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An Investigation of the Constraints on Nominal Argument Drop in Mandarin Chinese Using Spoken Corpora

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ABSTRACT

This thesis explores the syntactic and pragmatic constraints on nominal argument drop in Mandarin Chinese, basing its findings on real-time speech data. It shows arguments in Mandarin are constrained to appear in a certain position relative to the main verb according to their thematic role. This enables speakers to drop an argument when its thematic role is established. The thesis also shows that the notion of ‘r’-importance and the scope of the conceptual representation of a verb can pragmatically predict an argument drop. When an argument carries a low degree of ‘r’-importance, or relevance, pertaining to the intended proposition of the speaker, it is likely to be omitted from the structure. Data examples also illustrate that when there is a strong semantic association between a verb and a noun, the noun is rarely expressed as the verb alone is enough to evoke the missing referent.

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Notes on glossing

BA: *ba*-construction, which marks the immediate NP after as the patient
BEI: *bei*-construction, which marks the immediate NP before as the patient
CL: classifier
COP: copula
DM : discourse marker
FP: sentence-final particle
EPIS : epistemic mood
EXIST : existential verb
GEN: genitive
INT: interrogative marker
IMP: imperfective aspect marker
LOC: locative
NEG: negative
PFV: perfective aspect marker
PL : plural
PRT : discourse particle
POSS: possessive
PRT: discourse particle
REL: relativizer
1SG: first person singular
2SG: second person singular
3SG: third person singular

Chapter One

Introduction

The primary goal of this thesis is to investigate both syntactic and pragmatic constraints that govern argument drop phenomenon in Mandarin Chinese, basing findings on spoken corpora from both Taiwan and Mainland China. ‘Argument drop’ in this thesis refers to the phenomenon in which a clause does not have all the available argument positions in the verbal predicate filled with overt NPs: this can be an intransitive clause with no overt argument or a transitive clause with only one or no overt argument, or a di-transitive clause with two or only one, or no overt arguments. In this thesis, the term ‘argument drop’ is used interchangeably with ‘implicit argument’, ‘null argument’, ‘covert argument’, ‘omitted argument’, or ‘unexpressed argument’ to refer to a NP which is phonetically unrealized but syntactically present.

Drawing on insights from past research, this thesis aims to deepen the understanding of the constraints on argument drop in Mandarin conversations by posing the following research questions: do contextual cues override syntax in the interpretation of empty categories, i.e. if the referent can be recovered from the context, does it mean that any argument can be dropped despite syntactic restrictions if there are any? How much is argument drop clause internally or externally determined in Mandarin? What important pragmatic factors are at play in triggering argument drop in this language? In addition, verb semantics has rarely been discussed in past research, and so what role it plays in the discussion of constraints on unexpressed arguments in Mandarin remains an open question. Those are the main questions this thesis is attempting to answer.

This thesis adopts a discourse approach by using spontaneous speech corpora as the only source for analysis. Even though the majority of linguists working on argument realization phenomenon in Mandarin have the consensus that speech context plays an important role in motivating an argument drop (cf. Chapter 3 Literature Review), none of the research in this area has hitherto used real-life spoken data as a primary source to explore the effect of discourse context on the occurrence of unexpressed arguments. This

thesis initiates an attempt to conduct a study from real-time speech in the hope of having a deeper understanding of how syntactic and pragmatic principles are played out when an argument is unexpressed in natural utterances. From the perspective of human communication, the choices speakers make are also the end results of both syntax and pragmatics and can be better understood if they are explained on both levels.

Therefore, in order to have a more comprehensive picture of how syntactic and pragmatic principles are played out when an argument is unexpressed in natural utterances in Mandarin, this thesis used two corpora which contain real-time speech as the primary source for analysis. One of them is the NCCU Corpus of Spoken Mandarin constructed by the National Chengchi University of Taiwan; the other is a three-hour, self-elicited recording of an informal lunch conversation between three graduate students from Mainland China. A detailed description of both corpora and how relevant examples are extracted from the corpora is presented in Chapter 2.

Note that this thesis is a qualitative study, therefore it is concerned with analysis of tokens and extracts in the chosen discourse data and is not concerned with their occurring frequencies.

In Chapter 3, an overview of the research done on the syntactic constraints on argument drop is outlined. I first provide a general literature review on the discussion about the possible factors that may have affected the appearance or disappearance of an argument in a language before moving on to past and current discussions on Mandarin syntax. In this chapter, I primarily focus on the syntactic factors that have been discussed in the literature which have possible correlation with implicit arguments. Literature review on the pragmatic aspects is given separately in Chapters 5 and 6 in which I propose my two pragmatic factors for governing the argument realization pattern in Mandarin. Relevant literature review pertaining to each of my pragmatic claims is placed in the same chapter as their respective theoretical claim. This is for the benefit of providing a more comprehensive reading sequence for the reader. Thus, the reader does not have to read researches relating to Chapter 5 and 6 in Chapter 3, or vice versa, or go back to Chapter 3 while reading Chapter 5 and 6 to look for ground work on which the proposals are based.

Different theoretical views on the description of Mandarin syntax and the

disparity of these views are outlined in the second half of Chapter 3. As early as the 1960s, influential proposals regarding the Mandarin sentence structure were put forward, but these views have never reached a universal consensus. By describing the disparity of these views, I provide the backdrop from which my two main syntactic claims are formed. On the one hand, Mandarin syntax is examined from the subject-predicate perspective and the language is believed to follow the basic constituent order of SVO; whether there are grammatical relations in the language is not questioned (Lü 1982; Wang 1985; Huang 1984, 1989). On the other hand, Mandarin is described as a topic prominent language because linguists of this theoretical camp believe that its sentences pervasively exhibit topic-comment construction; to them, the function of ‘subject’ and ‘object’ is not grammaticalized in this language and the relationship between a topic and a comment is semantic, not syntactic (Chao 1968, Li & Thompson 1976, 1981; Huang 1981; LaPolla 1990, 1993; Shyu 1995; Van Valin & LaPolla 1997).

To create more confusion, there are also differences in the core beliefs inside each theoretical camp. For instance, people who believe that Mandarin exhibits a subject-predicate syntactic relationship are not unanimous on the possible number of subjects that can occur in a sentence. Lü (1982) and Wang (1985) have proposed that a Mandarin sentence can have as many subjects as the number of NPs that come before the verb (cf. 3.3). Similarly, linguists who advocate that Mandarin is typologically a topic prominent language cannot concur on how to define ‘topic’ (cf. 3.3, 3.4). It is against this backdrop of theoretical debate that I put forward my two syntactic claims.

Among the various theoretical views, one proposal has significant influence on shaping my hypothesis about the syntactic constraints on argument drop in the language. It is a view which is not widely discussed in the linguistic literature yet is becoming more popular in the area of pedagogy. This view was first proposed by Tai (1985), who put forward the Principle of Temporal Sequence (PTS) as a constraint in forming the syntactic structure of a Mandarin sentence. PTS states that the relative word order between two syntactic units is determined by the temporal order of the states which they present in the conceptual world (Tai 1985, 2007). Tai argues that the principle may be based on conceptual construct but it should not be regarded as a discourse function in Mandarin. Rather it is a syntactic function in the grammar of the language because it

exerts syntactic constraints on Mandarin sentence formation.

Tai's Principle of Temporal Sequence is discussed to some extent at the beginning of Chapter 4 which then leads to my proposal on the syntactic constraints on argument drop in Mandarin. I propose two syntactic claims, the first states that, "a Mandarin main verb has the syntactic function of marking the semantic relations between the co-arguments of a canonical transitive clause. By default, it marks the pre-verbal argument as a proto-agent and the post-verbal argument as a proto-patient". My second syntactic claim states that, "a Mandarin main verb disallows a proto-agent to occur post-verbally". This claim implies that when the proto-patient of a transitive clause is placed pre-verbally for markedness, the proto-agent is likely to be dropped from the syntactic structure because it has lost its default syntactic position before the verb. Evidence from data examples is presented later in the chapter to validate these two syntactic proposals.

Chapter 5 presents my first pragmatic finding on the constraints on argument drop in the language. It proposes that the principle of 'relevance-importance' ('r-importance') is an influential pragmatic factor determining the expression or omission of an argument. 'R-importance' is developed from the main ideas in Sperber & Wilson's Relevance Theory (1986, 1995). In this thesis, 'r-importance' refers to the degree of relevance-importance of a noun or noun phrase in an utterance for establishing the speaker's intended meaning relative to the other nouns or noun phrases at the point of its occurrence in the utterance. A close examination of the chosen data indicates that the more r-importance an argument carries, the less likely it is to be dropped from the sentence structure. Conversely, the less r-importance an argument carries, the more likely it is to be dropped from the sentence structure.

Chapter 6 presents my second pragmatic finding, which shows that 'definiteness' and 'verbal conceptual representations' are other key predictors determining whether a given argument is more likely or not to be omitted from the verb phrase: the former refers to the recoverability of an intended referent and the latter is tied to the lexical semantics of the verb. Evidence found in the data shows that whether the referent of an argument is definite or not has a strong influence over the appearance or disappearance of the argument in the syntactic structure. A detailed data analysis also indicates that

utilizing a verb is a strategy for the recovery of the definite entity, but it is not arbitrary for a particular verb to be used to cue the retrieval of the referent; the selection restrictions projected by the verb's conceptual representation is a strong factor.

Lastly, the relevance of all the findings is discussed in the final chapter and implications for future research are presented.

Chapter Two

Data Description

2.1 Introduction

For this thesis, the data source comes from both existing spoken corpora and recorded conversations of Mandarin Chinese. It includes the Mandarin Chinese spoken in both Taiwan and The People's Republic of China. The main objective including both varieties is to provide a balanced and more generalized analysis on the constraints of argument drop in the official language of these two regions. Mandarin Chinese is also spoken as one of the four official languages in Singapore, besides English, Tamil, and Malay; however, as Singapore is diverse in ethnicity and language use, the Mandarin variety spoken in this country has been subjected to much intercultural and cross-linguistic influence (Vaish & Roslan 2011; Lock 1989), and therefore this thesis only examines the Mandarin Chinese varieties spoken in Mainland China and Taiwan.

2.2 Historical background on Mandarin in Taiwan and Mainland China

Mandarin Chinese is the official language in both Mainland China and Taiwan. However, after the political split between the Communist Party and the Democratic Party (*Kuomintang* 'Chinese Nationalist Party') in 1949, Mainland China had simplified the characters of the language whereas Taiwan still maintained the use of the traditional characters. Mainland China also devised the pinyin phonemic system to transcribe Chinese whereas Taiwan adopted the Wade Romanization system of transcription – a system first developed in the mid-19th century by Thomas Wade. After a complete lack of communication between the two sides during the cold war era (1949-2008), linguistic differences, such as vocabulary usage and phonology, have been noted to have occurred between the Mandarin spoken in Mainland China and Taiwan (Li 1985).

Since simplified characters and the pinyin system are used more extensively in Mandarin speaking communities, both are employed for the transcription and glosses of the data examples in the thesis.

2.3 Description of corpora

The main existing spoken corpora used as part of the database for this research is the NCCU Corpus of Spoken Mandarin (Chui 2009; Chui & Lai 2009), constructed by the National Chengchi University of Taiwan. The corpus offers free access and contains three sub-sets of Chinese varieties: Mandarin, Hakka, and Southern Min. As this research studies the Mandarin variety, only this subset was used. The Mandarin subset consists of 27 spontaneous face-to-face conversations, collected between the years of 2006 to 2008. The total length of the conversations is 11 hours and 19 minutes. The corpus is transcribed in pin-yin and translated into English; it is part-of-speech tagged but not syntactically parsed, which means manual annotation is necessary. Considering the time and resources of this research, it was decided that the first ten conversations were sufficient to provide enough data for analysis. The first ten conversations amount to a total of 3 hours and 39 minutes, the length of which is close to that of the Mainland Mandarin spoken data which forms the other half of the database.

The participants in the first ten conversations of the NCCU Corpus are from both genders and their age ranges from 24 to 58. The topics of the conversations cover common themes of everyday life, such as work, dating, school, pets and children.

For the Mainland Mandarin Chinese variety, there are a number of existing spoken corpora which are substantial in their contents, notably: ‘The Lancaster Los Angeles Spoken Chinese Corpus’ and ‘CALLHOME Mandarin Chinese Spoken Corpus’, however the former cannot be released due to copyright issues, and the latter requires membership and payment for access. In addition, the CALLHOME corpus comprises solely of telephone conversations which do not well serve the purpose of this thesis which aims to analyze spontaneous face-to-face interactions. Besides these corpora, there is the PolyU Corpus of Spoken Chinese, built by The Hong Kong Polytechnic University, which is the only discourse data of Mainland Mandarin variety that gives

free access to the public. PolyU Corpus contains both Cantonese and Mandarin discourse data. The Mandarin discourse data includes questionnaires, prompted interviews, and prompted conversations. As this research focuses on spontaneous discourse interactions, the PolyU corpus was excluded from the database.

All the current Chinese corpora are not syntactically parsed or annotated for argument drop; therefore manual parsing and analysis were necessary for the thesis. Based on availability and the nature of the conversational data, I finally decided to do my own audio recording for the data source for the Mainland Mandarin variety.

2.4 Description of recorded data

The recording I made was of a lunch conversation between three participants from Mainland China. The three participants were well-acquainted graduate students from the School of African and Oriental Studies (SOAS), University of London. At the time of recording, two of them had only arrived in the UK less than a year ago; one had stayed in the UK for fifteen months. They came from three different provinces in China, namely: Hebei, Shandong and Jiangsu, but they all spoke Mandarin Chinese as their first language. The data gathering process followed the SOAS guidelines on informed consent in the ethics policy: the participants were asked for voluntary consents and told clearly of the nature of the research as well as the data collecting procedure prior to the actual recording. The participants were then invited to the researcher's home for an informal luncheon. The general atmosphere was friendly and relaxed. No prompts or topics were given for discussion during luncheon to ensure comparability to the Taiwanese corpus, as the latter was collected with no specific topics designated. The participants were only told that a recorder was present at the scene of the gathering. Throughout the luncheon, the researcher rarely engaged in the conversation; she was merely in the kitchen or sat at the dining table to listen. The recording continued during the whole conversation, except when paused for the table setting, sudden phone calls, participants going to the restroom, and getting dessert. In the end, the collected data consisted of five separate audio files, of the following durations: 58 min 30 sec, 6 min

38 sec, 13 min 59 sec, 33 min 57 sec, and 1 hr 8 min respectively, amounting to a little over three hours. The files were then saved and password protected.

