second, random sampling of original MC

<sup>66</sup> [http://www.lancs.ac.uk/fass/projects/corpus/babel/PKU\\_tagset.htm](http://www.lancs.ac.uk/fass/projects/corpus/babel/PKU_tagset.htm)

texts from the LCMC corpus.

#### 6.4.1 Collection of MC Translation Patterns of English

Data on MC translation patterns of English tense and aspect are collected from the BECPC corpus. As discussed in the introduction, English tense and aspect includes simple present, simple past, perfect, and progressive. First, I will collect data on the English simple present and its MC correspondences at the sentence level. To derive the frequencies and concordances of simple present, *VVO/VVZ* have been searched in the BECPC<sup>67</sup>, and the first two hundred parallel texts were selected as empirical samples. These two steps for data collection are illustrated in the following:

##### (10) Illustration 6: Examples in the BECPC Parallel Concordancer

Search key:  Leave this field blank to search for any word

POS tag:  Leave this field blank to search for any tag

Output format:  ▼

Search language:

English  Chinese

Examples of search results for the English simple present and its MC translation patterns are demonstrated below:

---

<sup>67</sup> *VVZ* is tagged for -s form of lexical verb (e.g. gives, works), while *VVO* is for base form of lexical verb (e.g. give, work).



## (11) Illustration 7: Search Results

1	utfbifile0.txt_0012	Africa collectively <u>stands</u> at the bottom of the world stage of development.	非洲作为整体现在处于世界发展的最低阶段。
2	utfbifile0.txt_0013	This <u>means</u> for millions, the ills brought by poverty and under-development, the scourges of disease such as malaria, tuberculosis and HIV/aids, and educational programmes that are far from what is needed for Africa's full participation in the modern economy and society.	这意味着贫穷和欠发展给千百万人带来 的祸害, 像疟疾、肺结核和艾滋病等疾病, 以及极差的教育事业, 它远未达到 非洲能充分参与现代经济和社会所需的水平。

For ease of reference, each example is tagged with a unique sentence identifier, such as <utfbifile0.txt\_0012>, indicating that sentence number 12 in the English source data. Accordingly, I will use the same step to collect other tense and aspect samples: two hundred patterns *VVD* for the English simple past, two hundred patterns *VHO* for the English perfect, and two hundred patterns *VVG* for the English progressive.<sup>68</sup> Thus, eight hundred matches will be sampled from the BECPC corpus.

Considering these samples, I analyse the parallel concordances regarding three questions: i) what are the MC correspondences of the English tense and aspect; ii) what are the distributions of English tense and aspect, and frequencies of these MC correspondences; iii) is there a tendency in the tense-aspect translation from English into MC?

The research results will help elucidate tense-aspect usage in English and

<sup>68</sup> *VVD*: past tense of lexical verb (e.g. gave, worked)

*VHO*: have, base form (finite)

*VVG*: -ing participle of lexical verb (e.g. giving, working)

translated MC. For example, I will analyse data on the English simple present in the following steps: i) automatically collect English simple present example sentences, and select the first 200 of them; ii) manually analyse distributions in order to generalize the usages of simple present; iii) manually analyse each sentence in order to find corresponding translation equivalence, based on my MC and English knowledge; iv) classify MC translation equivalences into imperfective and perfective aspect in order to compare English tense and aspect with MC aspect; v) statistically analyse marked and unmarked devices of translation equivalence in order to discuss translation problems.

#### **6.4.2 Collection of L1 MC**

With the LCMC tagset implemented in the monolingual LCMC corpus,<sup>69</sup> one can directly search the MC aspect for parts of speech, and not aspect specifically, due to the fact that MC has no restricted verbal inflections to signal tense and aspect. The linguistic devices that express MC aspect are relatively flexible, such as aspect markers, or lexical means. Even as relatively restricted aspect markers, they have multiple functions.

Instead, I input “。” in the search key, and specify the output format concordances as plain texts at the sentence level. The query report shows 23318 concordances. As discussed, MC has two aspects: perfective and imperfective aspect. I chose 800 sentences as samples, equal to the amount of translated MC data from the BECPC corpus for comparison. All selected data are manually classified to perfective aspect, imperfective aspect, or modality. 616 sentences have the perfective meaning, 141 sentences have the imperfective meaning, and 43 sentences have the modality usage.

These steps are illustrated in the following:

---

<sup>69</sup> [http://www.lancs.ac.uk/fass/projects/corpus/babel/PKU\\_tagset.htm](http://www.lancs.ac.uk/fass/projects/corpus/babel/PKU_tagset.htm)

## (12) Illustration 8: The LCMC Corpus Web Concordancer

Search key:  Leave this field blank to search for any word

POS tag:  Leave this field blank to search for any tag

Output mode:

Output format:

Corpus version:  Standard character version  Romanised Pinyin version

## Search Results

000001.	(LCMC_A.xml/sn="0004")	他又从这代价中学习着在学校中从未学过的知识，学习着人生。
000002.	(LCMC_A.xml/sn="0006")	若从社会的角度来看，肖立的判刑是教育的失败 —— 家庭的，学校的。

The number 000001 is the concordance number 1. LCMC\_A is the file name where the current concordance occurs. Sn = "0004" is the sentence number for the current concordance.

These comparable L1 MC data applied "the same sampling frame and compared the frequencies" of translated MC. I examine these data regarding their frequencies, positions, and semantic usages with the aid of statistical analyses. For example, I analyse L1 MC results as follows: i) randomly sample a large amount of sentences; ii) manually sort the sentences into imperfective and perfective aspect; iii) manually select the perfective, the imperfective sentences, and the modality sentences; iv) statistically analyse marked and unmarked devices in order to compare with translated MC.

### 6.4.3 Chi-square Test for Comparing Linguistic Element Distribution

In order to statistically compare the distributions of linguistic elements between English and translated MC, and between translated MC and L1 MC, I decide to apply the chi-square test. With one distribution labeled as expected and the other observed, the chi-square test can be formulated as  $X^2 = (O - E)^2 / E$ , where O is the observed frequency, E is the expected frequency and  $X^2$  is the chi-square value.

The null hypothesis is  $H_0$ : the two distributions have no difference and the alternative hypothesis is  $H_A$ : the two distributions are different. Under  $H_0$ ,  $X^2$  follows a chi-square distribution with degree of freedom (df) = N-1, where N is the number of categories in each distribution. From the chi-square table, one can figure out the probability (p) value. When p is significantly small (< 0.05), I reject the null hypothesis and conclude that the two distributions are different.

## 6.5 Summary

The present study provides a discussion of the centrality of a corpus-based approach within translation and contrastive studies. The motivation behind choice in translation reflects the role of translation as a means of communication and mediation between cultures (Hermans 1999; Pearson 2003; Macken et al. 2008). The corpus-based approach in linguistics has advantages as well as limitations. As Laviosa (1998a) observes, “the corpus-based approach is evolving, through theoretical elaboration and empirical realization, into a coherent, composite and rich paradigm that addresses a variety issues pertaining to theory, description, and the practice of translation”. Thus, the present study, using BECPC and LCMC, presents data collection from a quantitative way that generates more representative, authentic, and reliable results. However, machine-readable texts are subject

to copyright and other propriety restrictions, which impose strong constraints on their availability for research (Leech 2002). Many corpora or text collections are subject to stronger restrictions, but the LCMC and BECPC are open to all users. I apply "a combination of automatic and manual" approaches to collect data, and use statistical methods and quantitative methods to analyse data. The combinatorial approaches help improve the accuracy of data results.

## **Chapter 7 Data Results**

This chapter presents two sets of data results: one is the formal correspondences in translations from English tense and aspect into MC; the other is results of aspect and modality in L1 MC. The contrasts between English and translated MC are analysed to test the translatability and acceptability of the translation texts. The contrasted results between translated MC and L1 MC are analysed to examine the accuracy and feature of the translated language because translation effects and processes may lead to the misinterpretation of translated data.

### **7.1 Results of Translating English Tense and Aspect into MC**

The translation equivalents are used to examine the translatability between languages in light of tense and aspect. Accordingly, I will first summarize the distribution and usage of the English tense and aspect. Then, I will illustrate how temporal and aspectual meanings in English are translated into MC.

#### **7.1.1 MC Equivalence of the English Simple Present**

##### **7.1.1.1 Distribution of the English Simple Present**

According to the data, the simple present in English normally refers to stative present (37%), but it can also mark habitual or eternal truth (30%), futurate (14%) and narrate past events (19%). Distribution of the English simple present is illustrated in the following table:

## Chapter 7 Data Results

(1)Table 30: Distribution of the English Simple Present

Meaning in Present	Type	Example	Count (Freq)
Present, Past, and Future Time	Habitual present/ Eternal truth	utfbifile0.txt_0035 What is <u>always</u> difficult in life is not so much that we influence and change others;	60 (30%)
Present Time	Stative present	utfbifile0.txt_0185 His writings <u>include</u> Season of Migration to the North.	74 (37%)
Past Time	Historical present	utfbifile0.txt_0376 Although the rest are unscathed, Jordan is shot from his horse and <u>breaks</u> his leg as he falls.	38 (19%)
Future Time	Present futurate	utfbifile0.txt_0026 In turn, that <u>requires</u> massive programmes for infrastructural development...	28 (14%)
Total			200 (100%)

**7.1.1.2 MC Translation Patterns**

When the English simple present is translated into MC, the marked form (65.5%) is employed more often than the unmarked (34.5%). The marked form includes sentences with aspect marker (17%), temporal adverbial (20.5%), or lexical verb (28%). The context (34.5%), i.e., zero/LVM form, is used as unmarked in MC.

(2)Table 31: Simple Present Translated as Marked/Unmarked Means in MC

Simple Present Translated as in MC	Aspectual Marking in MC	Count (Freq)	Ratio
Marked 131 (65.5%)	Aspect marker	34 (17%)	0.49:0.59:0.81:1 Marked: Unmarked 1.89:1
	Temporal adverb	41 (20.5%)	
	Lexical verb	56 (28%)	
Unmarked 69 (34.5%)	Context	69 (34.5%)	
Total		200 (100%)	

There are 131 instances of marked cases and 69 instances of unmarked cases. The translated data register a marked: unmarked ratio of 1.89:1. The ratio of aspect marker: temporal adverbial: lexical verb: context is 0.49: 0.59: 0.81: 1. When unmarked means or contextualization is used, a one-to-one equivalence can not be realized in translations. The adoption of context-oriented approach is assumed to lead to translation difficulties. In the following, each aspectual marking in translated MC is reviewed in detail.

#### 7.1.1.2.1 Aspect Marker

Two aspect markers are used for translating the English simple present, namely the aspect markers -le and -zhe. Among 34 cases of aspect markers, the aspect marker -le occurs in 23 instances (67.6%), while -zhe appears in only 11 (32.4%).

Instances of the aspect marker -le have two usages. In 10 cases (29.4%) it expresses the English present. In the other 13 cases (38.2%) it translates the English historical present of. Examples of the aspect marker -zhe (32.4%) are used to express the stative usage of the English present. The following table shows the results.



(3) Table 32: English Present Translated as Aspect Marker

Aspect Marker	Example	Usage in English Present	Count (Freq)
-le	<p>utfbifile0.txt_0017 While this <u>brings</u> the danger that historical imbalances may be entrenched and even worsened, it also brings opportunities for Africa as a region of vast untapped potential. 这种发展水平，一方面带来了历史性的不均可能深化和甚至恶化的危险，但同时它也为非洲大量未开发的潜力提供了机会。</p> <p>utfbifile0.txt_0376 Although the rest are unscathed, Jordan is shot from his horse and <u>breaks</u> his leg as he falls. 全队其他人员都安然无损，只有乔丹中弹落马摔断了腿。</p>	Historical present	23 (67.6%)
-zhe	<p>utfbifile0.txt_0425 Yet even in hospital with the most eloquent bill of rights, believers in benevolent deception <u>continue</u> their age-old practices. 然而，即使在口口声声支持权利法案的医院里，撒仁慈之说的信徒们还继续着他们那老掉牙的行径。</p>	Stative present	11 (32.4%)
Total			34 (100%)

As can be seen from the table, a one-to-one equivalence seems to occur in translations. Syntactically, the present suffix *-(e)s* has the equivalence of *-le* and *-zhe*, such as *bring-s* 带来了, *break-s* 摔断了, or *continue-s* 继续着. Semantically, the aspect marker *-le* can signal the historical present. The aspect marker *-zhe* denotes a state resulting from an activity, which expresses the English stative present.

As noted, the verbal *-le* is traditionally characterized as a marker of

perfective aspect, so a sentence with the verbal *-le* usually is understood as corresponding to the English past. The aspect marker *-zhe* is called the imperfective or durative aspect marker in MC, which can denote the present in English.

#### 7.1.1.2.2 Temporal Adverbial

Using temporal adverbial phrases is another means of denoting aspectual information in MC. One of their major functional characteristics is to “provide a semantic frame within which the event described by the sentence occurs” (Li/Thompson 1981: 320). When translating the English present, 23 (56.1%) instances of frequency temporal adverbs are used most frequently, such as *每小时* (*every hour*), *每当* (*every time*), *常常* (*often*), *一直* (*always*), or *老爱* (*always*). There are 17 (41.5%) samples of location adverbials, such as *那天夜里/那夜* (*that night*), to express past situations or states. Only 1 (2.4%) example of adverbial of time span, such as *在一周内* (*in a week*)<sup>70</sup>, is used to translate the future situation of the English simple present. The following table shows the result.

---

<sup>70</sup> In-adverbials delimit the duration of a process. They may either denote the length of the process until its termination or the time span from speech time until the time point when the event takes place (Kiefer 2009).  
[http://but.unitbv.ro/BU2009/BULETIN2009/Series%20IV/BULETIN%20IV%20PDF/31\\_Kiefer.pdf](http://but.unitbv.ro/BU2009/BULETIN2009/Series%20IV/BULETIN%20IV%20PDF/31_Kiefer.pdf)

(4)Table 33: English Present Translated as Temporal Adverb

Adv Type	Example	Usage in English Present	Count (Freq)
Frequency 23 (56.1%)	utfbifile0.txt_0498 It hoists riders 104 metres upwards and then plummets them back to earth in just three seconds at a speed topping 100 kilometres <u>an hour</u> . 它把游客向上提升到 100米高度，随后在仅仅三秒钟时间内，以超过 <u>每小时100公里</u> 的速度，让游客骤然回到地面。	Eternal truth	22 (53.7%)
	utfbifile0.txt_0035 What is <u>always</u> difficult in life is not so much that we influence and change others; the most difficult question is to change yourself in accordance with the conditions that you confront. 生活中 <u>常常</u> 感到困难的不是去影响和改变旁人，最困难的是按照你所面对的条件去改变你自己。	Habitual present	
	utfbifile0.txt_0549 Gene <u>never remembers</u> important dates either, but I could not care less. 吉恩从不记得"重要的"日子，但我一点都不在乎。	Negation of stative present	1 (2.4%)
Location 17 (41.5%)	utfbifile0.txt_0337 <u>That night</u> Jordan <u>sleeps</u> outside the guerrillas' cave in his sleeping-bag. 那天夜里，乔丹钻进自己的睡袋，睡在游击队住宿的山洞外。	Historical present	5 (12.2%)
	utfbifile0.txt_0012 Africa collectively <u>stands</u> at the bottom of the world stage of development. 非洲作为整体 <u>现在</u> 处于世界发展的最低段。	Stative present	12 (29.3%)
Time span	utfbifile0.txt_0538	Present	1

## Chapter 7 Data Results

Time span 1 (2.4%)	utfbifile0.txt_0538 The “Dear Abby” column <u>in a week</u> typically <u>receives</u> more than 10, 000 letters. <u>在一周内</u> 收到一万多封来信对 “ 亲爱的艾比” 专栏而言，实属寻 常。	Present futate	1 (2.4%)
Total			41

Temporal adverbials have the same meaning in both English and MC. Thus, a word for word translation is used for temporal adverbial expressions. Syntactically, temporal adverbials have four positions in MC: at the beginning, at the end of the clause, before the verb, or after the verb. According to data, 22 (53.6%) cases of temporal adverbials have the same position in both English and MC. Only 9 (22%) cases have different positions between English and MC. Syntactic differences will not cause difficulties in understanding the meaning of the clause. When temporal adverbials only occur in MC, it can clearly indicate the temporal meaning of the clause. There are 10 (24.4%) examples of this usage.

(5)Table 34: Position of Temporal Adverb in English and MC

Position	English	MC	Example	Count (Freq)	
Same Position 22 (53.6%)	adv+verb	adv+verb	有时 (sometimes/at times)	4 (9.8%)	
			老爱(always)	3 (7.3%)	
			从不(never)	1 (2.4%)	
			现在(now)	8 (19.5%)	
	in the beginning	in the beginning	每当(every time)	2 (4.9%)	
			通常(often)	1 (2.4%)	
Different Position 9 (22%)	in the beginning	adv+verb	老爱(always)	1 (2.4%)	
	verb+adv	adv+verb	每十年 (per decade)	1 (2.4%)	
	in the end	adv+verb	通常(often)	1 (2.4%)	
			每小时(per hour)	1 (2.4%)	
			晚上 (during the night)	1 (2.4%)	
			每天(every day)	2 (4.9%)	
			至今(today)	1 (2.4%)	
	adv+verb	it the beginning	一周内(in a week)	1 (2.4%)	
	Only in MC 10 (24.4%)	-	in the beginning	现在 (now)	5 (12.2%)
				老爱 (always)	1 (2.4%)
每当(every time)				2 (4.9%)	
每天 (every day)				2 (4.9%)	
Total				41 (100%)	

In English, the temporal adverb *now* (现在) can be used in the English simple present or progressive. In MC, 现在 (*now*) is preferentially used to signal the English present since MC has its own temporal adverbial 正/正在 (*in the process of*) to denote the progressive aspect.

### 7.1.1.2.3 Lexical Verb

Using lexical verbs is another way MC expresses the English present.

Lexical verbs (i.e., RVC or future-oriented verb) can express the speaker's attitude or provide temporal information concerning a proposition.

As discussed, the construction of RVC is composed of two elements: the second element signals some results of the action conveyed by the first element. 14 (25%) RVCs are used in translating the states of the English simple present; 10 (17.9%) RVCs are related to historical present. 5 (8.9%) auxiliary verbs are used to state a fact. 27 (48.2%) sentences containing future-oriented verbs in MC are used to translate futurate forms, such as 想要 (*want to*), 计划 (*plan to*).

## Chapter 7 Data Results

(6)Table 35: English Present Translated as Lexical Verb

Lexical Verb in MC	Example	Usage in English Present	Count (Freq)
RVC	utfbifile0.txt_0033 What <u>gives</u> hope is that Africa's leaders are finding creative ways of addressing the resolution of conflicts. 令人感到希望的是，非洲的领导者们正在寻找创造性的方法来解决冲突。  utfbifile0.txt_0361 Late that night Anselmo <u>comes</u> accidentally on the scene of the battle... 那天深夜，安塞尔莫无意中来到战场...	Historical present	24 (42.9%)
Auxiliary Verb	utfbifile0.txt_0173 And because it <u>understands</u> and forgives what is less so. 还因为它能理解和原谅一些逊色的东西。	Stative present	5 (8.9%)
Future-oriented Verb	utfbifile0.txt_0026 In turn, that <u>requires</u> massive programmes for infrastructural development... 另一方面，这需要推行巨大的计划去建设基础设施...	Present futurate	27 (48.2%)
Total			56 (100%)

According to my data, both directional RVCs and phrase RVCs appear in translations. Directional RVCs can be schematized as *V1 (Displacement)-V2 Direction* (Li/Thompson 1981: 58). A displacement verb is a verb signalling motion, such as *站 (stand)*. The direction verb, such as *起来 (exit-come = come out)*, signals the direction in which the subject moves as the result of the displacement. Thus, the directional RVC *站起来 (stand-exist-out)*

means *stand up*. Phrase RVCs mean that “the second verb expresses something more like the type of action described by the first verb or the degree to which it is carried out than its result” (Li/Thompson 1981: 65). For example, *-到* means *arrive*, the RVC *想到* (*think-arrive*) means *think of*. Since RVC gives the result of an action, it is usually used to interpret a past situation. Thus, an aspect shift occurs in this case. Auxiliary verbs, such as *能* (*can*) and *会* (*can/will*), denote ability or necessity. When translating the English present with auxiliary verbs there is also an aspect shift. Future-oriented verbs indicate future situations. If there is no temporal adverbial in a clause, it means the present. Thus, there is a one-to-one transfer when translating present tense into future-oriented verb.

#### **7.1.1.2.4 Context**

Context plays a role in interpreting the temporal meaning of the clause. That is, 69 sentences use the unmarked mean to translate the English present. 68 (98.5%) cases contain stative verbs, while only 1 (1.5%) case contains activity verb. Among 68 stative verbs, 37 verbs are matrix verbs or reporting verbs.



## Chapter 7 Data Results

(7)Table 36: English Present Translated as Context

Context in MC	Example	Usage in English Present	Count (Freq)
Stative Verb 68 (98.5%)	utfbifile0.txt_0185 His writings <u>include</u> Season of Migration to the North, and the collection of a short novel and stories titled The Wedding of Zein (1978), from which "A Handful of Dates " was taken. 他的作品 <u>包括</u> 《向北方迁移的季节》和一本名为《札因的婚礼》(1978)的短篇小说与故事集。故事《一把椰枣》就出自此集。	Stative present	58 (84%)
	utfbifile0.txt_0569 I <u>know</u> boys will be boys, but my "boy " is seventy-three and he's still chasing women. 我 <u>知道</u> 男孩终归是男孩,可我的“男孩”,都73岁了,还在追逐女人。		
	utfbifile0.txt_0353 When he goes out to tend the horses, the group <u>decides</u> to kill him. 他出洞去喂马,游击队员 <u>决定</u> 干掉他。	Historical present	10 (14.5%)
Activity Verb 1 (1.5%)	utfbifile0.txt_0755 They <u>grow</u> , mature, slough off and are replaced by new ones. 这些细胞 <u>生长</u> 、成熟、脱落,并为新的细胞所取代。	Eternal truth	1 (1.5%)
Total			69 (100%)

As stative situations are not marked aspectually in MC, translations of the simple present tend to take the zero form, which needs context for interpretation.

### 7.1.1.3 Interim Summary

In the following, MC translation patterns of the English simple present are

## Chapter 7 Data Results

summarized:

(8) Table 37: MC Translation Pattern of the English Simple Present

English Present	MC Concordance	Count (Freq)
Habit /eternal Truth Present, Past, and Future Time 50 (25%)	Temporal adverbial	35 (17.5%)
	RVC	14 (7%)
	Context	1 (0.5%)
Stative Present Present Time 74 (37%)	Context	58 (29%)
	-zhe	11 (5.5%)
	Auxiliary verb	5 (2.5%)
Historical Present Past Time 48 (24%)	-le	23 (11.5%)
	Temporal adverbial	5 (2.5%)
	RVC	10 (5%)
	Context	10 (5%)
Present Futurate Future Time 28 (14%)	Temporal adverbial	1 (0.5%)
	Future-oriented verb	27 (13.5%)
Total		200 (100%)

The aspect markers -le/le and RVC can express the MC perfective meaning, as the aspect maker -zhe signals the MC imperfective meaning. Aspectual meaning signalling by context depends on the translator's choice. Auxiliary and future-oriented verbs indicate the MC modality. The following table shows how MC aspect and modality are expressed in the corpus.

(9)Table 38: Aspectual Meaning in Translating English Present into MC

English Simple Present Translated as in MC	Concordance in MC	Count (Freq)
Perfective 62 (31%)	-le	23 (11.5%)
	Temporal adverbial	5 (2.5%)
	RVC	24 (12%)
	Context	10 (5%)
Imperfective 106 (53%)	-zhe	11 (5.5%)
	Temporal adverbial	36 (18%)
	Context	59 (29.5%)
Modality 32 (16%)	Auxiliary verb	4 (2.5%)
	Future-oriented verb	27 (13.5%)
Total		200 (100%)

When translating the English present tense, MC uses perfective aspect (62%), imperfective aspect (53%), and modality (16%). Since MC has no tense, it substitutes present tense with aspect or modality. Only when using temporal adverbials is it possible to find a grammatical category that can be expressed regularly across languages.

## 7.1.2 MC Equivalence the English Simple Past

### 7.1.2.1 Distribution of the English Simple Past

Normally, the basic meaning of the past tense is “a situation in time prior to the present”, which marks situations as completed or terminated. According to data, 194 (97%) cases contain the basic usage. 6 (3%) examples signal non-temporal meaning in the English simple past, which show one of special usages.

(10) Table 39: Distribution of the English Simple Past

Meaning of the Past	Type	Example	Count (Freq)
Past Time (Completed or terminative)	Event Past	utfbifile0.txt_0090 She smiled.	175 (87.5%)
Past Time	Habitual past	utfbifile0.txt_0197 Before my grandfather <u>ever</u> replied to my many questions he would rub the tip of his nose with his forefinger ;	19 (9.5%)
Non-temporal	Modal remoteness	utfbifile0.txt_0062 I <u>gazed</u> upon the profound emptiness in front of me and the ghosts of my past that drifted across it. 我凝望着眼前一片空荡荡的场地以及从中漂浮而过的、缠磨着我的生活往事。	6 (3%)
Total			200 (100%)

175 (87.5%) examples have the basic usage of event past. Habitual past contains 19 (9.5%) samples which denotes that “a habit or state that existed in the past”. 6 (3%) cases are modal remoteness which conveys the meanings of politeness, unreality or uncertainty.

### 7.1.2.2 MC Translation Patterns

When translating the English simple past to MC, the marked method occurs more than four times as frequently than the unmarked. The English past is predominantly morphologically marked by the suffix *-ed*, whereas MC frequently uses aspect markers. The ratio of context: temporal adverbial: lexical verb: aspect marker is 0.51:0.65:0.68:1

(11) Table 40: Simple Past Translated as Marked/Unmarked Means

Simple Past Translated as in MC	Aspectual Marking in MC	Count (Freq)	Ratio
Marked 164 (82%)	Temporal adverb	46 (23%)	0.51:0.65:0.68:1 Marked: Unmarked 4.55:1
	Lexical verb	48 (24%)	
	Aspect marker	70 (35%)	
Unmarked 36 (18%)	Context	36 (18%)	
Total		200(100%)	

### 7.1.2.2.1 Aspect Marker

Aspect marker *-le* usually signals a completed or terminated action, and in 59 (84.3%) cases the aspect markers *-le/le* are used to translate the English simple past. The aspect markers *-le/le* locate in two different positions: one is located directly after the main verb; the other is placed at the end of the clause. The verbal *-le* is always considered as the perfective aspect marker, while the sentence-final *le* is seen as a perfective aspect marker or a particle depending on a context.

The aspect marker *-guo* often indicates an action that has been experienced at least once. In a certain context, the marker *-le/le* and the marker *-guo* are interchangeable when “the focus is on simple fact that an event or a series of events occurred” (Li/Thompson 1981: 232). The interchangeability of *-le* and *-guo* in situations with the past reference time is also reflected on the English translation. 5 (7.1%) examples of the aspect marker *-guo* are used to express the completed situation of the English past.

When signalling a target state, the aspect marker *-zhe* can translate the modal remoteness of the English past, shown by 6 (8.6%) samples.

(12) Table 41: English Past Translated as Aspect Marker

Aspect Marker	Example	Usage in English Past	Count (Freq)
-le	utfbifile0.txt_0261 They <u>formed</u> a circle round the sacks of dates and began examining them... 他们围着这些椰枣袋子 <u>站成了一个圈</u> ，然后开始鉴别椰枣的好坏...	Event past	53 (75.7%)
le	utfbifile0.txt_0090 She <u>smiled</u> . 她 <u>微笑了</u> 。	Event past	6 (8.6%)
-zhe	utfbifile0.txt_0062 I <u>gazed</u> upon the profound emptiness in front of me and the ghosts of my past that drifted across it. 我 <u>凝望着</u> 眼前一片空荡荡的场地以及从中漂浮而过的、缠磨着我的生活往事。	Modal remoteness	6 (8.6%)
-guo	utfbifile0.txt_0699 Hollywood's "Herbier" movies (about a magical type of Volkswagen) <u>believed</u> it could talk back. 一些 <u>看过</u> 好莱坞"Herbier"电影(关于一种神奇的"大众"车的影片)的人认为这种车能和人话。	Event past	5 (7.1%)
Total			70 (100%)

It can be seen from the table above that the aspect marker -le has a tendency to translate the English simple past. The aspect marker -le can be considered an equivalent of the English past suffix *V-ed* in most cases.

#### 7.1.2.2.2 Temporal Adverbial

46 temporal adverbials are used for translating the English past into MC. 18 (39.1%) instances of location temporal adverbials indicate the completed situation of the English event past, such as *在1998年 (in 1998)*. Frequency adverbials occurring in 13 (28.3%) examples are used to express the habitual

## Chapter 7 Data Results

past, such as *有时* (*sometimes*) or *一般* (*usually*). Time span adverbials, present in 15 (32.6%) cases, can also express the terminated situation of the English event past.

(13) Table 42: English Past Translated as Temporal Adverbial

Temporal adv in MC	Example	Usage in English Past	Count (Freq)
Frequency	utfbifile0.txt_0197 Before my grandfather <u>ever</u> replied to my many questions he would rub the tip of his nose with his forefinger ; 祖父在回答我许多问题前, <u>总爱</u> 用食指摸一下鼻尖。	Habitual past	13 (28.3%)
Location	utfbifile0.txt_0442 <u>In 1899</u> George Eastman, whose cameras and developing services would make photography a household activity, bought full rights to Velox for the then astonishing sum of \$ 1 million. <u>1899年</u> , 乔治·伊斯门以当时令人吃惊的100万美元买下了 Velox 的全部使用权, 他的照相机和冲洗服务后来使照相成了一项家喻户晓的乐。	Event Past	18 (39.1%)
Time Span	utfbifile0.txt_0116 <u>During the '20s</u> , Dad worked hard to support our family, but was very little money left over. <u>20年代期间</u> , 爸爸为了养家而努力工作, 但是能够节余下的钱很少。	Event Past	15 (32.6%)
Total			46 (100%)

21 (45.6%) cases of temporal adverbials in MC can be placed mostly in the same position as the English does. 17 (37%) temporal adverbials occur only in translated MC. The rest 8 (17.4%) temporal adverbials have different positions

## Chapter 7 Data Results

between English and MC.

(14) Table 43: Position of Temporal Adverb in English and MC

Position	English	MC	Example	Count (Freq)
Same Position 21 (45.6%)	adv+verb	adv+verb	有时 (sometimes)	1 (2.2%)
			一般(usually)	1 (2.2%)
			刚刚(just)	2 (4.3%)
	at the beginning of the sentence	at the beginning of the sentence	在...年(in...)	9 (19.6%)
			在...里(on...)	2 (4.3%)
			在...后(after)	2 (4.3%)
			一周后 (in a week)	1 (2.2%)
			在...前 (before...)	1 (2.2%)
			在...期间 (during...)	1 (2.2%)
			有时 (sometimes)	1 (2.2%)
Different Position 8 (17.4%)	at the end of the sentence	at the beginning of the clause	那天夜里/下午(that night)	1 (2.2%)
			有一次(once)	2 (4.3%)
	at the end of the clause	adv+verb	今年(this year)	1(2.2%)
			经常(often)	1 (2.2%)
	at the end of the sentence	verb+adv	在...期间 (during...)	1 (2.2%)
	at the beginning of the clause	adv+verb	最后一次 (last time)	1 (2.2%)
at the beginning of the clause	verb+adv	那时(that time)	1 (2.2%)	
Only occur in MC 17 (37%)	-	adv+verb	曾/曾经(past time at some time)	10(21.7%)
			有一次(once)	2 (2.2%)
			总爱(always)	1 (4.3%)
			过去(past time)	4 (8.7%)
Total				46 (100%)



A sentence likely contains two or more indicators. The combination of multiple temporal indicators determines its temporal relation. Among 46 temporal adverbials, 7 of them are combined with aspect markers, all of which express the completed situation of the English event past.

(15) Table 44: The Combination of Aspect Marker and Temporal Adverbial

Aspect Marker+adv	Example	Usage in English Past	Count (Freq)
adv+le	utfbifile0.txt_0459 <u>Starting around 1904</u> , Baekeland and an assistant <u>began</u> their search. 1904年左右, 贝克兰和一助手 <u>开始</u> 了他们的寻找作。	Event past	2 (29%)
adv+guo	utfbifile0.txt_0627 This question, when <u>put</u> to readers <u>on October 16, 1992</u> , generated more than 300,000 responses which were published in a book in November 1993. 她于1992年10月16日向读者 <u>提出</u> 过个问题, 结果有30多万人作答。	Event past	5 (71%)
Total			7 (100%)

### 7.1.2.2.3 Lexical Verb

The English past normally marks situations as either completed or terminated. The completeness of a situation in English can be translated by the RVC (resultative verb complement), which typically indicates completion in MC. Among the 48 lexical verbs present in my data set, 28 (68.6%) cases of *-到* are used to express the completed situation or modal remoteness of the English past. The meaning of *-到* has been vaguely described as *reach* or *succeed* (Li/Thompson 1981: 66). Directional RVCs include 7 (14.6%) instances: *-来* means *come*, such as *送来* (*send-come* = *send over toward*

## Chapter 7 Data Results

*the speaker*); -起 means *rise-up*, such as 提起 (*mention-rise = bright up*); when the character -得 following a verb, it introduces a completive resultative construction; -出 means *exit-out*, such as 说出 (*speak-exist = tell*).

In addition, achievement verbs can also express completed situations, such as 递给 (*bring to*). When the indirect object precedes the direct object, some verbs require the presence of the verb 给 (*give*).

(16) Table 45: English Past Translated as Lexical Verb

Lexical Verb in MC	Example	Usage in English Past	Count (Freq)
Accomplishment Verb -给	utfbifile0.txt_0262 My grandfather <u>gave</u> me a fistful, which I began munching. 祖父 <u>递</u> 给我一把椰枣,我立刻大嚼起来。	Event past	3 (6.3%)
RVC -来	utfbifile0.txt_0271 Hussein <u>called</u> his assistants and they brought along donkeys. 侯赛因 <u>召来</u> 助手牵来了驴子。	Event past	7 (14.6%)
RVC -起	utfbifile0.txt_0251 I <u>remembered</u> Masood's remark to me when he had once seen me playing about with the branch of a young palm tree... 我记 <u>起</u> 马苏德对我说的一番话,当时我正拿着一株小椰枣的树枝四处游荡。	Event past	2 (4.2%)
RVC -得	utfbifile0.txt_1231 "Come on, you've <u>said</u> enough." "好了,你 <u>说得</u> 够多了。"	Event past	1 (2.1%)
RVC -出	utfbifile0.txt_0230 "Women," and from the	Event past	2 (4.2%)

## Chapter 7 Data Results

	<p>way my grandfather <u>pronounced</u> the word...  "女人," 从祖父说出这个词的方式...  utfbifile0.txt_0054  My wife and I raced out of Philadelphia as if fleeing a pestilence, only to <u>run</u> into dense shore-bound traffic.  我和妻子像逃避瘟疫一样风驰电掣般驶出费城...</p>		
RVC -到	<p>utfbifile0.txt_0617  A year later in San Francisco and inspired by Eppie's example, her twin sister Pauline <u>approached</u> the editor of the San Francisco Chronicle...  一年后, 在旧金山, 受其孪生妹妹爱贝的启发, 波林找到《旧金山纪事日报》的编辑...</p>	Event past	28 (58.3%)
	<p>utfbifile0.txt_0065  "What are you thinking about?" My wife <u>asked</u>.  "你在想什么?" 我的妻子问到。</p>	Event past	5 (10.3%)
Total			48 (100%)

## 7.1.2.2.4 Context

The aspect marker is deleted for discursive reasons in perfective aspect (Chu 1987). In 22 cases, stative verbs appear in a clause: 6 of these are emotion verbs which denote a habitual event; 16 of them, such as *I told her* (我告诉她) or *I said to him* (我对她说), signal the event past. Although there is no aspect marker after the verb, this construction usually has a perfective interpretation.

Some activity sentences can be viewed perfectly and do not need any

## Chapter 7 Data Results

marker to describe past situations. There are 14 instances of this use.

(17) Table 46: English Past Translated as Context

Context in MC	Example	Usage in English Past	Count (Freq)
Stative Verb 22 (61.1%)	utfbifile0.txt_0127 We were just friends passing time, and I <u>preferred</u> it that way. 我们只不过是在一起消磨时间的朋友，何况我 <u>喜欢</u> 这样。	Habitual past	6 (16.7%)
	utfbifile0.txt_0089 “My heart sometimes jumps when I think of you,” I <u>said</u> to her. “我有时想起你，心就砰砰直跳，”我对她说。	Event past	16 (44.4%)
Activity Verb (38.9%)	utfbifile0.txt_0166 Overhead the sea gulls <u>wheeled</u> and cried as we walked barefoot in the cool, wet sand. 我们赤脚走在凉爽而潮湿的沙上，海鸥在我们的上空 <u>翱翔</u> 、鸣叫。	Event past	14 (38.9%)
Total			36 (100%)

## 7.1.2.3 Interim Summary

The English simple past has in 193 (97%) cases the basic usage of expressing completed events. To translate this completed or terminated use, 59 (29.5%) instances of the aspect marker -le are used in the event past. 13 (6.5%) cases of temporal adverbials are used to express the habitual past. Modal remoteness has 6 (3%) cases, which is often signalled by -zhe in MC. In the following, MC translation patterns of the English simple past are summarized:

(18) Table 47: MC Translation Pattern of the English Simple Past

Simple Past	MC Concordance	Count (Freq)
Event Past Past Time 175 (87.5%)	-le/le	59 (29.5%)
	-guo	5 (2.5%)
	Temporal adverbial	33 (16.5%)
	Lexical verb	48 (24%)
	Context	30 (15%)
Habitual Past Past Time 19 (9.5%)	Temporal adverbial	13 (6.5%)
	Context	6 (3%)
Modal Remoteness Non-temporal 6 (3%)	-zhe	6 (3%)
Total		200 (100%)

The English simple past has both perfective and imperfective meaning when translated into MC. Imperfective in MC can be used to represent habitual actions, such as *He ate an apple every day*. Although the perfective is often described as corresponding to a "momentary action", it can equally be used for an action that took time, as long as it is conceived of as a unit, with a clearly defined start and end, such as *Last summer I visited France*. Thus, when a situation expressed by the English simple past is translated into MC, it is possible to present it either "perfectively" (80%) or "imperfectively" (20%).<sup>71</sup> That is, aspect shifts can occur when translating the English past into MC imperfective aspect.

<sup>71</sup> Xiao/McEnery (2002) argue that it depends on its situation type and the translator's choice of viewpoint.

(19) Table 48: Aspectual Meaning in MC of Translating English Past

Simple Past Translated as in MC	Concordance in MC	Count (Freq)
Perfective 160 (80%)	Aspect marker-le/le,-guo	64 (32%)
	Location temporal adverbial	18 (9%)
	RVC	48 (24%)
	Context	30 (15%)
Imperfective 40 (20%)	Aspect marker -zhe	6 (3%)
	Frequency adverbial/time span	28 (14%)
	Context	6 (3%)
Total		200 (100%)

### 7.1.3 MC Equivalence of the English Perfect

#### 7.1.3.1 Distribution of the English Perfect

The English perfect relates a previous situation to the present. There are four types of the English perfect. In the data set 105 (52.5%) instances of the perfect of result are translated with the resultative perfective viewpoint. The adverb *already* is used to lexicalize the perfect meaning of result since this adverb alone can "signal current relevance". 40 (20%) cases of recent past indicate "temporal closeness or the nearness of a past situation"(Comrie 1976:60). From a syntactic point of view, "its differences with the perfect of result lie mainly in the presence or absence of adverbs, such as *recently* or *just*" (Xiao/McEnergy 2002). The English perfect of experience has 31(15.5%) examples which have the same meaning as the experiential aspect in MC. It means that the event has at least been experienced once, which can be signalled by the adverb *once* or *ever*. Persistency contains 24 (12%) samples which refer to a situation "started in the past and persists up to, and perhaps even beyond, the present" (Xiao/McEnergy 2002). Temporal adverbs, such as *since* or *for* indicate this usage. Thus, the perfect progressive *has been doing* has a similar meaning to the perfect progressive does.

(20) Table 49: Distribution of the English Perfect

Perfect Type	Example	Count (Freq)
Result	utfbifile0.txt_3960 I <u>have already given</u> away my three cows, my pigs and my chickens.	105 (52.5%)
Experience	utfbifile0.txt_8_1_1 The Cabbage Cure If you've <u>heard it once</u> , you've heard it a thousand times: Eat your fruits and vegetables!	31 (15.5%)
Recent past	utfbifile0.txt_0332 He learns that she <u>has recently been rescued</u> from the Fascists and is still recovering from the ill treatment she suffered at their hands.	40 (20%)
Persistency	utfbifile0.txt_0740 Dozens of observational studies <u>since the early 1980s have suggested</u> that calcium affects blood pressure.	24 (12%)
Total		200 (100%)

### 7.1.3.2 MC Translation Patterns

When translating the English Perfect into MC, marked means are used much more often than the unmarked context form. The translated data register a marked: unmarked ratio of 19:1. Among all linguistic means, the ratio of lexical verb: context: aspect marker: temporal adverb is 0.09:0.12:0.35:1.

(21) Table 50: Perfect Translated as Marked/Unmarked Means

Perfect Translated as in MC	Aspectual Marking in MC	Count (Freq)	Ratio
Marked 190 (95%)	Lexical verb	13 (6.5%)	0.09:0.12:0.35:1 Marked: Unmarked 19:1
	Aspect marker	46 (23%)	
	Temporal adverbial	131 (65.5%)	
Unmarked 10 (5%)	Context	10 (5%)	
Total		200 (100%)	

### 7.1.3.2.1 Aspect Marker

MC has an experiential aspect marker -guo. Thus, translation of the experiential perfect to MC is in principle quite straightforward. The perfective aspect marker -le signals the recent past. There is no dedicated aspect marker for the meaning of persistency, except the combination of -le+le.

(22)Table 51: English Perfect Translated as Aspect Marker

Aspect Marker	Example	Usage in English Perfect	Count (Freq)
-le	utfbifile0.txt_2_5_6 I've just <u>received</u> 20 scooters this morning and I'm pretty sure they'll be sold out by the end of the day. 今天上午我 <u>进了</u> 20辆。我保证,今天下班之前一定会卖光。	Recent past	32 (69.6%)
-guo	utfbifile0.txt_5491 <u>Have you ever worked?</u> 你工作 <u>过</u> 吗?	Experience	13 (28.3%)
-le+le	utfbifile0.txt_0680 One or two models <u>have been on show</u> for a while at art galleries, showrooms and car shows. 在美术馆、展示厅和汽车展上已有一、两种新款车型 <u>陈列了</u> 一段时间了。	Persistency	1 (2.1%)
Total			46 (100%)

The distinction between verbal suffix-le and sentence-final le has been traditionally characterized as follows: the former describes perfectivity of a situation (Chao 1968; Li/Thompson 1981; Wang 1985), whereas the latter signals inchoativity, change of state (Teng 1975; Chan 1980; Zhu 1982) or current relevance (Li/Thompson/Thompson 1982). The combination of double le, however, has the meaning of the persistency. Thus, to translate the English perfect, a one-to-one equivalence occurs in light of aspect marker.



However, the aspect marker *-le* may lead to misinterpretation since it is mostly used to translate the English past. In this case, context or temporal adverbial plays a role in indicating the aspectual meaning.

### 7.1.3.2.2 Temporal Adverbial

Frequently, marked uses of temporal adverbs override the lack of morphological suffixes in MC. A one-to-one transfer often occurs in translation from English perfect into MC. Like its English equivalent, *已经* (*already*) can lexicalize the current relevance of a situation in MC. That is, *已/已经* (*already*) signals "the actualization of a situation in the period up to the present" (82%). The adverb *曾/曾经* (*once/ever*) is used either alone or in combination with the aspect marker *-guo* to indicate that "an event once happened", and to strengthen "the force of experientiality". When translated into MC, the perfect of recent past is marked by past time reference (Xiao/McEnery 2002), such as *近来* (*recently*). The perfect persistency is marked by *多年来* (*for years*)/*自从* (*since*).

(23) Table 52: English Perfect Translated as Temporal Adverb

Usage in Perfect	Temporal adv in MC	Example	Count (Freq)
Persistency 20 (15.2%)	多年来 (for years)	utfbifile1.txt_21_2_1 <u>For decades</u> , General Motors and the Ford Motor Co. have publicly resisted attempts to tighten fuel economy and clean up toxic tailpipes. 多年来, 通用汽车公司和福特汽车公司一直公开反对降低耗油量, 反对减少有毒的尾气排放量。	10 (7.6%)

## Chapter 7 Data Results

	自...来 (since)	utfbifile0.txt_3098 I have not upgraded my email program <u>since 1995</u> or my word processor since 1996 ; 我的电子邮件系统自1995年以来就没有更新过，而字处理软件1996年一直用到现在；	10 (7.6%)
Recent past 8 (6.1%)	就(just)	utfbifile0.txt_3210 Doctors in India have <u>just</u> announced that they have successfully transplanted a heart from a pig into a person (though details of the operation remain extremely murky). 印度的医生 <u>刚刚</u> 宣布他们已成功地把一个猪的心脏移植到一个人身上(虽然手术的细节还极为含糊清)。	2 (1.5%)
	近年来 (recently/ in recent year)	utfbifile2.txt_52_2_3 Sotheby's and Christie's have <u>recently</u> conducted two of the largest wine auctions in history... 苏富比拍卖行和佳士得拍卖行 <u>最近</u> 举行了两场历史上最大的葡萄酒拍卖会...	6 (4.6%)
Result 89 (68%)	未 (yet)	utfbifile0.txt_1020 Equally some art experts speculate that many genuine Canalettos have yet to be unearthed. 同样地，一些艺术专家推测卡纳莱托的许多真作还未被发现。	1 (0.8%)
	已/已经 (already)	utfbifile0.txt_3387 Specialized wearable computers have been made for teams of five to six air/ground traffic controllers... 特制的可佩戴的计算机 <u>已</u> 制造用于五六个陆军交通管制员分队...	81 (62%)
	到目前为 止 (so far)	utfbifile0.txt_4552 His books have spent 22 weeks, <u>to date</u> , on the New York Times bestseller list. 他的书到 <u>目前为止</u> 已有22个星期被列入《纽约时报》畅销书单中。	6 (4.6%)

## Chapter 7 Data Results

	至今 (until now)	utfbifile0.txt_1865 At the request of his family, his autopsy results were sealed and have remained private <u>until now</u> . 在其家人的要求下，他的尸检结果 被封存了起来，并且一直作为隐私 保存至今。	1 (0.8%)
Experience 14 (10.7%)	一次 (once)	utfbifile0.txt_8_1_1 The Cabbage Cure If you've heard it <u>once</u> , you've heard it a thousand times: Eat your fruits and vegetables! 卷心菜治病下面这句话，你也许听 过一次，也许听过上千次:多吃水果 和蔬菜!	1 (0.8%)
	曾经/曾 (ever)	utfbifile0.txt_2234 <u>Had</u> the climate <u>ever gotten</u> as warm as some researchers have claimed... 萨格登说，假如气候曾经像一些研 究者所宣称的那么暖和...	4 (3%)
	从未 (never)	utfbifile0.txt_2646 People who have <u>never</u> tried this are astounded by the enormous effect it often has. <u>从未尝试</u> 改善环境的人通常会对所 产生的显著效果感到惊奇不已。	9 (6.9%)
Total			131 (100%)

The most used adverb 已/已经 (*already*) has the same position between English and MC. However, 69 (52.7%) cases only occur in MC data to clearly signal the recent past of the English source sentence. In the following, the syntax of temporal adverbials is represented in English and MC.

## Chapter 7 Data Results

(24) Table 53: Position of Temporal Adverbs in English and MC

Position	English	MC	Example	Count (Freq)
Same Position 44(34%)	at the beginning of the clause	at the beginning of the clause	so far (到目前为止)	4 (3%)
			since (自...来)	9 (6.9%)
			recently (近年来)	6 (4.6%)
			for (多年来)	5 (3.8%)
	at the end of the clause	at the end of the clause	until now (至今)	1 (0.8%)
			once(一次)	1 (0.8%)
			for (多年来)	2 (1.5%)
	adv+verb	adv+verb	yet (未)	1 (0.8%)
			never (从未)	4 (3%)
			ever (曾经)	1 (0.8%)
			already (已经)	12 (9.2%)
			just (就)	1 (0.8%)
Different Position 4(3%)	at the beginning of the clause	adv+verb	since (自...来)	1 (0.8%)
	adv+verb	at the beginning of the clause	never (从未)	1 (0.8%)
	verb+adv	at the end of the clause	for (多年来)	1 (0.8%)
	at the end of the clause	at the beginning of the clause	for (多年来)	1 (0.8%)
Occur in MC 82(63%)	-	adv+verb	already (已经)	69(52.7%)
			just (就)	1 (0.8%)
			ever (曾经)	3 (2.3%)
			for (多年来)	1 (0.8%)
		at the beginning of the clause	never (从未)	5 (3.8%)
			so far (到目前为止)	2 (1.5%)
Total			already (已经)	1 (0.8%)
				131 (100%)

## Chapter 7 Data Results

In my data, 82 (63%) cases of temporal adverbials occur in translated MC, which means that temporal adverbials have a crucial role in expressing the MC resultative meaning.

Among 131 adverbials, two temporal adverbs can occur together to indicate the meaning of the result. For example,

(25) Table 54: The Combination of Adv and Already

Two Adverbs	Example	Usage in English Perfect
adv+already	utfbifile0.txt_4552 His books have spent 22 weeks, <u>to date</u> , on the New York Times bestseller list. 他的书到目前为止已有22个星期被列入《纽约时报》畅销书单中。	Result
adv+already	utfbifile0.txt_2287 Their reports are in a secret file in the Vatican, but enough of the contents have leaked out <u>over the years</u> to cast serious doubt on his reputation. 他们的报告存放在梵蒂冈的秘密档案里,但多少年来已有足够的内容泄露出来,使人们对他的良好名声产生了严重的怀疑。	Result

Among the 131 examples of adverbials, 29 are combined with aspect marker -le, -guo, or zai. The combination of adverb and aspect marker indicates the meaning of the clause. The construction 已经+verb+(le) functions as the marked-perfect aspect, which is mostly used in translating the English perfect into MC. The temporal adverbial 曾 (ever) can signal both the English simple past and the perfect, which leads to translation ambiguity. However, when the adverb 曾 (ever) occurs in combination with -guo, it indicates that "an event once happened" and "strengthens the

## Chapter 7 Data Results

force of experientiality" (Xiao/McEnergy 2004). Otherwise, it means the past situation.

(26) Table 55: The Combination of Temporal Adverb and Aspect Marker

Adv+aspect marker	Example	Usage in English Perfect	Count (Freq)
adv+le	utfbifile0.txt_0533 Two influential newspaper columnists <u>have answered</u> millions of letters over the years... 多年来, 两位具有影响力的报纸专栏作家 <u>已回复了</u> 数百万封来信...	Result	24 (82.8%)
adv+guo	utfbifile2.txt_50_11_8 The diners - all fans of an actress they <u>have never met</u> but with whom they have communicated online-need the laptops to connect... 这些吃饭的人都是一位女影星的影迷。虽然 <u>从未见过</u> 那位影星, 但他们已经和她在网上交流过...	Experience	4 (13.8%)
adv+zai	utfbifile0.txt_0574 My dog <u>has been chasing</u> cars for years, but if he ever caught one, he wouldn't know what to do with it. 我的狗 <u>多年来一直在追逐</u> 汽车, 但 如果它真的抓住了一辆, 就不知道 如何是好了。	Persistency	1 (3.4%)
Total			29 (100%)

### 7.1.3.2.3 Lexical Verb

Verbs introducing direct speeches are "normally incompatible with imperfective viewpoints when they function as reporting verbs" (Xiao/McEnery 2002), such as *听到* (*hear*). Hence, these verbs are naturally translated perfectly. Auxiliary verbs denote modal usage, and thus will not occur in perfective aspect. According to data, the auxiliary verb occurs in translation to change the meaning of the English perfect into MC modality.

(27) Table 56: English Perfect Translated as Lexical Verb

Lexical verb in MC	Example	Usage in English Perfect	Count (Freq)
RVC	utfbifile0.txt_3191 "We certainly <u>have not seen</u> any drop off," Mr. Pulver said. "我们当然 <u>还没有看到</u> 任何下降," 普尔弗先生说。	Result	4 (30.8%)
Achievement Verb	utfbifile0.txt_0959 False memories can be induced under hypnosis, and experiments <u>have indicated</u> it is possible, although difficult, to implant false memories of entire events by suggestion. 在催眠状态下可以诱发虚假的记忆, 而且实验表明, 虽然十分困难, 但通过暗示植入对整个事件的虚假记忆是有可能的。	Result	7 (53.8%)
Auxiliary Verb	utfbifile0.txt_1768 We <u>'ve conquered</u> outer space, but not inner space. 我们可以 <u>征服</u> 外部空间, 却怯于走进内心世界。	Result	2 (15.4%)
Total			13 (100%)

### 7.1.3.2.4 Context

Whether the translation takes overt aspect markers or not contextually depends on the type of English perfect in the source text. Data show that "the perfect of results is only compatible with telic situations" since these situations can signal results (Xiao/McEnery2002).

(28) Table 57: English Perfect Translated as Context

Context in MC	Example	Usage in English Perfect	Count (Freq)
Context	utfbifile0.txt_27_3_3 They <u>have also forced</u> the mainstream firms to tout their Internet skills and focused the industry's attention on the digital world. 它们迫使主流公司重视互联网技术并将咨询业的注意力吸引到数字世界中来。	Result	10 (100%)
Total			10 (100%)

### 7.1.3.3 Interim Summary

The English perfect of experience and the experiential aspect in MC have the same meaning. The perfect of recent past is normally translated with the completive perfective aspect in MC. Translations of this type of perfect are therefore rather straightforward. "The perfect of persistent situation is imperfective in nature" (Mourelator 1981: 195). The perfect progressive is combined the perfect with the progressive. MC translations may shift towards the progressive or the perfect meaning, depending on "the situation type involved and the translator's choice of viewpoint". The pluperfect (past perfect) refers to the perfect in past are normally translated with "the actual, the experiential or the completive aspect". Since there are lexical or



## Chapter 7 Data Results

syntactical substitutes in MC for the English perfect, to translate English perfect into MC may reach a higher degree of translatability.

(29) Table 58: MC Translation Pattern of the English Perfect

English Perfect Type	Translated in MC as	Count (Freq)
Result 105 (52.5%)	Temporal adverbial (已already, 尚未yet)	58 (29%)
	adv+le	24 (12%)
	Lexical verb	13 (6.5%)
	Context	10 (5%)
Experience 31 (15.5%)	Aspect marker -guo	13 (6.5%)
	Temporal adverbial (未never, 曾ever)	14 (7%)
	adv+guo	4 (2%)
Recent Past 40 (20%)	Aspect marker-le	32 (16%)
	Temporal adverbial (刚刚just, 近来recently)	8 (4%)
Persistency 24 (12%)	-le+le	1 (0.5%)
	Adv+zai	1 (0.5%)
	Temporal adverbial (自since, 以来for...)	22 (11%)
Total		200 (100%)

When the English perfect forms are translated into MC, they tend to be perfective (99%) in MC. Aspect shifts cause from translating the English perfect of result into MC modality.

(30) Table 59: Aspectual Meaning in MC of Translating English Perfect

English Perfect Translated as in MC	MC Concordance	Count (Freq)
Perfective 198 (99%)	Aspect marker	46 (23%)
	Temporal adv	131 (65.5%)
	RVC	11 (5.5%)
	Context	10 (5%)
Modality 2 (1%)	Auxiliary verb	2 (1%)
Total		200 (100%)

### 7.1.4 MC Equivalence of the English Progressive

#### 7.1.4.1 Distribution of the English Progressive

In addition to "its canonical use to signal the ongoing nature of a situation", the progressive in English has a number of other specific usages, including future situation, and development.

(31) Table 60: Distribution of the English Progressive

Usage in Progressive	Example	Count (Freq)
On-going/durative in Progress	utfbifile0.txt_0877 Roger used the intercom system to explain what <u>was happening</u> , and to monitor my level of panic.	149 (74.5%)
Future Time	utfbifile0.txt_1523 He <u>is also going</u> broke.	25 (12.5%)
Development, Changing Situations	utfbifile0.txt_1193 He <u>was beginning</u> to look thinner and very discouraged. utfbifile0.txt_4394 His main job <u>was guarding</u> Dodi, acting as his chauffeur, bodyguard and dogs body.	23 (11.5%)
Result	utfbifile0.txt_1310 "Imagine, we would have finished the picture tonight," my father <u>was shouting</u> . "Instead that moron suddenly gets it into her beautiful empty, little head that she can't play the last scene."	3 (1.5%)
Total		200 (100%)

#### 7.1.4.2 MC Translation Patterns

Marked cases account for four times more than the unmarked cases in the data set. Temporal adverbials rather than progressive aspect markers are used frequently in the translated MC data. The ratio of lexical verb: context: aspect marker: temporal adverb is 0.25: 0.45: 0.69:1.

(32) Table 61: English Progressive Translated as Marked/Unmarked Means

Progressive Translated as in MC	Aspectual Marking in MC	Count (Freq)	Ratio
Marked 162 (81%)	Lexical verb	21 (10.5%)	0.25:0.45:0.69:1 Marked: Unmarked 4.26:1
	Aspect marker	58 (29%)	
	Temporal adverb	83 (41.5%)	
Unmarked 38 (19%)	Context	38 (19%)	
Total		200 (100%)	

#### 7.1.4.2.1 Aspect Marker

The aspect marker *zai* has the same standard, semantic meaning of imperfective aspect as the English *-ing*. In MC, the aspect marker *zai* only corresponds to the ongoing nature of the progressive. In addition, only activity verbs can take the aspect marker *zai* to signal an ongoing nature. The aspect marker *-zhe* signals the "durative and continuous" feature of situation. Verbs of posture, such as *坐* (*sit*) or *躺* (*lie*), occurring with *-zhe* to signal durativity. The aspect marker *-le* used here indicates the change of state and the on-going event which happened in the past. In addition, the aspect maker *-le* is used to translate the future or development of the English progressive.

## Chapter 7 Data Results

(33) Table 62: English Progressive Translated as Aspect Marker

Aspect marker	Example	Usage in English Progressive	Count (Freq)
zai	utfbifile0.txt_1204 When the gentleman turned back to the counter, she <u>was tying</u> the paper around them as usual. 当那位绅士回到柜台前时，她正如往常一样 <u>在</u> 给面包打包。	In progress On-going	39 (67.2%)
-zhe	utfbifile0.txt_1363 Last summer, the one I <u>'m struggling</u> to recall, my husband built me my heart's desire; a compost bin. 我努力 <u>追忆着</u> 一件事。去年夏天，我的丈夫满足了我的心愿，给我做了一只放堆肥的垃圾箱。	In progress Durative	8 (13.8%)
-le	utfbifile0.txt_1943 They're sitting there with all their camera equipment and I go, 'Oh hello, what's <u>going</u> on here?' 他们坐在那里，带上了全部摄像器材，我说：你们好，这儿 <u>发生了</u> 什么事情？'	Future	1 (1.7%)
	utfbifile0.txt_0349 Although Jordan <u>is rapidly falling</u> in love his thoughts are soon drawn back to the difficulty of his mission. 尽管乔丹迅速地 <u>坠入了</u> 爱河，他却又立即回头思考起炸桥使命的艰巨性来。	Development	10 (17.2%)
Total			58 (100%)

## 7.1.4.2.2 Temporal Adverbial

The temporal adverbial 正/正在 (*in the process of*) indicates "the on-going nature of a situation when modifying a predicate", which occurs 54 (65%) cases in the MC data. In addition, there are still some adverbs which can

## Chapter 7 Data Results

signal special usages of the English progressive, such as *一周内* (*in a week*).