2.5 Extraction of data examples

2.5.1 Excluding irrelevant data

One major difference between spontaneous speech and written texts is that the former is, most of the time, an instantaneous production of the speaker's thoughts rather than carefully structured sentences as in written texts. Linguists have described speech production as a cognitive and physical process (Levelt 1989; Carroll 2008). Levelt (1989), for instance, has suggested that speech production involves the process of conceptualization, formulation and execution. That is, the production of an utterance starts with the speaker conceptually forming a message, translating it into a linguistic form before articulating it using the appropriate vocal apparatus. During the process, various factors may prevent the final utterance from being a perfect verbal encoding of the speaker's intended message, especially in the situations when the speaker is nervous, tired, anxious, or even intoxicated. As a result, speech errors or 'slips of the tongue' can occur (Carroll 2008). Common speech errors in English may include deletion (such as affix deletion *He miss the game*), sound segment slips such as preservation (*a phone book* → *a phone fook*), anticipation (*a week-long race* → *a reek-long race*), or exchange (*I ran into him* → *I into him ran*).

Since natural discourse can be filled with speech errors, I took the measure to exclude the following four segment types from the corpora and the self-recorded files prior to data analysis. This is to ensure that all the final selected sections for data analysis contain applicable clauses. The first three segment types were excluded because they were considered as not forming a complete sentence and the last segment type was exempt as it might contain unforeseen crosslinguistic lexical or syntactic influences which might affect the actual analysis. The four excluded segment types are:

Type one: utterances which are cut off or unfinished due to interruptions or other factors, such as the one in (1)

(1)

| | | | | |
|--------------------------|------------|-------------|-----------|------------|
| 因为 | 这 | 并 | 不 | 是 |
| <i>yinwei</i> | <i>zhe</i> | <i>bing</i> | <i>bu</i> | <i>shi</i> |
| because | this | ADV | NEG | COP |
| 'Because this is not...' | | | | |

Type two: discourse comments or fillers such as the one in (2) or (3)

(2)

| | |
|------------|----------|
| 对 | 哦 |
| <i>dui</i> | <i>O</i> |
| yes | FP |
| 'Oh yes' | |

(3)

没错
meicuo
Of course
'Of course'

Type three: repetitions

(4)

| | | | | | | | | | |
|--|------------|-----------|------------|--------------|--------------|--------------|-----------|------------|-------------|
| 然后 | 就 | 他 | 就 | 讲 | 讲 | 讲 | 他 | 就 | 说 |
| <i>ranhou</i> | <i>jiu</i> | <i>ta</i> | <i>jiu</i> | <i>jiang</i> | <i>jiang</i> | <i>jiang</i> | <i>ta</i> | <i>jiu</i> | <i>shuo</i> |
| afterwards | then | 3SG | just | talk | talk | talk | 3SG | then | say |
| 'then he just talked, talked, talked, and he then said...' | | | | | | | | | |

Type four: clauses containing languages other than Mandarin, e.g. Taiwanese or English (5):

(5)

| | | | | | |
|-----------|---------------|--------------|-----------|-----------|----------------|
| 我 | 还要 | cover | 那 | 个 | 女生 |
| <i>wo</i> | <i>haiyao</i> | <i>cover</i> | <i>na</i> | <i>ge</i> | <i>nüsheng</i> |
| 1SG | must | cover | that | CL | girl |

‘I have to cover for that girl’

The transcripts in the NCCU and the transcript of the audio files were then carefully examined. Verbs and verb phrases were underlined and possible unfilled argument positions were marked with ‘Ø’ for analysis.

Since both data sources are not syntactically parsed, manual extraction of relevant examples of argument drop was therefore necessary. Clauses which were selected as valid tokens of argument drop included those containing one or more argument positions in the verbal predicate which could be filled with overt nouns or noun phrases, but were not. This could be an intransitive clause with no overt argument or a transitive clause with only one or no overt argument or a di-transitive clause with two or only one, or no overt arguments.

2.5.2 Literature on the definition of ‘transitivity’

One challenge this research faces in extracting relevant tokens of argument drop is determining the transitivity of a verb. In order to decide whether there is an argument drop in a clause, it is necessary to know how many arguments a particular verb can take, and this decision depends on both the verb’s transitivity and its lexical semantics. The traditional definition of transitivity relates it to the number of participants a verb takes. According to Payne (1997), a transitive verb is one that describes the relation between two arguments such that one acts towards or upon the other. An intransitive verb is one that describes a state, action or situation involving only one argument. To clarify their distinction, Payne adopts the definitions developed by Dixon (1979) and Comrie (1978) to describe the core grammatical roles of A, S and O, which is stated in (6):

(6)

A is the most agent-like argument of a transitive verb
O is the most patient-like argument of a transitive verb
S is the single argument of an intransitive verb

This definition implies that whether a clause is transitive or intransitive depends on the appearance of an affected second core argument (or a third core argument if it is di-transitive). However, this definition poses problems in practicality. For instance, there are labile verbs (Dixon 1994: 18, 54, 217) which can appear either as transitive or intransitive (as in '*I eat an apple*', '*I ate*'), and there are also verbs which may be traditionally classified as transitive or intransitive but appear otherwise in a different clause type. For example, the English verb '*run*', which is traditionally categorized as intransitive, is capable of taking on a second core argument as in sentences like '*I ran a race*' or '*I ran a business*'.

To improve on the traditional approach to the notion of transitivity, there are other linguists who propose that transitivity should be viewed as a continuum of the volitional force carried by the verb. That is, the degree of transitivity of a given clause is judged based on the effectiveness of the verbal volition in which an event is carried over from an active agent to a patient (Hopper & Thompson 1980). However, this approach also poses circular problems in that a verb can be intransitive, yet carries more volitional force, or transitive, but carries little volitional force. For instance, the English verb *trip* only requires one argument to complete its subcategorization frame, as in *I tripped*, yet the lexical semantics of this verb has more volitional force than state verbs, like *hear* and *see*. Therefore, should a sentence such as *I tripped* be analyzed as more transitive or less transitive than sentences such as *I hear sound* or *I see flowers*?

In the theoretical framework of Role and Reference Grammar (RRG), developed by Foley & Van Valin in the 1980s (Foley & Van Valin 1984; Van Valin & LaPolla 1997), a different approach to the idea of transitivity is put forward: transitivity is not related to syntactic valence but is defined in terms of macro-roles. Macro-roles are based on the two semantic notions: 'actor' and 'undergoer'. Actor is a generalization across agent, experiencer, instrument and other roles, and 'undergoer' is a generalization

including patient, theme, recipient and other roles. Agent is the prototype of actor while patient is the prototype of undergoer. From the perspective of RRG, verbs have semantic as well as syntactic valence. Semantic valence is the number of macro-roles a verb carries that is determined by the event-type the verb describes. A verb can be classified according to the internal temporal structure of the events they denote. Based on the proposal of Vendler (1957), there are four aspectual classifications of verbs: state, activity, achievement, and accomplishment. Coarsely, state verbs describe non-dynamic situations, such as ‘to like’, ‘to see’ and ‘to know’; activity verbs describe dynamic events that do not have an inherent temporal endpoint, such as *I ran*, *She poured the water*, *He worked for a period*; accomplishment verbs describe events which are ‘telic’ or have an inherent point at which a result is achieved, such as *I filled the mug with water*, *John finished painting the wall*, *she baked a cake*; achievement verbs describe events that are instantaneous and the moment at which the transition to a result state occurs, such as *The window broke*, *The train arrived*, *The building exploded*. RRG argues that a verb’s syntactic valence does not always equal its semantic valence. For example, in the English sentence *I ate pizza for an hour*, there are two logical arguments: ‘I’ and ‘pizza’, but semantically, the verb only carries one macro-role ‘I’, as ‘eat’ is used as an unbounded activity and the non-referential, non-agentive argument ‘pizza’ only serves to characterize the action and would not appear as the subject in its passive sentence (**Pizza was eaten by me for an hour*). On the other hand, if ‘eat’ functions as an accomplishment verb as in *I ate the pizza in five minutes*, the activity is now bounded and ‘pizza’ becomes referential, thus the sentence carries both the agent macro-role ‘I’ as well as the non-agent macro-role ‘pizza’.

In the framework of RRG, there are only three transitivity possibilities in terms of macro-roles, 0, 1, and 2. An English sentence such as *It rained* has zero macro-role because it does not have any semantic argument. There is no distinction between transitive and ditransitive; indirect objects are analyzed as oblique adjuncts rather than as a separate macro-role. The table below shows the transitivity possibilities in terms of macro-roles (taken from LaPolla, Kratochvil & Coupe 2001: 477):

| | Semantic Valence | Macro-role No. | Macro-role Transitivity |
|----------------------|---------------------|----------------|-------------------------|
| rain | 0 | 0 | atransitive |
| die | 1 | 1 | intransitive |
| eat (active) | 1 or 2 | 1 | intransitive |
| eat (accomplishment) | 2 | 2 | transitive |
| kill | 2 | 2 | transitive |
| put | 3 | 2 | transitive |
| give | 3 | 2 | transitive |

Viewing transitivity in terms of verb type and whether there is an individuated referential patient argument in the clause can be a fruitful way of defining transitivity. However, using macro-roles only and treating the third core argument in a ditransitive clause as adjunct can pose difficulties in the analysis of this thesis. It is not always easy to identify the third core argument in Mandarin as the indirect object can be as semantically prominent as the other two core arguments, as illustrated in topicalized sentences such as the ones in (7) below. In such cases it is difficult to analyze the third argument as oblique.

(7)

- a 这 笔 我 送 你
 zhe *bi* *wo* *song* *ni*
 this pen 1SG give 2SG
 ‘I give you this pen’
- b 这 件 事 我 帮 你 处理
 zhe *jian* *shi* *wo* *bang* *ni* *chuli*
 this CL matter 1SG help 2SG deal
 ‘I will help you deal with this matter’

2.5.3 Definition of ‘transitivity’ in this thesis

Taking all the views on board and considering the practicality of data analysis, transitivity in this thesis is regarded as a syntactic rather than a semantic notion. Its definition adopted in this thesis is closer to that of the traditional understanding of

transitivity, namely that it refers to the number of arguments a verb or verb phrase could take. In this way, an intransitive verb or verb phrase is one that takes only the subject argument, a transitive verb or verb phrase takes the direct object, and a ditransitive verb or verb phrase takes a direct object and an indirect object. However, if a verb is labile or able to change its syntactic valence without incurring ungrammaticality, then the verb is considered to have completed its subcategorization frame in both cases and no argument drop is attributed in either case. When there are unclear instances, judgement of native speakers is sought in order to validate their transitivity.

In (8), I present some instances from the actual data to demonstrate how verbs and verb phrases are denoted with transitivity in this thesis:

(8)

- a 一直 打扰 别 人
 yizhi *darao* *bie* *ren*
 continuously disturb other people
 ‘(Someone) continuously disturbed other people’
- b 他 很 爱 闹
 ta *hen* *ai* *nao*
 3SG very love make-trouble
 ‘He loves to make trouble’
- c 我 吃吃看 看 会不会 睡着
 wo *chi-chi-kan* *kan* *hui-bu-hui* *shuizhao*
 1SG eat-eat-see see whether sleep
 ‘I will try to eat, to see if (I) will fall asleep’
- d 肉 还 没 放
 rou *hai* *mei* *fang*
 meat yet NEG put
 ‘Meat has not yet been put’

In (8a), the verb *darao* ‘to disturb’ is analyzed as transitive because it must take an object to become a well-formed sentence, i.e. to disturb something or someone. Therefore (8a) is annotated as a transitive sentence with an unexpressed agent subject.

(8b), on the other hand, is considered as an intransitive sentence because the verb *nao* ‘to make trouble’ does not require an object, thus (8b) is labelled as a sentence with no argument drop. (8c) is designated as a conjoined construction with a dropped agent subject in the second clause. Native speakers of Mandarin have contended that the verb phrase *chi-chi-kan* ‘try to eat’ is labile, which means it can be with or without an object. When it is with an object, the sentence means that the agent subject would like to try to eat the entity denoted as the object; when it is without an object, the interpretation can be that the agent subject would like to try the taste by eating. (8d) is a more interesting token and its syntactic construction is discussed in depth in Chapter 4. The verb *fan* ‘to put’ in (8d) is regarded as a transitive verb since its lexical semantics has the connotation of ‘put in’, i.e. someone has not yet put in the meat. What is interesting in (8d), and needs to be noted, is that the object of the verb is expressed in the syntactic position which is usually reserved for the subject agent. It exhibits an important characteristic of a passive voice, namely, the object is syntactically promoted for markedness. Clauses which bear similar syntactic structure to (8d), with an overt object in the subject position, are marked in the data as a quasi-passive construction.

Chapter Three

Literature Review On Syntactic Constraints

3.1 Introduction

This chapter provides an overarching review on the syntactic constraints that have been discussed in the literature to affect the appearance or disappearance of an argument in a language. I focus primarily on the syntactic aspects in this chapter and provide the literature review on pragmatic aspects separately in Chapters 5 and 6. The purpose of structuring the literature review as such is in the hope of providing a more comprehensive picture for the reader. By placing the summary of related researches pertaining to each of my pragmatic proposals in the same chapter, I hope to make the link between the relevant groundwork and my own pragmatic theories more obvious to the reader. Hence, this chapter examines mainly syntactic proposals that have been put forth in the linguistic field to capture the phenomenon of implicit arguments.