(34) Table 63: English Progressive Translated as Temporal Adverb

Usage in English Progressive	Translated as Temporal adverbial in MC	Example	Count (Freq)
On-going 72 (86.6%)	正/正在 (in the process of)	utfbifile0.txt_0877 Roger used the intercom system to explain what <u>was happening</u> , and to monitor my level of panic. 罗杰通过对讲机解释 <u>正在</u> 发生的切,同时监控我的惊恐程度。	54 (65%)
	现在 (now)	utfbifile0.txt_2240 He <u>is now studying</u> the amounts of carbon dioxide and other gases in air bubbles in the ice, seeking to understand the ancient atmosphere. 他 <u>现在</u> 在研究冰的气泡中所含二氧化碳和其他气体的量,试图了解古代的大气状况。	10 (12%)
	正当/当时 (at that time)	utfbifile0.txt_3855 The next morning, as Jane <u>was standing</u> next to Julian's bed in the New York University Medical Center, Dr. Epstein entered the boy's room. 第二天早上, <u>正当</u> 简站在纽约大学医疗中心朱利安的病床边时,爱泼斯坦医生走进他的病房。	2 (2.4%)

## Chapter 7 Data Results

	仍(still)	utfbifile0.txt_4288 For better or worse, it appears that America is <u>still moving</u> in the direction of more gambling. 不管好坏吧, 似乎博彩业在美国 <u>仍有</u> 发展之势。	6 (7.2%)
Future 3 (3%)	...内 (in)	utfbifile0.txt_4492 Consider how useful it might be to check in a few seconds when the next bus is <u>coming</u> , the weather forecast and what is on TV or at the movies tonight. 想想在 <u>几秒钟之内</u> 即可查寻得知下一趟公共汽车何时到达、天气预报和今晚的电视节目或电影放映等信息, 它将会是多么的有用埃。	1 (1%)
	正 (in the process of)	utfbifile0.txt_4582 Hospitals <u>are going</u> bankrupt. 医院 <u>正</u> 走向破产。	1 (1%)
	就(right off)	utfbifile0.txt_3732 “We are staying right here, “my father said. “我们 <u>就</u> 呆在家里,” 爸爸说。	1 (1%)
Development 8 (9.4%)	渐渐的 (gradually)	utfbifile0.txt_1342 I was <u>learning</u> to rewrite. 我 <u>渐渐地</u> 学会了改写稿子。	3 (3.6%)
	不断/不停 (constantly)	utfbifile0.txt_3810 Meanwhile, a stabbing pain in his back began waking Julian at night, and his arms itched so much that he <u>was constantly scratching</u> . 这时候朱利安背上钻心般的疼痛使他彻夜难眠, 而两臂奇痒难忍, 他 <u>要不停地抓</u> 。	4 (4.8%)

## Chapter 7 Data Results

	每天 (everyday)	utfbifile0.txt_0540 MAN WHO FORGETS IMPORTANT DATES <u>IS</u> <u>LOVING EVERY DAY</u> 忘记了重要日子的男人每 天都满怀爱意	1 (1%)
Total			83 (100%)

The MC temporal adverbial *正在* has no exact equivalent in English, but it does mean *in the process of* which can substitute for the English progressive *-ing* construction. This suggests that the English progressive can be directly translated into MC.

#### 7.1.4.2.3 Lexical Verbs

Lexical verbs can influence temporal relations in a way similar to aspect markers or temporal adverbial expressions. Future-oriented verbs and some auxiliary verbs can express the future situation of the English progressive. Since auxiliary verbs belong to modality, aspect shift occurs in the English progressive translation. In addition, the RVC also occurs to express the English progressive. However, the RVC always signals perfectivity in MC which also undergoes aspect shifts. Furthermore, verbs introducing direct speeches, such as *吼道* (*shout*), are normally incompatible with imperfective aspect when function as reporting verbs. The explanation is that when the English progressive combines with the past tense, the past progressive can express the results.

(35) Table 64: English Progressive Translated as Lexical Verb

Lexical verb in MC	Example	Usage in English Progressive	Count (Freq)
Future-oriented Verb	utfbifile0.txt_3461 By early August , the cheapest seats still available <u>were going</u> for \$350 ; 到8月初, 尚存的最便宜的座位也 <u>要卖</u> 350美元;	Future	18 (85.7%)
Auxiliary Verb	utfbifile0.txt_1523 He <u>is also going</u> broke. 他还会 <u>会</u> 身无分文。	Future	2 (9.5%)
RVC	utfbifile0.txt_1310 “Imagine, we would have finished the picture tonight,” my father was shouting. “Instead that moron suddenly gets it into her beautiful empty, little head that she can't play the last scene.” 想想看, 我们今晚本可以拍那部电影,"父亲 <u>吼道</u> ,"可是那个空 长了个漂亮小脑袋的蠢婆娘突然冒出了个怪念头, 说她演不了最后一个镜头。	Result	1 (4.8%)
Total			21 (100%)

#### 7.1.4.2.4 Context

Instead of direct means, pragmatic principles can also be used to determine the temporal interpretation of sentences. For example, the English progressive form may be paraphrased with a noun phrase that is irrelevant to aspect marking.



## Chapter 7 Data Results

(36) Table 65: English Progressive Translated as Context

Context in MC	Example	Usage in English Progressive	Count (Freq)
Activity Verb 25 (65.8%)	utfbifile0.txt_1221 Two men <u>were standing</u> before the showcase. 两个男人 <u>站在</u> 橱窗前。	On-going	25 (65.8%)
Reporting Verb 2 (5.3%)	utfbifile0.txt_3197 We <u>are expecting</u> high cooperation rates. 我们 <u>寄希望于</u> 高合作率。	Development	1 (2.6%)
	utfbifile0.txt_1326 Ben, sometimes I don't understand you, ' my mother <u>was saying</u> . ' "本，有时我真不理解你，" 母亲 <u>说</u> 。	Result	1 (2.6%)
Paraphrase 11 (28.9%)	utfbifile0.txt_2654 Here he was using exaggeration to good effect around now. 为了达到良好效果，他这里用的是夸张手法。	Result	6 (15.8%)
	utfbifile0.txt_4542 "iMac <u>is going gangbusters</u> ," Mr. Jobs says. 乔布斯先生说： " iMac <u>前途无量</u> 。 "	Future	1 (2.6%)
	utfbifile0.txt_4394 His main job <u>was guarding</u> Dodi, acting as his chauffeur, bodyguard and dogsbody. 他的主要工作是 <u>保护</u> 多迪，当多迪的司机、保镖和勤杂工。  utfbifile0.txt_2840 That <u>is not giving</u> : that is showing off. 那 <u>不是给予</u> ，是炫耀。	Development	4 (10.5%)
Total			38 (100%)

### 7.1.4.3 Interim Summary

The basic use of the progressive indicates a dynamic situation in progress. In addition, the general concept of progressiveness can not cover other usages of the English progressive. When the progressive in the English source text refers to a habitual situation, the progressive aspect marker is not used in the translated MC. Aspect markers *zai* and *-zhe* only appear to translate "the canonical use of the English progressive".

(37) Table 66: Translation Pattern from English Progressive into MC

Usage in Progressive	Translated into MC as	Count (Freq)
On-going/durative in Progress 152 (76%)	Aspect marker <i>-zhe,zai</i>	47 (23.5%)
	RVC	1 (0.5%)
	Temporal adverbial	72 (36%)
	Context	32 (16%)
Development, Changing Situations 23 (11.5%)	<i>-le</i>	10 (5%)
	Temporal adverbial	8 (4%)
	Context	5 (2.5%)
Future 25 (12.5%)	<i>-le</i>	1 (0.5%)
	Temporal adverbial	3 (1.5%)
	Future-oriented verb	20 (10%)
	Context	1 (0.5%)
Total		200 (100%)

The English progressive is translated into MC either as imperfective (84%), as perfective (6%), or as modality (10%). The aspectual meaning can be marked either "overtly or covertly" (Xiao/McEnery 2002).

(38) Table 67: Aspectual Meaning in MC of Translating English Progressive

Progressive Translated as in MC	Concordance in MC	Count(Freq)
Perfective 12 (6%)	Aspect marker-le	11 (5.5%)
	RVC	1 (0.5%)
Imperfective 168 (84%)	Aspect marker zai, -zhe	47 (23.5%)
	Temporal adverbial	83 (41.5%)
	Context	38 (19%)
Modality 20 (10%)	Auxiliary verb	2 (1%)
	Future-oriented verb	18 (9%)
Total		200 (100%)

Two observations can be made regarding aspect shift. First, most progressives in English (84%) do not undergo shift in viewpoint aspect, though some of them do not take an aspect marker; instead most use temporal adverbs (41.5%) or context (19%). Second, an aspect shift occurs in translation depending on the specific usage of the progressive in the English source data (Xiao/McEnery 2002). That is, when progressives in the English source data that indicate future situations, it undergoes an aspect shift in MC, because the MC imperfective does not indicate futurity.

## 7.2 Results of Aspectual Marking in L1 MC

This section collects original MC data in terms of perfective aspect, imperfective aspect, and modality as the realization of the salutation or insolubility of translated texts. It is because that language spontaneously produced by native speakers is in principle free of the influence of other languages, and more reliable, to assess frequency and patterns of use (Granger 2003; Lörcher 2005).

### 7.2.1 Perfective Aspect

Four means are used to express the perfective aspect in L1 MC. Distribution, usage, and frequency are investigated in the following sections.

#### 7.2.1.1 Distribution

Perfective aspect denotes a complete situation with a beginning, middle, and end, but all parts are presented as a single whole (Comrie 1976: 4; Li/Thompson 1981: 185). Among 800 examples, 616 cases are perfective aspect. 525 (84.7%) cases have completed usages, while 94 (15.3%) instances denote resultative usage. Distribution of L1 MC perfective aspect is illustrated in the following table.

(39) Table 68: Semantic Usage of L1 MC Perfective Aspect

Aspect in L1 MC	Usage	Example	Count (Freq)
Perfective	Completed	LCMC_A.xml/sn="0070" 主持人重复了三次，依旧无人出来应答。 The Moderator <u>repeated</u> three times. Nobody responded.	522 (84.7%)
	Resultative	LCMC_A.xml/sn="0066" 李放从没做过理论上的探讨... Li Fang <u>has never done</u> a theoretical study.	94 (15.3%)
Total			616 (100%)

#### 7.2.1.2 Aspectual Marking

MC perfective aspect is realized lexically by using the aspect markers -le and -guo, temporal adverbs, or lexical verbs. All of these lexical means are obligatory in some contexts. In addition, the meaning of unmarked clauses has to be analysed according to the context. The following table shows the concordance of the perfective aspect in L1 MC.

(40) Table 69: Concordance of the Perfective Aspect in L1 MC

Aspect in L1 MC	Usage	Concordance	Count (Freq)
Perfective	Completed	-le	175 (28.4%)
		Temporal adverbial	105 (17%)
		RVC/ Accomplishment	191 (31%)
		Context	51 (8.3%)
	Resultative	-guo	3 (0.5%)
		Temporal adverbial	91 (14.8%)
Total			616 (100%)

While the aspect markers -le, -guo, or RVC/ accomplishment verb all express situations perfectly, they have different targets. The aspect marker -le focuses on the "actuality" of a situation, -guo on its "experientiality", and RVCs/ accomplishments on its "completeness".

#### 7.2.1.2.1 Aspect Marker

In my data set, 178 cases of aspect markers are used to express perfective aspect. 175 (98.3%) of these examples use the aspect marker -le, while the aspect marker -guo has only 3 (1.7%) instances.

(41) Table 70: Aspect Marker in L1 MC Perfective Aspect

Aspect Marker	Example	Usage	Count (Freq)
-le	A quantified event LCMC_A.xml/sn="0070" 主持人重复了三次，依旧无人出来应答。 The Moderator <u>repeated</u> three times. Nobody responded.	A bounded event viewed in its entirety	175 (98.3%)
	A definite or specific event LCMC_A.xml/sn="0066" 警官尹志成介绍了他们的情况。 Officer Yi Zhicheng <u>introduced</u> their situations.		
	Verbs with inherent bounded meaning LCMC_A.xml/sn="0091" 两位白发苍苍的老人一时忘了年龄， Two very old man <u>forgot</u> the age temporarily,		
-guo	LCMC_A.xml/sn="0066" 李放从没做过理论上的探讨... Li Fang <u>has never done</u> a theoretical study.	An event has been experienced	3 (1.7%)
Total			178 (100%)

The aspect marker -le is used much more frequently than -guo. The marker -le usually expresses the past time interpretation, while -guo is used for experiential events.

Syntactically, the aspect maker -le is the most controversial marker in MC. Based on syntactic distribution, it has been shown that -le has two positions: one is verbal suffix called verbal -le; the other is placed at the end of the clause called sentence-final le. Additionally one clause can have les in both positions. Semantically, the perfective aspect marker -le indicates the completion of an action, which may either take place in the past or present.

The time of a completed action is denoted by temporal adverbials. If there is no temporal adverbial, a bounded event can signal time from a semantic perspective. A bounded event includes: a qualified event, a definite or specific event, and verbs with inherent bounded meaning (Li/Thompson 1981: 185). By being a quantified event, overt phrases indicate the extent to which that event occurred, the amount of time it took, or the number of times it happened. A definite event is denoted when the direct object is understood as a definite noun phrase: name, pronoun, demonstrative modifier, relative clause modifier, or noun phrase with *ba*. The aspect marker *-le* is jointly decided by various properties associated with the verb (Ye/Schneider/Abney 2007). Some verbs can represent bounded events by means of their meanings, such as 死 (*die*) or 忘 (*forget*). Some verbs do not take the aspect marker *-le*, including verbs which express an action not to be completed in a short time, such as 爱 (*love*), 恨 (*hate*); verbs which do not express an actual action, such as 是 (*be*), 叫做 (*name*); verbs which do not take an auxiliary verb or future-oriented verb before them, such as 能 (*can*) or 想 (*want*).

Considered as one of the two perfective aspect markers, *-guo* is also called the experiential aspect marker. Hsiao (2003: 280) distinguishes three related senses of the aspectual *-guo*: “a schematic process that has happened previously, the continuity of the interconnection between a completed process and the speaker, and the relationship between a presently recurring process and a previous occurrence of an identical process”.

#### 7.2.1.2.2 Temporal Adverbial

According to my data, MC uses 196 temporal adverbial to express perfective aspect. Among them, 105 (53.5%) cases refer to a completed situation, while 91 (46.5%) instances are related to an experiential event. The following table presents the usage and distribution of temporal adverbials.

(42) Table 71: Temporal Adverbial in L1 MC Perfective Aspect

Temporal Adverbial	Example	Usage	Count (Freq)
当时, ...后/ 前, 去年, 1998年	LCMC_A.xml/sn="0100" ...他今晚 <u>刚</u> 从外地回来... He <u>just</u> came back from other places tonight.	Actions as past completion	105 (53.5%)
已/已经 自从, 几年 来, 至此, 最 近, 曾	LCMC_A.xml/sn="0057" 他对记者说, 大学 <u>已</u> 制定了 一个复课计划... He told reporters that the University had <u>already</u> developed a review plan ...	Actions as past experience	91 (46.5%)
Total			196 (100%)

In MC, a temporal adverbial alone can express the temporal meaning of a clause. For example, the temporal adverbial *已经* (*already*) signals the current relevance of a situation; *刚刚* (*just*) can lexicalise the completed event. In addition, temporal adverbials can be used in combination with the aspect maker. For example, the aspect marker *-le* is often accompanied by *已经* (*already*). The marker *-guo* is often used together with *曾/曾经* (*ever/once*). Both combinations indicate the resultative meaning.

### 7.2.1.2.3 RVC/Accomplishment Verbs

RVCs can mark the completiveness of a situation, which is highly relevant for perfective aspect in MC (89.5%). In addition, accomplishment verbs can also encode a result (10.5%) because they have a final spatial endpoint. RVCs and accomplishment verbs are temporally located in the past. The following table shows the results.



(43) Table 72: Lexical Verb in L1 MC Perfective Aspect

Lexical Verb	Example	Usage	Count (Freq)
Accomplishment Verb	LCMC_A.xml/sn="0070" 数万人 <u>汇集</u> 在科伦坡独立广场为兰詹部长举行最隆重的国葬。 Tens of thousands of people <u>gathered</u> in Independence Square in Colombo in which they held the most solemn state funeral for Minister Ranjan.	Actions have been completed	20 (10.5%)
RVC	-完(finish) LCMC_A.xml/sn="0067" 说完就便消失在茫茫暮色里。 After he <u>finished talking</u> , he lost in the darkness.	Completed	171 (89.5%)
	-到 LCMC_A.xml/sn="0056" 几天来，他每天都在校园里查看，但至今连个适宜的办公地方都没 <u>找到</u> ... In the past few days, he looked for on the campus every day, but so far he <u>has not found</u> any suitable accommodation.	Result-state	
	-来 LCMC_A.xml/sn="0070" 依旧无人 <u>出来</u> 应答。 Nobody <u>came out</u> answering.	Direction of the situation	
Total			191 (100%)

Expressing the aspectual meaning of completion by means of RVCs is a prominent feature of MC (Smith 1998: 231; Xiao /McEnery 2004: 167). RVC is an acronym for resultative verb complement, which has three types:

## Chapter 7 Data Results

completive, result-state or direction of the situation (McEnergy/Xiao/Mo 2003). Completive RVCs indicate the completion like 完 (*finish*) or 好 (*good*), while the result-state denotes the result-state of a situation like 到 (*find*). With motion verbs, directional RVCs indicate the direction of an action, such as 来 (*come*).

#### 7.2.1.2.4 Context

In the data, 51 sentences use unmarked means to express the perfective aspect in L1 MC. The following table shows the result:

(44) Table 73: Context in L1 MC Perfective Aspect

Context	Example	Usage	Count (Freq)
Matrix verb /Reporting Verbs	LCMC_A.xml/sn="0097" 她对记者说：“听妈妈讲，爸爸中秋节要外出...” She said to reporters, “I heard from Mama that Papa would go out during the Mid-Autumn Festival ...”	Completed	51 (100%)
Total			51 (100%)

Covert aspect marking, the context form, is also an important strategy used to express aspectual meanings in MC. The context form is also called zero form, i.e., sentences that convey aspectual meanings but do not take any overt aspect marker. For those clauses with no marked means, it becomes vague in MC. Indirect speech in MC seems to be always perfective.

### 7.2.2 Imperfective Aspect

Having discussed the perfective aspect, in this section I will move on to explore the imperfective aspect in L1 MC. Distribution and aspectual marking are discussed in detail.

### 7.2.2.1 Distribution

When a situation is presented imperfectly from an internal viewpoint, the focus may be “on the initial endpoint, the medial part or a continuative stage following an internal point” (Xiao/McEnery 2004: 181). Imperfective aspect in MC includes description of on-going, durative, and habitual states. The following table shows distribution of L1 MC imperfective aspect.

(45) Table 74: Distribution of L1 MC Imperfective Aspect

Aspect in L1 MC	Usage	Example	Count (Freq)
Imperfective	On-going	LCMC_A.xml/sn="0081" 商品经济在强烈呼唤科学技术的支撑。 The commodity economy <u>is</u> strongly <u>calling</u> for the support of science and technology.	17 (12.1%)
	Durative	LCMC_A.xml/sn="0047" 24年前我们来这个村访问时，饥寒交迫的农民含着泪告诉我们... <u>24 years ago</u> , we came to visit this village. The peasants <u>were</u> hungry, <u>tearing</u> to tell us ...	32 (22.7%)
	Habitual	LCMC_A.xml/sn="0053" 我一直想自立，想发挥我自己的能量。 I <u>always</u> want to become independent and play my own energy.	92 (65.2%)
Total			141 (100%)

According to Dahl (1985: 95-102), habitual sentences can basically be categorized into three subsystems across languages: "habitual, habitual-generic sentences, and the habitual past". The habitual past *used to* construction is typically used in English. In MC, the usage of habituality includes habitual and habitual-generic sentences. Habitual-generic sentence

or sometimes the so-called general truth describes “the typical or characteristic properties of a species, a kind, or an individual” (Dahl 1985: 99). Habitual sentence means individual persons’ habits. Sentences defined in habitual either take temporal adverbials explicitly or is interpreted by the context implicitly.

### 7.2.2.2 Aspectual Marking

Of 800 examples, only 141 cases indicate the imperfective aspect. Temporal adverbs account for 53 cases (34.2%) in on-going and habitual situations, which is the most frequent device used to express imperfectiveness in L1 MC. The aspect marker *zai*, however, appears in only 5 cases (3.2%). The habitual situation in L1 MC is expressed by the context or temporal adverbials.

(46) Table 75: Aspectual Marking in L1 MC Imperfective Aspect

Aspect in L1 MC	Usage	Concordance	Count (Freq)
Imperfective	On-going	<i>zai</i>	5 (3.5%)
		Temporal adverbial	12 (8.5%)
	Durative	<i>-zhe</i>	32 (22.7%)
	Habitual	Temporal adverbial	41 (29.1%)
		Context	51 (36.2%)
Total			141(100%)

#### 7.2.2.2.1 Aspect Marker

In my data set, only 5 (13.5%) cases are the combination of *zai* with verbs, all of which are all activity verbs. 32 (86.5%) examples are related to the aspect marker *-zhe*.

(47) Table 76: Aspect Marker in L1 MC Imperfective Aspect

Aspect Marker	Example	Usage	Count (Freq)
zai	LCMC_A.xml/sn="0081" 商品经济在强烈呼唤科学技术的支撑。 The commodity economy <u>is strongly calling</u> for the support of science and technology.	An on-going activity	5 (13.5%)
-zhe	LCMC_A.xml/sn="0043" 叶洪祥在大学校园里 <u>思考</u> 着自己今后的道路。 Ye Hongxiang is thinking about their future on campus. LCMC_A.xml/sn="0047" <u>24年前</u> 我们来这个村访问时，饥寒交迫的农民 <u>含着泪</u> 告诉我们... <u>24 years ago</u> , we came to visit this village. The peasants <u>were hungry</u> , <u>tearing</u> to tell us ...	State resulting from an activity or a state	32(86.5%)
Total			37 (100%)

To signal the imperfective aspect of a situation, the aspect marker distinguishes between *zai* and *-zhe*. In MC, the aspect marker *zai* only signals an on-going situation, which corresponds to the canonical use of the English progressive. The occurrence of *zai* with activities is an unarguable fact (Smith 1997). According to Li/Cheng (1988: 434), however, some verbs cannot be used with *zai*. The most common ones are: verbs indicating judgement, possession, or existence, such as *是* (*be*), *属于* (*belong to*); verbs indicating sensation, such as *知道* (*know*), *感到* (*feel*); verbs indicating psychological activity, such as *喜欢* (*like*); verbs indicating emergence, disappearance, such as *开始* (*begin*), *生* (*live*), *忘* (*forget*); verbs indicating directions, such as *来* (*come*), *去* (*go*).

The aspect marker *-zhe* is the so-called durative aspect marker, which behaves differently in respect to distribution, meaning, and function when compared with the progressive aspect marker *zai*. Consider the distributional difference: the marker *zai* is placed before the verb, while *-zhe* always follows a verb. Semantically, *zai* focuses on "progressiveness or an on-going nature", while *-zhe* denotes "durativity or continuousness". In MC, some verbs cannot take the aspect marker *-zhe*, including verbs which cannot by themselves express a continuous aspect, such as 是 (*be*), 结束 (*finish*); verbs which contain a continuous aspect, such as 恨 (*hate*), 需要 (*need*); verbs which take before them an auxiliary verb, such as 能说 (*can say*); and verbs which take a complement, such as 说明 (*explain*) (Li/Cheng 1988: 137).

#### 7.2.2.2.2 Temporal Adverbial

One of the usages of imperfective aspect in MC is to indicate a habitual situation. Some time-related frequent adverbs often occur alone or co-occur with aspect markers to unify their habitual features. Of 53 cases of temporal adverbials in the data, 41 (77.4%) samples indicate habitual use. To express on-going nature, 12 (22.6%) cases of 正在/正 (*in the process of*) are explicated in a clause.

(48) Table 77: Temporal Adverbial in L1MC Imperfective Aspect

Temporal adverbial	Example	Usage	Count (Freq)
经常, 每, 总是, 都, 一直, 现在	LCMC_A.xml/sn="0053" 我 <u>一直</u> 想自立, 想发挥我自己的能量。 I <u>always</u> want to become independent and play my own energy.	Habitual	41 (77.4%)
正在/正	LCMC_A.xml/sn="0049" <u>那时</u> , 他 <u>正</u> 联系承包一项工程... <u>At that time</u> , he <u>was contracting</u> a construction contract ...	On-going	12 (22.6%)
	LCMC_A.xml/sn="0071" 他们 <u>正在</u> 同松下公司合资生产出4门豪华电冰箱。 They <u>are producing</u> four-door luxury refrigerators with Panasonic.		
Total			53 (100%)

When *正/正在* (*in the process of*) is used to indicate an action in progress, the action may take place either in the present or past. The time of the action is expressed by time nouns. If temporal adverbial *那时* (*at that time*) co-occur with *正/正在* (*in the process of*), the clause has a past progressive meaning. If there is no time noun, it has present progressive interpretation.

### 7.2.2.2.3 Context

In the data set, 51 cases have marked habitual or general truth implicitly. The following table shows the result.

(49) Table 78: Context in L1 MC Imperfective Aspect

Context	Example	Usage	Count (Freq)
State Activity Verb	LCMC_A.xml/sn="0080" 从山东东营到新疆库尔勒，遥遥相去近万里。 From Dongying to Korla is close to miles distant.	Habitual, general truth	51(100%)
	LCMC_A.xml/sn="0079" 从全国各地区的情况看，也是如此。 The situation is the same in each region of the country.		
Total			51(100%)

Since MC does not mark habitual states or actions, the expressions for a present/past habit take the same form, i.e., they are unmarked aspectually. Generally speaking, the action seems to take place in the present if the time is not clearly indicated by the context. If the time of speaking clearly occurs in a clause, the action may be proceeding in the past.

### 7.2.3 Modality

This part outlines the modal system, which does not belong to aspectual marking in MC. It is necessary to discuss the modal system as a complement.

#### 7.2.3.1 Semantic Usage

In MC, modals are expressions associated with notions of possibility and necessity. The modal or auxiliary verb is related to examples, such as 可能 (*may*), 要 (*should/will*), 可以 (*can*), 必须 (*must*), or 将 (*will*). Many auxiliary verbs can indicate futurity (Xue/Zhong/Chen Online). That is, the verb complement of these modals, such as 要/将 (*will*), tends to be temporally located in the future, i.e., they indicate situations that have not yet happened. But some modals do not have a sense of futurity, such as 能 (*can*).

In MC, not only modals but also future-oriented verbs can express



## Chapter 7 Data Results

futurity, including verbs of future such as 保证 (*guarantee*), verbs of future situation such as 计划 (*plan*), verbs of wish and desire such as 要 (*want*), verbs of future events such as 预言 (*predict*), and verbs of future prevention such as 阻止 (*prevent*) (Xue/Zhong/Chen Online).

### 7.2.3.2 Expression

In the data, 43 cases have the sense of modality, 29 (67.4%) instances have the sense of ability, and 14 cases (32.6%) have the usage of futurity.

(50) Table 79: Auxiliary Verb in L1 MC Modality

L1 MC Modality	Example	Usage	Count (Freq)
Auxiliary Verb	LCMC_A.xml/sn="0031" 粉刷钢梁和墙壁， <u>必须</u> 先清除灰尘。 You must first clear the dust before painting the steel beams and walls.	Ability/ Necessity	29 (67.4%)
Auxiliary Verb	LCMC_A.xml/sn="0072" 不久 <u>将</u> 投放市场。 It will be in the market later.	Futurity	9 (20.9%)
Future-oriented Verb	LCMC_A.xml/sn="0053" 他们既要 <u>要</u> 对上负责,也要对下负责。 They want to be responsible for the superior and subordinate.	Futurity	5 (11.7%)
Total			43 (100%)

The verb 要 (*want/should/will*) serves to mark three kinds of modality. These are volition/desire, necessity/obligation, and imminence (Cheung/Liu/Shih 1994: 243). In the data, it indicates futurity, which can be seen in future-oriented verbs.

## Chapter 7 Data Results

**7.3 Summary**

This chapter has collected two types of data: one is related to the translated MC data from the original English tense and aspect, the other is related to the L1 MC data. Both results are summarized in the following two tables.

800 sentences of the English present, past, perfect, and progressive express the perfective (54%), imperfective (39.3%), and modality (6.7%) in translated MC.

(51) Table 80: MC Translation Patterns of the English Tense and Aspect

Translated MC Aspect	Aspectual Marking	Pres.	Past	Perfect	Prog.	Count (Freq)
Perfective 432 (54%)	-le/le	23	59	33	11	126 (15.8%)
	-guo	-	5	13	-	18 (2.2%)
	Temporal adverbial	5	18	131	-	154 (19.2%)
	RVC/ Accomplishment	24	48	11	1	84 (10.5%)
	Context	10	30	10	-	50 (6.3%)
Imperfective 314 (39.3%)	-zhe	11	6	-	8	25 (3.1%)
	zai	-	-	-	39	39 (4.9%)
	Temporal adverbial	36	28	-	83	147 (18.4%)
	Context	59	6	-	38	103 (12.9%)
Modality 54 (6.7%)	Auxiliary verb	5	-	2	2	9 (1.1%)
	Future-oriented verb	27	-	-	18	45 (5.6%)
Total		200	200	200	200	800 (100%)

## Chapter 7 Data Results

In 800 sentences in L1 MC, 616 (77%) sentences have the meaning of perfective aspect in L1 MC, 141 (17.6%) cases have the meaning of imperfective aspect, and 43 (5.4%) examples indicate modality. Among types of aspectual marking, temporal adverbials are used most frequently to express perfective aspect (24.5%) and imperfective aspect (6.6%).

(52) Table 81: Aspect and Modality in L1 MC

Aspect in L1 MC	Aspectual Marking	Count (Freq)
Perfective 616 (77%)	-le/le	175 (21.8%)
	-guo	3 (0.4%)
	RVC/ Accomplishment	191 (23.9%)
	Temporal adverbial	196 (24.5%)
	Context	51 (6.4%)
Imperfective 141 (17.6%)	-zhe	32 (4%)
	zai	5 (0.6%)
	Temporal adverbial	53 (6.6%)
	Context	51 (6.4%)
Modality 43 (5.4%)	Auxiliary verb/ Future-oriented verb	43 (5.4%)
Total		800 (100%)

## **Chapter 8 Contrastive Studies**

Contrastive studies are carried out between English and MC translation, and between translated MC and L1 MC, on two levels: micro-level (individual instances) and macro-level (frequency and general features) (Santos 1995). Comparing English with MC translation patterns shows that English tense and aspect are translatable into MC by different means. Comparing translated MC with L1 MC shows statistical differences between translation and original MC. In addition, the feature of explicitation in translated MC is contradictory to translation universal theory.

### **8.1 Comparing English with Translated MC**

MC and English use different linguistic means to denote temporal and aspectual expressions. Each of the English grammatical tenses and aspects has a one-to-one semantic MC equivalent, by marked or unmarked lexical means. Since MC has no tense, aspect domains are different between English and MC. Thus, aspect shifts can not be avoided in translation.

#### **8.1.1 Translation Pattern**

The results of translation patterns show that English tense and aspect is translatable into MC. A one-to-one semantic equivalence is found in translations by marked or unmarked linguistic means.

##### **8.1.1.1 One-to-one Semantic Equivalence**

Semantically, a one-to-one equivalence can be found when translating the English present, past, perfect, and progressive into MC. The following table shows how morphologically combined tense and aspect in English are translated into MC.

(1) Table 82: MC Concordances of English Tense and Aspect

English	Usage	MC Concordance	Count (Freq)
Present 200 (100%)	Stative present 84 (38%)	Context	58 (29%)
		-zhe	11 (5.5%)
		Lexical verb	5 (2.5%)
	Habit/eternal truth 50 (25%)	Temporal adverbial	35 (18.5%)
		Lexical verb	14 (8%)
		Context	1 (0.5%)
	Historical present 48 (24%)	-le	23 (11.5%)
		Temporal adverbial	5 (2.5%)
		Lexical verb	10 (5%)
		Context	10 (5%)
	Present futate 28 (14%)	Temporal adverbial	1 (0.5%)
		Lexical verb	28 (13.5%)
Past 200 (100%)	Event past 152 (86%)	-le/le	59 (29.5%)
		-guo	5 (2.5%)
		Temporal adverbial	33 (16.5%)
		Lexical verb	48 (24%)
		Context	30 (15%)
	Habitual past 19 (9.5%)	Temporal adverbial	13 (6.5%)
		Context	6 (3%)
	Modal remoteness 29 (14.5%)	-zhe	6 (3%)
	Perfect 200 (100%)	Result 105 (52.5%)	Adv+le
Temporal adv			58 (29%)
Lexical verb			13 (6.5%)
Context			10 (5%)
Experience 31 (15.5%)		-guo	13 (6.5%)
		Temporal adv	14 (8%)
		Adv+guo	4 (2%)
Recent Past 40 (20%)		-le	32 (16%)
		Temporal adverbial	8 (4%)
Persistency		-le+le	1 (0.5%)

## Chapter 8 Contrastive Studies

	24 (12%)	Temporal adverbial	22 (11%)
		Adv+zai	1 (0.5%)
Progressive 200 (100%)	On-going 144 (82%)	-zhe/zai	48 (23.5%)
		Temporal adv	82 (36%)
		Context	25 (12.5%)
	Result 8 (4%)	Lexical verb	1 (0.5%)
		Context	8 (3.5%)
	Development 23 (11.5%)	-le	10 (5%)
		Temporal adverbial	8 (4%)
		Context	5 (2.5%)
	Future 25 (12.5%)	-le	1 (0.5%)
		Temporal adverbial	3 (1.5%)
		Lexical verb	20 (10%)
		Context	1 (0.5%)

The frequencies of lexically explicit means and implicit context are summarized below.

(2)Table 83: Translating English Tense and Aspect into MC

English Tense and Aspect	Aspect marker in MC	Temporal adverbial in MC	Lexical verb in MC	Context in MC	Total
Present	34 (18%)	41 (20.5%)	56 (28%)	69 (34.5%)	200 (100%)
Past	80 (35%)	46 (23%)	48 (24%)	36 (18%)	200 (100%)
Perfect	46 (23%)	131 (65.5%)	13 (6.5%)	10 (5%)	200 (100%)
Progressive	58 (29%)	83 (41.5%)	21 (10.5%)	38 (19%)	200 (100%)
Total	208 (26%)	301 (38.6%)	138 (18.3%)	153 (19.1%)	800 (100%)

MC prefers using temporal adverbs (38.6%) to translate the English tense and aspect, especially the English perfect (65.5%) and progressive (41.5%). To translate the English present, MC often uses context (34.5%) since stative

## Chapter 8 Contrastive Studies

situations do not mark aspectually in MC. Aspect markers (35%) are frequently used to express the English past. To translate both the English perfect and progressive, temporal adverbials occur most frequently, such as *已经* (*already*) and *正在* (*in the process of*). The following table gives examples of the most commonly used patterns in translation.

(3) Table 84: Common Ways in MC Translation Concordances

English	MC	Example	Count (Freq)
Present	Context	utfbifile0.txt_0502 Any trepidation <u>grows</u> rapidly worse if you look towards the ground 如果你朝地面看一再轻微的恐惧感也会迅速加重。	69 (34.5%)
Past	Aspect marker -le	utfbifile0.txt_0053 She <u>made</u> me whole. 她造就 <u>了</u> 一个完整的我。	80 (35%)
Perfect	Temporal adverbial 已 (already)	utfbifile0.txt_1148 I <u>have retired</u> , but I have not stopped thinking. 我虽 <u>已</u> 退休, 但我没有停止思考。	131 (65.5%)
Progressive	Temporal adverbial 正在 (in the process of)	utfbifile0.txt_1133 But everyone was there, helping to examine the bank's records for the special audit Mr Bell <u>was taking</u> . 但是每个人都在那儿, 帮助检查银行的记录, 因为贝尔先生 <u>正在</u> 进行特别查帐。	83 (41.5%)

The use of corpus-based research has made it possible to map parallel correspondences between the two languages in an elaborate way, and has resulted in several interesting observations. Some fixed expressions make the translation more straightforward, and these are often used to translate the

## Chapter 8 Contrastive Studies

basic usages of the English tense and aspect. The following table shows the results:

(4) Table 85: Features of English and Translated MC

English Tense/Aspect	Basic Meaning	Translated in MC as	MC Semantic Feature
Simple Present	Present time	Context	Imperfective habitual
Simple Past	Past time	Verb+le <i>刚(just)/</i> <i>去年(last year)</i> RVCs	Perfective completed
Perfect	Experiential event	Verb+guo Verb+le+le <i>已经(already)</i>	Perfective resultative
Progressive	On-going event	Verb+zai Verb+zhe <i>正在(in the process of)</i>	Imperfective on-going/ durative

### 8.1.1.2 English Marked vs. Translated MC Marked/Unmarked

English marks tense and aspect grammatically, but when translating into MC, the corresponding equivalences are marked or unmarked, with the only unmarked form related to the zero form. The marked form is considered as aspect marker, lexical verb, and/or temporal adverbial.

Translated MC prefers using lexically marked devices to express the English tense and aspect. Lexically marked devices in MC provide obvious clues for the temporal location of situations. The following table shows how often marked and unmarked means occur in translated MC.



(5) Table 86: English Tense and Aspect in MC Marked vs. Unmarked Means

English Translated as in MC	Aspectual Marking in MC	Count (Freq)	Ratio
Marked 647 (80.9%)	Temporal adverb	301 (38.6%)	0.45:0.53:0.69:1 Marked: Unmarked 4.22:1
	Aspect marker	208 (26%)	
	Lexical verb	138 (18.3%)	
Unmarked 153 (19.1%)	Context	153 (19.1%)	
Total		800(100%)	

In translated MC, the ratio of marked: unmarked registers 4.22: 1. The ratio of lexical verb: context: aspect marker: temporal adverbial registers 0.45: 0.53: 0.69: 1. The translation data shows that temporal adverbials (38.6%) are used much more frequently than aspect markers (26%) in translated MC. This is the case despite the fact that MC is rich in aspect markers. The relatively high frequency of temporal adverbials is hypothesised to be a result of translation choice because of similar usage in English and MC.

### *Aspect Marker*

Most aspect markers in translated MC contain multiple usages. For example the perfective aspect marker *-le* can not only signal the past, but also the present. Similarly, the durative aspect marker *-zhe* combined with stative verbs is not exclusively used to translate the English progressive with durative situations, but also for the English present. The marker *-guo* is used to translate the English experiential perfect as well as the past. Among four aspect markers, only the progressive aspect marker *zai* has a fixed expression, which is utilised to express the canonical use of the English progressive, i.e., to denote on-going events.

***Temporal Adverbial***

MC temporal adverbials have the same usage as in English. In some cases, only temporal adverbials occur in translated MC since MC temporal adverbials by themselves can signal the temporal meaning of the clause. In addition, the combinational usage of temporal adverbials and aspect markers can even more clearly identify the meaning of the sentence. Thus, to translate the English perfect and progressive into MC is relatively easy due to the fixed expression of temporal adverbials.

***Lexical Verb***

Lexical verbs include RVCs, accomplishment verbs, auxiliary verbs, and future-oriented verbs. RVCs often indicate completiveness, as do accomplishment verbs. Future-oriented verbs and auxiliary verbs mark modality in MC. When English tense or aspect is translated into MC modality, the translated MC undergoes an aspect shift. Aspect shifts occurring in other scenarios will be discussed in the following section.

***Context***

As stative situations do not mark aspect in MC, context is used most frequently to translate the English present. The context-dependent zero form presents challenges in translation for two reasons.

First, the context forms a major challenge to the translator's linguistic judgement and word selection, because an implicit lexical means has also an implicit temporal meaning in a clause. Second, context may result in ambiguity between perfective and imperfective aspects, so the LVM form can be either perfective or imperfective, depending on translator's choice.

### **8.1.2 Aspectual Domains**

Although aspectual notions are universal, languages often differ in the application of "aspectual perspectives to describe reality" (Espunya 2001: 546). Since MC has only aspect, aspect in MC is assumed to have different domains than English aspect. The differences of aspectual domains between the two languages can cause aspect shift in translations.

#### **8.1.2.1 Distribution of English Tense and Aspect**

Semantically, the English present, past, and progressive have both basic and special usages, while the English perfect has only basic usage. The basic usage of the English present is related to present time (38%), the English past referring to past time (98%), and the English progressive referring to on-going events (82%). The English perfect has only basic usages which signal events that happened in the past but relate to the present. The English perfect, however, has four types. The usage of the perfect of result appears the most frequently (52.5%).

Regarding special usages, the English present contains historical present (24%), present futurate (14%), and habitual present (25%). The English past has only modal remoteness (3%). The progressive has the usage of future (12.5%), result (4%) and development (11.5%).

(6)Table 87: Distribution of English Tense and Aspect

English	Basic Usage		Special Usage		Total
Present	Stative present	84 (38%)	Historical present	48 (24%)	200 (100%)
			Present futurate	28 (14%)	
			Habitual present	50 (25%)	
Past	Event Past	185 (88.5%)	Modal remoteness	6 (3%)	200 (100%)
	Habitual past	19 (9.5%)			
Perfect	Result	105 (52.5%)	-		200 (100%)
	Experience	31 (15.5%)			
	Recent Past	40 (20%)			
	Persistency	24 (12%)			
Progressive	On-going	144 (82%)	Result	8 (4%)	200 (100%)
			Future	25 (12.5%)	
			Development	23 (11.5%)	

### 8.1.2.2 Aspect in Translated MC

432 (54%) cases of perfective aspect and 314 (39.3%) cases of imperfective aspect occur in the translated MC data set. The aspect marker *-le/le*, *-guo*, temporal adverbial, RVC/accomplishment verb, and some contexts can express perfective aspect in translated MC. The aspect marker *zai/-zhe*, temporal adverbs, and some contextual situations are used to express imperfective aspect in translated MC. Modality in translated MC is signalled by auxiliary verbs and future-oriented verbs.

(7)Table 88: Aspect in Translated MC

MC Aspect	Aspectual Marking	Pres.	Past	Perfect	Prog	Count (Freq)
Perf. 432 (54%)	-le/le	23	59	33	11	126 (15.8%)
	-guo	-	5	13	-	18 (2.2%)
	Temporal adverbial	5	18	131	-	154 (19.2%)
	RVC/ Accomplishment	24	48	11	1	84 (10.5%)
	Context	10	30	10	-	50 (6.3%)
Imperf. 314 (39.3%)	-zhe	11	6	-	8	25 (3.1%)
	zai	-	-	-	39	39 (4.9%)
	Temporal adverbial	36	28	-	83	148 (18.4%)
	Context	59	6	-	38	103 (12.9%)
Modality 54 (6.7%)	Auxiliary verb	5	-	2	2	9 (1.1%)
	Future-oriented verb	28	-	-	18	45 (5.6%)
Total		200	200	200	200	800 (100%)

According to the table above, temporal adverbials are most frequently used to express both perfective and imperfective aspect in translated MC. In the data, 154 (19.2%) instances occur in perfective aspect, while 148 (18.4%) instances appear in imperfective aspect. The following table shows the examples.

(8) Table 89: Most Frequent Ways to Translate English Aspect into MC

English Aspect	Most Frequent MC Aspectual Marking	Example
Perfective	Temporal adverbial 154 (19.2%)	utfbifile0.txt_3388 Specialized wearable computers <u>have been made</u> for teams of five to six air/ground traffic controllers... (have+V-ed) 特制的可佩戴的计算机 <u>已制造</u> 用于五六个陆军交通管制员分队... (adv+verb)
Imperfective	Temporal adverbial 148 (18.4%)	utfbifile0.txt_0888 Roger used the intercom system to explain what <u>was happening</u> , and to monitor my level of panic. (be+V-ing) 罗杰通过对讲机解释 <u>正在发生</u> 的一切，同时监控我的惊恐程度。(adv+verb)

In the examples above, the English source texts do not have temporal adverbials in either the perfect or the progressive. MC target texts, however, add temporal adverbials 已 (*already*) for translating the English perfect, 正在 (*in the process of*) for the English progressive. These additional temporal adverbs are semantically compatible with the English perfect and progressive meaning.

### 8.1.2.3 Aspect Shift

The English perfective aspect has a resultative sense which is normally connected with the English perfect, such as *He has finished his homework*. Perfective aspect in MC refers to result and completion. MC completion is translated into the English past, such as 我写完作业了 (*I finished my homework*). The resultative meaning can be translated into the English perfect, such as 我已经写完了 (*I have already finished writing it*). The English imperfective aspect means the situation on-going, such as *I am doing homework*. MC imperfective aspect indicates something on-going, durative,

## Chapter 8 Contrastive Studies

and habitual. The following table shows the feature of aspects in English and MC.

(9) Table 90: Features of Aspect in English and MC

Language	Perfective Meaning	Example	Imperf. Meaning	Example
English	Resultative	I <u>have already finished</u> it.	On-going	I <u>am working</u> .
MC	Completive	我吃了 <u>一个</u> 苹果。 (Verb+le) I <u>ate</u> an apple.	On-going	我在唱歌。 (Zai+verb) I <u>am singing</u> .
			Durative	墙上挂着 <u>一副</u> 画。 (Verb+zhe) A picture <u>is hanging</u> on the wall.
	Resultative	我 <u>已经</u> 写完了。 (Adv) I have <u>already</u> finished writing it.	Habitual	我 <u>喜欢</u> 唱歌。 (Context) I <u>like</u> singing.

Owing to differences of aspectual domain, aspect shifts may occur in translations between English and MC. First, the two English tenses undergo aspect shifts when translated into MC because MC has no tense system. For example, the correspondence for the English historical present has the perfective meaning in MC (e.g., aspect marker -le and RVC), because both -le and RVC give the result of an action which is usually used to interpret a past situation. One of correspondences for the English stative present is the use of the imperfective aspect marker -zhe in translated MC, which signals the target state. Auxiliary verbs, such as 能 (*can*) and 会 (*can/will*), denote ability or necessity. This entails a considerable change in the temporal content of the original message: what is described as an event in the present tense in the English source text is expressed as an event which has attained

completion, duration or modality in the MC target language. Considering the English habitual present and past, MC translation patterns are both related to the imperfective aspect. Second, the two English aspects also undergo aspect shift when translated into MC: i) the English perfect has been translated into modality in MC. According to Cheung/Liu/Shih (1994: 198), the construction 可以 (*may*) + *verb* marks “internal ability” as well as “circumstantial permissibility”. The meaning of the English perfect is compatible with this usage; ii) When the English progressive indicates a meaning other than canonical progressive, it undergoes an aspect shift. The English progressive futurate can be translated into the MC modality. The auxiliary verb 会 in MC can be used to indicate “possibility”, which is “likely or possible that something will happen” (Cheung/Liu/Shih 1994: 196). Thus, the usage of 会 can be translated as *will* or *is going to*, which is seen as one of the translation patterns of the English progressive. The English past progressive can be translated into the MC perfective aspect. Reporting verbs in RVCs naturally means results in MC, which is compatible with the usage of the English past progressive.



(10) Table 91: Aspect Shift in Translated MC

English	Usage	Example	Shifts in MC	Example
Present	Stative present	utfbifile0.txt_0183 And because it <u>understands</u> and forgives what is less so.	Modality	还因为它能 <u>理解</u> 和原谅一些逊色的东西。
		utfbifile0.txt_0425 Yet even in hospital with the most eloquent bill of rights, believers in benevolent deception <u>continue</u> their age-old practices.	Imperf.	然而，即使在口口声声支持权利法案的医院里，撒仁慈之说的信徒们还继续着他们那老掉牙的行径。
	Historical present	utfbifile0.txt_0386 Although the rest are unscathed, Jordan is shot from his horse and <u>breaks</u> his leg as he falls.	Perfective	全队其他人员都安然无损，只有乔丹中弹落马 <u>摔断了腿</u> 。
Past	Habitual present/ Eternal truth	It hoists riders 104 metres upwards and then plummets them back to earth in just three seconds at a speed topping 100 kilometres <u>an hour</u> .	Imperf.	它把游客向上提升到100米高度，随后在仅仅三秒钟时间内，以超过 <u>每小时100公里</u> 的速度，让游客骤然回到地面。
	Habitual past	utfbifile0.txt_0198 Before my grandfather <u>ever</u> replied to my many questions he would rub the tip of his nose with his forefinger.	Imperf.	祖父在回答我许多问题前， <u>总爱用</u> 食指摸一下鼻尖。

Perfect	Perfective	utfbifile0.txt_1868 We've <u>conquered</u> outer space, but not inner space.	Modality	我们可以 <u>征服</u> 外部空间, 却 <u>怯于</u> 走进 内心世界。
Prog.	Imperf.	utfbifile0.txt_1523 He <u>is also going</u> broke.	Modality	他还会身无 分文。
		utfbifile0.txt_1310 “Imagine, we would have finished the picture tonight,” my father <u>was shouting</u> .	Perfective	“想想看, 我 们今晚本可 以拍那部电 影,” 父亲 <u>吼</u> <u>道</u> 。

According to Vinay/Darbelnet (1995: 248), “Modulation articulates the contrast between two languages faced with the same situation but two different modes of thinking, by exposing this divergence in expression form”. Considering aspect shifts, aspect choices will not change the semantic perspective.

### 8.1.3 Interim Summary

Temporal information can be transferred from one language into another language based on the semantics of a given utterance. In fact, all situations in English can be transferred into MC by means of different linguistic devices (e.g., aspect marker, lexical verb, and context) or even by the same way as it is represented in English (e.g., temporal adverbs). In addition, MC may add temporal adverbials not present in English, like *正在* (*in the process of*), or *已经* (*already*) in many sentences.

Aspect in MC is much more semantically restricted and much less grammatically regular than in English. Thus, MC has more difficulties than English in theoretical explanation and practical implementation. Aspectual domains contain different perspectives in English and MC. Perfective aspect in MC views an action as completive or resultative, while imperfective

aspect refers to an action that is habitual or ongoing, or a durative situation. Perfective aspect in English indicates resultate, while imperfective aspect signals that a state or action is ongoing. Different aspectual domains cause aspect shifts, but in a proper translation an aspect shift will not change the meaning of the clause.

## **8.2 Comparing Translated MC with L1 MC**

This section contains a preliminary comparison of aspect and modality between L1 MC and translated MC, i.e., MC translation patterns of English tense and aspect. In the following, I will compare and contrast features of original and translated MC in particular, and then the features of similar cases in general.

### **8.2.1 Distribution of Aspect and Modality**

#### **8.2.1.1 Aspect and Modality in Translated MC**

This section summarizes aspectual distribution in translated MC. Data results show correspondences to the English tense/aspect. In the subject data set, 432 (54%) cases contain the perfective aspect, 314 (39.3%) contain the imperfective aspect, and 54 (6.7%) cases contain modality. In translated MC, the aspect marker *-le/le* (15.8%), *-guo* (2.2%), temporal adverbials (19.2%), RVC (10.5%), and context (6.3%) express perfective meaning. In order to express imperfective aspect in translated MC, the aspect maker *-zhe* (3.1%), *zai* (4.9%), temporal adverbials (18.4%), and context (12.9%) are used. Auxiliary verb (1.1%) and future-oriented verb (5.6%) are used to express the modality in translated MC. The following table shows the results:

(11) Table 92: Aspect and Modality in Translated MC

MC	Aspectual Marking	Pres	Past	Perfect	Prog	Count (Freq)
Perfective 432 (54%)	-le/le	23	59	33	11	126 (15.8%)
	-guo	-	5	13	-	18 (2.2%)
	Temporal adverbial	5	18	131	-	154 (19.2%)
	RVC/ Accomplishment	24	48	11	1	84 (10.5%)
	Context	10	30	10	-	50 (6.3%)
Imperfective 314 (39.3%)	-zhe	11	6	-	8	25 (3.1%)
	zai	-	-	-	39	39 (4.9%)
	Temporal adverbial	36	28	-	83	147 (18.4%)
	Context	59	6	-	38	103 (12.9%)
Modality 54 (6.7%)	Auxiliary verb	5	-	2	2	9 (1.1%)
	Future-oriented verb	27	-	-	18	45 (5.6%)
Total		200	200	200	200	800 (100%)

### 8.2.1.2 Aspect and Modality in L1 MC

Aspect and modality in L1 MC are collected from LCMC. In 616 (77%) examples these are used to express perfective aspect. 141 (17.6%) cases use them for the imperfective aspect. Modality occurs in 43 (5.4%) cases. In order to express perfective aspect, -le/le occurs in 185 (21.8%) cases, -guo in 3 (0.4%), RVC in 191 (23.9), temporal adverbials in 196 (24.5%), and context in 51 (6.4%). The imperfective aspect marker -zhe 32 (4%), zai 5 (0.6%), temporal adverbial 53 (6.6%), and context 51 (6.4%) also occur in L1 MC. Modality is expressed by auxiliary verbs alone in 43 (5.4%) cases.

(12) Table 93: Aspect and Modality in L1 MC

Aspect	Aspectual Marking	Count (Freq)
Perfective 616 (77%)	-le/le	175 (21.8%)
	-guo	3 (0.4%)
	RVC/ Accomplishment	191 (23.9%)
	Temporal adverbial	196 (24.5%)
	Context	51 (6.4%)
Imperfective 141 (17.6%)	-zhe	32 (4%)
	zai	5 (0.6%)
	Temporal adverbial	53 (6.6%)
	Context	51 (6.4%)
Modality 43 (5.4%)	Auxiliary verb	38 (4.8%)
	Future-oriented verb	5 (0.6%)
Total		800 (100%)

### 8.2.1.3 Statistical Comparison

The distributional result comparing translated MC with L1 MC is drawn from data presented is as follows:

(13) Table 94: Perfective vs. Imperfective Aspect in Translated and L1 MC

Aspect	Translated MC	L1 MC	P value (Chi Square Test)
Perfective	432 (54%)	616 (77%)	< 0.0001 <sup>72</sup>
Imperfective	314 (39.3%)	141 (17.6%)	
Modality	54 (6.7%)	43 (5.4%)	
Total	800 (100%)	800 (100%)	

We can see that the distribution of aspect usage significantly differs between L1 and translated MC. Particularly L1 MC uses perfective aspect (77%) more frequently than imperfective aspect (17.6%). One possible explanation is that native MC speakers prefer describing events perfectly. The distribution of aspectual marking is illustrated in the following under the

<sup>72</sup> Chi squared equals 268.621 with 2 degrees of freedom. The two-tailed P value is less than 0.0001. By conventional criteria, this difference is considered to be extremely statistically significant.

category of perfective aspect, imperfective aspect and modality.

### *Perfective Aspect*

In the following table, the distribution of perfective aspectual marking types significantly differs between L1 and translated MC:

(14) Table 95: Perfective Aspectual Marking in Translated and L1 MC

Aspect	Aspectual Marking	in Translated MC	in L1 MC	P value (Chi Square Test)
Perfective	-le	126 (29.2%)	175 (28.5%)	< 0.0001 <sup>73</sup>
	-guo	18 (4.2%)	3 (0.5%)	
	RVC/ Acc.	84 (19.4%)	191 (31.0%)	
	Temporal adverbial	154 (35.6%)	196 (31.8 %)	
	Context	50 (11.6%)	51 (8.2%)	
Total		432 (100%)	616 (100%)	

### *Imperfective Aspect*

In the following table, the distribution of imperfective aspect significantly differs between L1 and translated MC.

<sup>73</sup> Chi squared equals 134.901 with 4 degrees of freedom. The two-tailed P value is less than 0.0001. By conventional criteria, this difference is considered to be extremely statistically significant.

(15) Table 96: Imperfective Aspectual Marking in Translated and L1 MC

Aspect	Aspectual Marking	in Translated MC	in L1 MC	P value (Chi Square Test)
Imperfective	zai	39 (12.4%)	5 (3.5%)	< 0.0001 <sup>74</sup>
	-zhe	25 (8.0%)	32 (22.8%)	
	Temporal adverbial	148 (46.8%)	53 (38.6%)	
	Context	103 (32.8%)	51 (36.2%)	
Total		314 (100%)	141 (100%)	

**Modality**

The following table compares modality between L1 and translated MC. The chi square test shows that auxiliary verb and future-oriented verbs are statistically different.

(16) Table 97: Modality in Translated and L1 MC

Modality	Aspectual Marking	in Translated MC	in L1 MC	P value (Chi Square Test)
Possibility future time	Auxiliary verb	9 (16.7%)	38 (88.4%)	< 0.0001 <sup>75</sup>
	Future-oriented verb	45 (83.3%)	5 (11.6%)	
Total		54 (100%)	43 (100%)	

<sup>74</sup> Chi squared equals 109.528 with 3 degrees of freedom. The two-tailed P value is less than 0.0001. By conventional criteria, this difference is considered to be extremely statistically significant.

<sup>75</sup> Chi squared equals 277.741 with 1 degree of freedom. The two-tailed P value is less than 0.0001. By conventional criteria, this difference is considered to be extremely statistically significant.

## 8.2.2 Distribution of Aspectual Marking

### 8.2.2.1 Marked vs. Unmarked Aspect in Translated MC

In the translated MC data set, the ratio of marked to unmarked registers is 4.22: 1. The ratio of lexical verbs: context: aspect marker: temporal adverbial registers 0.45: 0.53: 0.69: 1. Temporal adverbials (38.6%) are used much more frequently than aspect markers (26%) in translated MC. This is despite the fact that MC is rich in aspect markers.

(17) Table 98: English Translated Marked vs. Unmarked in MC

English Translated as	Aspectual Marking in MC	Count (Freq)	Ratio
Marked 647 (80.9%)	Temporal adverb	301 (38.6%)	0.45:0.53:0.69:1 Marked: Unmarked 4.22:1
	Aspect marker	208 (26%)	
	Lexical verb	138 (18.3%)	
Unmarked 153 (19.1%)	Context	153 (19.1%)	
Total		800(100%)	

### 8.2.2.2 Marked vs. Unmarked Aspect in L1 MC

L1 MC has a strong tendency to use marked means to deal with aspect. The ratio of marked to unmarked is 6.88: 1. Among all marked means, temporal adverbials are used frequently (31.1%). Considering all means, the ratio of context: aspect marker: lexical verb: temporal adverbial registers 0.41:0.85:0.93:1.

(18) Table 99: Marked vs. Unmarked in L1 MC

Aspect Expressed as	Aspectual Marking	Count (Freq )	Ratio
Marked 698 (88.2%)	Temporal adverb	249 (31.1%)	0.41:0.85:0.93:1 Marked: Unmarked 6.88:1
	Aspect marker	215 (26.9%)	
	Lexical verb	234 (29.2%)	
Unmarked 102 (12.8%)	Context	102 (12.8%)	
Total		800 (100%)	



### 8.2.2.3 Statistical Comparison

Comparing translated MC with L1 MC in terms of four types of linguistic aspect marking shows the following result.

(19) Table 100: Aspectual Marking in Translated and L1 MC

Aspectual Marking	Translated MC	L1 MC	P value (Chi square test)
Temporal adverbial	301 (38.6%)	249 (31.1%)	< 0.0001 <sup>76</sup>
Aspect marker	208 (26%)	215 (26.9%)	
Lexical verb	138 (18.3%)	234 (29.2%)	
Context	153 (19.1%)	102 (12.8%)	
Total	800 (100%)	800 (100%)	

These figures show that L1 MC prefers using temporal adverbials to express aspect. Translated MC uses temporal adverbials more frequently than L1 MC. This supports the normalization translation universals. The following table compare marked with unmarked means.

(20) Table 101: Marked vs. Unmarked in Translated and L1 MC

Aspect Expressed as	Translated MC	L1 MC	P value (Chi Square Test)
Marked	647 (80.9%)	698 (88.2%)	< 0.0001 <sup>77</sup>
Unmarked	153 (19.1%)	102 (12.8%)	
Total	800 (100%)	800 (100%)	

Marked devices are also called explicit means, while the unmarked are implicit. According to the data, marked devices are less frequently used in translated MC (80.9%) than in L1 (88.2%). The unmarked form is more frequently used in translated MC (19.1%) than in L1 (12.8%). In other words,

<sup>76</sup> Chi squared equals 85.320 with 3 degrees of freedom. The two-tailed P value is less than 0.0001. By conventional criteria, this difference is considered to be extremely statistically significant.

<sup>77</sup> Chi squared equals 28.684 with 1 degree of freedom. The two-tailed P value is less than 0.0001. By conventional criteria, this difference is considered to be extremely statistically significant.

translated MC is more implicit than non-translated MC. This result contradicts the explicitation translation universal, which holds that translated texts are more explicit than non-translated texts.

### 8.2.3 Usage of Aspectual Marking

Most aspectual marking in translated MC tends to exaggerate compositional potentiality, which results in significantly more multiple usages than aspect marking in L1 MC. This suggests that translated MC is different from L1 MC.

#### 8.2.3.1 Marked Means

##### 8.2.3.1.1 Aspect Marker

###### *Perfective Aspect Marker*

In translated MC, -le occurs in 126 cases, which comprise three uses. In L1 MC, 175 cases of -le have only one basic use. The aspect marker -guo contains two usages in translated MC, while only one basic usage in L1 MC.

(21) Table 102: Perfective Aspect Marker in Translated and L1 MC

Aspect marker	Translated MC		L1 MC	
	-le	Completed	82	Completed
Resultative		33		
Stative		11		
Total		126		
-guo	Completed	5	Resultative	3
	Resultative	13		
	Total	18		

###### *Imperfective Aspect Marker*

Zai in translated MC has the same usage as in L1 MC. In L1 MC, 32 cases of -zhe have only one basic use, while 25 examples of -zhe have two usages in

translated MC.

(22) Table 103: Imperfective Aspect Marker in Translated and L1 MC

Aspect marker	Translated MC		L1 MC	
zai	On-going	39	On-going	5
-zhe	Durative	8	Durative	32
	Stative	17		
	Total	25		

### 8.2.3.1.2 Temporal Adverbial

Frequency adverbs have only one usage in L1 and translated MC. Time span in translated MC has five usages, while in L1 has only two usages. Location in L1 MC contains only one basic usage, while in translated MC it has two usages.