The aim of this chapter is three-fold. First, it gives an overview of the contributions made in the general linguistic field regarding the possible syntactic factors underlying implicit arguments. Second, it focuses on the literature on Chinese linguistics and discusses in detail present and past theories on the factors that may govern argument realization pattern in this language. Lastly, it explains the current paradoxical views regarding the syntactic construction of a Mandarin sentence and how these views propelled my syntactic proposals in Chapter 4.

This chapter is organized as follows. In 3.2, an overview on the syntactic constraints proposed in the general linguistic field is provided. Section 3.3 provides a detailed description of the present and past literature on the possible factors influencing argument realization phenomenon in Mandarin. A detailed description of the current dichotomic views on Chinese syntax ensues in 3.4. Finally, conclusive remarks are made in 3.5.

3.2 General background on syntactic constraints

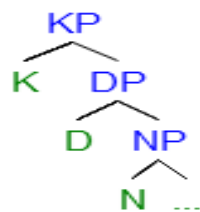
Languages have been found to differ in the form and frequency of expressing referents. English, for instance, is a language which has been found to have stricter restrictions on the distribution of argument drop, especially in written language, while languages such as Chinese, Japanese or Korean have been found to exhibit far more freedom with respect to argument drop (Huang 1984; O'Grady, Yamashita & Cho 2008). In the Government-Binding framework, it is proposed that the occurrences of null arguments can be accounted for by the Pro-Drop Parameter or the Null Subject Parameter, which accords the degree of empty category to the richness of inflectional morphology in the language (Chomsky 1981; Chomsky and Lasnik 1977, Jaeggli 1982). According to this theoretical framework, languages which have a richer system of verbal agreement can allow more instances of pronoun drop because the inflection on the verb suffices to recover the referent of a missing subject or object. This is the reason why Italian and Spanish have more freedom in using phonologically null subjects than English and French, as the former have a richer verb-subject agreement system. Furthermore, this also explains why object drop is prohibited in all four languages since none of these languages exhibit any verb-object agreement. However, this attempt to identify a correlation encounters a serious problem when it comes to languages such as Chinese, Japanese, and Korean; languages which do not have verb-subject or verb-object agreement yet appear to permit abundant argument ellipsis.

Speas (1995, 2006) tries to reconcile this paradox by correlating pro-drop with specifier-head relations. She explains that in languages with a rich verb agreement paradigm, the inflectional affixes should be considered as independent lexical entries and can head their own projections whereas the affixes in languages with an impoverished agreement system are base-generated on the verb and are only part of an inflectional paradigm. This means languages with a strong verb agreement paradigm can allow the specifier of agreement projection (AGR) to be null as the head is already specified. However, with languages which have some sort of verb agreement, the specifier of agreement projection (AGR) must be licensed by an overt head since the agreement affixes are base-generated on the verb. This syntactic restriction prohibits languages with residual agreement, such as English, to become pro-drop. As for

languages which lack any agreement relations, such as Chinese, Japanese, and Korean, Speas claims that there is no need for an AGR projection for these languages at any level and therefore there are no requirements on licensing that projection in such languages. This theory-internal account explains why radical pro-drop is prone to occur in languages with no agreement system as well as in languages with strong agreement morphology (as there is no AGR projection in languages without verbal agreements, therefore there is no agreement to be licensed and *pro* can occur in the SpecIP position).

However, Neeleman & Szendrői (2007) claim that the presence and the absence of agreement is not the crucial factor for the occurrence of radical pro drop in a language. There are languages where the absence of verbal agreement does not result in the availability of pro-drop (Swedish, Norwegian and Afrikaans); there are also languages where the occurrence of partial agreement does not block the pro-drop patterns (Kokota). In addition, if lack of agreement allows for pro-drop, then we should also expect object pro-drop in languages where object agreement is non-existent, but this does not happen. Instead, Neeleman & Szendrői propose that the distribution of pro-drop may be attributed to the morphological characteristics of the pronominal paradigm of a language. A language which has an agglutinating pronominal paradigm such as Mandarin is more likely to have more pervasive pro-drop than a language which has a fusional pronominal paradigm.

Neeleman & Szendrői's proposal is based on the assumption that an extended nominal projection contains a KP (case phrase), a DP (determiner phrase) and an NP (noun phrase) (2007:688):



The phonetic realization of this nominal projection is governed by the Elsewhere Condition which states that: (a) when everything else is equal, a more specific rule will

block the application of a more general rule, and (b) if the structural description of rule A properly includes the structural description of rule B, then A will be applied to the phonetic outcome of a projection. Taking the English pronoun *him* and the Mandarin counterpart *ta* ‘he, him’ as an example, the English form *him* is fusional for case while the Mandarin *ta* is agglutinating; their features can be captured by the following rules (N&S use the features [+p(ronominal), –a(anaphoric)] to indicate that KP is a pronoun):

- A. /him/ = [KP+p, -a, 3, SG, M, ACC] (cf. N&S 2007: 687)
- B. /ta/ = [NP +p, -a, 3, SG, M]
- Radical Pro-Drop Rule = [KP +p, – a] → Ø (cf. N&S 2007: 682)

Since *him* is fusional for case, its final phonetic spell-out is realized at the K(case)P level because under the Elsewhere Condition, rule A is favoured over the Radical Pro-Drop Rule as the former is more specific and contains more features. In contrast, the Chinese *ta* is not inflected for case nor blocked by DP, therefore the Radical Pro-Drop Rule is available in this language.

Neeleman & Szendrői’s Radical Pro-Drop Generalization is very attractive and it was tested against 20 world languages. However, the paper itself mentions that Finnish is a potential counter-example to the theoretical assumptions and Portuguese is also a somewhat murky language in this respect. Furthermore, this approach does not discuss any issues of how the occurrence of pro-drop may be pragmatically conditioned.

Bickel (2003) puts forward a different hypothesis to explain the variance in ellipsis argument across world languages. He notes that the ‘referential density’, a term he uses to refer to the ratio of overt argument NPs to available argument slots in a clause, differs between three languages spoken in the Nepalese Himalayas region: Belhare, Nepali, and Maithil. Bickel found that in the discourse narration produced in response to the Pear Story movie clip (Chafe 1980), speakers of Nepali and Maithil have considerably higher referential density than Belhare, meaning these two speech communities use far more overt pronouns in their discourse than speakers of Belhare. Bickel suggests that the main factor to trigger such disparity in the expression of referents in these three languages, spoken in a similar socio-cultural background, lies

with their syntactic typology. Languages with more syntactic constructions that are controlled by case-sensitive privileged syntactic argument (PSA) are more likely to have more extensive overt referent expressions. ‘Privileged syntactic argument’ is a term proposed by Van Valin and LaPolla (1997) and adopted by Bickel to refer to the argument in a sentence which has certain rule-governed syntactic properties similar to the ones proposed by Keenan (1976) as the formal features of a ‘subject’. This includes being the controller of verb agreement, the controller of coordination, or being the antecedent of reflexives or the most accessible NP for the syntactic processes of passivization and relativization (Keenan 1976). In the three languages studied in Bickel’s project, PSA is the most sensitive to case in Maithil and is almost insensitive to case in Belhare. According to Bickel, there are two sets of inflections that control verb agreement in Maithil: one belongs to the nominative case, and the other he calls ‘the non-nominative case’. He provides (1) to illustrate how sensitive the PSA in Maithil is to case. In (1a) the nominative inflection –*aith* is used when the PSA is in the nominative case, but when the PSA is in the dative case, it triggers the non-nominative case inflection –*ainh* as in (1b):

(1)

- | | | | |
|---|---|---|---|
| a | <i>o</i> 3H.DIST.NOM 'S/he/they | <i>ar-l-aith</i> be.afraid-PT-3H.NOM was/were afraid' | |
| b | <i>hunks</i> 3H.DIST.DAT 'S/he/they | <i>dar</i> fear was/were afraid' | <i>lag-l-ainh.</i> feel-PT-3H.NONNOM |

In Belhare, on the other hand, the most prominent semantic argument is projected to the PSA status. Thus, in a transitive clause, a higher-ranking argument such as experiencer would control subject ‘A’ agreement, and a lower-ranking argument such as stimuli would control object ‘O’ agreement.

If Belhare lies on the negative end of the PSA case-sensitivity continuum, then Mandarin is a language which goes beyond Belhare to the extreme end of the negative

polarity as it lacks verb agreement and nominal case morphology. According to Bickel's model on the correlation between PSA and argument drop, the lack of a case system in Mandarin would predict it to be a language capable of extensive null arguments. However, Bickel's model cannot provide more enlightening suggestions as to when and under what conditions arguments can be dropped in Mandarin Chinese.

3.3 Discussion of syntactic constraints on Argument drop in Mandarin

In analyzing the relevant factors determining the appearance and disappearance of arguments in Mandarin Chinese, James Huang's work is probably among one of the most influential. He notes that there is a sharp contrast in the acceptability of zero arguments between Chinese and English (Huang 1984). He points out that English has strict syntactic restrictions on the distribution of an empty pronoun – it can occur as the subject of an infinitival clause (2a), or of a gerundive clause (2b), but it cannot occur as the subject of a tensed clause (2c) or as an object at all (2d~h). Mandarin Chinese, on the other hand, permits all the translational equivalents of the sentences in (2) if uttered in appropriate contexts (Huang 1984:532).

- (2)
- a. John promised Bill [*e* to see Mary].
 - b. John preferred [*e* seeing Mary].
 - c. *John promised Bill that [*e* would see Mary].
 - d. *John promised Bill that [Mary would see *e*].
 - e. *John promised Bill [Mary to see *e*].
 - f. *John preferred [Mary's seeing *e*].
 - g. *John promised Bill that [*e* would see *e*].
 - h. *John promised Bill [*e* to see *e*].

According to Huang, all of speaker B's answers below are acceptable in Mandarin if they are spoken in context (1984:533):

(3)

Speaker A: 张三 看见 李四 了 吗
Zhangsan kanjian Lisi le ma
 Zhangsan see Lisi PFV INT
 ‘Did Zhangsan see Lisi?’

Speaker B: a. 他 看见 他 了
 ta kanjian ta le
 3SG see 3SG PFV
 ‘He saw him’

b. *e* 看见 他 了
 kanjian ta le
 see 3SG PFV
 ‘[He] saw him’

c. 他 看见 *e* 了
 ta kanjian
 3SG see
 ‘He saw [him]’

d. *e* 看见 *e* 了
 kanjian
 see
 ‘[He] saw [him]’

e. 我 猜 [*e* 看见 *e* 了]
 wo cai kanjian le
 1SG guess see PFV
 ‘I guess [He] saw [him]’

f. 张三 说 [*e* 看见 *e* 了]
 Zhangsan shuo kanjian le
 Zhangsan say see PFV
 ‘Zhangsan said that [He] saw [him]’

Huang (1984) adopts Ross’s (1982) suggestion that languages can be classified in a binary distinction of ‘hot’ and ‘cool’, depending on the degree of pronominal expression allowed: ‘hot’ languages, such as English and French, have less freedom with zero pronominal whereas ‘cool’ languages, such as Mandarin and Japanese, allow more

extensive argument drop. Huang proposed that ‘cool’ languages differ from ‘hot’ languages in that cool languages allow zero-topic binding as a variable. This means an empty pronoun may be bound by the discourse topic instead of by a matrix argument. This is especially clear in the cases with object drop. He provides the following parallel sentences in English and Mandarin to illustrate this point (*e* represents an empty pronoun, and *ei* represents a coreferential empty pronoun):

(4) a. John said that Bill did not know him.

b. 张山 说 [李四 不 认识 *e*]
Zhangshan shuo [Lisi bu renshi e]
 Zhangshan say Lisi NEG know
 ‘Zhangshan said Lisi did not know *e*’

c. 那 个 人 张山 说 [李四 不 认识 *ei*]
(nei ge ren) zhangshan shuo [Lisi bu renshi ei]
 that CL man Zhangshan say Lisi NEG know
 ‘(That man), Zhangshan said Lisi did not know *ei*’

In (4a) the English object pronoun *him* can refer to the matrix subject John or to someone distinct from John. In the Mandarin equivalent sentence of (4a), as transcribed in (4b) and (4c), if the object pronoun is overt, then the Mandarin sentence has the same interpretation as its English counterpart. However, if the object pronoun is empty (which is still a grammatical sentence), the empty pronoun can only refer to a referent that is outside the entire sentence. Huang suggests that this referent needs to be the discourse topic, such as *nei ge ren* ‘that man’ as in (4c). ‘Discourse topic’, in Huang’s argument, is defined as ‘someone or something that a given discourse is about’ (Huang 1984: 541). Within earlier models of generative grammar, (4c) would be analyzed as object fronting, i.e. the object is first topicalized then deleted, and thus there is no gap in the sentence. Huang argues that this analysis could not account for (4c) and the empty category can only be analyzed as a variable which is locally \bar{A} -bound by a topic but not A-bound by a matrix argument; that is, an object empty category is not referentially dependent upon the matrix subject as its antecedent, but rather takes a discourse topic as its antecedent.

However, Huang does not specify what a ‘discourse topic’ is and how it should be defined.