(23) Table 104: Temporal Adverbial in Translated and L1 MC

Temporal Adverbial	Translated MC		L1 MC	
Frequency	Habitual	36	Habitual	41
Time Span	Futurate	3	On-going	12
	Completed	15		
	Resultative	131		
	Habitual	9	Resultative	91
	On-going	72	Total	103
	Total	230		
Location	Completed	17	Completed	105
	Resultative	18		
	Total	35		

### 8.2.3.1.3 Lexical Verbs

Auxiliary verbs and accomplishment verbs both have the same usages in translated and L1 MC. L1 MC has no future-oriented verbs. RVC has two usages in translated MC, while contains only one basic usage in L1 MC.

(24) Table 105: Lexical Verb in Translated and L1 MC

Lexical Verb	Translated MC		L1 MC	
Auxiliary verb	Modality	7	Modality	29
	Futurate	2	Futurate	9
	Total	9	Total	38
Future-oriented Verb	Futurate	45	Futurate	5
Accomplishment Verb	Resultative	10	Resultative	20
RVC	Completed	70	Completed	171
	Resultative	4		
	Total	74		

### 8.2.2.3.2 Unmarked: Context

Context in L1 MC has two usages (e.g, completed and habitual/general truth), while in translated MC, it has more (e.g., completed, resultative, habitual, state a fact, on-going, and futurate).

(25) Table 106: Context in Translated and L1 MC

Context	Translated MC		L1 MC	
Zero Form	Completed	40	Completed	51
	Resultative	10	Habitual/ general truth	51
	Habitual	60		
	State a fact	6		
	On-going	36		
	Futurate	1		
Total		153		102

### 8.2.4 Interim Summary

The above results suggest that L1 MC and translated MC are different in terms of distribution of aspect and aspectual marking. Compared with L1 MC, translated MC uses fewer lexically explicit devices and more often the implicit zero form, which hints at the existence of complexity. This shows that explicitation in translated MC contradicts the translation universals. Temporal

adverbials are used most frequently in L1 MC, which can be seen as the most typical feature. Temporal adverbials in translated MC appear more frequently than in L1 MC, and also more than other means. In addition, aspectual marking in translated MC contains more multiple usages than in L1 MC. These phenomena support the feature of normalization.

### 8.3 Summary

All situations in English are translatable into MC, but the two languages use different means to express a given meaning. In English, tense and aspect as reflected by different verb forms are important elements in a sentence to express temporal reference and transform situations into temporal logic operators. That is, all English sentences grammatically mark tense and aspect. In contrast, a MC verb appears in only one form in a sentence no matter whether the event it describes has finished in the past or will take place in the future. MC uses lexical means, either marked or unmarked, to express aspect. The lack of regular morphological tense markers makes MC temporal expressions complicated, and also makes the conventional theory of determining temporal information based on verb inflection inapplicable. Temporal interpretation in MC is determined by aspect marker, temporal adverb, lexical verb or context. A one-to-one equivalence can be found out in English-MC translation from a semantic view, which has no translation problem.

Among these four lexical means, aspect markers, lexical verbs, and context belong to MC aspectual system alone. Temporal adverbials, however, appear in both English and MC. The data collected here suggests that temporal adverbs are used most frequently in translating the English perfect and progressive into MC, most frequently with two temporal adverbials, the typical MC *正在* (*in the process of*) and *已经* (*already*). In fact, in many

cases both adverbials occur only in the MC translation, and not in the English original. The occurrence and position of temporal adverbials is based on the conventions of each language. Considering the category of tense, MC has no tense but only aspect. In order to express the meaning conveyed by English tense, MC uses aspectual marking. As far as aspect is concerned, distributional differences occur in English and MC. Although both languages contain aspect, they have different aspect domains. The parameter of perfective and imperfective aspect varies between languages. Owing to these aspectual differences, aspect shifts occur in translations between English and MC. But, an aspect shift may not change the aspectual meaning. Thus, aspectual marking in translated MC is assumed to be TT-oriented rather than ST-oriented.

Aspectual marking is different between translated MC and L1 MC in terms of distribution and usage. It should be noted that the explicitation of translated MC is contradictory to translation universal hypotheses. But, the normalization hypothesis confirms the hypothesis that translations have their own patterns and even exaggerate it. Thus, the so-called translation universals might be shifting phenomenon between specific languages and apply only to certain features in local translated languages. It is by no means the only phenomena applicable to all translational language.

## **PART IV CONCLUSION**

### **Chapter 9 Conclusion and Outlook**

Translational phenomena are variously defined by scholars as an art, a craft, or a science (Bassnett 1985). By its nature, translation is multilingual and interdisciplinary with reference to the field of linguistics, cultural studies, and communication studies. This dissertation quantitatively analyses translation from English into MC, focusing on tense and aspect, with a corpus-based contrastive approach.

As background, a general description of tense and aspect in both languages has been introduced. Previous studies focuses on generalizing tense and aspect in English and MC. English has two tenses: the simple present and the simple past. The basic meaning of English tense is related to the time. The English perfect belongs to the perfective aspect, which indicates result. The English progressive shows the imperfective aspect, which refers to an on-going situation. MC has no tense, but two aspects: perfective and imperfective aspect. The perfective aspect means resultative and completive, while the imperfective aspect means durative, on-going, and habitual. Although English and MC are unrelated languages, there are some conventional translation patterns which can be followed as tendencies.

In order to study MC translation patterns of English tense and aspect, this dissertation has investigated two relationships based on one main question and conducted three examinations with data collected from two corpora. The examination of translatability concerns the relationship between English and translated MC. The examination of acceptability treats the principle of the translated MC, i.e., it is oriented at the translated or target text. The examination of two translation universals in translated MC, normalization and explicitation, checks the adequacy of translation universals.

The contrast between English and MC shows that English tense and aspect is always translatable into MC. The English grammatical forms are compatible with four lexical means in translated MC: aspect marking, temporal adverbs, lexical verbs, and context. Although these two languages contain different means to express time, one-to-one translation equivalences are always found in the data, while some examples undergo aspect shifts in translation because of different aspectual domains. That is, sometimes the English perfective denotes result, while the MC translation indicates resultative and completiveness; or the English imperfective refers to on-going states, while the MC translation refers to on-going, durative, or habitual states. It is shown that there is no translation problem when translating English tense and aspect into MC. However, the results suggest that temporal adverbials are used more frequently in translated MC, which contradicts previous studies that suggest context is used most frequently in translation. One explanation is that MC temporal adverbials have the same usage as in English. Other lexical means are less frequently used possibly due to the following reasons. First, aspect markers in translated MC, except for *zai*, all have multiple usages. For example, a number of examples in my data set show that the perfective aspect marker *-le* does not always refer to the past, but also the present. Similarly, the durative aspect marker *-zhe* combined with stative verbs is not usually used to translate the English progressive with durative situations, but also the English present. The marker *-guo* is used to translate the English experiential perfect as well as the past. Among these four aspect markers, only the progressive aspect marker *zai* has a fixed expression, which is utilised to express the canonical use of the English progressive, i.e., to denote on-going events. Due to these multiple usages, translational MC prefers using temporal adverbials rather than aspect markers. Secondly, lexical verbs include RVCs, accomplishment verbs,



auxiliary verbs, and future-oriented verbs. RVCs often indicate the completion, as do accomplishment verbs. Future-oriented verbs and auxiliary verbs mark modality in MC. Thus, the usage of lexical verbs is relatively limited. As stative situations are not marked aspectually in MC, context is the most frequently used means to render the English present into MC. The context-dependent zero form presents difficulties in translation for of two reasons: i) the context forms a major challenge to the translator's linguistic judgement and word selection, because an implicit lexical meaning also brings an implicit temporal meaning in a clause; ii) the context may be ambiguous between perfective and imperfective readings, e.g., the zero form can be either perfective or imperfective, depending on translator's choices. In addition, translated MC is not ST-oriented text. One explanation for this is that MC most frequently uses the temporal adverbial *正在* (*in the process of*) to signal the imperfective aspect, while English does not have an analogous temporal adverbial construction.

The contrast between translated and original MC shows that they are statistically different in terms of aspectual distribution and usage. In other words, translated MC is not TT-oriented. The explicitation of translated MC contradicts the translation universal hypotheses. But normalization confirms the hypothesis that translations have their own patterns and even exaggerate them. The so-called translation universals may not be compatible with all natural languages. All in all, translated MC seems to be different from both source English texts and original MC texts. Thus, translated MC seems appropriate to consider as the third code.

The present study provides an example of the centrality of a corpus-based approach within translation and contrastive linguistics. However, different corpora may produce different data results for the same phenomena because of differences in domain and genre. Thus, the presented

data results show features of tense and aspect in English and MC in certain conditions. More research is required to confirm the universal applicability of these findings.

In addition, the work of producing a faithful and accurate translation is a complex transfer process since it consists of reproducing information into another language. Translators have to make use of linguistic knowledge, intellectual capacity, intuition, and translation skill when transferring information, esp. for linguistic and cultural untransability (Tricás 1995; Gerding-Salas 2000). Newmark (1998/1995) distinguishes several important techniques that a proficient translator should have: i) reading comprehension ability in a foreign language; ii) knowledge of the subject sensitivity to language (both mother tongue and foreign language); iii) competence to write the target language dexterously, clearly, economically and resourcefully. To some extent, the quality of translated texts depends on the translator. That is, the result of translation is more or less subjective. As Newmark (1988/1995) states, “translation is for discussion”. Thus, to compare more than one translated version is recommended for foreign language learning.

---

**REFERENCES**

- Aarts, Jan. 1998. Introduction. In: *Corpora and Cross-linguistic Research: Theory, Method, and Case Studies*. Ed. Stig Johansson/Signe Oksefjell. Amsterdam: Rodopi. ix.
- Aijmer, Karin. 2009. Parallel and Comparable Corpora. In: *Corpus Linguistics. An International Handbook*. Ed. Anke Luedeling/Merja Kytöe. Berlin/New York: Mouton de Gruyter. 275-291.
- Aijmer, Karin/Bengt Altenberg. 1996. Introduction. In: *Languages in Contrast. Papers from a Symposium on Text-based Cross-linguistic Studies. Lund 4-5 March 1994*. Ed. Aijmer, Karin/ Bengt Altenberg/ Mats Johansson. Lund Studies in English 88. Lund: Lund University Press. 11-16.
- Appelo, Lisette. 1994. Temporal Expression. In: *Compositional Translation*. Ed. M.T. Rosetta. Dordrecht: Kluwer Academic Publishers. 277-306.
- Arin, Marita L. 2003. *Aspect, Tense, and Mood: Context Dependency and the Maker le in Mandarin Chinese*. Online available: [http://www.lub.lu.se/luft/diss/hum\\_243/hum\\_243.pdf](http://www.lub.lu.se/luft/diss/hum_243/hum_243.pdf)
- Atkins, Sue / Jeremy Clear / Nicholas Ostler. 1992. Corpus Design Criteria. In: *Literary and Linguistic Computing (7/1)*. 1-16.
- Bache, Carl. 1985. *Verbal Aspect: A General Theory and its Application to Present-Day English*. Odense: Odense University Press.

## References

- 
- Baker, Mona. 1992. *In Other Words: A Coursebook on Translation*. London: Routledge.
- , 1993. Corpus Linguistics and Translation Studies: Implications and Applications. In: *Text and Technology: In Honour of John Sinclair*. Ed. Baker, Mona/G. Francis/E. Tognini-Bonelli. Amsterdam/Philadelphia: John Benjamins Publishing Company. 233-250.
- , 1995. Corpora in Translation Studies: An Overview and Some Suggestions for Future Research. *Target* (7). 223-243.
- , 1996. Corpus-based Translation Studies: the Challenges that Lie ahead. In: *Terminology, LSP and Translation: Studies in Language Engineering: in Honour of Juan C. Sager*. Ed. Harold Somers. Amsterdam/Philadelphia: John Benjamins Publishing Company. 175-187.
- , 2000. Linguistic Perspectives on Translation. In: *Oxford Guide to Literature in English Translation*. Ed. Peter France. Oxford: Oxford University Press. 20-26.
- , 2009. Translation Studies. In: *Routledge Encyclopaedia of Translation Studies*. Ed. Mona Baker. London: Routledge. 277-279.
- Bartsch, Renate. 1996. *Situations, Tense, and Aspect. Dynamic Discourse Ontology and the Semantic Flexibility of Temporal System in German and English*. Berlin/New York: Mouton de Gruyter.

References

---

- Bassnett-McGuire, S. 1985. *Translation Studies*. London/New York: Methuen.
- Bennett, Michale. 1981. On Tense and Aspect. In: *Syntax and Semantics. Volume 14. Tense and Aspect*. Ed. Philip Tedeschi /Annie Zaenen. New York: Academic Press. 13-16.
- Bowker, Lynne. 1998. Using Specialized Monolingual Native-Language Corpora as a Translation Resource: A Pilot Study. *Meta (43/4)*. 631-651.
- Bowker, Lynne / Jennifer Pearson. 2002. *Working with Specialized Language: A Practical Guide to Using Corpora*. London/New York.
- Bhat, D.N.Shankara. 1999. *The Prominence of Tense, Aspect and Mood*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Biber, Douglas. 1993. Representativeness in Corpus Design. *Literary and Linguistic Computing (8/4)*. 243-257.
- Binnick, Robert I. 1991. *Time and the Verb: A Guide to the Tense and Aspect*. Oxford: Oxford University Press.
- Blum-Kulka, Shoshana. 1989. Shifts of Cohesion and Coherence in Translation. In: *Interlingua and Intercultural Communication. Discourse and Cognition in Translation and Second Language Acquisition*. Ed. Julian House /Shoshanan Blum-Kulka. Tuebingen: Narr. 17-35.

## References

- 
- Bybee, Joan L./ Revere Perkins / William Pagliuca. 1994. *The Evolution of Grammar. Tense, Aspect, and Modality in the Languages of the World*. Chicago/ London: University of Chicago Press.
- Catford, John C. 1965. *A Linguistic Theory of Translation*. Oxford: Oxford University Press.
- Carlson, Lauri. 1981. Aspect and Quantification. In: *Syntax and Semantics: Tense and Aspect. Volume 14*. Ed. Philip. J. Tedeschi / Annie Zaenen. New York: Academic Press. 31-64.
- Chan, Marjorie K.M. 1980. Temporal Reference in MC: An Analytical-Semantic Approach to the Study of the Morphemes *le*, *zai*, *zhe*, and *ne*. *Journal of the Chinese Language Teachers Association (15/3)*. 33-79.
- Chen, Chien-Chou. 2009. Ambiguity of LE in Chinese: The Perfective as well as Imperfective. *Journal of Chinese Linguistics (37/1)*. 108-127.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- . 1985. *Tense*. Cambridge: Cambridge University Press.
- Conrad, Susan. 2003. *Corpus Linguistics in TESOL Quarterly (37/3)*. Ed. Susan Conrad. 385-574.
- Chao, Yuenren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.

## References

- 
- Cheng, Baobao. 2004. Chinese-English Parallel Corpus Construction and its Application. *Pacific* 18. Online available: <http://www.aclweb.org/anthology/Y/Y04/Y04-1030.pdf>
- Chesterman, Andrea. 1998. *Contrastive Functional Analysis*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Cheung, Hung-nin Samuel/ Sze-yun Liu/Li-lin Shih. 1994. *A Practical Chinese Grammar*. Hongkong: Chinese University Press.
- Chu, Chaucey C./W.V.Chang. 1987. The Discourse Function of the Verbal Suffix -LE in Mandarin. *Journal of Chinese Linguistics* (15/2). 309-333.
- Dai, Yaojing. 1997. 现代汉语时体系统研究 [The Study of Modern Chinese Aspect]. Hangzhou: Zhejiang Education Press.
- Dahl, Östen. 1985. *Tense and Aspect Systems*. Oxford: Blackwell.
- Darwish, Ali. 1989. *The Translation Process: A View of the Mind*.  
Online available: <http://www.translocutions.com/translation/mindview.pdf>
- Dragunov, Alexandr. 1952. 现代汉语时语法研究 [Studies on Modern Chinese Grammar]. Zhoughua Book Press.
- Declerck, Renaat. 1991. *Tense in English: Its Structure and Use in Discourse*. London: Routledge.
- , 2006. *The Grammar of the English Verb Phrase. Volume 1: The*

## References

- 
- Grammar of the English Tense System. A Comprehensive Analysis.*  
Berlin/New York: Mouton de Gruyter.
- Dowty, David R. 1979. *Word Meaning and Montague Grammar*. Dordrecht:  
Kluwer Academic Publishers.
- Dürich, Kristiane. 2005. *The Acquisition of the English Tense and Aspect  
System by German Adult Learners*. Online available:  
[http://www.tu-chemnitz.de/phil/english/chairs/linguist/documents/Duerich  
h\\_MAGarete2.pdf](http://www.tu-chemnitz.de/phil/english/chairs/linguist/documents/Duerich_MAGarete2.pdf)
- Espunya, Anna. 2001. Contrastive and Translational Issues in Rendering the  
English Progressive form into Spanish and Catalan: An Informant-based  
Study. *Meta* (46/3). 535-551.
- Fang, Yuqing. 1992. *实用汉语语法 [A Practical Chinese Grammar]*.  
Beijing: Beijing Language Institute Press.
- Feng, Zhiwei. 2006. Evolution and Present Situation of Corpus Research in  
China. *International Journal of Corpus Linguistics* (11/2). 173-207.
- Fernández, Marlén Izquiereo. 2007. Corpus-based Cross-linguistic Research:  
Directions and Applications [James' Interlingual Linguistics Revisited].  
*Interlingüística* 17. 520-527. Online available: <http://dialnet.unirioja.es>
- Frawley, William. 1992. *Linguistic Semantics*. Hillsdale: Lawrence  
Erlbaum Associates.



## References

- 
- Frankenberg-Garcia, Ana/Diana Santos. 2003. *Introducing COMPARA, the Portuguese-English Parallel Corpus*. Online available:  
<http://anafrankenberg.synthasite.com/resources/F-GarciaSantos2003IntroducingCOMPARA.pdf>
- Gao, Mingkai. 1948. *汉语语法论 [Chinese Grammar]*. Beijing: Commercial Press.
- Granger, Sylviane. 2003. The Corpus Approach: a Common Way forward for Contrastive Linguistics and Translation Studies. In: *Corpus-based Approach to Contrastive Linguistics and Translation Studies*. Ed. Granger, S./J. Lerot/S. Petch-Tyson. Amsterdam/ Nueva York: Podopi. 17-30.
- Granger, Sylviane / Jacques. Lerot/ Stephanie Petch-Tyson. Eds. 2003. *Corpus-based Approaches to Contrastive Linguistics and Translation Studies*. Amsterdam/ Nueva York: Podopi.
- Gerding-Salas, Constanza. 2000. Teaching Translation: Problem and Solutions. *Translation Journal* (4/3). Ed. Gabe Bokor. Online available:  
<http://accurapid.com/journal/13educ.htm>
- Gerzymisch-Arbogast, Heidrun. 2007. *Universal Thought in Translation*. Online available:  
[http://www.euroconferences.info/proceedings/2007\\_Proceedings/2007\\_Gerzymisch-Arbogast\\_Heidrun.pdf](http://www.euroconferences.info/proceedings/2007_Proceedings/2007_Gerzymisch-Arbogast_Heidrun.pdf)

## References

- 
- Givón, Talmy. 2001. *Syntax: An Introduction. Volume 1*. Amsterdam: John Benjamins.
- . 2001. *Syntax: An Introduction. Volume 2*. Amsterdam: John Benjamins.
- Hackmack, Susanne. 2007. *Reichenbach's Theory of Tense and its Application to English*. Online available: <http://www.fb10.unibremen.de/linguistik/khwagner/verb/pdf/Reich.pdf>.
- Halliday, Michale A.K. 1964. Comparison and Translation. In: *The Linguistic Sciences and Language Teaching*. Ed. Halliday, M.A.K. / M.McIntosh/ P. Strevens, London: Longman.
- Halverson, Sandra. 1998. Translation Studies and Representative Corpora: Establishing Links between Translation Corpora, Theoretical/Descriptive Categories and a Conception of the Object of Study. *Meta* (43/4). 494-514.
- Hopkinson, Chris. 2007. Factors in Linguistic Interference: A Case of Study in Translation. *Skase Journal of Translation and Interpretation* (2/1). 13-23.
- Hermans, Theo. 1999. *Translation in System. Descriptive and System-Oriented Approaches Explained*. Manchester: St. Jerome Publishing.
- Hornstein, Norbert. 1990. *As Times Goes by: Tense and Universal Grammar*. London: The MIT Press.

## References

- 
- House, Julian. 2008. Beyond Intervention: Universals in Translation? *Trans-Kom (1/1)*. 6-19.
- Hu, Wenzhe. 1995. Verbal Semantics of the Presentative Sentences. *语言研究 [Language Studies]* 29. 100-112.
- Huang, C.-T. James. 1988. Wo pao-de kuai and Chinese Phrase Structure. *Language* 64. 274-311.
- Huang, Lillian Meei-jin /Philip W. Davis. 1989. An Aspectual System in Mandarin Chinese. *Journal of Chinese Linguistics* 17. 128-166.
- Hüllen, W. 1989. *A User's Grammar of English: Word, Sentence, Text, Interaction*. Ed. W. Zydatis Dirven /W. J. Edmonson. Frankfurt/New York: Peter Lang.
- Huddleston, Rodney/Geoffery K. Pullum et al. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Huddleston, Rodney /Geoffery K. Pullum. 2005. Verbs, Tense, Aspect, and Mood. In: *A Student's Introduction to English Grammar*. Cambridge: Cambridge University Press. 29-62.
- Huston, Susan. 2002. *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press.
- Hsiao, Yuchau E. 2003. Conceptualizations of GUO in Mandarin. *Language and Linguistics (4/2)*. 279-300.

## References

- 
- Iatridou, Sabine. 2000. The Grammatical Ingredients of Counterfactuality. *Linguistic Inquiry* 31. Volume 2. Cambridge: MIT Press Journal. 231-270.
- Ide, Nancy/Greg Priest-Dorman. 2000. *Corpus Encoding Standard (Technische Report)*. Online available: <http://www.cs.vassar.edu/CES/>.
- James, Carl. 1980. *Contrastive Analysis*. London: Longman.
- Jaszczolt, Kasia M. 2002. *Semantics and Pragmatics: Meaning in Language and Discourse*. London/New York: Longman.
- Johansson, Stig/Knut Hofland. 1994. Towards an English-Norwegian Parallel Corpus. In: *Creating and Using English Language Corpora*. Ed. Fries, U./G. Tottie/P. Schneider. Amsterdam/Atlanta: Rodopi. 25-37.
- Johansson, Stig. 2000. *Contrastive Linguistics and Corpora*. Online available: <http://www.hf.uio.no/german/sprik>
- Johnson, Marion R. 1981. A Unified Temporal Theory of Tense and Aspect. In: *Syntax and Semantics: Tense and Aspect. Volume 14*. Ed. Philip. J. Tedeschi / Annie Zaenen. New York: Academic Press. 145-175.
- Johnson, Lars 2000. Viewpoint Operators in European Languages. In: *Tense and Aspect in the Languages of Europe*. Ed. Östen Dahl. Berlin/New York: Mouton de Gruyter. 27-188.

## References

- 
- Kamp, Hans/Uwe Reyle. 1993. *From Discourse to Logic: Introduction to Model Theoretic Semantic of Natural Language, Formal Logic and Discourse Representation Theory*. Dordrecht: Kluwer Academic Publishers.
- Kaskin, Vyacheslav B. 1998. Choice Factors in Translation. *Target* (10/1). 95-110.
- Kenny, Dorothy. 2001. *Lexis and Creativity in Translation. A Corpus-based Study*. Manchester/Northampton: St. Jerome Publishing.
- Kennedy, Graeme D. 1998. *An Introduction to Corpus Linguistics*. London/New York: Longman.
- Kiefer, Ferenc. 2009. Event Structure and the Classification of Verbs. *Bulletin of the Transilvania University of Braşov Volume* (2/51). Online available: [http://but.unitbv.ro/BU2009/BULETIN2009/Series%20IV/BULETIN%20I V%20PDF/31\\_Kiefer.pdf](http://but.unitbv.ro/BU2009/BULETIN2009/Series%20IV/BULETIN%20I V%20PDF/31_Kiefer.pdf)
- Klein, Wolfgang. 1992. The Present Perfect Puzzle. *Language* 68. 525-552.
- , 1994. *Time in Language*. London: Routledge.
- Kröger, Paul. 2005. *Analyzing Grammar: An Introduction*. Cambridge: Cambridge University Press.
- Labeau, Emmanuelle. 2005. *Beyond the Aspect Hypothesis: Tense-Aspect Development in Advanced L2 French*. *Contemporary Studies in*

## References

- 
- Descriptive Linguistics. Volume 5.* Ed. Davis Graeme /Karl A. Bernhardt. Oxford/Bern: Peter Lang.
- LaBaron, Michelle. 2003. *Cross-Cultural Communication*. Online available: [http://www.beyondintractability.org/essay/cross-cultural\\_communication](http://www.beyondintractability.org/essay/cross-cultural_communication)
- Langacker, Ronald W. 1991. *Foundations of Cognitive Grammar. Volume. 2. Descriptive Application*. Stanford: Stanford University Press.
- Laviosa, Sara. 1998a. Universals of Translation. In: *Routledge Encyclopedia of Translation*. London: Routledge. 288-291.
- , 1998. The Corpus-based Approach: A New Paradigm in Translation Studies. *Meta* (43/4). 474-479.
- , 2002. *Corpus-based Translation Studies: Theory, Finding, Applications*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Leech, Geoffery. 2002. Corpora. *The Linguistics Encyclopedia*. Ed. K. Malmkjaer. London: Routledge. 84-93.
- Li, Charles N./Sandra A. Thompson. 1981. *Mandarin Chinese. A Functional Reference Grammar*. Berkeley/Los Angeles: University of California Press.
- Li, Charles N./Sandra A. Thompson/ R.M. Thompson.1982. The Discourse Motivation for the Perfect Aspect: The Mandarin Particle *LE*. In: *Tense-Aspect: Between Semantics and Pragmatics*. Ed. Paul

References

---

- Hopper. Amsterdam: Benjamins. 19-44.
- Li, Dejing/Meizhen Cheng. 1998. *A Practical Chinese Grammar for Foreigners*. Beijing: Sinolingua.
- Li, Shih-Min/Su-Chu Lin/Keh-Jian Chen. 2005. Feature Representations and Logical Compatibility between Temporal Adverbs and Aspects. *Computational Linguistics and Chinese Language Processing. Volume (10/4)*. The Association for Computational Linguistics and Chinese Language Processing. 445-458.
- Lin, Jowang. 2007. Predicate Restriction, Discontinuity Property and the Meaning of the Perfective Marker *guo* in Mandarin Chinese. *Journal of East Asian Linguistics 16*. 237-257.
- Lörscher, Wolfgang. 2005. The Translation Process: Methods and Problems of its Investigation. *Meta (50/2)*. 597-608.
- Lu, Jianmin/Zhen Ma. 1999. 关于时间副词 [About Temporal Adverbials]. In: *现代汉语虚词散论 [A Reader of the Modern Chinese Functional Words]*. Peking University Press. 98-127.
- Mair, Christian. 1997. Parallel Corpora. A Real-time Approach to the Study of Language Change in Progress. *Corpus-based Studies in English*. Ed. M. Ljung. Amsterdam: Rodopi. 195-209.
- Mauranen, Anna. 2006. Will Translationese ruin a CA? *Languages in Contrast (2/2)*. 161-185.

## References

- 
- Micahelis, Laura A. 2006. Time and Tense. In: *The Handbook of English Linguistics*. Ed. B. Aarts/ A. MacMahon. Oxford: Blackwell. 220-234.
- Malmkjaer, Kirsten. 1998. Love Thy Neighbour: Will Parallel Corpora Endear Linguists to Translator? *Meta* (43/4). 534-541.
- . 2005. Norms and Nature in Translation Studies. *Synaps* (16). 13-20.
- Machniewski, Maciej. 2006. Analyzing and Teaching Translation through Corpora: Lexical Convention and Lexical Use. *Poznan Studies in Contemporary Linguistics* 41. 237-255.
- Macken, Lieve/Els Lefever/Veronique Hoste. 2008. Linguistically-based Sub-sentential Alignment for Terminology Exaction from a Bilingual Automatic Corpus. *Proceedings of the 22nd International Conference on Computational Linguistics (Coling 2008)*. 529–536.
- McEnery, Tony/Andrew Wilson. 1996. *Corpus Linguistics*. Edinburgh: Edinburgh University Press.
- McEnery, Anthony. 2003. Corpus Linguistics. In: *Oxford Handbook of Computational Linguistics*. Ed. R. Mitkov. Oxford: Oxford University Press. 448-463.
- McEnery, Tony /Richard Xiao. 2003. *Research Report of Contrasting Aspect and Tense in English and Chinese: A Corpus-Based Perspective*. Online available: [http://www.lancs.ac.uk/postgrad/xiaoz/papers/esrc\\_report.pdf](http://www.lancs.ac.uk/postgrad/xiaoz/papers/esrc_report.pdf).



References

---

McEnery, Anthony/ Zhonghua Xiao/Lili Mo. 2003. Aspect Marking in English and Chinese: Using the Lancaster Corpus of Mandarin Chinese for Contrastive Language Study. *Literary and Linguistic Computing* (18/4). 361-378.

McEnery, Tony /Richard Xiao/Yukio Tono. 2006. Domains, Text Types, Aspect Marking and English-Chinese Translation. In: *Corpus-based Language Studies. An Advanced Resource Book*. London: Routledge. 321-343.

McEnery, Tony/Costas Gabrielatos. 2006. English Corpus Linguistics. In: *The Handbook of English Linguistics*. Ed. B. Aarts / A. McMahon. Oxford: Blackwell Publishing Ltd. 33-71.

McEnery, Anthony/ Zhonghua Xiao. 2007. *Parallel and Comparable Corpora: What are they up to?* Online available:  
[http://eprints.lancs.ac.uk/59/1/corpora\\_and\\_translation.pdf](http://eprints.lancs.ac.uk/59/1/corpora_and_translation.pdf)

Meyer, Charles F./Gerald Nelson. 2006. Data Collection. In: *The Handbook of English Linguistics*. Ed. B. Aarts / A. McMahon. Oxford: Blackwell Publishing Ltd. 93-113.

Michaelis, Laura A. 2006. Time and Tense. In: *The Handbook of English Linguistics*. Ed. B. Aarts /A. McMahon. Oxford: Blackwell. Online available: <http://spot.colorado.edu/~michaeli/MichaelistenseHEL.pdf>

## References

- 
- Moens, Marc/ Mark Steedmann. 1988. Temporal Ontology and Temporal Reference. *Computational Linguistics. Volume (14/2)*. Ed. James F. Allen. 15-28.
- Mourelatos, Alexander. 1981. Events, Processes, and States. In: *Syntax and Semantics. Tense and Aspect. Volume 14*. Ed. Philip Tedeschi /Annie Zaenen. New York: Academic Press.191-212.
- Murphy, Raymond. 2003. *English Grammar in Use. 3<sup>rd</sup> Edintion*. Klett.
- Nida, Eugene A./ Charles R. Taber.1969. *The Theory and Practice of Translation*. Brill Publishers.
- Noël, Dirk. 2003. Translations as Evidence for Semantics: An Illustration. *Linguistics (41/4)*. 757-785.
- Norman, Jerry. 1988. *Chinese*. Cambridge: Cambridge University Press.
- Newmark, Peter. 1988/1995. *A Textbook of Translation*. London: Prentice Hall.
- , 1989. Introductory Survey. In: *The Translator's Handbook*. Ed. C. Picken. London: Aslib.
- Olohan, Maeve. 2001. Spelling out the Optionals in Translation: a Corpus Study. *UCREL Technical Papers. Volume 13*. 423-432.
- , 2004. *Introducing Corpora in Translation Studies*. London: Routledge.

References

---

Olohan, Maeve/Mona Baker. 2000. Reporting *that* in Translated English: Evidence for Subconscious Processes of Explicitation? *Across Languages and Cultures* (1/2). 141-158.

Ogihara, Toshiyuki 1996. Tense, Attitudes, and Scope. *Studies in Linguistics and Philosophy* 58. Dordrecht: Kluwer Academic Publisher.

Palmer, Frank R. 1965/1987. *The English Verb*. 2<sup>nd</sup> Edition. London: Longman.

Pearson, Jennifer. 2003. Using Parallel Texts in the Translator Training Environment. *Corpora in Translation Education*. Ed. F. Zanetti et al. Manchester: St Jerome. 15-24.

Qian, Duoxiu. 2005. Prospects of Machine Translation in the Chinese Context. *Meta* (50/4). Online available:  
<http://www.erudit.org/livre/meta/2005/000221co.pdf>

Quirk, Randolph et al. 1985. *A Comprehensive Grammar of the English Language*. London/New York: Longman.

Reichenbach, Hans. 1947. *Elements of Symbolic Logic*. New York: Macmillan Co.

Ross, Claudia. 1995. Temporal and Aspectual Reference in Mandarin Chinese. *Journal of Chinese Linguistics* (23/1). 87-136.

Sampson, Geoffrey. 2001. *Empirical Linguistics*. London: Continuum.

## References

- 
- Santos, Diana. 1996. *Tense and Aspect in English and Portuguese: a Contrastive Semantical Study*. PhD Thesis. Universidade Tecnica de Lisboa.
- Sauri, Roser/James Pusterjovsky/Bob Ingria. 2002. *TimeML Annotation Guidellines*. Online available:  
[http://www.timeml.org/site/publications/timeMLdocs/annguide\\_1.2.1.pdf](http://www.timeml.org/site/publications/timeMLdocs/annguide_1.2.1.pdf).
- Schilder, Frank/Christopher Hable. 2001. *From Temporal Expressions to Temporal Information: Semantic Tagging of News Messages*. Online available: [http://www.timeml.org/site/terqas/readings/schilder\\_habel.pdf](http://www.timeml.org/site/terqas/readings/schilder_habel.pdf).
- Siemund, Peter. 2003. English. In: *Variation Typology: A Typological Handbook of European Language = Variationstypologie. Ein Sprachtypologisches Handbuch der Europäische Sprachen*. Ed. Thorsten Rölcke. Berlin/New York: Walter de Gruyter. 1-29.
- Siegel, Eric V. 1997. *Learning Methods for Combining Linguistics Indictors to Classifying Verbs*. Online available:  
<http://acl.ldc.upenn.edu/W/W97/W97-0318.pdf>
- Sinclair, John. 1991 *Corpus, Concordance, Collocation: Describing English Language*. Oxford: Oxford University Press.
- Smith, Carlota S. 1981. Semantic and Syntactic Constraints on Temporal Interpretation. In: *Syntax and Semantics. Tense and Aspect. Volume 14*. Ed. Philip Tedeschi /Annie Zaenen. New York: Academic Press. 213-237.

## References

- 
- , 1994. Aspectual Viewpoint and Situation Type in Mandarin Chinese. *Journal of East Asian Linguistics. Volume 3.* 107-146.
- , 1997. *The Parameter of Aspect.* Dordrecht/London: Kluwer Academic.
- , 2006. *The Pragmatic and Semantic of Temporal Meaning.*  
 Online available:  
[http://uts.cc.utexas.edu/~carlota/papers/tls\\_css\\_amp\\_0324.pdf](http://uts.cc.utexas.edu/~carlota/papers/tls_css_amp_0324.pdf)
- Smith, Carlota S./Erbaugh Mary S. 2002. *Temporal Interpretation in Mandarin Chinese.* Online available:  
<http://uts.cc.utexas.edu/~carlota/papers/S%26E%202005.pdf>
- Shen, Yang/ Dingou Zheng. 1995. *Modern Chinese Valency Grammar.* Beijing: Beijing University Press.
- Shi, Ziqiang. 1990. Decomposition of Perfectivity and Inchoativity and the Meaning of the Particle LE in Mandarin Chinese. *Journal of Chinese Linguistics (18/1).* 95-124.
- Shlesinger, Miriam. 1998. Corpus-based Interpreting Studies as an Offshoot of Corpus-based Translation Studies. *Meta (43/4).* 486-493.
- Stubbs, Michael. 2001. *Words and Phrases: Corpus Studies of Lexical Semantics.* Oxford: Blackwell.
- Teng, Shou-hsin. 1975. *A Semantic Study of Transitivity Relations in Chinese.*

## References

Taipei: Student Book Co.

Toury, Gideon. 1980. *In Search of a Theory of Translation*. Tel Aviv: The Porter Institute for Poetics and Semiotics, Tel Aviv University.

-----, 1981. Contrastive Linguistics and Translation Studies: towards a Tripartite Model. In: *Kontrastive Linguistik und Übersetzungswissenschaft: Akten des internationalen Kolloquiums*. Eds. Kühlwein, W./G.Thome/W. Wills. München: Wilhelm Fink Verlag, 251-261.

-----, 1995. *Descriptive Translation Studies and Beyond*. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Tricás, Mercedes. 1995. *Manual de Traducción Francés-castellano*. Gedisa S.A.

Tymoczko, Marai. 1998. Computerized Corpora and the Future of Translation Studies. *Meta* (43/4). 652-660.

Vlach, Frank. 1981. The Semantics and the Progressive. In: *Syntax and Semantics. Volume 14. Tense and Aspect*. Ed. Philip Tedeschi /Annie Zaenen. New York: Academic Press. 271-291.

Vendler, Zeno. 1967. Verbs and Times. *Philosophical Review. Linguistics in Philosophy*. Ithaca: Cornell University Press.

References

---

- Verkuyl, Henk J. 1993. *A Theory of Aspectuality: The Interaction between Temporal and Atemporal Structure*. Cambridge: Cambridge University Press.
- Vinay, Jain P./J.Darbelnet. 1995. *Comparative Stylistics of French and English. A Methodology for Translation*. Amsterdam/Philadelphia: Benjamins Publishing Company.
- Von Fintel, Kai/Lisa Matthewson. 2007. *Universals in Semantics*. Online available: <http://faculty.arts.ubc.ca/lmatthewson/pdf/universals.pdf>
- Wang, Li. 1985. *中国现代语法 [The History of Contemporary Chinese Grammar]*. Beijing: Commercial Press.
- Wang, Keifei/Hongwu Qin. 2010. A Parallel Corpus-based Study of Translational Chinese. *Using Corpora in Contrastive and Translation Studies*. Ed. Richard Xiao. Cambridge: Cambridge Scholars Publishing. 164-181.
- Wallis, Sean A./G. Nelson. 2001. Knowledge Discovery in Grammatically Analyzed Corpora. *Data Mining and Knowledge Discovery (5/4)*. 305-336.
- Wong, Kam-Fai/Wenjie Li/Yuan Chunfa. 1999. *Classifying Temporal Concepts in Chinese for Information Extraction*. Online available: <http://kibs.kaist.ac.kr/nlprs99/finalpaper/605-97.doc>

## References

- 
- Xiao, Richard/Lianzhen He/Ming Yue. 2010. In Pursuit of the 'third code': Using the ZJU Corpus of Translational Chinese in Translation Studies. *Using Corpora in Contrastive and Translation Studies*. Ed. Richard Xiao. Cambridge: Cambridge Scholars Publishing. 182-215.
- Xiao, Richard /Tony McEnery. 2002. *A Corpus-based Approach to Tense and Aspect in English-Chinese Translation*. Online available: <http://eprints.lancs.ac.uk/68/>
- . 2004. *Aspect in Mandarin Chinese: A Corpus-based Studies*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Xiao, Zhonggua/Tony McEnery/Paul Baker/Andrew Hardie. 2004. *Developing Asian Language Corpora: Standards and Practice*. Online available: <http://www.lancs.ac.uk/postgrad/xiaoz/papers/alr04paper.pdf>
- Xue, Nianwen. 2008. Automatic Inference of the Temporal Location of Situations in Chinese Text. *Proceedings of the 2008 Conference on Empirical Methods in Natural Language Processing*. 707-714.
- Yang, Guowen/John A. Bateman. 2002. *The Chinese Aspect System and its Semantic Interpretation*. Online available: <http://www.aclweb.org/anthology/C/C02/C02-1031.pdf>
- Yang, Guowen. *The Analysis of Non-aspectual Properties of Resultative Verbal Complements and Verb Reduplication*. Online available: <http://crlao.ehess.fr/docannexe.php?id=1035>



References

---

- Ye, Yang / Karl-Michael Schneider/ Steven Abney. 2007. Aspect Marker Generation in English-to-Chinese Machine Translation. *Proc. Machine Translation Summit XI*.521-527.
- Yip, Kenneth Man-kam. 1984. *Tense, Aspect, and the Cognitive Representation of Time*. Online available:  
<http://dspace.mit.edu/bitstream/handle/1721.1/6699/AIM-815.pdf?sequence=2>
- Yule, George. 1996. *Pragmatics*. Oxford: Oxford University Press.
- Yuan, Yu/Gao Fei. 2008. *Universals of Translation: A Corpus-based Investigation of Chinese Translated Fiction*. Online available:  
<http://www.lancs.ac.uk/fass/projects/corpus/UCCTS2008Proceedings/papers/Yuan.pdf>
- Zanettin, Federico. 2000. *Corpora in Translation Practice*. Online available:  
<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.136.5669>
- Zhu, Dexi. 1982. *语法讲义[Lectures on Chinese Syntax]*. Beijing: Commercial Press.

Appendix 1: Lebenslauf

---

## **APPENDICES**

**Appendix 1: Lebenslauf**

**Appendix 2: Zusammenfassung in deutscher Sprache***Eine korpusbasierte kontrastive Analyse von Tempus und Aspekt in der Übersetzung vom Englischen ins Mandarin Chinesische*

Aufgrund ihrer globalen Bedeutung stellen die englische und die mandarin chinesische Sprache anerkannte und notwendige Thematiken für eine linguistische Vergleichsstudie dar. Dem ersten Anschein nach weisen beide Sprachen vor allem in der schriftlichen Form kaum Parallelen auf und ohne Zweifel können viele grammatikalische Besonderheiten des Mandarin Chinesischen nicht im Englischen gefunden werden und umgekehrt.

In dieser Arbeit werden der Gebrauch von Tempus und Aspekt zwei Hauptproblemfeldern in der Grammatik untersucht. Betrachtet man das morpho-syntaktische Format, so lässt sich konstatieren, dass sowohl das Englische als auch das Mandarin Chinesische temporale Informationen aufweisen. Tempus und Aspekt werden jedoch nicht in allen Sprachen gleich deutlich voneinander geschieden. Da wir im Englischen und Mandarin Chinesischen verschiedene temporale Informationen unterscheiden, stellen Tempus und Aspekt in beiden Sprachen eine große Herausforderung in der Übersetzungswissenschaft und Kontrastiven Linguistik dar. Auf dieser Basis soll in dieser Dissertation der Versuch unternommen werden, Tempus und Aspekt des Englischen und Mandarin Chinesischen auf der Grundlage einer allgemeinen Theorie der Zeitrelationen zu beschreiben. Kapitel 1 stellt oben genannte Motivationen sowie eine kurze Zusammenfassung dar. Aufgrund derartiger Variationen in beiden Sprachen behandelt das darauf folgende Kapitel eine Übersicht zu der Annahme der Beschreibung von Tempus und Aspekt im Englischen und Mandarin Chinesischen. Diese beinhaltet historische und aktuelle Argumente sowohl auf syntaktischer als auch auf semantischer Ebene. Ziel der theoretischen Basis dieser Arbeit ist es, die

## Appendix 2: Zusammenfassung in deutscher Sprache

---

Charakteristika und Übersetzungsäquivalenz von Tempus und Aspekt in beiden Sprachen zusammenfassend darzustellen, zu diskutieren und die wichtigsten Fakten zu erläutern. In den beiden ersten Kapiteln der theoretischen Basis werden daher die wichtigsten Phänomene von Tempus und Aspekt im Englischen und im Mandarin Chinesischen präsentiert. Kapitel 2 behandelt Tempus und Aspekt im Englischen, sowie die Klassifizierung und Bedeutung dieser Kategorien als wichtige Konzepte. Der Begriff Tempus in seiner grammtischen Bedeutung behandelt die Zeit, in welcher aus der Sicht des Sprechers das Besprochene stattfindet. Daraus folgt, dass das Tempus als sprachliches Mittel die Zeitstufen ausdrückt. Im Gegensatz zum Tempus bezieht sich das Aspekt nicht auf den Zeitpunkt des Vorgangs relativ zum Moment der Aussage, sondern auf die Art und Weise, wie dieser Vorgang betrachtet wird. In der englischen Sprache wird Tempus entweder als grammatische Form oder als semantische Bedeutung bzw. Funktion des Tempus verstanden. Als Tatsache wird in dieser Arbeit akzeptiert, dass das Englische zwei sogenannte Tempora kennt, auf welche sich grammatische Formen aufbauen. Die Gesamtheit der Kategorie des Tempus lässt sich morpho-syntaktisch unterteilen in Präsens (*Present Tense*) und Präteritum (*Past Tense*).<sup>78</sup> Die semantischen Funktionen werden durch die Vergangenheit, Gegenwart und Zukunft zum Ausdruck gebracht. Die Grundtempora können darüber hinaus noch weiter mit Hilfe der sogenannten Aspekte modifiziert werden. Der perfektive Aspekt (z.B. *Perfect*) betrachtet eine abgeschlossene Handlung und das aus ihr resultierende andauernde Ergebnis gleichzeitig. Der imperfektive Aspekt, also das *Progressive*, betrachtet eine Handlung ohne Hinblick auf ihre Abgeschlossenheit, also einen Zustand, der entweder andauert (durativ), oder sich dauernd wiederholt

---

<sup>78</sup> Da im Rahmen dieser Arbeit vornehmlich mit englischsprachiger Literatur gearbeitet wurde, ist eine adäquate Übersetzung von Fachtermini teilweise problematisch. Aus Gründen der besseren Verständlichkeit sind die englischen Ausdrücke zum Teil in Klammern mit angegeben.

## Appendix 2: Zusammenfassung in deutscher Sprache

---

(iterativ). Im Englischen werden Zeitstufen und Aspekte systematisch miteinander kombiniert, so dass zu jedem Aspekt zwei Zeitstufen existieren. In der mandarin chinesischen Sprache unterscheidet man morphologisch nur den Aspekt und kennt keine grundsätzliche Kategorisierung in Zeitstufen. Kapitel 3 stellt die Beschreibung des mandarin chinesischen Aspektes mit Hilfe von Beispielen dar. Anhand weiterer Beispiele wird illustriert, dass das Mandarin Chinesische eine Reihe von Aspektmarkierungen aufweist, um temporale Eigenschaften darzustellen: die Verbsuffixe *-le* und *-guo* drücken hierbei den perfektiven Aspekt aus während die Verbsuffixe *-zhe* und *zai* für den imperfektiven Aspekt verwendet werden. Das Mandarin Chinesische weist gegenüber flektierenden Sprachen wie Englisch häufiger Derivation und Komposition auf. Kapitel 4 beschäftigt sich mit der Übersetzungsäquivalenz beider Sprachen und erweitert damit gleichsam die theoretischen Darstellungen der vorangegangenen Kapitel. Zusammenfassend lässt sich konstatieren, dass jedes Tempus und jeder Aspekt im Englischen eine Übersetzungsäquivalenz im Mandarin Chinesischen besitzt.

Daran schließen sich in Kapitel 5 drei Fragen an. Frage 1 lautet: Wie und zu welchem Grad werden Tempus und Aspekt des Englischen ins Mandarin Chinesische übersetzt? Frage 2 lautet: Werden übersetzte mandarin chinesische Texte als zieltexorientiert (*TT-oriented*) oder ausgangstexorientiert (*ST-oriented*) eingeordnet oder bietet sich besser ein dritter Code (*third code*) an, um Übersetzungen dieser Art gerecht zu beschreiben? Frage 3 lautet: Ist die Übersetzungsuniversal als eine linguistische Eigenheit anwendbar? Für die englisch-mandarin chinesische Übersetzung stehen diese Fragen derzeit offen, während Übersetzungen zwischen europäischen Sprachen in derartigen Fällen ausführlich untersucht worden sind.

Um die Fragen zu beantworten und die Antworten zu erklären, stellt Kapitel 6 eine korpusbasierte Methode für die Übersetzungswissenschaft und Kontrastive Linguistik zwischen dem Englischen und Mandarin Chinesischen bereit. Die in dieser Arbeit zusammengetragenen Daten wurden vor allem zwei Korpora entnommen: das Babel English-Chinese Parallel Corpus welches Übersetzungsäquivalenz erhebt, und das Lancaster Corpus of Mandarin Chinese welches L1 mandarin chinesische Daten sammelt. Statistische Verfahren zur Untersuchung und Darstellung, wie zum Beispiel Persons Chi-Quadrat-Test, unterstützen die empirische Evaluation.

Vor dem Hintergrund der obigen Beschreibung sind die Ergebnisse der Arbeit in Kapitel 7 und 8 zusammengefasst, je nach Bedeutung der temporalen Informationen, unterschiedlich mehr oder wenig eingeschränkt. Folgende Punkte fassen die Ergebnisse der Analysen in kurzer Form zusammen: i) Kontext wird häufiger verwendet im Mandarin Chinesischen, um die englische Gegenwart zu übersetzen; ii) die englische Vergangenheit wird meist durch die mandarin chinesische perfektive Aspektmarkierung (*aspect marker*) realisiert; iii) temporale Adverbien werden am häufigsten benutzt, um das englische Perfekt und Progressive auszudrücken. In Bezug auf generelle Übersetzungsäquivalenz scheint das Mandarin Chinesische alle englischen Tempora und Aspekte vorzüglich mit temporalen Adverbien zu übersetzen. Da Mandarin Chinesisch wie bereits erwähnt nur zwei Aspekte umfasst, behandelt das Konzept des Aspekts unterschiedliche Domänen in beiden Sprachen. Daher kommt es in einigen Fällen innerhalb von englisch-mandarin chinesischen Übersetzungen zu Aspektverschiebungen (*aspect shifts*). Neben der Darstellung von Übersetzungsäquivalenz in beiden Sprachen spielt der linguistische Vergleich eine wesentliche Rolle in dieser Arbeit. Durch einen statistischen Vergleich konnten signifikante Unterschiede i) zwischen mandarin chinesischem Zieltext und L1 Mandarin

Chinesisch und ii) zwischen mandarin chinesischem Zieltext und englischem Ausgangstext hinsichtlich von Funktionen und Distributionen von Tempus und Aspekt festgestellt werden. Damit kann dem übersetzten Mandarin Chinesisch ein dritter Code zugesprochen werden. In Anlehnung an die Korpusdaten unterstützt der Unterschied zwischen mandarin chinesischem Zieltext und L1 Mandarin Chinesisch die „*normalization hypotheses*“, aber nicht das Merkmal der Explizierung (*explicitation*).

Die Analyse hat gezeigt, zu welchem Grad die auf europäische Sprachen zurückgehenden linguistischen Theorien ins Mandarin Chinesische extrapoliert werden können. Im Abschluss werden die Untersuchungsergebnisse in Kapitel 9 zusammengefasst, in dem überprüft wird, wie die aufgestellten Fragen beantwortet werden konnten, und welche der aufgestellten Hypothesen verifiziert bzw. falsifiziert werden konnten. Außerdem sollen Defizite der vorliegenden Arbeit kritisch reflektiert und weitere Forschungsperspektiven aufgezeigt werden.

### Appendix 3: Sentence ID of Corpus Data

---

#### Appendix 3: Sentence ID of Corpus Data

1) Data from Bable: English source text

Present

Number	Sentence ID
1	utfbifile0.txt_0012
2	utfbifile0.txt_0013
3	utfbifile0.txt_0014
4	utfbifile0.txt_0015
5	utfbifile0.txt_0015
6	utfbifile0.txt_0016
7	utfbifile0.txt_0017
8	utfbifile0.txt_0018
9	utfbifile0.txt_0020
10	utfbifile0.txt_0024
11	utfbifile0.txt_0025
12	utfbifile0.txt_0026
13	utfbifile0.txt_0027
14	utfbifile0.txt_0028
15	utfbifile0.txt_0029
16	utfbifile0.txt_0030
17	utfbifile0.txt_0033
18	utfbifile0.txt_0035
19	utfbifile0.txt_0048
20	utfbifile0.txt_0089
21	utfbifile0.txt_0090
22	utfbifile0.txt_0101
23	utfbifile0.txt_0102
24	utfbifile0.txt_0103
25	utfbifile0.txt_0118
26	utfbifile0.txt_0130
27	utfbifile0.txt_0151
28	utfbifile0.txt_0156
29	utfbifile0.txt_0161
30	utfbifile0.txt_0162
31	utfbifile0.txt_0163
32	utfbifile0.txt_0173
33	utfbifile0.txt_0174
34	utfbifile0.txt_0175
35	utfbifile0.txt_0176
36	utfbifile0.txt_0177



## Appendix 3: Sentence ID of Corpus Data

---

37	utfbifile0.txt_0178
38	utfbifile0.txt_0179
39	utfbifile0.txt_0180
40	utfbifile0.txt_0184
41	utfbifile0.txt_0185
42	utfbifile0.txt_0186
43	utfbifile0.txt_0187
44	utfbifile0.txt_0194
45	utfbifile0.txt_0201
46	utfbifile0.txt_0207
47	utfbifile0.txt_0218
48	utfbifile0.txt_0219
49	utfbifile0.txt_0224
50	utfbifile0.txt_0225
51	utfbifile0.txt_0233
52	utfbifile0.txt_0260
53	utfbifile0.txt_0274
54	utfbifile0.txt_0275
55	utfbifile0.txt_0283
56	utfbifile0.txt_0297
57	utfbifile0.txt_0302
58	utfbifile0.txt_0307
59	utfbifile0.txt_0308
60	utfbifile0.txt_0312
61	utfbifile0.txt_0313
62	utfbifile0.txt_0316
63	utfbifile0.txt_0323
64	utfbifile0.txt_0328
65	utfbifile0.txt_0330
66	utfbifile0.txt_0332
67	utfbifile0.txt_0333
68	utfbifile0.txt_0334
69	utfbifile0.txt_0335
70	utfbifile0.txt_0336
71	utfbifile0.txt_0337
72	utfbifile0.txt_0339
73	utfbifile0.txt_0340
74	utfbifile0.txt_0341
75	utfbifile0.txt_0342
76	utfbifile0.txt_0343
77	utfbifile0.txt_0344

## Appendix 3: Sentence ID of Corpus Data

---

78	utfbifile0.txt_0345
79	utfbifile0.txt_0346
80	utfbifile0.txt_0347
81	utfbifile0.txt_0348
82	utfbifile0.txt_0349
83	utfbifile0.txt_0350
84	utfbifile0.txt_0351
85	utfbifile0.txt_0352
86	utfbifile0.txt_0353
87	utfbifile0.txt_0354
88	utfbifile0.txt_0355
89	utfbifile0.txt_0356
90	utfbifile0.txt_0357
91	utfbifile0.txt_0358
92	utfbifile0.txt_0359
93	utfbifile0.txt_0331
94	utfbifile0.txt_0303
95	utfbifile0.txt_0304
96	utfbifile0.txt_0305
97	utfbifile0.txt_0306
98	utfbifile0.txt_0360
99	utfbifile0.txt_0361
100	utfbifile0.txt_0362
101	utfbifile0.txt_0363
102	utfbifile0.txt_0364
103	utfbifile0.txt_0365
104	utfbifile0.txt_0368
105	utfbifile0.txt_0369
106	utfbifile0.txt_0370
107	utfbifile0.txt_0371
108	utfbifile0.txt_0372
109	utfbifile0.txt_0373
110	utfbifile0.txt_0374
111	utfbifile0.txt_0375
112	utfbifile0.txt_0376
113	utfbifile0.txt_0377
114	utfbifile0.txt_0378
115	utfbifile0.txt_0379
116	utfbifile0.txt_0380
117	utfbifile0.txt_0381
118	utfbifile0.txt_0382

## Appendix 3: Sentence ID of Corpus Data

---

119	utfbifile0.txt_0383
120	utfbifile0.txt_0384
121	utfbifile0.txt_0385
122	utfbifile0.txt_0386
123	utfbifile0.txt_0394
124	utfbifile0.txt_0395
125	utfbifile0.txt_0397
126	utfbifile0.txt_0398
127	utfbifile0.txt_0400
128	utfbifile0.txt_0401
129	utfbifile0.txt_0402
130	utfbifile0.txt_0403
131	utfbifile0.txt_0404
132	utfbifile0.txt_0405
133	utfbifile0.txt_0406
134	utfbifile0.txt_0407
135	utfbifile0.txt_0408
136	utfbifile0.txt_0410
137	utfbifile0.txt_0411
138	utfbifile0.txt_0412
139	utfbifile0.txt_0413
140	utfbifile0.txt_0419
141	utfbifile0.txt_0420
142	utfbifile0.txt_0421
143	utfbifile0.txt_0423
144	utfbifile0.txt_0425
145	utfbifile0.txt_0428
146	utfbifile0.txt_0433
147	utfbifile0.txt_0490
148	utfbifile0.txt_0498
149	utfbifile0.txt_0500
150	utfbifile0.txt_0501
151	utfbifile0.txt_0502
152	utfbifile0.txt_0502
153	utfbifile0.txt_0503
154	utfbifile0.txt_0504
155	utfbifile0.txt_0513
156	utfbifile0.txt_0521
157	utfbifile0.txt_0523
158	utfbifile0.txt_0530
159	utfbifile0.txt_0537

## Appendix 3: Sentence ID of Corpus Data

---

160	utfbifile0.txt_0538
161	utfbifile0.txt_0540
162	utfbifile0.txt_0549
163	utfbifile0.txt_0558
164	utfbifile0.txt_0569
165	utfbifile0.txt_0592
166	utfbifile0.txt_0597
167	utfbifile0.txt_0604
168	utfbifile0.txt_0619
169	utfbifile0.txt_0636
170	utfbifile0.txt_0650
171	utfbifile0.txt_0666
172	utfbifile0.txt_0670
173	utfbifile0.txt_0672
174	utfbifile0.txt_0701
175	utfbifile0.txt_0702
176	utfbifile0.txt_0703
177	utfbifile0.txt_0704
178	utfbifile0.txt_0705
179	utfbifile0.txt_0706
180	utfbifile0.txt_0708
181	utfbifile0.txt_0726
182	utfbifile0.txt_0727
183	utfbifile0.txt_0728
184	utfbifile0.txt_0734
185	utfbifile0.txt_0735
186	utfbifile0.txt_0736
187	utfbifile0.txt_0738
188	utfbifile0.txt_0746
189	utfbifile0.txt_0747
190	utfbifile0.txt_0755
191	utfbifile0.txt_0756
192	utfbifile0.txt_0757
193	utfbifile0.txt_0760
194	utfbifile0.txt_0781
195	utfbifile0.txt_0804
196	utfbifile0.txt_0831
197	utfbifile0.txt_1324
198	utfbifile0.txt_1366
199	utfbifile0.txt_1398
200	utfbifile0.txt_1434

## Appendix 3: Sentence ID of Corpus Data

Past

Number	Sentence ID
1	utfbifile0.txt_0019
2	utfbifile0.txt_0039
3	utfbifile0.txt_0043
4	utfbifile0.txt_0044
5	utfbifile0.txt_0053
6	utfbifile0.txt_0054
7	utfbifile0.txt_0056
8	utfbifile0.txt_0057
9	utfbifile0.txt_0061
10	utfbifile0.txt_0062
11	utfbifile0.txt_0063
12	utfbifile0.txt_0064
13	utfbifile0.txt_0065
14	utfbifile0.txt_0066
15	utfbifile0.txt_0067
16	utfbifile0.txt_0068
17	utfbifile0.txt_0069
18	utfbifile0.txt_0070
19	utfbifile0.txt_0071
20	utfbifile0.txt_0074
21	utfbifile0.txt_0075
22	utfbifile0.txt_0076
23	utfbifile0.txt_0077
24	utfbifile0.txt_0079
25	utfbifile0.txt_0083
26	utfbifile0.txt_0084
27	utfbifile0.txt_0085
28	utfbifile0.txt_0086
29	utfbifile0.txt_0087
30	utfbifile0.txt_0088
31	utfbifile0.txt_0089
32	utfbifile0.txt_0090
33	utfbifile0.txt_0093
34	utfbifile0.txt_0094
35	utfbifile0.txt_0095
36	utfbifile0.txt_0097
37	utfbifile0.txt_0099
38	utfbifile0.txt_0100
39	utfbifile0.txt_0104