Li (2014), however, claims that this variable explanation cannot account for all the null arguments in Mandarin because firstly, an object which cannot be topicalized can still appear to be null such as in instances of an indefinite object in (5). Secondly, null objects cannot be variables because they do not adhere to island constraints, i.e. they can occur within islands, co-indexed with their antecedents across island boundaries in (6) (Li 2014:45):

- (5) 他 送 一 个 男孩 一 本 书
 ta *song* *yi* *ge* *nanhai* *yi* *ben* *shu*
 3SG give one CL boy one CL book
 ‘He gave a boy a book’
- 我 送 (一 个 男孩) 一 支 笔
 wo *song* (*yi* *ge* *nanhai*) *yi* *zhi* *bi*
 1SG give one CL boy one CL pen
 ‘I gave (a boy) a pen’
- (6) 这 支 笔 很 贵
 zhe *zhi* *bi* *hen* *gui*
 this CL pen very expensive
 ‘This pen_i is very expensive’
- 我 特别 [因为 他 愿意 买 *ei* 给 我
 wo *tebie* [*yinwei* *ta* *yuanyi* *mei* *ei* *gei* *wo*
 1SG especially because 3SG willing buy to 1SG
 ‘because he was willing to buy (it) for me’
- 感到 高兴
 gnadao *gaoxing*
 feel happy
 ‘I am extremely happy’

As an alternative, Li proposes that within the typology of Mandarin empty categories, there is a true empty category which does not have any specified features, and is not inherently but contextually defined:

(7) EC without specified features: Free Empty Category / True Empty Category

EC with specified features

- a. [+ anaphor, - pronominal]: NP-trace
- b. [- anaphor, + pronominal]: pro
- c. [+ anaphor, + pronominal]: PRO
- d. [- anaphor, - pronominal]: variable

He suggests that the true empty category can have an unmentioned discourse topic as its antecedent, as illustrated in (8), and it can also have an antecedent in the previous discourse by a different speaker or in a preceding clause of a complex sentence by the same speaker. In other words, the interpretation of a true empty category can be established by any material in the discourse context that meets the semantic requirements of the related verb.

- (8) 你 找到 带来 的 人 就 告诉 我
 ni *zhaodao* *dailai* *e* *de* *ren* *jiu* *gaosu* *wo*
 2SG find bring *e* REL person then tell 1SG
 ‘Let me know once you have found the person who brought *e*’

(Li 2013:20)

Discourse topic has been proposed as a typological parameter to determine the differences between languages that allow pro-drop and those that do not. Tsao (1977) has argued that one important parameter distinguishing pro-drop languages, such as Mandarin, from non pro-drop languages, such as English, is that the former allows for distinctive properties which are ‘discourse-oriented’ while the latter does not. One such property is the rule of Topic NP Deletion which is an operation deleting the topic of subsequent clauses if it has the same identity as the topic of the initial clause; the resulting construction forms a ‘topic-chain’. In other words, a ‘topic chain’ is a series of clauses which expresses their common discourse topic only in the first clause. (9) is one such example provided by Huang (1984: 549), where *e* marks the position of a deleted topic:

(9)

| | | | |
|-----------------|---------------|------------|-----------|
| 中国 | 地方 | 很 | 大 |
| <i>zhongguo</i> | <i>difang</i> | <i>hen</i> | <i>da</i> |
| China | place | very | big |

‘China’s land is very big’

| | | | |
|----------|---------------|------------|------------|
| <i>e</i> | 人口 | 很 | 多 |
| | <i>renkou</i> | <i>hen</i> | <i>duo</i> |
| | population | very | many |

‘(Its) population is very big’

| | | | |
|----------|-------------|------------|--------------|
| <i>e</i> | 土地 | 很 | 肥沃 |
| | <i>tudi</i> | <i>hen</i> | <i>feiwo</i> |
| | land | very | fertile |

‘(Its) land is very fertile’

| | | | | |
|----------|--------------|-----------|------------|------------|
| <i>e</i> | 气候 | 也 | 很 | 好 |
| | <i>qihou</i> | <i>ye</i> | <i>hen</i> | <i>hao</i> |
| | climate | too | very | good |

‘(Its) climate is very good too’

| | | | | |
|----------|--------------|------------|------------|---------------|
| <i>e</i> | 我们 | 都 | 很 | 喜欢 |
| | <i>women</i> | <i>dou</i> | <i>hen</i> | <i>xihuan</i> |
| | 1PL | all | very | like |

‘We all like (it)’

Similar observation is made by Zhao (2012) when she looks at how overt and null embedded arguments are acquired by L2 Mandarin learners. She notices that one type of null embedded subject in Mandarin is the deletion of the bare reflexive *ziji* ‘self’ and the other is the result of discourse topic deletion. According to Zhao, the deletion of *ziji* is purely syntactic. It is syntactic because the removal of *ziji* from the phonetic level is attributed to its sharing the same phi-features as the matrix subject (Zhao 2012:172):

(10)

| | | | | |
|-----------------|-------------|----------|---------------|-------------|
| 张三 | 说 | <i>e</i> | 认识 | 李四 |
| <i>Zhangsan</i> | <i>shuo</i> | | <i>renshi</i> | <i>Lisi</i> |
| Zhangsan | say | | know | Lisi |

‘Zhangsan says that (he) knows Lisi’

In contrast, the discourse topic deletion, or ‘ \emptyset topic’, is a syntax–discourse category because it involves the deletion of a discourse topic through the process of chain-reduction (Li 2004: 25):

(11)

| | | | | | |
|-----------|--------------|------------|----------------|------------|------------|
| 那 | 辆 | 车 | 价钱 | 太 | 贵 |
| <i>na</i> | <i>liang</i> | <i>che</i> | <i>jiaqian</i> | <i>tai</i> | <i>gui</i> |
| that | CL | car | price | too | high |

‘That car is too expensive’

| | | | | |
|---------------|--------------|-----------|-----------|------------|
| \emptyset_i | 颜色 | 也 | 不 | 好 |
| | <i>yanse</i> | <i>ye</i> | <i>bu</i> | <i>hao</i> |
| | colour | also | NEG | good |

‘(Its) colour is not good either’

| | | | |
|----------------|-----------|---------------|---------------|
| 我 _j | 不 | 喜欢 | \emptyset_i |
| <i>wo</i> | <i>bu</i> | <i>xihuan</i> | |
| 1SG | NEG | like | |

‘I don’t like (it)’

| | | | | |
|---------------|-----------|--------------|------------|---------------|
| \emptyset_j | 不 | 想 | 买 | \emptyset_i |
| | <i>bu</i> | <i>xiang</i> | <i>mai</i> | |
| | NEG | want | buy | |

‘(I) don’t want to buy (it)’

| | | | | | | |
|---------------|----------------|-----------|------------|-----------|--------------|---------------|
| \emptyset_j | 昨天 | 去 | 看 | 了 | 一下 | \emptyset_i |
| | <i>zuotian</i> | <i>qu</i> | <i>kan</i> | <i>le</i> | <i>yixia</i> | |
| | yesterday | go | see | PFV | a-bit | |

‘Yesterday, (I) went there to take a look at (it)’

| | | | | | |
|---------------|------------|------------|-----------|---------------|---------------|
| \emptyset_j | 还 | 开 | 了 | 一会儿 | \emptyset_i |
| | <i>hai</i> | <i>kai</i> | <i>le</i> | <i>yihuir</i> | |
| | even | drive | PFV | a-while | |

‘(I) even drove (it) for a while’

| | | | | |
|---------------|---------------|-----------|---------------|---------------|
| \emptyset_j | 还是 | 不 | 喜欢 | \emptyset_i |
| | <i>haishi</i> | <i>bu</i> | <i>xihuan</i> | |
| | still | NEG | like | |

‘(I) still didn’t like (it)’

One noticeable feature in the topic-chain construction in (11) is that there are two distinctive empty categories involved in the chain clauses, namely \emptyset_i and \emptyset_j . They clearly do not coindex with the same topic, yet their semantic roles do not intermingle. \emptyset_j refers to the agentive first person pronoun *wo* ‘I’ and \emptyset_i refers to the theme topic *na liang che* ‘that car’. One syntactic implication of ‘topic chain’ in Mandarin is that it allows a language-specific coindexation between an empty topic node and an appropriate preceding discourse topic. However, such assumption may well account for topic chains involving only one discourse topic, such as the one in (9), but it fails to explain why when dual or even multiple topics occur simultaneously in the discourse, empty categories in subsequent clauses in a topic chain, such as the one shown in (11), are still able to be effortlessly linked to their appropriate topic antecedent. What are the syntactic rules that govern such linkage? And how are these rules correlated to the argument realization pattern in the language? Solutions to these questions are proposed and discussed in detail in the next chapter.

The importance of discourse topic in the understanding of Mandarin sentence construction and null argument phenomenon is particularly emphasized by linguists who primarily work in the pragmatic domain. The notion that Mandarin clause structure takes the form of topic-comment rather than subject-predicate has been proposed as early as the 1960s, when Chao (1968) suggested that Mandarin is a topic-oriented language because its clauses exhibit pervasive topic-comment structure. He argues that a Mandarin sentence tends to include two parts: one is the topic which refers to some referent available for comment, and the other is the comment which supplies some information about that topic. Even though there are instances when the topic is omitted and only the comment is expressed, as in sentences such as the one in (12), all Mandarin clauses can be analyzed based on ‘topic’ and ‘comment’ parsing (1968:69):

(12)

| | | |
|-----------------|-----------|-----------|
| 下 | 雨 | 了 |
| <i>xia</i> | <i>yu</i> | <i>le</i> |
| fall | rain | FP |
| ‘It is raining’ | | |

Later linguists have posited their theoretical claims along similar lines of argument. Li & Thompson, for example, have also stated that the grammatical category of ‘subject’ is not a structural notion in Mandarin (1976, 1979). They propose that Mandarin is better described as a topic-prominent language than a subject-prominent language because assignment of semantic roles to the constituents of a discourse is done by the listener on the basis of pragmatics rather than on syntactic relationships. They suggest that the first NP in a Mandarin sentence is most often a ‘topic’ rather than a ‘subject’ because the category of ‘subject’ is not grammaticalized in the language and it bears a direct semantic relationship rather than syntactic relationship with the verb (1981:15).

According to Li and Thompson, ‘subject’ is a purely syntactic function which is always related to the verb of the predicate in some way even though it does not have to take a semantic role, as is the case with the English dummy subjects (e.g. ‘*It is raining*’). ‘Topic’, on the other hand, is not determined by the verb but defined by the structure of the discourse. It is ‘the centre of attention’, ‘the theme of the discourse’ (1976:464), and it does not take part in any of the grammatical processes such as reflexivization, passivization, Equi-NP deletion, verb serialization, and imperativization (also see Keenan 1976). However, Li & Thompson do not discard the possibility that it is probable for both topic and subject to exist in the same sentence. For instance, the sentences in (13) or (14) are analyzed by them (1976:469) as having a topic and a subject simultaneously:

(13)

| | | | | |
|------------|-----------|------------|-------------|-----------|
| 那 | 棵 | 树 | 叶子 | 大 |
| <i>nei</i> | <i>ke</i> | <i>shu</i> | <i>yezi</i> | <i>da</i> |
| that | CL | tree | leave | big |

‘That tree, the leaves are big’

(14)

| | | | | | | |
|------------|-------------|-------------|--------------|----------------|------------|-----------|
| 那 | 块 | 田 | 稻子 | 长得 | 很 | 大 |
| <i>nei</i> | <i>kuai</i> | <i>tian</i> | <i>daozi</i> | <i>zhangde</i> | <i>hen</i> | <i>da</i> |
| that | piece | field | rice | grow | very | big |

‘That piece of land, rice grows very big’

In (13), *nei ke shu* ‘that tree’ is analyzed as the topic and *yezi* ‘leaves’ as the subject. In (14) *nei kuai tian* ‘that piece of land’ is analyzed as the topic and *daozi* ‘rice’ is analyzed as the subject. However, it is not explained why each argument is identified as such except that ‘topic’ has been assumed to always occur at sentence-initial position (1976:465). In addition, they do not deny that the notion of subject still plays a role in certain sentences in Mandarin even though the language should be described as topic prominent, as exemplified by the serial verb construction which can only be analyzed as ‘a sequence of predicates sharing the same subject’. Below is an example:

(15)

| | | | | |
|-----------------|------------|-----------|-------------|--------------|
| 张三 | 买 | 了 | 票 | 进去 |
| <i>Zhangsan</i> | <i>mai</i> | <i>le</i> | <i>piao</i> | <i>jinqu</i> |
| Zhangsan | buy | PFV | ticket | go-in |

‘Zhangsan bought a ticket and (Zhangsan) went in’
(Li & Thompson 1976:478)

Even though Li & Thompson claims that Mandarin should be described as a topic prominent language, from (15), we observe that there are certain syntactic factors which appear to cause the subject of the verb *jinqu* ‘go in’ to disappear. In fact, we can only analyse that in (15), for the subject of the verb *jinqu* ‘go in’ to be dropped, it must be identified as sharing the same subject referent with the predicate *mai le piao* ‘bought a ticket’; or conversely, by sharing the same subject referent with the predicate *mai le piao* ‘bought a ticket’, the subject argument of the second verb *jinqu* ‘go in’ becomes unnecessary and can be dropped. Clearly, there are still underlying syntactic rules affecting the argument drop pattern in the language which cannot be purely explained with the topic-comment relationship.

In order to devise a reliable method of making a distinction between a ‘topic’ and a ‘subject’, linguists claiming Mandarin is a topic prominent language have listed the properties for each notion and used them as criteria to determine if a given NP should be considered a topic or a subject in the language. Below is a list of the major criteria that have been put forward to differentiate between a topic and a subject in the analysis of a Mandarin sentence (Li & Thompson 1976; Tsao 1976, 1990; Shi 2000):

1. Topic is definite; this includes proper and generic noun or noun phrases. ‘Subject’ needs not to be definite.
2. ‘Topic’ does not have to be an argument of the verb predicate because it does not bear syntactic relationship with the main verb. This is not the case with subject which always has syntactic relations with some predicate in the sentence.
3. The functional role of ‘topic’ is defined by the discourse, while the functional role of ‘subject’ is defined by sentential syntax as well as the verb.
4. Topic always occurs in sentence-initial position. ‘Subject’ on the other hand, is not confined to this position. To illustrate this point, Li & Thompson provide the examples of Malagasy and Chumash as having the subject occurring in sentence-final position (Li & Thompson 1976: 465)
5. Topic and not subject controls coreferential NP deletion.

On the last criterion, Li & Thompson provides the following examples to back up their argument. They suggest that in the sentences presented in (16) and (17) – which are the extended versions of (13) and (14) – the unexpressed argument *t* in the second clause can only refer to the topic and not the subject in their respective sentence:

(16)

| | | | | |
|------------|-----------|------------|-------------|-----------|
| 那 | 棵 | 树 | 叶子 | 大 |
| <i>nei</i> | <i>ke</i> | <i>shu</i> | <i>yezi</i> | <i>da</i> |
| that | CL | tree | leave | big |

‘That tree (TOPIC), the leaves (SUB) are big’

| | | | | |
|--------------|-----------|-----------|---------------|----------|
| 所以 | 我 | 不 | 喜欢 | <i>t</i> |
| <i>suoyi</i> | <i>wo</i> | <i>bu</i> | <i>xihuan</i> | |
| so | 1SG | NEG | like | |

‘so I don’t like *t* (TOPIC)’

(17)

| | | | | | | |
|------------|-------------|-------------|--------------|----------------|------------|-----------|
| 那 | 块 | 田 | 稻子 | 长得 | 很 | 大 |
| <i>nei</i> | <i>kuai</i> | <i>tian</i> | <i>daozi</i> | <i>zhangde</i> | <i>hen</i> | <i>da</i> |
| that | piece | field | rice | grow | very | big |

‘That piece of land (TOPIC), rice (SUB) grows very big’

| | | | |
|--------------|----------|------------|----------------|
| 所以 | <i>t</i> | 很 | 值钱 |
| <i>suoyi</i> | | <i>hen</i> | <i>zhiqian</i> |
| so | | very | valuable |

‘so *t* (TOPIC) very valuable’

Tsao (1979, 1990) and Zhao (2012) go one step further to stipulate that the topic controls the pronominalization or deletion of all the coreferential NPs in a topic chain. As mentioned earlier, a ‘topic chain’ has been described as “a stretch of actual discourse composed of one, and often more than one, clause, headed by a topic which serves as a common link among all the clauses (Tsao 1990: 63)”. Li and Thompson defines it as a chain of clauses in which “a referent is referred to in the first clause, and then there follow several more clauses talking about the same referent but not overtly mentioning that referent (1981: 659)”. In short, a topic chain is a syntactic reduction which deletes the topic of subsequent clauses if it has the same identity as the topic of the initial clause. We have provided (9) and (11) as examples of a topic chain construction, and if we examine this example in more detail, we can find that there is a paradox in the statement presented as the fifth criteria above. The unspecified NP in each of the sub-clauses is not always coreferential with the ‘topic’ of the sentence. Here is (11) again, repeated as (18):

(18)

| | | | | | |
|-----------|--------------|------------|----------------|------------|------------|
| 那 | 辆 | 车 | 价钱 | 太 | 贵 |
| <i>na</i> | <i>liang</i> | <i>che</i> | <i>jiaqian</i> | <i>tai</i> | <i>gui</i> |
| that | CL | car | price | too | high |

‘That car is too expensive’

| | | | | |
|----------------|--------------|-----------|-----------|------------|
| Ø _i | 颜色 | 也 | 不 | 好 |
| | <i>yanse</i> | <i>ye</i> | <i>bu</i> | <i>hao</i> |
| | colour | also | NEG | good |

‘(Its) colour is not good either’

| | | | |
|----------------|-----------|---------------|----------------|
| 我 _j | 不 | 喜欢 | Ø _i |
| <i>wo</i> | <i>bu</i> | <i>xihuan</i> | |
| 1SG | NEG | like | |

‘I don’t like (it)’

| | | | | |
|------------------------------|-----------|--------------|------------|----------------|
| Ø _j | 不 | 想 | 买 | Ø _i |
| | <i>bu</i> | <i>xiang</i> | <i>mai</i> | |
| | NEG | want | buy | |
| ‘(I) don’t want to buy (it)’ | | | | |

| | | | | | | |
|--|----------------|-----------|------------|-----------|--------------|----------------|
| Ø _j | 昨天 | 去 | 看 | 了 | 一下 | Ø _i |
| | <i>zuotian</i> | <i>qu</i> | <i>kan</i> | <i>le</i> | <i>yixia</i> | |
| | Yesterday | go | see | PFV | a-bit | |
| ‘Yesterday, (I) went there to take a look at (it)’ | | | | | | |

| | | | | | |
|-----------------------------------|------------|------------|-----------|---------------|----------------|
| Ø _j | 还 | 开 | 了 | 一会儿 | Ø _i |
| | <i>hai</i> | <i>kai</i> | <i>le</i> | <i>yihuir</i> | |
| | even | drive | PFV | a-while | |
| ‘(I) even drove (it) for a while’ | | | | | |

| | | | | |
|------------------------------|---------------|-----------|---------------|----------------|
| Ø _j | 还是 | 不 | 喜欢 | Ø _i |
| | <i>haishi</i> | <i>bu</i> | <i>xihuan</i> | |
| | still | NEG | like | |
| ‘(I) still didn’t like (it)’ | | | | |

In (18), if *na liang che* ‘that car’ is the topic of the ‘topic chain’, then it obviously does not control all the empty NPs in the subsequent clauses since some of the unexpressed nouns refer to the first person pronoun *wo* ‘I’. Thus, there are serious inconsistencies in the five criteria differentiating between ‘topic’ and ‘subject’. First, if ‘topic’ is a pure discourse notion, as alleged in criterion (3), and does not have syntactic relations to the main verb, as stated in criterion (2), then by what means does it control coreferential NP deletion, as stated in criterion (5)? Second, the first criterion states that topic is definite. This is in line with the general assumption in the linguistic field which agrees that since topics are at the centre of discourse, they are most likely to be identifiable by the speakers. Given this nature, it is logical for a topic to refer to a definite entity. However, this is not always the case in Mandarin, as shown by the following examples (Li 2004: 28):

(19)

隔壁 有 一 个 新 饭馆
gebi you yi ge xin fanguan
next-door exist one CL new restaurant
'There is a new restaurant next door'

t 昨天 才 开门
t zuotian cai kaimen
t yesterday just open-for-business
'(it) was just opened for business yesterday'

(20)

他 买 了 一 辆 车
ta mai le yi liang che
3SG buy PFV one CL car
'He bought a car'

t 是 美国 车
t shi meiguo che
t COP American car
'(it) is an American car'

Following the argument that topic controls the unspecified NPs in the subsequent clauses, then *yi ge xin fanguan* 'a new restaurant' is the topic in (19) and *yi liang che* 'a car' is the topic in (20), because each in their respective sentence is the centre of discourse. However, in both cases the NP is indefinite, contrary to the definition given in criterion (1). If the claim that both 'topic' and 'subject' play a role in the description of Mandarin is to gain firmer ground, and 'topic' is a key factor for argument drop, then a more precise definition for 'topic' and 'subject' is necessary.

There are other linguists who have concurred that Mandarin is a topic-oriented language, but have also proposed that verb semantics is another important factor for differentiating the thematic roles of different noun phrases. Tao (1995), for one, agrees that contextually available topics provide the interpretation of missing arguments in Mandarin, but she also believes that, as Mandarin does not have phonological or morphological markings to indicate parts of speech, gender or case, verb semantics is a

component which speakers rely on to process reference tracking. Tao provides the following data as an illustration (1995:491):

(21)

- | | | | | | | | | |
|---|---|---|--------------|----------------------|------------|----------------|-------------|------------|
| 1 | A | 它 | 就 | 跳 | 到 | 地上 | 来 | |
| | | <i>ta</i> | <i>jiu</i> | <i>tiao</i> | <i>dao</i> | <i>dishang</i> | <i>lai</i> | |
| | | 3SG | then | jump | to | ground | come | |
| | | 'it (the cat) then jumped down' | | | | | | |
| 2 | | Ø | 到底 | 给 | 它 | 抓住 | 了 | |
| | | Ø | <i>daodi</i> | <i>gei</i> | <i>ta</i> | <i>zhuazhu</i> | <i>le</i> | |
| | | | finally | by | 3SG | catch | PFV | |
| | | '(The moth) finally was caught by it (the cat)' | | | | | | |
| 3 | B | 是 | 吗 | | | | | |
| | | <i>shi</i> | <i>Ma</i> | | | | | |
| | | COP | INT | | | | | |
| | | 'Really?' | | | | | | |
| 4 | A | 那 | 蛾 | 飞来穿去 | | | | |
| | | <i>na</i> | <i>e</i> | <i>failaichuanqu</i> | | | | |
| | | that | moth | fly-around | | | | |
| | | 'That moth flew all around' | | | | | | |
| 5 | | Ø | 一下 | 就 | 到 | 这 | 边 | 来 |
| | | Ø | <i>yixia</i> | <i>jiu</i> | <i>dao</i> | <i>zhe</i> | <i>bian</i> | <i>lai</i> |
| | | | suddenly | then | to | this | side | come |
| | | | | | | | | PFV |
| | | '(the moth) suddenly flew over here' | | | | | | |
| 6 | | Ø | 又 | 把 | 它 | 抓住 | 了 | |
| | | Ø | <i>you</i> | <i>ba</i> | <i>ta</i> | <i>zhuazhu</i> | <i>le</i> | |
| | | | again | have | 3SG | catch | PFV | |
| | | '(the cat) caught it again...' | | | | | | |

In this excerpt, the two referents – cat and moth – assume the role of predator and victim. The general understanding about cats and moths is that the cat may try to catch the moth. Tao explains that with the passive and active form of the verb *zhuazhu* 'catch', it can be inferred that in line 2 the grammatical subject is moth, and in line 6 the

grammatical subject is cat. However, Tao does not clarify how the verb *zhuazhu* ‘catch’ changes its voice from line 2 to line 6, or what other pragmatic factors may have influenced the trigger of argument drops in this excerpt besides speakers’ shared knowledge of the interaction between ‘cat’ and ‘moth’.

Arguing along the same theoretical line, Van Valin and LaPolla (1993, 1995, 1997, 2009), too, assert that Mandarin Chinese is a topic-comment language and their definitions for ‘topic’ and ‘comment’ are similar to those proposed by Li & Thompson. They define ‘topic’ in Mandarin Chinese as ‘about which something is to be said’ and ‘comment’ as ‘which is what is said about the topic’ (2009:9). LaPolla (1993) claims that the grammatical categories, such as ‘subject’ and ‘object’, are not useful to explain Mandarin clause structures because Mandarin lacks restricted semantic neutralization in most of its syntactic constructions, such as cross-clause coreference, relativization and reflexives. By ‘semantic neutralization’, he refers to the syntactic operations which can align the different semantic roles of different arguments in a clause, especially the semantic roles between an elided noun and its co-referent. He illustrates his argument by pointing out that there are constraints on deletion and coreference in complex sentences in a language with grammatical categories. A language such as English only allows the grammatical subject to be omitted from the second and subsequent clauses in conjoined construction as illustrated in (22a) and (22b). It is not possible to have a zero pronoun in the object position as shown in (22c):

- (22) a. The man went downhill and Ø saw the dog.
b. The dog went downhill and Ø was seen by the man.
c. * The dog went downhill and the man saw Ø.

However, LaPolla asserts that it is possible in Mandarin to have ‘the dog’ in a sentence corresponding to (22c) to appear as a zero pronoun:

(23)

| | | | | | |
|-------------|------------|------------|------------|-------------|--------------|
| 小 | 狗 | 走 | 到 | 山 | 底下 |
| <i>xiao</i> | <i>gou</i> | <i>zou</i> | <i>dao</i> | <i>shan</i> | <i>dixia</i> |
| little | dog | go | to | mountain | |

‘The little dog went downhill’

| | | | | | | |
|-----------|-----------|------------|------------|----------------|---|-----------|
| 那 | 个 | 人 | 就 | 看见 | Ø | 了 |
| <i>na</i> | <i>ge</i> | <i>ren</i> | <i>jiu</i> | <i>kanjian</i> | Ø | <i>le</i> |
| that | CL | man | then | see | | PFV |

‘that man saw Ø’

In response to LaPolla’s argument, I have tried to validate the grammaticality of (23) by consulting twelve native speakers of Mandarin. Six of them were from Mainland China and the other six were from Taiwan. They were first asked to judge if (23) was an acceptable sentence, and then they were invited to compare it to (24), (25) and (26) to decide which of the four sentences appeared to be the most ‘natural’:

(24)

| | | | | | |
|-------------|------------|------------|------------|-------------|--------------|
| 小 | 狗 | 走 | 到 | 山 | 底下 |
| <i>xiao</i> | <i>gou</i> | <i>zou</i> | <i>dao</i> | <i>shan</i> | <i>dixia</i> |
| little | dog | go | to | mountain | |

‘The little dog went downhill’

| | | | | | | | |
|---|------------|------------|-----------|-----------|------------|----------------|-----------|
| Ø | 就 | 被 | 那 | 个 | 人 | 看见 | 了 |
| | <i>jiu</i> | <i>bei</i> | <i>na</i> | <i>ge</i> | <i>ren</i> | <i>kanjian</i> | <i>le</i> |
| | then | BEI | that | CL | man | see | PFV |

‘Ø then was seen by that man’

(25)

| | | | | | | |
|-----------|-----------|------------|------------|------------|-------------|--------------|
| 那 | 个 | 人 | 走 | 到 | 山 | 底下 |
| <i>na</i> | <i>ge</i> | <i>ren</i> | <i>zou</i> | <i>dao</i> | <i>shan</i> | <i>dixia</i> |
| that | CL | man | go | to | mountain | |

‘That man went downhill’

| | | | | | |
|---|------------|----------------|-------------|------------|-----------|
| Ø | 就 | 看见 | 小 | 狗 | 了 |
| | <i>jiu</i> | <i>kanjian</i> | <i>xiao</i> | <i>gou</i> | <i>le</i> |
| | then | see | little | dog | PFV |

‘Ø then saw the little dog’

(26)

| | | | | | |
|--------------------------------|------------|------------|------------|-------------|--------------|
| 小 | 狗 | 走 | 到 | 山 | 底下 |
| <i>xiao</i> | <i>gou</i> | <i>zou</i> | <i>dao</i> | <i>shan</i> | <i>dixia</i> |
| little | dog | go | to | mountain | |
| 'The little dog went downhill' | | | | | |

| | | | | | | |
|-------------------|-----------|------------|------------|----------------|-----------|-----------|
| 那 | 个 | 人 | 就 | 看见 | 它 | 了 |
| <i>na</i> | <i>ge</i> | <i>ren</i> | <i>jiu</i> | <i>kanjian</i> | <i>ta</i> | <i>le</i> |
| that | CL | man | then | see | 3SG | PFV |
| 'that man saw it' | | | | | | |

In (24), the passive marker BEI is inserted in the second clause to assign the patient role to the zero NP; in (25), 'that man' is shifted to the beginning of the first clause to become the 'agent', thus sharing the same semantic role as that of the zero NP in the second clause. Both (24) and (25) are reconstructions of (23) to serve the purpose of having the semantic role of the zero NP co-refer with that of the subject noun in the matrix clause. In (26) the zero NP is not used but replaced with the overt third person pronoun *te*.