## Appendix 3: Sentence ID of Corpus Data

---

40	utfbifile0.txt_0106
41	utfbifile0.txt_0107
42	utfbifile0.txt_0108
43	utfbifile0.txt_0109
44	utfbifile0.txt_0110
45	utfbifile0.txt_0111
46	utfbifile0.txt_0112
47	utfbifile0.txt_0113
48	utfbifile0.txt_0114
49	utfbifile0.txt_0115
50	utfbifile0.txt_0116
51	utfbifile0.txt_0118
52	utfbifile0.txt_0120
53	utfbifile0.txt_0122
54	utfbifile0.txt_0123
55	utfbifile0.txt_0124
56	utfbifile0.txt_0125
57	utfbifile0.txt_0126
58	utfbifile0.txt_0127
59	utfbifile0.txt_0129
60	utfbifile0.txt_0130
61	utfbifile0.txt_0131
62	utfbifile0.txt_0132
63	utfbifile0.txt_0133
64	utfbifile0.txt_0134
65	utfbifile0.txt_0136
66	utfbifile0.txt_0137
67	utfbifile0.txt_0139
68	utfbifile0.txt_0140
69	utfbifile0.txt_0142
70	utfbifile0.txt_0143
71	utfbifile0.txt_0144
72	utfbifile0.txt_0145
73	utfbifile0.txt_0148
74	utfbifile0.txt_0149
75	utfbifile0.txt_0155
76	utfbifile0.txt_0156
77	utfbifile0.txt_0158
78	utfbifile0.txt_0159
79	utfbifile0.txt_0160
80	utfbifile0.txt_0162

## Appendix 3: Sentence ID of Corpus Data

---

81	utfbifile0.txt_0163
82	utfbifile0.txt_0164
83	utfbifile0.txt_0165
84	utfbifile0.txt_0166
85	utfbifile0.txt_0167
86	utfbifile0.txt_0168
87	utfbifile0.txt_0169
88	utfbifile0.txt_0171
89	utfbifile0.txt_0178
90	utfbifile0.txt_0179
91	utfbifile0.txt_0180
92	utfbifile0.txt_0188
93	utfbifile0.txt_0191
94	utfbifile0.txt_0192
95	utfbifile0.txt_0193
96	utfbifile0.txt_0194
97	utfbifile0.txt_0196
98	utfbifile0.txt_0197
99	utfbifile0.txt_0200
100	utfbifile0.txt_0203
101	utfbifile0.txt_0206
102	utfbifile0.txt_0208
103	utfbifile0.txt_0209
104	utfbifile0.txt_0210
105	utfbifile0.txt_0211
106	utfbifile0.txt_0216
107	utfbifile0.txt_0225
108	utfbifile0.txt_0226
109	utfbifile0.txt_0227
110	utfbifile0.txt_0229
111	utfbifile0.txt_0230
112	utfbifile0.txt_0232
113	utfbifile0.txt_0234
114	utfbifile0.txt_0235
115	utfbifile0.txt_0236
116	utfbifile0.txt_0237
117	utfbifile0.txt_0238
118	utfbifile0.txt_0239
119	utfbifile0.txt_0241
120	utfbifile0.txt_0243
121	utfbifile0.txt_0247

## Appendix 3: Sentence ID of Corpus Data

---

122	utfbifile0.txt_0250
123	utfbifile0.txt_0251
124	utfbifile0.txt_0252
125	utfbifile0.txt_0254
126	utfbifile0.txt_0255
127	utfbifile0.txt_0256
128	utfbifile0.txt_0257
129	utfbifile0.txt_0258
130	utfbifile0.txt_0261
131	utfbifile0.txt_0262
132	utfbifile0.txt_0263
133	utfbifile0.txt_0264
134	utfbifile0.txt_0265
135	utfbifile0.txt_0260
136	utfbifile0.txt_0266
137	utfbifile0.txt_0267
138	utfbifile0.txt_0270
139	utfbifile0.txt_0268
140	utfbifile0.txt_0269
141	utfbifile0.txt_0271
142	utfbifile0.txt_0272
143	utfbifile0.txt_0275
144	utfbifile0.txt_0276
145	utfbifile0.txt_0277
146	utfbifile0.txt_0279
147	utfbifile0.txt_0280
148	utfbifile0.txt_0281
149	utfbifile0.txt_0282
150	utfbifile0.txt_0305
151	utfbifile0.txt_0338
152	utfbifile0.txt_0369
153	utfbifile0.txt_0383
154	utfbifile0.txt_0384
155	utfbifile0.txt_0386
156	utfbifile0.txt_0390
157	utfbifile0.txt_0391
158	utfbifile0.txt_0392
159	utfbifile0.txt_0434
160	utfbifile0.txt_0435
161	utfbifile0.txt_0437
162	utfbifile0.txt_0439



## Appendix 3: Sentence ID of Corpus Data

---

163	utfbifile0.txt_0442
164	utfbifile0.txt_0444
165	utfbifile0.txt_0454
166	utfbifile0.txt_0459
167	utfbifile0.txt_0463
168	utfbifile0.txt_0464
169	utfbifile0.txt_0465
170	utfbifile0.txt_0467
171	utfbifile0.txt_0468
172	utfbifile0.txt_0471
173	utfbifile0.txt_0476
174	utfbifile0.txt_0477
175	utfbifile0.txt_0478
176	utfbifile0.txt_0484
177	utfbifile0.txt_0485
178	utfbifile0.txt_0499
179	utfbifile0.txt_0546
180	utfbifile0.txt_0547
181	utfbifile0.txt_0591
182	utfbifile0.txt_0616
183	utfbifile0.txt_0617
184	utfbifile0.txt_0627
185	utfbifile0.txt_0629
186	utfbifile0.txt_0634
187	utfbifile0.txt_0635
188	utfbifile0.txt_0641
189	utfbifile0.txt_0685
190	utfbifile0.txt_0688
191	utfbifile0.txt_0689
192	utfbifile0.txt_0690
193	utfbifile0.txt_0699
194	utfbifile0.txt_0710
195	utfbifile0.txt_0742
196	utfbifile0.txt_0787
197	utfbifile0.txt_0801
198	utfbifile0.txt_0811
199	utfbifile0.txt_0822
200	utfbifile0.txt_0849

## Appendix 3: Sentence ID of Corpus Data

## Perfect

Number	Sentence ID
1	utfbifile0.txt_0036
2	utfbifile0.txt_0037
3	utfbifile0.txt_0269
4	utfbifile0.txt_0301
5	utfbifile0.txt_0342
6	utfbifile0.txt_03422
7	utfbifile0.txt_03440
8	utfbifile0.txt_03463
9	utfbifile0.txt_0361
10	utfbifile0.txt_0373
11	utfbifile0.txt_0410
12	utfbifile0.txt_0500
13	utfbifile0.txt_0533
14	utfbifile0.txt_0535
15	utfbifile0.txt_0576
16	utfbifile0.txt_0651
17	utfbifile0.txt_0652
18	utfbifile0.txt_0682
19	utfbifile0.txt_0740
20	utfbifile0.txt_0759
21	utfbifile0.txt_0778
22	utfbifile0.txt_0836
23	utfbifile0.txt_0944
24	utfbifile0.txt_0959
25	utfbifile0.txt_0968
26	utfbifile0.txt_1_3_5
27	utfbifile0.txt_1_6_2
28	utfbifile0.txt_1020
29	utfbifile0.txt_1067
30	utfbifile0.txt_1071
31	utfbifile0.txt_11_1_3
32	utfbifile0.txt_1147
33	utfbifile0.txt_1164
34	utfbifile0.txt_1231
35	utfbifile0.txt_1446
36	utfbifile0.txt_1455
37	utfbifile0.txt_1460
38	utfbifile0.txt_1535
39	utfbifile0.txt_1549

## Appendix 3: Sentence ID of Corpus Data

40	utfbifile0.txt_1602
41	utfbifile0.txt_1606
42	utfbifile0.txt_1611
43	utfbifile0.txt_1619
44	utfbifile0.txt_1670
45	utfbifile0.txt_1675
46	utfbifile0.txt_1677
47	utfbifile0.txt_1691
48	utfbifile0.txt_17_20_3
49	utfbifile0.txt_17_21_1
50	utfbifile0.txt_1727
51	utfbifile0.txt_1743
52	utfbifile0.txt_1762
53	utfbifile0.txt_1763
54	utfbifile0.txt_1768
55	utfbifile0.txt_1769
56	utfbifile0.txt_1771
57	utfbifile0.txt_18_1_6
58	utfbifile0.txt_1865
59	utfbifile0.txt_1926
60	utfbifile0.txt_1973
61	utfbifile0.txt_2_2_4
62	utfbifile0.txt_21_2_1
63	utfbifile0.txt_2200
64	utfbifile0.txt_2234
65	utfbifile0.txt_2248
66	utfbifile0.txt_2281
67	utfbifile0.txt_2287
68	utfbifile0.txt_23_6_2
69	utfbifile0.txt_2309
70	utfbifile0.txt_25_26_2
71	utfbifile0.txt_26_3_3
72	utfbifile0.txt_2639
73	utfbifile0.txt_2640
74	utfbifile0.txt_2643
75	utfbifile0.txt_2646
76	utfbifile0.txt_2682
77	utfbifile0.txt_2686
78	utfbifile0.txt_2694
79	utfbifile0.txt_27_10_2
80	utfbifile0.txt_27_18_2

## Appendix 3: Sentence ID of Corpus Data

---

81	utfbifile0.txt_27_3_3
82	utfbifile0.txt_27_7_3
83	utfbifile0.txt_28_4_1
84	utfbifile0.txt_28_6_1
85	utfbifile0.txt_2817
86	utfbifile0.txt_2822
87	utfbifile0.txt_2852
88	utfbifile0.txt_2882
89	utfbifile0.txt_2889
90	utfbifile0.txt_29_4_2
91	utfbifile0.txt_29_5_6
92	utfbifile0.txt_29_7_1
93	utfbifile0.txt_29_7_6
94	utfbifile0.txt_2944
95	utfbifile0.txt_2945
96	utfbifile0.txt_2967
97	utfbifile0.txt_2994
98	utfbifile0.txt_2995
99	utfbifile0.txt_3_1_3
100	utfbifile0.txt_3_14_4
101	utfbifile0.txt_3_14_5
102	utfbifile0.txt_3_5_3
103	utfbifile0.txt_3_7_2
104	utfbifile0.txt_3_9_2
105	utfbifile0.txt_3_9_2
106	utfbifile0.txt_3028
107	utfbifile0.txt_3032
108	utfbifile0.txt_3037
109	utfbifile0.txt_3058
110	utfbifile0.txt_3098
111	utfbifile0.txt_31_1_1
112	utfbifile0.txt_3152
113	utfbifile0.txt_3159
114	utfbifile0.txt_3179
115	utfbifile0.txt_3187
116	utfbifile0.txt_3191
117	utfbifile0.txt_32_1_6
118	utfbifile0.txt_3206
119	utfbifile0.txt_3210
120	utfbifile0.txt_3240
121	utfbifile0.txt_3261

## Appendix 3: Sentence ID of Corpus Data

---

122	utfbifile0.txt_3262
123	utfbifile0.txt_3274
124	utfbifile0.txt_3278
125	utfbifile0.txt_3279
126	utfbifile0.txt_33_1_2
127	utfbifile0.txt_33_5_3
128	utfbifile0.txt_33_5_5
129	utfbifile0.txt_33_8_2
130	utfbifile0.txt_33_8_3
131	utfbifile0.txt_3347
132	utfbifile0.txt_3378
133	utfbifile0.txt_3379
134	utfbifile0.txt_3387
135	utfbifile0.txt_3388
136	utfbifile0.txt_34_5_5
137	utfbifile0.txt_3408
138	utfbifile0.txt_3409
139	utfbifile0.txt_3422
140	utfbifile0.txt_3439
141	utfbifile0.txt_3440
142	utfbifile0.txt_3463
143	utfbifile0.txt_3468
144	utfbifile0.txt_3469
145	utfbifile0.txt_3475
146	utfbifile0.txt_3497
147	utfbifile0.txt_3498
148	utfbifile0.txt_35_3_2
149	utfbifile0.txt_3509
150	utfbifile0.txt_3938
151	utfbifile0.txt_3958
152	utfbifile0.txt_3960
153	utfbifile0.txt_3971
154	utfbifile0.txt_3972
155	utfbifile0.txt_4_1_1
156	utfbifile0.txt_4_4_4
157	utfbifile0.txt_4_5_3
158	utfbifile0.txt_41_2_2
159	utfbifile0.txt_41_6_1
160	utfbifile0.txt_4228
161	utfbifile0.txt_4421
162	utfbifile0.txt_4501

## Appendix 3: Sentence ID of Corpus Data

---

163	utfbifile0.txt_4543
164	utfbifile0.txt_4552
165	utfbifile0.txt_4573
166	utfbifile0.txt_46_2_4
167	utfbifile0.txt_4600
168	utfbifile0.txt_4617
169	utfbifile0.txt_4618
170	utfbifile0.txt_4680
171	utfbifile0.txt_47_3_3
172	utfbifile0.txt_4787
173	utfbifile0.txt_48_6_3
174	utfbifile0.txt_5_6_1
175	utfbifile0.txt_50_16_1
176	utfbifile0.txt_5186
177	utfbifile0.txt_5207
178	utfbifile0.txt_5361
179	utfbifile0.txt_5411
180	utfbifile0.txt_5446
181	utfbifile0.txt_5447
182	utfbifile0.txt_5479
183	utfbifile0.txt_5481
184	utfbifile0.txt_5482
185	utfbifile0.txt_5491
186	utfbifile0.txt_5492
187	utfbifile0.txt_5587
188	utfbifile0.txt_5592
189	utfbifile0.txt_5606
190	utfbifile0.txt_5660
191	utfbifile0.txt_5868
192	utfbifile0.txt_5973
193	utfbifile0.txt_6_1_2
194	utfbifile0.txt_6_3_1
195	utfbifile0.txt_6_3_1
196	utfbifile0.txt_7_3_3
197	utfbifile0.txt_7_3_4
198	utfbifile0.txt_7_5_3
199	utfbifile0.txt_8_1_1
200	utfbifile0.txt_8_2_5

## Appendix 3: Sentence ID of Corpus Data

## Progressive

Number	Sentence ID
1	utfbifile0.txt_0010
2	utfbifile0.txt_0033
3	utfbifile0.txt_0065
4	utfbifile0.txt_0066
5	utfbifile0.txt_0078
6	utfbifile0.txt_0098
7	utfbifile0.txt_0099
8	utfbifile0.txt_0121
9	utfbifile0.txt_0141
10	utfbifile0.txt_0257
11	utfbifile0.txt_0260
12	utfbifile0.txt_0269
13	utfbifile0.txt_0332
14	utfbifile0.txt_0349
15	utfbifile0.txt_0383
16	utfbifile0.txt_0409
17	utfbifile0.txt_0411
18	utfbifile0.txt_0413
19	utfbifile0.txt_0421
20	utfbifile0.txt_0422
21	utfbifile0.txt_0433
22	utfbifile0.txt_0453
23	utfbifile0.txt_0488
24	utfbifile0.txt_0499
25	utfbifile0.txt_0514
26	utfbifile0.txt_0523
27	utfbifile0.txt_0540
28	utfbifile0.txt_0569
29	utfbifile0.txt_0574
30	utfbifile0.txt_0670
31	utfbifile0.txt_0670
32	utfbifile0.txt_0725
33	utfbifile0.txt_0749
34	utfbifile0.txt_0750
35	utfbifile0.txt_0769
36	utfbifile0.txt_0770
37	utfbifile0.txt_0809
38	utfbifile0.txt_0812
39	utfbifile0.txt_0813

## Appendix 3: Sentence ID of Corpus Data

---

40	utfbifile0.txt_0825
41	utfbifile0.txt_0877
42	utfbifile0.txt_1071
43	utfbifile0.txt_1073
44	utfbifile0.txt_1083
45	utfbifile0.txt_1133
46	utfbifile0.txt_1156
47	utfbifile0.txt_1193
48	utfbifile0.txt_1199
49	utfbifile0.txt_1204
50	utfbifile0.txt_1206
51	utfbifile0.txt_1212
52	utfbifile0.txt_1220
53	utfbifile0.txt_1221
54	utfbifile0.txt_1310
55	utfbifile0.txt_1315
56	utfbifile0.txt_1315
57	utfbifile0.txt_1325
58	utfbifile0.txt_1325
59	utfbifile0.txt_1342
60	utfbifile0.txt_1343
61	utfbifile0.txt_1363
62	utfbifile0.txt_1391
63	utfbifile0.txt_1404
64	utfbifile0.txt_1421
65	utfbifile0.txt_1485
66	utfbifile0.txt_1519
67	utfbifile0.txt_1519
68	utfbifile0.txt_1522
69	utfbifile0.txt_1523
70	utfbifile0.txt_1524
71	utfbifile0.txt_1524
72	utfbifile0.txt_1531
73	utfbifile0.txt_1570
74	utfbifile0.txt_1594
75	utfbifile0.txt_1657
76	utfbifile0.txt_1667
77	utfbifile0.txt_1684
78	utfbifile0.txt_1686
79	utfbifile0.txt_1686
80	utfbifile0.txt_1790



## Appendix 3: Sentence ID of Corpus Data

---

81	utfbifile0.txt_1818
82	utfbifile0.txt_1832
83	utfbifile0.txt_1918
84	utfbifile0.txt_1936
85	utfbifile0.txt_1943
86	utfbifile0.txt_1948
87	utfbifile0.txt_1969
88	utfbifile0.txt_2070
89	utfbifile0.txt_2109
90	utfbifile0.txt_2132
91	utfbifile0.txt_2226
92	utfbifile0.txt_2240
93	utfbifile0.txt_2268
94	utfbifile0.txt_2334
95	utfbifile0.txt_2371
96	utfbifile0.txt_2468
97	utfbifile0.txt_2514
98	utfbifile0.txt_2704
99	utfbifile0.txt_2722
100	utfbifile0.txt_2744
101	utfbifile0.txt_2796
102	utfbifile0.txt_2820
103	utfbifile0.txt_2822
104	utfbifile0.txt_2840
105	utfbifile0.txt_2845
106	utfbifile0.txt_2855
107	utfbifile0.txt_2863
108	utfbifile0.txt_2865
109	utfbifile0.txt_2868
110	utfbifile0.txt_2869
111	utfbifile0.txt_2880
112	utfbifile0.txt_3002
113	utfbifile0.txt_3048
114	utfbifile0.txt_3076
115	utfbifile0.txt_3081
116	utfbifile0.txt_3089
117	utfbifile0.txt_3126
118	utfbifile0.txt_3156
119	utfbifile0.txt_3163
120	utfbifile0.txt_3166
121	utfbifile0.txt_3171

## Appendix 3: Sentence ID of Corpus Data

---

122	utfbifile0.txt_3173
123	utfbifile0.txt_3197
124	utfbifile0.txt_3216
125	utfbifile0.txt_3273
126	utfbifile0.txt_3336
127	utfbifile0.txt_3342
128	utfbifile0.txt_3376
129	utfbifile0.txt_3379
130	utfbifile0.txt_3398
131	utfbifile0.txt_3411
132	utfbifile0.txt_3441
133	utfbifile0.txt_3451
134	utfbifile0.txt_3453
135	utfbifile0.txt_3461
136	utfbifile0.txt_3466
137	utfbifile0.txt_3482
138	utfbifile0.txt_3512
139	utfbifile0.txt_3523
140	utfbifile0.txt_3525
141	utfbifile0.txt_3528
142	utfbifile0.txt_3534
143	utfbifile0.txt_3552
144	utfbifile0.txt_3555
145	utfbifile0.txt_3561
146	utfbifile0.txt_3563
147	utfbifile0.txt_3571
148	utfbifile0.txt_3573
149	utfbifile0.txt_3583
150	utfbifile0.txt_3633
151	utfbifile0.txt_3633
152	utfbifile0.txt_3644
153	utfbifile0.txt_3646
154	utfbifile0.txt_3668
155	utfbifile0.txt_3732
156	utfbifile0.txt_3738
157	utfbifile0.txt_3768
158	utfbifile0.txt_3810
159	utfbifile0.txt_3850
160	utfbifile0.txt_3855
161	utfbifile0.txt_3917
162	utfbifile0.txt_3955

## Appendix 3: Sentence ID of Corpus Data

---

163	utfbifile0.txt_4006
164	utfbifile0.txt_4023
165	utfbifile0.txt_4078
166	utfbifile0.txt_4108
167	utfbifile0.txt_4121
168	utfbifile0.txt_4138
169	utfbifile0.txt_4157
170	utfbifile0.txt_4185
171	utfbifile0.txt_4243
172	utfbifile0.txt_4244
173	utfbifile0.txt_4250
174	utfbifile0.txt_4288
175	utfbifile0.txt_4306
176	utfbifile0.txt_4312
177	utfbifile0.txt_4323
178	utfbifile0.txt_4329
179	utfbifile0.txt_4332
180	utfbifile0.txt_4336
181	utfbifile0.txt_4337
182	utfbifile0.txt_4338
183	utfbifile0.txt_4345
184	utfbifile0.txt_4355
185	utfbifile0.txt_4384
186	utfbifile0.txt_4394
187	utfbifile0.txt_4397
188	utfbifile0.txt_4399
189	utfbifile0.txt_4408
190	utfbifile0.txt_4417
191	utfbifile0.txt_4431
192	utfbifile0.txt_4450
193	utfbifile0.txt_4467
194	utfbifile0.txt_4492
195	utfbifile0.txt_4500
196	utfbifile0.txt_4520
197	utfbifile0.txt_4534
198	utfbifile0.txt_4542
199	utfbifile0.txt_4546
200	utfbifile0.txt_4547

## Appendix 3: Sentence ID of Corpus Data

## 2) Data from LCMC: L1 MC

## L1 MC Perfective Aspect

Number	Sentence ID
1	(LCMC_A.xml/sn="0006")
2	(LCMC_A.xml/sn="0008")
3	(LCMC_A.xml/sn="0009")
4	(LCMC_A.xml/sn="0010")
5	(LCMC_A.xml/sn="0014")
6	(LCMC_A.xml/sn="0015")
7	(LCMC_A.xml/sn="0016")
8	(LCMC_A.xml/sn="0019")
9	(LCMC_A.xml/sn="0020")
10	(LCMC_A.xml/sn="0021")
11	(LCMC_A.xml/sn="0022")
12	(LCMC_A.xml/sn="0023")
13	(LCMC_A.xml/sn="0024")
14	(LCMC_A.xml/sn="0025")
15	(LCMC_A.xml/sn="0026")
16	(LCMC_A.xml/sn="0027")
17	(LCMC_A.xml/sn="0028")
18	(LCMC_A.xml/sn="0029")
19	(LCMC_A.xml/sn="0030")
20	(LCMC_A.xml/sn="0031")
21	(LCMC_A.xml/sn="0032")
22	(LCMC_A.xml/sn="0033")
23	(LCMC_A.xml/sn="0034")
24	(LCMC_A.xml/sn="0037")
25	(LCMC_A.xml/sn="0035")
26	(LCMC_A.xml/sn="0042")
27	(LCMC_A.xml/sn="0044")
28	(LCMC_A.xml/sn="0046")
29	(LCMC_A.xml/sn="0047")
30	(LCMC_A.xml/sn="0048")
31	(LCMC_A.xml/sn="0050")
32	(LCMC_A.xml/sn="0052")
33	(LCMC_A.xml/sn="0054")
34	(LCMC_A.xml/sn="0055")
35	(LCMC_A.xml/sn="0056")
36	(LCMC_A.xml/sn="0058")
37	(LCMC_A.xml/sn="0064")
38	(LCMC_A.xml/sn="0066")

## Appendix 3: Sentence ID of Corpus Data

39	(LCMC_A.xml/sn="0067")
40	(LCMC_A.xml/sn="0069")
41	(LCMC_A.xml/sn="0070")
42	(LCMC_A.xml/sn="0071")
43	(LCMC_A.xml/sn="0072")
44	(LCMC_A.xml/sn="0073")
45	(LCMC_A.xml/sn="0075")
46	(LCMC_A.xml/sn="0076")
47	(LCMC_A.xml/sn="0077")
48	(LCMC_A.xml/sn="0078")
49	(LCMC_A.xml/sn="0079")
50	(LCMC_A.xml/sn="0080")
51	(LCMC_A.xml/sn="0082")
52	(LCMC_A.xml/sn="0083")
53	(LCMC_A.xml/sn="0084")
54	(LCMC_A.xml/sn="0085")
55	(LCMC_A.xml/sn="0087")
56	(LCMC_A.xml/sn="0088")
57	(LCMC_A.xml/sn="0089")
58	(LCMC_A.xml/sn="0092")
59	(LCMC_A.xml/sn="0093")
60	(LCMC_A.xml/sn="0003")
61	(LCMC_A.xml/sn="0004")
62	(LCMC_A.xml/sn="0005")
63	(LCMC_A.xml/sn="0006")
64	(LCMC_A.xml/sn="0008")
65	(LCMC_A.xml/sn="0009")
66	(LCMC_A.xml/sn="0010")
67	(LCMC_A.xml/sn="0011")
68	(LCMC_A.xml/sn="0012")
69	(LCMC_A.xml/sn="0013")
70	(LCMC_A.xml/sn="0014")
71	(LCMC_A.xml/sn="0017")
72	(LCMC_A.xml/sn="0019")
73	(LCMC_A.xml/sn="0020")
74	(LCMC_A.xml/sn="0021")
75	(LCMC_A.xml/sn="0022")
76	(LCMC_A.xml/sn="0026")
77	(LCMC_A.xml/sn="0025")
78	(LCMC_A.xml/sn="0026")
79	(LCMC_A.xml/sn="0027")

## Appendix 3: Sentence ID of Corpus Data

---

80	(LCMC_A.xml/sn="0028")
81	(LCMC_A.xml/sn="0030")
82	(LCMC_A.xml/sn="0031")
83	(LCMC_A.xml/sn="0032")
84	(LCMC_A.xml/sn="0033")
85	(LCMC_A.xml/sn="0034")
86	(LCMC_A.xml/sn="0035")
87	(LCMC_A.xml/sn="0037")
88	(LCMC_A.xml/sn="0042")
89	(LCMC_A.xml/sn="0046")
90	(LCMC_A.xml/sn="0048")
91	(LCMC_A.xml/sn="0057")
92	(LCMC_A.xml/sn="0058")
93	(LCMC_A.xml/sn="0059")
94	(LCMC_A.xml/sn="0061")
95	(LCMC_A.xml/sn="0062")
96	(LCMC_A.xml/sn="0064")
97	(LCMC_A.xml/sn="0065")
98	(LCMC_A.xml/sn="0066")
99	(LCMC_A.xml/sn="0068")
100	(LCMC_A.xml/sn="0070")
101	(LCMC_A.xml/sn="0073")
102	(LCMC_A.xml/sn="0074")
103	(LCMC_A.xml/sn="0075")
104	(LCMC_A.xml/sn="0079")
105	(LCMC_A.xml/sn="0081")
106	(LCMC_A.xml/sn="0082")
107	(LCMC_A.xml/sn="0085")
108	(LCMC_A.xml/sn="0086")
109	(LCMC_A.xml/sn="0087")
110	(LCMC_A.xml/sn="0092")
111	(LCMC_A.xml/sn="0093")
112	(LCMC_A.xml/sn="0094")
113	(LCMC_A.xml/sn="0097")
114	(LCMC_A.xml/sn="0100")
115	(LCMC_A.xml/sn="0101")
116	(LCMC_A.xml/sn="0102")
117	(LCMC_A.xml/sn="0103")
118	(LCMC_A.xml/sn="0104")
119	(LCMC_A.xml/sn="0003")
120	(LCMC_A.xml/sn="0004")

## Appendix 3: Sentence ID of Corpus Data

---

121	(LCMC_A.xml/sn="0005")
122	(LCMC_A.xml/sn="0007")
123	(LCMC_A.xml/sn="0008")
124	(LCMC_A.xml/sn="0010")
125	(LCMC_A.xml/sn="0011")
126	(LCMC_A.xml/sn="0012")
127	(LCMC_A.xml/sn="0014")
128	(LCMC_A.xml/sn="0016")
129	(LCMC_A.xml/sn="0019")
130	(LCMC_A.xml/sn="0020")
131	(LCMC_A.xml/sn="0021")
132	(LCMC_A.xml/sn="0022")
133	(LCMC_A.xml/sn="0024")
134	(LCMC_A.xml/sn="0025")
135	(LCMC_A.xml/sn="0026")
136	(LCMC_A.xml/sn="0027")
137	(LCMC_A.xml/sn="0029")
138	(LCMC_A.xml/sn="0030")
139	(LCMC_A.xml/sn="0031")
140	(LCMC_A.xml/sn="0032")
141	(LCMC_A.xml/sn="0033")
142	(LCMC_A.xml/sn="0034")
143	(LCMC_A.xml/sn="0036")
144	(LCMC_A.xml/sn="0037")
145	(LCMC_A.xml/sn="0039")
146	(LCMC_A.xml/sn="0040")
147	(LCMC_A.xml/sn="0044")
148	(LCMC_A.xml/sn="0045")
149	(LCMC_A.xml/sn="0046")
150	(LCMC_A.xml/sn="0050")
151	(LCMC_A.xml/sn="0053")
152	(LCMC_A.xml/sn="0056")
153	(LCMC_A.xml/sn="0057")
154	(LCMC_A.xml/sn="0058")
155	(LCMC_A.xml/sn="0059")
156	(LCMC_A.xml/sn="0060")
157	(LCMC_A.xml/sn="0061")
158	(LCMC_A.xml/sn="0062")
159	(LCMC_A.xml/sn="0063")
160	(LCMC_A.xml/sn="0064")
161	(LCMC_A.xml/sn="0065")

## Appendix 3: Sentence ID of Corpus Data

162	(LCMC_A.xml/sn="0066")
163	(LCMC_A.xml/sn="0067")
164	(LCMC_A.xml/sn="0071")
165	(LCMC_A.xml/sn="0072")
166	(LCMC_A.xml/sn="0073")
167	(LCMC_A.xml/sn="0074")
168	(LCMC_A.xml/sn="0075")
169	(LCMC_A.xml/sn="0076")
170	(LCMC_A.xml/sn="0080")
171	(LCMC_A.xml/sn="0082")
172	(LCMC_A.xml/sn="0083")
173	(LCMC_A.xml/sn="0084")
174	(LCMC_A.xml/sn="0085")
175	(LCMC_A.xml/sn="0003")
176	(LCMC_A.xml/sn="0008")
177	(LCMC_A.xml/sn="0009")
178	(LCMC_A.xml/sn="0010")
179	(LCMC_A.xml/sn="0011")
180	(LCMC_A.xml/sn="0013")
181	(LCMC_A.xml/sn="0014")
182	(LCMC_A.xml/sn="0015")
183	(LCMC_A.xml/sn="0016")
184	(LCMC_A.xml/sn="0017")
185	(LCMC_A.xml/sn="0018")
186	(LCMC_A.xml/sn="0019")
187	(LCMC_A.xml/sn="0020")
188	(LCMC_A.xml/sn="0021")
189	(LCMC_A.xml/sn="0024")
190	(LCMC_A.xml/sn="0025")
191	(LCMC_A.xml/sn="0026")
192	(LCMC_A.xml/sn="0027")
193	(LCMC_A.xml/sn="0029")
194	(LCMC_A.xml/sn="0030")
195	(LCMC_A.xml/sn="0031")
196	(LCMC_A.xml/sn="0032")
197	(LCMC_A.xml/sn="0033")
198	(LCMC_A.xml/sn="0034")
199	(LCMC_A.xml/sn="0035")
200	(LCMC_A.xml/sn="0037")
201	(LCMC_A.xml/sn="0040")
202	(LCMC_A.xml/sn="0041")



## Appendix 3: Sentence ID of Corpus Data

---

203	(LCMC_A.xml/sn="0042")
204	(LCMC_A.xml/sn="0043")
205	(LCMC_A.xml/sn="0044")
206	(LCMC_A.xml/sn="0046")
207	(LCMC_A.xml/sn="0048")
208	(LCMC_A.xml/sn="0049")
209	(LCMC_A.xml/sn="0050")
210	(LCMC_A.xml/sn="0051")
211	(LCMC_A.xml/sn="0052")
212	(LCMC_A.xml/sn="0053")
213	(LCMC_A.xml/sn="0054")
214	(LCMC_A.xml/sn="0055")
215	(LCMC_A.xml/sn="0058")
216	(LCMC_A.xml/sn="0059")
217	(LCMC_A.xml/sn="0060")
218	(LCMC_A.xml/sn="0061")
219	(LCMC_A.xml/sn="0062")
220	(LCMC_A.xml/sn="0063")
221	(LCMC_A.xml/sn="0064")
222	(LCMC_A.xml/sn="0065")
223	(LCMC_A.xml/sn="0066")
224	(LCMC_A.xml/sn="0067")
225	(LCMC_A.xml/sn="0068")
226	(LCMC_A.xml/sn="0069")
227	(LCMC_A.xml/sn="0070")
228	(LCMC_A.xml/sn="0071")
229	(LCMC_A.xml/sn="0072")
230	(LCMC_A.xml/sn="0073")
231	(LCMC_A.xml/sn="0077")
232	(LCMC_A.xml/sn="0079")
233	(LCMC_A.xml/sn="0082")
234	(LCMC_A.xml/sn="0085")
235	(LCMC_A.xml/sn="0086")
236	(LCMC_A.xml/sn="0087")
237	(LCMC_A.xml/sn="0091")
238	(LCMC_A.xml/sn="0092")
239	(LCMC_A.xml/sn="0093")
240	(LCMC_A.xml/sn="0094")
241	(LCMC_A.xml/sn="0095")
242	(LCMC_A.xml/sn="0003")
243	(LCMC_A.xml/sn="0005")

## Appendix 3: Sentence ID of Corpus Data

---

244	(LCMC_A.xml/sn="0006")
245	(LCMC_A.xml/sn="0007")
246	(LCMC_A.xml/sn="0008")
247	(LCMC_A.xml/sn="0009")
248	(LCMC_A.xml/sn="0010")
249	(LCMC_A.xml/sn="0011")
250	(LCMC_A.xml/sn="0013")
251	(LCMC_A.xml/sn="0014")
252	(LCMC_A.xml/sn="0015")
253	(LCMC_A.xml/sn="0016")
254	(LCMC_A.xml/sn="0017")
255	(LCMC_A.xml/sn="0019")
256	(LCMC_A.xml/sn="0022")
257	(LCMC_A.xml/sn="0024")
258	(LCMC_A.xml/sn="0025")
259	(LCMC_A.xml/sn="0026")
260	(LCMC_A.xml/sn="0027")
261	(LCMC_A.xml/sn="0028")
262	(LCMC_A.xml/sn="0029")
263	(LCMC_A.xml/sn="0030")
264	(LCMC_A.xml/sn="0031")
265	(LCMC_A.xml/sn="0032")
266	(LCMC_A.xml/sn="0033")
267	(LCMC_A.xml/sn="0034")
268	(LCMC_A.xml/sn="0035")
269	(LCMC_A.xml/sn="0036")
270	(LCMC_A.xml/sn="0037")
271	(LCMC_A.xml/sn="0041")
272	(LCMC_A.xml/sn="0042")
273	(LCMC_A.xml/sn="0043")
274	(LCMC_A.xml/sn="0044")
275	(LCMC_A.xml/sn="0045")
276	(LCMC_A.xml/sn="0047")
277	(LCMC_A.xml/sn="0048")
278	(LCMC_A.xml/sn="0049")
279	(LCMC_A.xml/sn="0050")
280	(LCMC_A.xml/sn="0051")
281	(LCMC_A.xml/sn="0055")
282	(LCMC_A.xml/sn="0056")
283	(LCMC_A.xml/sn="0057")
284	(LCMC_A.xml/sn="0058")

## Appendix 3: Sentence ID of Corpus Data

---

285	(LCMC_A.xml/sn="0059")
286	(LCMC_A.xml/sn="0062")
287	(LCMC_A.xml/sn="0064")
288	(LCMC_A.xml/sn="0065")
289	(LCMC_A.xml/sn="0066")
290	(LCMC_A.xml/sn="0067")
291	(LCMC_A.xml/sn="0068")
292	(LCMC_A.xml/sn="0069")
293	(LCMC_A.xml/sn="0070")
294	(LCMC_A.xml/sn="0071")
295	(LCMC_A.xml/sn="0072")
296	(LCMC_A.xml/sn="0073")
297	(LCMC_A.xml/sn="0074")
298	(LCMC_A.xml/sn="0075")
299	(LCMC_A.xml/sn="0076")
300	(LCMC_A.xml/sn="0077")
301	(LCMC_A.xml/sn="0078")
302	(LCMC_A.xml/sn="0079")
303	(LCMC_A.xml/sn="0080")
304	(LCMC_A.xml/sn="0081")
305	(LCMC_A.xml/sn="0082")
306	(LCMC_A.xml/sn="0083")
307	(LCMC_A.xml/sn="0085")
308	(LCMC_A.xml/sn="0088")
309	(LCMC_A.xml/sn="0089")
310	(LCMC_A.xml/sn="0090")
311	(LCMC_A.xml/sn="0092")
312	(LCMC_A.xml/sn="0093")
313	(LCMC_A.xml/sn="0004")
314	(LCMC_A.xml/sn="0005")
315	(LCMC_A.xml/sn="0006")
316	(LCMC_A.xml/sn="0007")
317	(LCMC_A.xml/sn="0008")
318	(LCMC_A.xml/sn="0009")
319	(LCMC_A.xml/sn="0012")
320	(LCMC_A.xml/sn="0013")
321	(LCMC_A.xml/sn="0014")
322	(LCMC_A.xml/sn="0016")
323	(LCMC_A.xml/sn="0017")
324	(LCMC_A.xml/sn="0018")
325	(LCMC_A.xml/sn="0020")

## Appendix 3: Sentence ID of Corpus Data

---

326	(LCMC_A.xml/sn="0021")
327	(LCMC_A.xml/sn="0024")
328	(LCMC_A.xml/sn="0026")
329	(LCMC_A.xml/sn="0027")
330	(LCMC_A.xml/sn="0028")
331	(LCMC_A.xml/sn="0029")
332	(LCMC_A.xml/sn="0030")
333	(LCMC_A.xml/sn="0036")
334	(LCMC_A.xml/sn="0037")
335	(LCMC_A.xml/sn="0039")
336	(LCMC_A.xml/sn="0041")
337	(LCMC_A.xml/sn="0043")
338	(LCMC_A.xml/sn="0044")
339	(LCMC_A.xml/sn="0045")
340	(LCMC_A.xml/sn="0046")
341	(LCMC_A.xml/sn="0047")
342	(LCMC_A.xml/sn="0052")
343	(LCMC_A.xml/sn="0054")
344	(LCMC_A.xml/sn="0059")
345	(LCMC_A.xml/sn="0062")
346	(LCMC_A.xml/sn="0065")
347	(LCMC_A.xml/sn="0066")
348	(LCMC_A.xml/sn="0067")
349	(LCMC_A.xml/sn="0071")
350	(LCMC_A.xml/sn="0072")
351	(LCMC_A.xml/sn="0074")
352	(LCMC_A.xml/sn="0079")
353	(LCMC_A.xml/sn="0084")
354	(LCMC_A.xml/sn="0086")
355	(LCMC_A.xml/sn="0087")
356	(LCMC_A.xml/sn="0088")
357	(LCMC_A.xml/sn="0091")
358	(LCMC_A.xml/sn="0094")
359	(LCMC_A.xml/sn="0098")
360	(LCMC_A.xml/sn="0103")
361	(LCMC_A.xml/sn="0106")
362	(LCMC_A.xml/sn="0108")
363	(LCMC_A.xml/sn="0109")
364	(LCMC_A.xml/sn="0110")
365	(LCMC_A.xml/sn="0002")
366	(LCMC_A.xml/sn="0003")

## Appendix 3: Sentence ID of Corpus Data

367	(LCMC_A.xml/sn="0010")
368	(LCMC_A.xml/sn="0011")
369	(LCMC_A.xml/sn="0012")
370	(LCMC_A.xml/sn="0013")
371	(LCMC_A.xml/sn="0014")
372	(LCMC_A.xml/sn="0015")
373	(LCMC_A.xml/sn="0016")
374	(LCMC_A.xml/sn="0017")
375	(LCMC_A.xml/sn="0020")
376	(LCMC_A.xml/sn="0021")
377	(LCMC_A.xml/sn="0022")
378	(LCMC_A.xml/sn="0026")
379	(LCMC_A.xml/sn="0027")
380	(LCMC_A.xml/sn="0031")
381	(LCMC_A.xml/sn="0032")
382	(LCMC_A.xml/sn="0034")
383	(LCMC_A.xml/sn="0035")
384	(LCMC_A.xml/sn="0036")
385	(LCMC_A.xml/sn="0039")
386	(LCMC_A.xml/sn="0041")
387	(LCMC_A.xml/sn="0042")
388	(LCMC_A.xml/sn="0043")
389	(LCMC_A.xml/sn="0045")
390	(LCMC_A.xml/sn="0047")
391	(LCMC_A.xml/sn="0049")
392	(LCMC_A.xml/sn="0050")
393	(LCMC_A.xml/sn="0062")
394	(LCMC_A.xml/sn="0064")
395	(LCMC_A.xml/sn="0068")
396	(LCMC_A.xml/sn="0069")
397	(LCMC_A.xml/sn="0070")
398	(LCMC_A.xml/sn="0071")
399	(LCMC_A.xml/sn="0072")
400	(LCMC_A.xml/sn="0073")
401	(LCMC_A.xml/sn="0074")
402	(LCMC_A.xml/sn="0075")
403	(LCMC_A.xml/sn="0076")
404	(LCMC_A.xml/sn="0077")
405	(LCMC_A.xml/sn="0078")
406	(LCMC_A.xml/sn="0080")
407	(LCMC_A.xml/sn="0081")

## Appendix 3: Sentence ID of Corpus Data

---

408	(LCMC_A.xml/sn="0002")
409	(LCMC_A.xml/sn="0003")
410	(LCMC_A.xml/sn="0004")
411	(LCMC_A.xml/sn="0005")
412	(LCMC_A.xml/sn="0007")
413	(LCMC_A.xml/sn="0008")
414	(LCMC_A.xml/sn="0009")
415	(LCMC_A.xml/sn="0010")
416	(LCMC_A.xml/sn="0012")
417	(LCMC_A.xml/sn="0013")
418	(LCMC_A.xml/sn="0014")
419	(LCMC_A.xml/sn="0015")
420	(LCMC_A.xml/sn="0016")
421	(LCMC_A.xml/sn="0018")
422	(LCMC_A.xml/sn="0021")
423	(LCMC_A.xml/sn="0022")
424	(LCMC_A.xml/sn="0026")
425	(LCMC_A.xml/sn="0027")
426	(LCMC_A.xml/sn="0028")
427	(LCMC_A.xml/sn="0029")
428	(LCMC_A.xml/sn="0030")
429	(LCMC_A.xml/sn="0031")
430	(LCMC_A.xml/sn="0032")
431	(LCMC_A.xml/sn="0036")
432	(LCMC_A.xml/sn="0037")
433	(LCMC_A.xml/sn="0038")
434	(LCMC_A.xml/sn="0039")
435	(LCMC_A.xml/sn="0041")
436	(LCMC_A.xml/sn="0042")
437	(LCMC_A.xml/sn="0043")
438	(LCMC_A.xml/sn="0044")
439	(LCMC_A.xml/sn="0045")
440	(LCMC_A.xml/sn="0048")
441	(LCMC_A.xml/sn="0050")
442	(LCMC_A.xml/sn="0053")
443	(LCMC_A.xml/sn="0055")
444	(LCMC_A.xml/sn="0056")
445	(LCMC_A.xml/sn="0057")
446	(LCMC_A.xml/sn="0058")
447	(LCMC_A.xml/sn="0059")
448	(LCMC_A.xml/sn="0060")

## Appendix 3: Sentence ID of Corpus Data

---

449	(LCMC_A.xml/sn="0061")
450	(LCMC_A.xml/sn="0062")
451	(LCMC_A.xml/sn="0063")
452	(LCMC_A.xml/sn="0064")
453	(LCMC_A.xml/sn="0065")
454	(LCMC_A.xml/sn="0067")
455	(LCMC_A.xml/sn="0068")
456	(LCMC_A.xml/sn="0069")
457	(LCMC_A.xml/sn="0070")
458	(LCMC_A.xml/sn="0073")
459	(LCMC_A.xml/sn="0074")
460	(LCMC_A.xml/sn="0075")
461	(LCMC_A.xml/sn="0077")
462	(LCMC_A.xml/sn="0078")
463	(LCMC_A.xml/sn="0082")
464	(LCMC_A.xml/sn="0083")
465	(LCMC_A.xml/sn="0003")
466	(LCMC_A.xml/sn="0004")
467	(LCMC_A.xml/sn="0005")
468	(LCMC_A.xml/sn="0006")
469	(LCMC_A.xml/sn="0007")
470	(LCMC_A.xml/sn="0012")
471	(LCMC_A.xml/sn="0016")
472	(LCMC_A.xml/sn="0018")
473	(LCMC_A.xml/sn="0019")
474	(LCMC_A.xml/sn="0020")
475	(LCMC_A.xml/sn="0021")
476	(LCMC_A.xml/sn="0022")
477	(LCMC_A.xml/sn="0023")
478	(LCMC_A.xml/sn="0025")
479	(LCMC_A.xml/sn="0026")
480	(LCMC_A.xml/sn="0027")
481	(LCMC_A.xml/sn="0028")
482	(LCMC_A.xml/sn="0029")
483	(LCMC_A.xml/sn="0031")
484	(LCMC_A.xml/sn="0033")
485	(LCMC_A.xml/sn="0034")
486	(LCMC_A.xml/sn="0035")
487	(LCMC_A.xml/sn="0036")
488	(LCMC_A.xml/sn="0037")
489	(LCMC_A.xml/sn="0038")

## Appendix 3: Sentence ID of Corpus Data

---

490	(LCMC_A.xml/sn="0039")
491	(LCMC_A.xml/sn="0040")
492	(LCMC_A.xml/sn="0045")
493	(LCMC_A.xml/sn="0047")
494	(LCMC_A.xml/sn="0049")
495	(LCMC_A.xml/sn="0050")
496	(LCMC_A.xml/sn="0051")
497	(LCMC_A.xml/sn="0052")
498	(LCMC_A.xml/sn="0053")
499	(LCMC_A.xml/sn="0054")
500	(LCMC_A.xml/sn="0055")
501	(LCMC_A.xml/sn="0056")
502	(LCMC_A.xml/sn="0058")
503	(LCMC_A.xml/sn="0059")
504	(LCMC_A.xml/sn="0060")
505	(LCMC_A.xml/sn="0062")
506	(LCMC_A.xml/sn="0063")
507	(LCMC_A.xml/sn="0064")
508	(LCMC_A.xml/sn="0066")
509	(LCMC_A.xml/sn="0067")
510	(LCMC_A.xml/sn="0068")
511	(LCMC_A.xml/sn="0070")
512	(LCMC_A.xml/sn="0071")
513	(LCMC_A.xml/sn="0072")
514	(LCMC_A.xml/sn="0073")
515	(LCMC_A.xml/sn="0076")
516	(LCMC_A.xml/sn="0078")
517	(LCMC_A.xml/sn="0080")
518	(LCMC_A.xml/sn="0081")
519	(LCMC_A.xml/sn="0083")
520	(LCMC_A.xml/sn="0085")
521	(LCMC_A.xml/sn="0087")
522	(LCMC_A.xml/sn="0089")
523	(LCMC_A.xml/sn="0091")
524	(LCMC_A.xml/sn="0092")
525	(LCMC_A.xml/sn="0093")
526	(LCMC_A.xml/sn="0094")
527	(LCMC_A.xml/sn="0003")
528	(LCMC_A.xml/sn="0005")
529	(LCMC_A.xml/sn="0006")
530	(LCMC_A.xml/sn="0007")



## Appendix 3: Sentence ID of Corpus Data

---

531	(LCMC_A.xml/sn="0008")
532	(LCMC_A.xml/sn="0010")
533	(LCMC_A.xml/sn="0011")
534	(LCMC_A.xml/sn="0013")
535	(LCMC_A.xml/sn="0014")
536	(LCMC_A.xml/sn="0017")
537	(LCMC_A.xml/sn="0018")
538	(LCMC_A.xml/sn="0021")
539	(LCMC_A.xml/sn="0025")
540	(LCMC_A.xml/sn="0026")
541	(LCMC_A.xml/sn="0028")
542	(LCMC_A.xml/sn="0033")
543	(LCMC_A.xml/sn="0034")
544	(LCMC_A.xml/sn="0037")
545	(LCMC_A.xml/sn="0041")
546	(LCMC_A.xml/sn="0042")
547	(LCMC_A.xml/sn="0043")
548	(LCMC_A.xml/sn="0044")
549	(LCMC_A.xml/sn="0045")
550	(LCMC_A.xml/sn="0046")
551	(LCMC_A.xml/sn="0048")
552	(LCMC_A.xml/sn="0049")
553	(LCMC_A.xml/sn="0052")
554	(LCMC_A.xml/sn="0053")
555	(LCMC_A.xml/sn="0054")
556	(LCMC_A.xml/sn="0056")
557	(LCMC_A.xml/sn="0057")
558	(LCMC_A.xml/sn="0060")
559	(LCMC_A.xml/sn="0061")
560	(LCMC_A.xml/sn="0063")
561	(LCMC_A.xml/sn="0066")
562	(LCMC_A.xml/sn="0067")
563	(LCMC_A.xml/sn="0068")
564	(LCMC_A.xml/sn="0069")
565	(LCMC_A.xml/sn="0070")
566	(LCMC_A.xml/sn="0071")
567	(LCMC_A.xml/sn="0072")
568	(LCMC_A.xml/sn="0073")
569	(LCMC_A.xml/sn="0074")
570	(LCMC_A.xml/sn="0075")
571	(LCMC_A.xml/sn="0076")

## Appendix 3: Sentence ID of Corpus Data

572	(LCMC_A.xml/sn="0079")
573	(LCMC_A.xml/sn="0082")
574	(LCMC_A.xml/sn="0083")
575	(LCMC_A.xml/sn="0085")
576	(LCMC_A.xml/sn="0086")
577	(LCMC_A.xml/sn="0002")
578	(LCMC_A.xml/sn="0003")
579	(LCMC_A.xml/sn="0004")
580	(LCMC_A.xml/sn="0005")
581	(LCMC_A.xml/sn="0006")
582	(LCMC_A.xml/sn="0007")
583	(LCMC_A.xml/sn="0008")
584	(LCMC_A.xml/sn="0010")
585	(LCMC_A.xml/sn="0011")
586	(LCMC_A.xml/sn="0012")
587	(LCMC_A.xml/sn="0013")
588	(LCMC_A.xml/sn="0015")
589	(LCMC_A.xml/sn="0017")
590	(LCMC_A.xml/sn="0019")
591	(LCMC_A.xml/sn="0021")
592	(LCMC_A.xml/sn="0022")
593	(LCMC_A.xml/sn="0023")
594	(LCMC_A.xml/sn="0026")
595	(LCMC_A.xml/sn="0029")
596	(LCMC_A.xml/sn="0030")
597	(LCMC_A.xml/sn="0031")
598	(LCMC_A.xml/sn="0032")
599	(LCMC_A.xml/sn="0033")
600	(LCMC_A.xml/sn="0035")
601	(LCMC_A.xml/sn="0036")
602	(LCMC_A.xml/sn="0037")
603	(LCMC_A.xml/sn="0038")
604	(LCMC_A.xml/sn="0041")
605	(LCMC_A.xml/sn="0042")
606	(LCMC_A.xml/sn="0044")
607	(LCMC_A.xml/sn="0045")
608	(LCMC_A.xml/sn="0047")
609	(LCMC_A.xml/sn="0048")
610	(LCMC_A.xml/sn="0049")
611	(LCMC_A.xml/sn="0051")
612	(LCMC_A.xml/sn="0052")

Appendix 3: Sentence ID of Corpus Data

---

613	(LCMC_A.xml/sn="0054")
614	(LCMC_A.xml/sn="0055")
615	(LCMC_A.xml/sn="0057")
616	(LCMC_A.xml/sn="0058")

## Appendix 3: Sentence ID of Corpus Data

## L1 MC Imperfective Aspect

Number	Sentence ID
1	(LCMC_A.xml/sn="0004")
2	(LCMC_A.xml/sn="0012")
3	(LCMC_A.xml/sn="0013")
4	(LCMC_A.xml/sn="0018")
5	(LCMC_A.xml/sn="0038")
6	(LCMC_A.xml/sn="0039")
7	(LCMC_A.xml/sn="0041")
8	(LCMC_A.xml/sn="0043")
9	(LCMC_A.xml/sn="0049")
10	(LCMC_A.xml/sn="0051")
11	(LCMC_A.xml/sn="0053")
12	(LCMC_A.xml/sn="0061")
13	(LCMC_A.xml/sn="0062")
14	(LCMC_A.xml/sn="0063")
15	(LCMC_A.xml/sn="0065")
16	(LCMC_A.xml/sn="0081")
17	(LCMC_A.xml/sn="0018")
18	(LCMC_A.xml/sn="0040")
19	(LCMC_A.xml/sn="0043")
20	(LCMC_A.xml/sn="0044")
21	(LCMC_A.xml/sn="0047")
22	(LCMC_A.xml/sn="0050")
23	(LCMC_A.xml/sn="0056")
24	(LCMC_A.xml/sn="0060")
25	(LCMC_A.xml/sn="0063")
26	(LCMC_A.xml/sn="0067")
27	(LCMC_A.xml/sn="0072")
28	(LCMC_A.xml/sn="0080")
29	(LCMC_A.xml/sn="0084")
30	(LCMC_A.xml/sn="0095")
31	(LCMC_A.xml/sn="0096")
32	(LCMC_A.xml/sn="0099")
33	(LCMC_A.xml/sn="0006")
34	(LCMC_A.xml/sn="0015")
35	(LCMC_A.xml/sn="0023")
36	(LCMC_A.xml/sn="0028")
37	(LCMC_A.xml/sn="0078")
38	(LCMC_A.xml/sn="0079")
39	(LCMC_A.xml/sn="0006")

## Appendix 3: Sentence ID of Corpus Data

---

40	(LCMC_A.xml/sn="0007")
41	(LCMC_A.xml/sn="0023")
42	(LCMC_A.xml/sn="0028")
43	(LCMC_A.xml/sn="0047")
44	(LCMC_A.xml/sn="0076")
45	(LCMC_A.xml/sn="0078")
46	(LCMC_A.xml/sn="0080")
47	(LCMC_A.xml/sn="0081")
48	(LCMC_A.xml/sn="0083")
49	(LCMC_A.xml/sn="0084")
50	(LCMC_A.xml/sn="0088")
51	(LCMC_A.xml/sn="0090")
52	(LCMC_A.xml/sn="0004")
53	(LCMC_A.xml/sn="0012")
54	(LCMC_A.xml/sn="0018")
55	(LCMC_A.xml/sn="0046")
56	(LCMC_A.xml/sn="0052")
57	(LCMC_A.xml/sn="0053")
58	(LCMC_A.xml/sn="0054")
59	(LCMC_A.xml/sn="0084")
60	(LCMC_A.xml/sn="0087")
61	(LCMC_A.xml/sn="0011")
62	(LCMC_A.xml/sn="0015")
63	(LCMC_A.xml/sn="0019")
64	(LCMC_A.xml/sn="0022")
65	(LCMC_A.xml/sn="0032")
66	(LCMC_A.xml/sn="0033")
67	(LCMC_A.xml/sn="0035")
68	(LCMC_A.xml/sn="0042")
69	(LCMC_A.xml/sn="0048")
70	(LCMC_A.xml/sn="0050")
71	(LCMC_A.xml/sn="0051")
72	(LCMC_A.xml/sn="0055")
73	(LCMC_A.xml/sn="0060")
74	(LCMC_A.xml/sn="0064")
75	(LCMC_A.xml/sn="0073")
76	(LCMC_A.xml/sn="0078")
77	(LCMC_A.xml/sn="0090")
78	(LCMC_A.xml/sn="0107")
79	(LCMC_A.xml/sn="0007")
80	(LCMC_A.xml/sn="0019")

## Appendix 3: Sentence ID of Corpus Data

---

81	(LCMC_A.xml/sn="0028")
82	(LCMC_A.xml/sn="0030")
83	(LCMC_A.xml/sn="0033")
84	(LCMC_A.xml/sn="0038")
85	(LCMC_A.xml/sn="0040")
86	(LCMC_A.xml/sn="0046")
87	(LCMC_A.xml/sn="0055")
88	(LCMC_A.xml/sn="0056")
89	(LCMC_A.xml/sn="0063")
90	(LCMC_A.xml/sn="0079")
91	(LCMC_A.xml/sn="0006")
92	(LCMC_A.xml/sn="0017")
93	(LCMC_A.xml/sn="0023")
94	(LCMC_A.xml/sn="0025")
95	(LCMC_A.xml/sn="0051")
96	(LCMC_A.xml/sn="0052")
97	(LCMC_A.xml/sn="0071")
98	(LCMC_A.xml/sn="0081")
99	(LCMC_A.xml/sn="0084")
100	(LCMC_A.xml/sn="0086")
101	(LCMC_A.xml/sn="0087")
102	(LCMC_A.xml/sn="0088")
103	(LCMC_A.xml/sn="0008")
104	(LCMC_A.xml/sn="0009")
105	(LCMC_A.xml/sn="0013")
106	(LCMC_A.xml/sn="0014")
107	(LCMC_A.xml/sn="0015")
108	(LCMC_A.xml/sn="0017")
109	(LCMC_A.xml/sn="0024")
110	(LCMC_A.xml/sn="0030")
111	(LCMC_A.xml/sn="0032")
112	(LCMC_A.xml/sn="0041")
113	(LCMC_A.xml/sn="0046")
114	(LCMC_A.xml/sn="0048")
115	(LCMC_A.xml/sn="0057")
116	(LCMC_A.xml/sn="0082")
117	(LCMC_A.xml/sn="0002")
118	(LCMC_A.xml/sn="0009")
119	(LCMC_A.xml/sn="0019")
120	(LCMC_A.xml/sn="0020")
121	(LCMC_A.xml/sn="0022")

Appendix 3: Sentence ID of Corpus Data

---

122	(LCMC_A.xml/sn="0023")
123	(LCMC_A.xml/sn="0024")
124	(LCMC_A.xml/sn="0027")
125	(LCMC_A.xml/sn="0030")
126	(LCMC_A.xml/sn="0032")
127	(LCMC_A.xml/sn="0036")
128	(LCMC_A.xml/sn="0051")
129	(LCMC_A.xml/sn="0055")
130	(LCMC_A.xml/sn="0058")
131	(LCMC_A.xml/sn="0062")
132	(LCMC_A.xml/sn="0064")
133	(LCMC_A.xml/sn="0077")
134	(LCMC_A.xml/sn="0078")
135	(LCMC_A.xml/sn="0080")
136	(LCMC_A.xml/sn="0081")
137	(LCMC_A.xml/sn="0009")
138	(LCMC_A.xml/sn="0020")
139	(LCMC_A.xml/sn="0027")
140	(LCMC_A.xml/sn="0034")
141	(LCMC_A.xml/sn="0050")

## Appendix 3: Sentence ID of Corpus Data

## L1 Modality

Number	Sentence ID
1	(LCMC_A.xml/sn="0040")
2	(LCMC_A.xml/sn="0045")
3	(LCMC_A.xml/sn="0023")
4	(LCMC_A.xml/sn="0036")
5	(LCMC_A.xml/sn="0039")
6	(LCMC_A.xml/sn="0041")
7	(LCMC_A.xml/sn="0051")
8	(LCMC_A.xml/sn="0053")
9	(LCMC_A.xml/sn="0076")
10	(LCMC_A.xml/sn="0091")
11	(LCMC_A.xml/sn="0098")
12	(LCMC_A.xml/sn="0009")
13	(LCMC_A.xml/sn="0077")
14	(LCMC_A.xml/sn="0004")
15	(LCMC_A.xml/sn="0012")
16	(LCMC_A.xml/sn="0089")
17	(LCMC_A.xml/sn="0025")
18	(LCMC_A.xml/sn="0049")
19	(LCMC_A.xml/sn="0053")
20	(LCMC_A.xml/sn="0058")
21	(LCMC_A.xml/sn="0069")
22	(LCMC_A.xml/sn="0083")
23	(LCMC_A.xml/sn="0111")
24	(LCMC_A.xml/sn="0004")
25	(LCMC_A.xml/sn="0025")
26	(LCMC_A.xml/sn="0037")
27	(LCMC_A.xml/sn="0044")
28	(LCMC_A.xml/sn="0051")
29	(LCMC_A.xml/sn="0052")
30	(LCMC_A.xml/sn="0053")
31	(LCMC_A.xml/sn="0054")
32	(LCMC_A.xml/sn="0057")
33	(LCMC_A.xml/sn="0058")
34	(LCMC_A.xml/sn="0019")
35	(LCMC_A.xml/sn="0072")
36	(LCMC_A.xml/sn="0085")
37	(LCMC_A.xml/sn="0061")
38	(LCMC_A.xml/sn="0016")
39	(LCMC_A.xml/sn="0038")



Appendix 3: Sentence ID of Corpus Data

---

40	(LCMC_A.xml/sn="0031")
41	(LCMC_A.xml/sn="0014")
42	(LCMC_A.xml/sn="0020")
43	(LCMC_A.xml/sn="0037")