Interestingly, all the twelve speakers responded that sentences (23) to (26) were acceptable, but (26) appeared to be 'the most complete'. Four speakers from Taiwan described (23) as sounding 'funny' or 'something is missing' but 'understandable'; all twelve speakers considered (23) to be the least well-formed sentence among the four. However, when asked what they thought the man had seen in the second clause of (23), all speakers answered 'the little dog'. In other words, even though the semantic role of the zero NP in (23) does not syntactically co-refer with that of the subject noun in the first clause, for native speakers of Mandarin it imposes no difficulty for them to identify it as an entity that has been acted upon. This raises one important question: what are the operating mechanisms – syntactic or contextual – that enable the Mandarin speakers to clearly identify the semantic role of the ellipsis noun in (23), even though there is no strict co-reference in the coordinated sentence?

One setback in analyzing an isolated sentence such as (23) is that we do not know exactly how linguistic coding interacts with contextual cues. Would a Mandarin speaker utter such a sentence outside of context? To what extent does a Mandarin

speaker rely on contextual cues if they do not have overt syntactic coding to differentiate the semantic roles of different arguments? And what syntactic mechanisms are at play in aiding speakers to recover the referent of an implicit argument? In order to answer all these questions, it is more essential to look at the phenomenon of argument drop in this language within a discourse context, and not with fabricated texts, if we are to truly understand what factors motivate such phenomena.

3.4 Dichotomic views on Chinese syntax

In the study of Mandarin grammar, different views have been proposed by Chinese linguistics on how the sentence structure should be described. There are three major viewpoints. One view holds that subject-predicate forms the fundamental relationship between pre-verbal NPs and the VP. This view is established by Chinese linguists such as Lü (1982) and Wang (1985). They state that the syntactic construction of a Mandarin sentence can primarily be represented as NP1 + (NP2 + VP), in which NP1 is the main subject while NP2 + VP forms the main predicate, which is itself another subject-predicate phrase with NP2 as its subject. Under this view it is possible to have as many subjects as the number of pre-verbal NPs in the sentence and the notion ‘topic’ is non-existent. To illustrate this type of construction, let us take a look at the following examples provided by Lü:

(27)

| | | | | |
|-----------------|-----------|-----------|-----------|-----------|
| 中国 | 地 | 大 | 物 | 博 |
| <i>zhongguo</i> | <i>di</i> | <i>da</i> | <i>wu</i> | <i>bo</i> |
| China | land | big | resource | abundant |

‘China is big and with abundant resources’
(Lü1982:56)

(28)

| | | | | | | | | |
|---------------|-----------|-----------|-----------|---------------|-------------|--------------|-----------|-----------|
| 院子 | 里 | 那 | 棵 | 桂花 | 清 | 香 | 扑 | 鼻 |
| <i>yuanzi</i> | <i>li</i> | <i>na</i> | <i>ke</i> | <i>guihua</i> | <i>qing</i> | <i>xiang</i> | <i>pu</i> | <i>bi</i> |
| courtyard | inside | that | CL | osmanthus | sweet | scent | assail | nostril |

‘Inside the courtyard the sweet scent of that osmanthus assails the nostrils’
(Lü1982:56)

According to Lü, the sentence in (27) should be parsed as having a subject noun (*zhongguo* ‘China’) and a predicate (*di da wu bo* ‘big land and abundant resources’), the predicate in this case serves as a description of the subject. The sentence in (28) has similar syntactic construction: the locative phrase *yuanzi li* ‘inside the courtyard’ is the subject NP and the rest of the sentence is the main predicate. What (27) differs from (28) is that the main predicate in (28) *na ke guihua qing xiang pu bi* ‘the sweet scent of that osmanthus assails the nostrils’ forms another subject-predicate structure with *na ke guihua* ‘that osmanthus’ as the subject NP and *qing xiang pu bi* ‘sweet scent assail nostril’ as the predicate. In other words, the sentence in (28) is a subject-predicate construction which contains another subject-predicate construction within its predicate. Representing (27) and (28) in terms of NP and VP, (27) can be expressed as (29):

(29) N + VP → Subject + Predicate

and (28) can be expressed as (30):

(30) NP + (NP + VP) → Subject + [Predicate (subject) + (predicate)]

Wang (1985) proposes similar analysis. Let us look at the following example he provides:

(31)

| | | | |
|--------------|---------------|------------|--------------|
| 狗儿 | 名利 | 心 | 重 |
| <i>Gouer</i> | <i>mingli</i> | <i>xin</i> | <i>zhong</i> |
| Gouer | ambitious | heart | strong |

‘Gouer has a very ambitious heart’
(Wang 1985:49)

In (31), the full name *Gouer* forms the subject noun of a subject-predicate construction and the rest of the sentence forms the main predicate. Within the main

predicate, which is itself a subject-predicate phrase, *mingli xin* ‘ambitious heart’ is the subject NP and the adjective *zhong* ‘strong’ is the predicate. Even though Wang agrees that the two subjects, i.e. the full name *Gouer* and *mingli xin* ‘ambitious heart’, have possessor and possessee relationship – *mingli xin* ‘ambitious heart’ belongs to *Gouer* – he claims that the main predicate in (31) functions as a descriptive phrase (Wang 1985:44) and serves to describe the person *Gouer*, thus the sentence in (31) is clearly a subject-predicate construction (32):

(32) Subject (*Gouer*) + [Predicate (subject *mingli xin*) + (predicate *zhong*)]

One observable setback about this subject-predicate analysis is that there has not been any explanation as to how the subject is syntactically linked to its predicate. If there was any relationship, the link appeared to be thematic rather than syntactic. For instance, referring back to the examples in (27), (28) or (31), we can see that the predicate is always some kind of a statement about the subject: in (27), the predicate ‘big land with abundant resources’ describes the subject ‘China’; in (28), the predicate within the main predicate ‘sweet scent assails the nostrils’ is a description of the second subject ‘that osmanthus tree’. In (31), ‘ambitious heart is strong’ is also a statement about its subject ‘Gouer’. One common denominator in all these examples is that the first noun in the sentence is always parsed as the subject and occurs at the beginning of the sentence. Apart from this feature, there does not appear to be any observable syntactic linkage between the subject and its predicate.

The second view on Mandarin syntax proposes that the first NP in a Mandarin sentence is most often a ‘topic’ rather than a ‘subject’ because the function of subject is not grammaticalized in the language. This view has been extensively described in section 3.3.

The third view follows a similar approach to the second view in that its proponents go against the idea that the syntactic categories of ‘subject’ or ‘direct object’ are necessary in describing the sentence structure in Mandarin. Instead they claim that

all the sentence structures in this language can be explained based on information structure (LaPolla 2009; Hole 2012; Shyu 2015). Linguists who hold this view suggest that a Mandarin clause is based “on the pragmatic relations of topical vs focal material, with topical material preceding the verb, and focal material following the verb (LaPolla 2009:10)”. The definitions of ‘topical’ and ‘focal’ bear resemblance to the same terms employed in the framework of Lambrecht (1994), and they can be applied to explain how a speaker wants to form his sentence in a particular way. For instance, take the three sentences in (33), which can be heard in a daily Mandarin conversation. The word order variations can be attributed to how a speaker decides to package his discourse information:

(33)

- | | | | | | | |
|---|--------------------------|------------|-----------------|-----------------|------------|-----------------|
| a | 这 | 部 | 电影 | 我 | 看 | 过 |
| | <i>zhe</i> | <i>bu</i> | <i>dianying</i> | <i>wo</i> | <i>kan</i> | <i>guo</i> |
| | this | CL | movie | 1SG | see | PFV |
| | ‘I have seen this movie’ | | | | | |
| | | | | | | |
| b | 我 | 这 | 部 | 电影 | 看 | 过 |
| | <i>wo</i> | <i>zhe</i> | <i>bu</i> | <i>dianying</i> | <i>kan</i> | <i>guo</i> |
| | 1SG | this | CL | movie | see | PFV |
| | ‘I have seen this movie’ | | | | | |
| | | | | | | |
| c | 我 | 看 | 过 | 这 | 部 | 电影 |
| | <i>wo</i> | <i>kan</i> | <i>guo</i> | <i>zhe</i> | <i>bu</i> | <i>dianying</i> |
| | 1SG | see | PFV | this | CL | movie |
| | ‘I have seen this movie’ | | | | | |

Even though the three sentences in (33) entail the same semantics, as evidenced by their English translation, their word order exhibits different information structure determined pragmatically by how the speaker wants to convey his discourse information. According to the linguists who are in favour of the information structure approach, the noun phrase *zhe bu dianying* ‘this movie’ would be analyzed as a topical argument in (33a), a contrastive topic in (33b) and a focal argument in (33c). This is because the noun phrase *zhe bu dianying* ‘this movie’ occurs before the main verb phrase *kan guo*

‘have seen’ in (33a) and after the main verb phrase in (33c). Under the basic notion of information structure, speakers are believed to convey parts of their speech as “given” or “new” information. Given or discourse-old information is what the speaker assumes to be shared with the hearer, so it is topical and tends to be presented at the beginning of the sentence. In contrast, new or unfamiliar information is what is freshly introduced into the discourse context, therefore it is the focal material and tends to occur later in the sentence after the topic has already been presented (Lambrecht 1994). Applying this basic notion to our example (33), the word order variation of the noun phrase *zhe bu dianying* ‘this movie’ would be attributed to the speaker’s decision on what material in the clause is topical or focal. For instance, in (33a), the noun phrase *zhe bu dianying* ‘this movie’ is placed at the beginning of the utterance which could be because the speaker considers this to be discourse-old information, which needs to be elaborated on by the comment *wo kan guo* ‘I have seen’. Similarly, the noun phrase is placed at the end of the sentence in (33c) because *zhe bu dianying* ‘this movie’ is treated as discourse-new information and needed to be placed at the ‘focal’ position to emphasize its prominence. As for (33b), the noun phrase is presented between the subject and the verb. This has been described as an instance of ‘clause internal pre-verbal object’ which can still entail given or shared information, but their function is to ‘emphasize or contrast’ (Shyu 2015).

One observable setback in adopting the information structure framework to analyze a Mandarin clause is that it can create grey areas regarding the notions of ‘topical’ and ‘focal’. Quite often, the symmetry of ‘topic’ and ‘focal’ can overlap with that of ‘topic’ and ‘comment’ and there is no clear boundary as to what can contribute as ‘focal’ and what can be interpreted as ‘comment’. For instance, the sentences in (34) and (35) - taken from a novel by Ouyang Shan (欧阳山) and titled *san jia xiang* ‘The Three-Family Alley’ - can be analyzed based on both topical/focal symmetry and topic/comment symmetry (1959:245):

(34)

| | | | | | |
|--------------|-----------|-----------------|------------|----------------|-----------|
| 大家 | 的 | 精神 | 都 | 振作 | 了 |
| <i>dajia</i> | <i>de</i> | <i>jingshen</i> | <i>dou</i> | <i>zhenzuo</i> | <i>le</i> |
| everyone | POSS | spirit | all | rouse | PFV |

‘Everyone’s spirit was all roused up’

| | | | | |
|-----------------|-----------|-----------------|--------------|-----------|
| 神经 | 也 | 紧张 | 起来 | 了 |
| <i>shenjing</i> | <i>ye</i> | <i>jinzhang</i> | <i>qilai</i> | <i>le</i> |
| nerve | also | tighten | up | PFV |

‘(their) nerves were also tightened up’

(35)

| | | | | |
|------------------|------------------|-----------|------------------|------------------|
| 周炳 | 扭亮 | 了 | 神厅 | 电灯 |
| <i>Zhou-Bing</i> | <i>niu-liang</i> | <i>le</i> | <i>shen-ting</i> | <i>dian-deng</i> |
| Zhou-Bing | turn-on | PFV | shrine-hall | light |

‘Zhou Bing turned on the light in the shrine hall’

| | | |
|--------------|-----------|--------------|
| 打开 | 了 | 大门 |
| <i>dakai</i> | <i>le</i> | <i>damen</i> |
| open | PFV | main-door |

‘and opened the main door’

In (34), *dajia de jingshen* ‘everyone’s spirit’ and *shenjing* ‘nerves’ can be analyzed as the topic of each of the sub-clauses, with *zhenzuo le* ‘roused up’ and *jinzhang qilai le* ‘tightened up’ as their comment respectively. At the same time, it is also possible to regard *dajia de jingshen* ‘everyone’s spirit’ and *shenjing* ‘nerves’ as ‘topical’ and their verb phrase as ‘focal’ since the verb phrases - *zhenzuo le* ‘roused up’ and *jinzhang qilai le* ‘tightened up’ - have added new information to the context.

Similarly, in (35), the person *Zhou-Bing* can be analyzed as the topic of this clause. However, what can contribute as ‘focal’ becomes vague here. Should the nouns *dian-deng* ‘light’ or *damen* ‘main door’ be considered as the focal argument of each sub-clause? Or should the whole verb predicate in each sub-clause be analyzed as ‘focal’ since they communicate ‘new’ information about the topic human agent *Zhou-Bing*? Or maybe the verb predicates – *niu-liang le shen-ting dian-deng* ‘turned on the light in the shrine hall’, *dakai le damen* ‘opened the main door’ – should be parsed as ‘comment’

because they describe the actions executed by the topic *Zhou-Bing*?

Investigating Mandarin sentence construction based on information structure is to examine the language from a pragmatic perspective. Even though pragmatic factors are no doubt important in helping us to understand the communicative mechanisms of a language, they do not serve the purpose of capturing its formal properties. Therefore, applying pure information structure as a model to explain a Mandarin clause is inadequate. For instance, it is not possible to account for the omission of the agent argument in (34) using information structure analysis. The subcategorization frame of the verb *zhenzuo* ‘to rouse up’ is capable of taking an agent as its subject, as in *dajia dou zhenzuo jingshen le* ‘Everyone has roused up their spirits’, yet when the verb occurs at sentence-final position, as in (34), it becomes impossible for the agent to appear in the surface structure. This syntactic phenomenon is also observed by LaPolla when he analyzes the same text (1994:12).

In a similar vein, basing on how the speaker wants to package his discourse information, the theoretical framework of information structure may explain the different word order variations in (33). However, the framework cannot account for the fact that it is possible for the object noun phrase *zhe bu dianying* ‘this movie’ to appear pre-verbally, but it is not probable for the agent pronoun *wo* ‘I’ to occur in the post-verbal position. In addition, information structure framework relies strongly on overt arguments or noun phrases to determine the information packaging of an utterance. That is, when nouns or noun phrases are not expressed phonologically in the discourse and only a bare verb predicate is left in the surface structure – which is not uncommon in a Mandarin daily conversation – it becomes difficult to determine the information structure of the utterance. In order to fully understand the factors underlying implicit arguments in Mandarin, it is vital to include both syntactic and pragmatic considerations that may have governed the argument realization pattern in the language.

3.5 Conclusive comments

Drawing on insights from past research and synthesizing the different views regarding the syntactic construction of a Mandarin sentence, in the next chapter, I will present my

main proposal regarding how grammatical relations are determined in the language and how such relations influence its argument realization pattern in a sentence. This proposal is not based on a novel theoretical claim, yet I am not aware of it being openly discussed in the literature. It is my hope that this proposal will provide a deeper understanding of Mandarin grammatical relations and consequently the syntactic constraints that govern argument drop in this language.

Chapter Four

Proposed Syntactic Constraints On Mandarin Argument Drop

4.1 Synthesizing past literature on Mandarin syntax

From the previous chapter, we can see that there is not a unanimous agreement in the literature regarding how a Mandarin sentence should be analyzed. As described in Chapter Three, recent research on Mandarin syntax has mainly branched into two major lines of inquiry. One examines the sentence structure from the generative perspective in which Mandarin is considered to follow the constituent order of SVO; the question of whether there are grammatical relations in the language is never questioned. The second line of inquiry adopts a discourse-functional approach. Linguists who work in this domain suggest that Mandarin should be described as a topic-comment language since it does not exhibit clear grammatical functions of ‘subject’ and ‘object’. To create more confusion, there is also disparity on the core beliefs in each theoretical camp. For instance, people in the generative camp may believe that Mandarin exhibits a subject-predicate syntactic relationship but they are not unanimous on the possible number of subjects that can occur in a sentence. Lü (1982) and Wang (1985), for instance, have proposed that a Mandarin sentence can have as many subjects as the number of NPs that come before the verb (cf. 3.3). Similarly, people in the discourse-functional camp may concur that Mandarin is typologically a topic prominent language, but how to define ‘topic’ and how to differentiate it from the notion of ‘subject’ is never agreed upon (cf. 3.3, 3.4).

Thus, in view of the lack of agreement in the current discussion on Mandarin syntax, I would like to propose two syntactic claims in this chapter to contribute a more general model of describing the Mandarin sentence construction and hence, the phenomenon of argument realization in the language. The main syntactic claims of this thesis are presented in 4.2. In 4.3, I describe the controversy over the Mandarin word order and how my claims can contribute to explaining why there is a high frequency of verbs occurring in the sentence’s final position in the language when SVO is the

unanimously claimed constituent order. I also discuss my proposal regarding the significance of pre-verbal and post-verbal positions in terms of event description and how the functional properties of the verb or verb phrase in a clause can syntactically constrain the appearance or disappearance of an argument, especially on the proto-agent. In 4.4, I present evidence from data examples. A conclusion of the chapter ensues in 4.5.

4.2 Main syntactic claims of this thesis

In this chapter I present my main proposal regarding the syntactic functions of a main verb or verb phrase in Mandarin and how such functions can affect the obligatory and optional realization of certain arguments in the clause structure. I make the following proposal regarding a Mandarin main verb or verb phrase (1), on which then two syntactic claims are based and discussed further below.

(1)

A Mandarin verb phrase has the property of metaphorically depicting dynamic energy that follows natural events as they are perceived in our conceptual world.

It is not controversial to proclaim that a transitive sentence in a particular language profiles an actual event chain as perceived in the real world. Indeed, the idea that linguistic coding reflects our perception of the actual world we live in has been greatly explored in cognitive linguistics (Talmy 1985; Lakoff 1987; Hawkins 1984; Croft 1990a, 1990b; Langacker 1990). A brief account of some of the cognitive models proposed in this area is provided in 4.3.1. A Mandarin canonical transitive clause also profiles an event in the sequence as would have happened in the real world. That is, when both the initiator and the possible affected entity of an event co-occur in a clause, the initiator must be expressed before the main verb because they need to appear first in order to start the action or actions, and the possible holder of the result state must appear after the main verb because the change of state can only occur after the action has been performed. Since initiator can be mapped semantically to proto-agent and possible

holder of a resulting state to proto-patient, it follows that a Mandarin main verb or verb phrase by default marks its pre-verbal argument as a proto-agent and its post-verbal argument as a proto-patient. Here, the terms ‘proto-agent’ and ‘proto-patient’ are adopted from Dowty’s concept of proto-roles (Dowty 1991). In this thesis, a ‘proto-agent’ refers to a noun phrase which possesses semantic properties typically associated with the traditional agent, such as causing an event to happen or changing the state in another participant, and a ‘proto-patient’ refers to a noun phrase which possesses properties often associated with the traditional patient such as being affected by another participant or undergoing change.

Building on the proposal in (1), I will develop this idea one step further and claim that a Mandarin verb or verb phrase also profiles a real event syntactically. In our cognitive conceptualization of a normal event, it is semantically unnatural for an initiator of an event to appear after the event itself. Nonetheless, this does not cross-linguistically prohibit the proto-agent to occur after the main verb. For instance, English allows the proto-agent to be expressed after the main verb in a passive construction - in the prepositional phrase headed by the preposition *by* (*The cake was devoured by John*). Similar constructions are also permitted structurally in other languages such as French (*Elle a été mangée par un lion* ‘She was eaten by a lion’), Spanish (*El gato es visto por el perro* ‘The cat is seen by the dog’), or German (*Den Jungen traf der Stein* ‘The boy was hit by the stone’). This is not the case in Mandarin. Evidence found in my data has shown that a proto-agent is syntactically disallowed to occur post-verbally in this language. Since in the natural occurrence of an event, the initiator is conceptually observed to appear first, therefore a proto-agent can only occur before the main verb or verb phrase. Thus, the claim presented in (1) gives rise to the two syntactic implications in (2):

(2)

- a. A Mandarin main verb has the syntactic function of marking the semantic relations between the co-arguments of a canonical transitive clause. By default, it marks the pre-verbal argument as a proto-agent and the post-verbal argument as a proto-patient.

- b. A Mandarin main verb disallows a proto-agent to occur post-verbally.

In terms of argument realization pattern in the language, (2b) also implies that when the proto-patient of a transitive clause is placed pre-verbally for markedness, the proto-agent is likely to be dropped from the syntactic structure because it has lost its default syntactic position before the verb.

4.3 Background literature review

4.3.1 Some cognitive models on prototypes and event structure

The idea that language structure is reflective of human cognition and determined by our perceptual system has been discussed in great depth in cognitive linguistics (Fillmore 1971, Lakoff 1987; Hawkins 1984; Talmy 1985; Croft 1990a, 1990b; Langacker 1990). For instance, in the framework of Cognitive Grammar, grammatical relations have been described as codings which represent the normal observation of a prototypical action. According to Langacker (1990), real-life events typically comprise of a chain of actions which involves the transmission of physical energy from one entity to another, with the former being more agentive and the latter undergoing some kind of external or internal change. So a typical transitive clause such as *John broke the vase* would describe the action from a grammatical subject *John* to a grammatical object *vase*, with the energy transmitted from the subject to the object.

It is also observed that even though events are continuous chains of action, we do not always depict them in the sequence of their actual occurrence. To summarize some of the main points proposed in Cognitive Linguistics regarding clause types and event structure, let us use the following scenario for illustration. Imagine that John and Mary are playing on the beach. John is kicking a soccer ball and Mary has just finished building a small sand castle. The ball accidentally hits Mary's head, then falls and destroys the sand castle. Upon seeing the shattered castle, Mary starts to sob. Hearing her cry, their mother hurriedly comes over and asks what happened. Mary says: 'My castle is destroyed'. In this scenario, Mary linguistically constructs only one frame of

the event – the resulting state of her sand castle – even though the interactions between John, herself, the soccer ball, and the sand castle is far more intricate and lengthier.

In describing possible verbs and event structure, Croft (1990b) suggests that any event can be conceptually structured in the sequence of cause-become-state. Change can only occur if there is force to make it happen; once changes occur, they lead to a resulting state. In other words, a simple human event is a continuous causal chain which can incur three event views, namely ‘causative’, ‘inchoative’, ‘stative’, depending on which segment or segments of the event the speaker wants to focus on. According to Croft (1990b: 54), the ‘causative’ event view describes the whole event, the ‘inchoative’ event view describes the last two of the tripartite segments (i.e. ‘become’ and ‘state’), and the ‘stative’ describes the last segment which is ‘state’. Linguistically, these universal event views manifest into cross-linguistic prototypes: events that require external agents become unmarked causatives and permanent states become unmarked statives. Since most causative event views are human causation, it also follows that most causative clauses are transitive, involving a human agent making other humans or things do something or undergo changes. As statives describe resulting states, it also follows that most stative clauses are telic. Thus, using the above John-Mary example, sentences such as *John is kicking a soccer ball* or *The ball hit Mary’s head* are unmarked causatives, and *My castle is destroyed* or *Mary is sad about her sand castle* are unmarked statives.

From the perspective of event view, the vast majority of verbs can describe at least one, if not more, of these tripartite segments. For instance, the verb *break* in English can denote each view of the causal event of *The rock broke the window* (Croft 1990: 49):

(3)

- a. The rock broke the window. (*Causative*)
- b. The window broke. (*Inchoative*)
- c. The window is broken. (*Stative*)

In (3a), the verb *broke* denotes the whole event type in which the causer *the rock* causes the causee *the window* to break. Croft states that in a typical causal chain such as the one in (3a), the participants of the event follow an idealized model of relations in which “one individual transmits force of some kind to another individual” (Croft 1990:51). Thus, in (3a), *the rock* ‘precedes’ *the window*, or the ‘causer’ precedes the ‘causee’. The sentence in (3b) denotes the same event type but without the causer. According to Croft, the verb *broke* in both (3a) and (3b) may be the same lexically, but semantically, the event type it describes in each case is different. The verb in (3a) delineates a causative interpretation whereas the verb in (3b) describes an inchoative view. In (3c), the verb root in its past participle form indicates the resulting state of the subject.

Mandarin has prototypical unmarked causative types in its transitive clauses, in which the interaction between the proto-agent and proto-patient is the most salient. However, tokens have also been found in my data of a passive-like construction which appears to be intransitives derived from transitive clauses and describes either an inchoative or a stative event type. Two interesting features can be observed about this clause construction. First, it is always agentless and the sole argument is always an inanimate proto-patient. Second, it always represents a telic or non-dynamic event. If my proposal in (1) holds true, that is, ‘a Mandarin main verb or verb phrase has the property of carrying dynamic energy that follows natural events as are perceived in our conceptual world’, such syntactic construction becomes plausible. For a proto-patient to occur first in the description of an event, or the main verb, is to render the proto-patient the focus of event description. Even though an idealized event structure is a continuation of cause-become-state, by shifting the proto-patient before the main verb, the clause becomes a depiction of a resulting state. In Mandarin, this syntactically implies that there is no transmission of energy on the main verb, since there is no force involved, the initiator of event (or the proto-agent) becomes irrelevant and the aspect of the clause becomes telic (more discussion will be provided in 4.4).

In addition, the sole argument of this passive-like construction has been found to be always inanimate. If it was replaced by an animate nominal, the clause would immediately assume a causative reading with the interpretation of an overt proto-agent exerting energy on some covert proto-patient (also see example 6). This provides more

evidence to demonstrate that a Mandarin main verb carries energy from its pre-verbal to post-verbal position and by default marks its pre-verbal nominal as a proto-agent. As an animate entity is conceptually regarded as possessing the power to initiate an event, it can only appear as a proto-agent when it occurs before the main verb. More discussion on animacy is also provided in 4.4.

In 4.4, apart from giving a detailed description of data analysis, I also explain how the two syntactic claims made in (2) can explain the argument dropping phenomena in Mandarin conversations. Before that, I will discuss various views regarding Mandarin word order and how it is linked to human experience of events. Such discussion can provide a firmer support for the validity of my main claims in this chapter.

4.3.2 Controversies over Mandarin word order

One of the main controversies regarding the typological word order of modern Mandarin stems from the fact that this language appears to exhibit flexible word order. Some linguists working on Chinese syntax have stated that Mandarin has always followed the SVO constituent word order (Chao 1968; Waltraud 2015). In *The World Atlas of Language Structures Online* (Dryer, 2013), Mandarin is also categorized as an SVO language. However, it has been observed that even though Mandarin has the basic word order of SVO, it is chiefly a head-final language because all modifiers in this language, including relative clauses, comes before the head noun – a typological phenomenon more typically found in SOV languages such as Turkish and Japanese. To make this an even more complex issue, some views which have gained wide acceptance with respect to Mandarin word order have suggested that Mandarin has diachronically undergone major word order changes in its syntactic development: from OV to VO, then back to OV (Li & Thompson 1974; Huang 1978). One can easily understand the reasons behind the debate since it is not uncommon to hear all the sentences in (4) in a daily Mandarin conversation:

- (4)
- | | | | | |
|---|-----------------------|------------|--------------|-----------|
| a | 我 | 买 | 车子 | 了 |
| | <i>wo</i> | <i>mai</i> | <i>chezi</i> | <i>le</i> |
| | 1SG | buy | car | PFV |
| | 'I have bought a car' | | | |
-
- | | | | | |
|---|----------------------|-----------|------------|-----------|
| b | 车子 | 我 | 买 | 了 |
| | <i>chezi</i> | <i>wo</i> | <i>mai</i> | <i>le</i> |
| | car | 1SG | buy | PFV |
| | 'Car, I have bought' | | | |
-
- | | | | | |
|---|--------------------------|--------------|------------|-----------|
| c | 我 | 车子 | 买 | 了 |
| | <i>wo</i> | <i>chezi</i> | <i>mai</i> | <i>le</i> |
| | 1SG | car | buy | PFV |
| | 'My car has been bought' | | | |
-
- | | | | | | |
|---|--------------------------|-----------|--------------|------------|-----------|
| d | 我 | 的 | 车子 | 买 | 了 |
| | <i>wo</i> | <i>de</i> | <i>chezi</i> | <i>mai</i> | <i>le</i> |
| | 1SG | POSS | car | buy | PFV |
| | 'My car has been bought' | | | | |

As can be seen, (4a) exhibits SVO constituent order, (4b) has an OSV order, (4c) has a SOV order, and (4d) shows an OV word order. 'Word order' here follows the general definition of word order typology to refer to surface order. Generalizing from the sentence constructions in (4), we can make two observations. First, in terms of distribution of sentence types, a verb occurring at sentence final position has higher frequency than a verb occurring between two core arguments - the language has possible permutations of SOV, OV and OSV for a verb in the sentence final position, but only SVO for a verb in the other positions. Second, both subject and object can occur before the verb, but only the object can occur after the verb.

Also consider the word order in language-specific *bei* and *ba* constructions. The sentences in (5) illustrate how an English sentence such as *I lost the book* can be expressed using *ba* and *bei* in Mandarin:

(5)

- a 书 被 我 弄丢 了
 shu *bei* *wo* *nongdiu* *le*
 book BEI 1SG lose PFV
 ‘The book is lost (misplaced) by me’
- b 我 把 书 弄丢 了
 wo *ba* *shu* *nongdiu* *le*
 1SG BA book lose PFV
 ‘I have the book misplaced (I lost the book)’

The *bei* and *ba* constructions, as presented in (5), are often included in the discussion with respect to Mandarin word order. The morpheme *bei* in (5a) is recognized as the only passive marker in the language which is used to mark the NP before it as in the patient role and the NP after it as in the agentive role. The *bei* construction has been described as an ‘adversative passive’ (Howard: 1969:40) because it entails that a negative or unfortunate effect has befallen the patient NP (Yu 1972, 1981; Li & Thompson 1981; Fong 1994). In such a way, (5a) can be considered as a pragmatic voice and is constrained to appear only in adversative contexts. The causative marker *ba* in (5b), on the other hand, has been claimed to be the ‘active’ counterpart of *bei* and is one of the most studied linguistic features in the language (Hsueh 1989; Tsao 1987, Liu 1997; Soh & Kuo 2005; Li 2017). It syntactically mirrors the function of *bei* in that it always marks the NP before it as the agent and the NP after it as the patient. Notice that in (5a) and (5b) both the agent and patient arguments must occur before the main verb.

Now examine the sentences in (6) which represent all the possible ways of expressing the meaning of *I lost the book* in Mandarin including its *bei* and *ba* constructions. Observe that the proto-agent *wo* ‘I’ never occurs after the main verb even though it can co-occur before the main verb with the proto-patient in the *bei* and *ba* constructions, as shown in (6a) and (6b). Also observe that it is possible for the inanimate noun *shu* ‘book’ to occur as the sole argument before the main verb as in (6d), but when *wo* ‘I’ appears as the sole argument before the main verb as in (6e), the clause

assumes a causation reading with an overt proto-agent exerting force on a covert proto-patient:

(6)

- a 书 被 我 弄丢 了
shu bei wo nongdiu le
 book BEI 1SG lose PFV
 ‘The book is lost (misplaced) by me’
- b 我 把 书 弄丢 了
wo ba shu nongdiu le
 1SG BA book lose PFV
 ‘I have the book misplaced (I lost the book)’
- c 我 弄丢 书 了
wo nongdiu shu le
 1SG lose book PFV
 ‘I lost the book’
- d 书 弄丢 了
shu nongdiu le
 book lose PFV
 ‘The book is lost’
- *e 我 弄丢 了
wo nongdiu le
 1SG lose PFV
 ‘I lost (?)’

The purpose of presenting the sentences in (6) and the discussion on *bei* and *ba* constructions is to provide more evidence to support the main claims of this chapter, namely that a Mandarin main verb or verb phrase carries direction of energy to its co-arguments as perceived in our conceptual world, resulting in that the relative position to the main verb or verb phrase assigns default semantic roles to the core arguments of the verb predicate: the argument occurring before the verb assumes the proto-agent role while the argument after the verb takes up the proto-patient role. When the default position of the arguments is disrupted or altered, certain changes take place in the

original syntactic structure. For example, in (6d), when the proto-patient is promoted to the pre-verbal position for markedness, the proto-agent is dropped because its default syntactic position is taken over. (6a) and (6b) provide similar evidence but with a reverse syntactic situation: when both the core arguments of the verb are deemed prominent enough to appear before the verb, the morpheme *bei* or *ba* must be employed to differentiate the semantic role of the arguments.

4.3.3 Tai's Principle of Temporal Sequence

The correlation between the natural flow of event and word order in a Mandarin sentence has also been observed by Tai (1985, 2007) who proposes that the relative order between different syntactic constituents of a Mandarin sentence follows the Principle of Temporal Sequence (PTS). PTS states that 'the relative word order between two syntactic units is determined by the temporal order of the states which they represent in the conceptual world (1985:50)'. It offers an explanatory value in accounting for the syntactic positions of certain linguistic components such as temporal adverbials and conditional clauses which have been found to consistently occur in a certain linear order. For instance, an English sentence such as *I graduated from high school in 1978* would be expressed in Mandarin as (7a):

(7)

| | | | | | |
|----|--|-----------------|-------------|-----------------|-----------------|
| a | 1978 | 年 | 我 | 高中 | 毕业 |
| | 1978 | <i>nian</i> | <i>wo</i> | <i>gaozhong</i> | <i>biye</i> |
| | 1978 | year | 1SG | high-school | graduate |
| | 'I graduated from high school in the year of 1978' | | | | |
| *b | 1978 | 年 | 我 | 毕业 | 高中 |
| | 1978 | <i>nian</i> | <i>wo</i> | <i>biye</i> | <i>gaozhong</i> |
| | 1978 | year | 1SG | graduate | high-school |
| *c | 我 | 高中 | 毕业 | 1978 | 年 |
| | <i>wo</i> | <i>gaozhong</i> | <i>biye</i> | 1978 | <i>nian</i> |
| | 1SG | high-school | graduate | 1978 | year |

According to Tai, the word order in a sentence such as (7a) can be accounted for with the conceptual principle of temporal sequence - the theme NP *gaozhong* ‘high school’ needs to occur before the main verb *biye* ‘graduate’ because it follows the natural event sequence to attend a high school first before we can graduate from it. Similarly, the temporal prepositional phrase *1978 nian* ‘in the year of 1978’ is required to be expressed at the beginning of the sentence because we would have to ‘enter’ the year 1978 first before we can start doing any events which can be described as ‘did X in 1978’. Tai also argues that the principle of temporal sequence underlies the structure of a serial verb construction in Mandarin. When two verb phrases are expressed together to describe consecutive actions, they are expressed in the sequence in which the actions occur. Tai provides the following example to illustrate that the ordering of verb phrases can have different semantic interpretations (Tai, 1985:50):

(8)

- a 张三 到 图书馆 拿 书
 Zhangsan *dao* *tushuguan* *na* *shu*
 Zhangsan go-to library take book
 ‘Zhangsan went to the library to take the book’
- b 张三 拿 书 到 图书馆
 Zhangsan *na* *shu* *dao* *tushuguan*
 Zhangsan take book go-to library
 ‘Zhangsan took the book to the library’

Similarly, the clause in (9) depicts an event which is denoted by the verb phrase *qi jiaotache* ‘to ride a bike’ and *zou le* meaning ‘to have left’ or to ‘have gone’. The clause may contain two verb phrases, but in reality these two verb phrases describe just one single event, that of ‘leaving a place by the means of riding a bike’; it is not uncommon to find serial verb constructions in Mandarin to depict one single event (Tao H., 1996; Tao L., 2009), but Tai (1985) observes that even when describing a single event, the verbs or verb phrases of the serial verb construction still follow a certain linear order based on each verb’s individual semantics. Compare the Mandarin clauses

in (9a) and (9b) and the corresponding English sentences in (9c). We note that while English allows the two verb phrases to switch places, Mandarin does not. Tsai states that the fact (9a) is grammatical while (9b) is not should be attributed to that the latter violating the natural flow of event sequence as perceived in our conceptual world. That is, one has to ride a bike first before one can leave a place on a bike (1985:52).

(9)

- | | | | | | |
|----|-------------------------------------|------------|------------------|------------|------------------|
| a | 张三 | 骑 | 脚踏车 | 走 | 了 |
| | <i>Zhangsan</i> | <i>qi</i> | <i>jiaotache</i> | <i>zou</i> | <i>le</i> |
| | Zhangsan | ride | bike | leave | PFV |
| *b | 张三 | 走 | 了 | 骑 | 脚踏车 |
| | <i>Zhangsan</i> | <i>zou</i> | <i>le</i> | <i>qi</i> | <i>jiaotache</i> |
| | Zhangsan | leave | PFV | ride | bike |
| c | 1 Zhangsan rode a bike and was gone | | | | |
| | 2 Zhangsan was gone riding a bike | | | | |

Similar phenomenon is observed in a Mandarin verb compound. Consider the sentences in (10) and (11):

(10)

- | | | | | |
|----|--------------------------------|----------------|---------------|-------------------|
| a | 他 | 折弯 | 了 | 树枝 |
| | <i>ta</i> | <i>zhe-wan</i> | <i>le</i> | <i>shuzhi</i> |
| | 3SG | break-bend | PFV | branch |
| | 'He broke and bend the branch' | | | |
| *b | 他 | 折 | 了 | 弯 树枝 |
| | <i>ta</i> | <i>zhe</i> | <i>le</i> | <i>wan shuzhi</i> |
| | 3SG | break | PFV | bend branch |
| *c | 他 | 折 | 树枝 | 弯 了 |
| | <i>ta</i> | <i>zhe</i> | <i>shuzhi</i> | <i>wan le</i> |
| | 3SG | break | branch | bend PFV |

(11)

| | | | | | |
|----|------------------------------|-----------------|---------------|---------------|---------------|
| a | 他 | 折断 | 了 | 树枝 | |
| | <i>ta</i> | <i>zhe-duan</i> | <i>le</i> | <i>shuzhi</i> | |
| | 3SG | break-broke | PFV | branch | |
| | 'He broke the branch in two' | | | | |
| *b | 他 | 折 | 了 | 断 | 树枝 |
| | <i>ta</i> | <i>zhe</i> | <i>le</i> | <i>duan</i> | <i>shuzhi</i> |
| | 3SG | break | PFV | broke | branch |
| *c | 他 | 折 | 树枝 | 断 | 了 |
| | <i>ta</i> | <i>zhe</i> | <i>shuzhi</i> | <i>duan</i> | <i>le</i> |
| | 3SG | break | branch | broke | PFV |

In (10) and (11), the verb compounds of *zhe-wan* 'break-bend' and *zhe-duan* 'break-broken' encode both the action of breaking and the resulting state of that action. In (10a) the branch underwent the action of breaking and became bent, in (11a) the branch also underwent the action of breaking but it was broken into two pieces. The first verb of each compound describes the action of the event while the second designates the state change resulting from that action. The productivity of such verb compound construction is revealed by the flexibility of combining the same action verb with different result verbs and conversely different action verbs with the same result verb, as illustrated in the following example with the action verb of *da* 'hit' and the result verb *shang* 'wounded':

(12)

| | | | | | |
|---|--|-----------------|-----------|--------------|--|
| a | 猎人 | 打伤 | 了 | 老虎 | |
| | <i>lieren</i> | <i>da-shang</i> | <i>le</i> | <i>laohu</i> | |
| | hunter | hit-wound | PFV | tiger | |
| | 'The hunter hit and wounded the tiger' | | | | |
| b | 猎人 | 打死 | 了 | 老虎 | |
| | <i>lieren</i> | <i>da-si</i> | <i>le</i> | <i>laohu</i> | |
| | hunter | hit-dead | PFV | tiger | |
| | 'The hunter hit and killed the tiger' | | | | |

| | | | | |
|---|--|------------------|-----------|--------------|
| c | 猎人 | 砍伤 | 了 | 老虎 |
| | <i>lieren</i> | <i>kan-shang</i> | <i>le</i> | <i>laohu</i> |
| | hunter | hack-wound | PFV | tiger |
| | ‘The hunter hacked and wounded the tiger’ | | | |
| d | 猎人 | 刺伤 | 了 | 老虎 |
| | <i>lieren</i> | <i>ci-shang</i> | <i>le</i> | <i>laohu</i> |
| | hunter | stab-wound | PFV | tiger |
| | ‘The hunter stabbed and wounded the tiger’ | | | |

In (12a) and (12b) the action verb *da* ‘hit’ expresses that the hunter uses the manner of ‘hitting’ to cause the tiger to become ‘wounded’ or ‘dead’. Similarly, in (12a), (12c) and (12d), the result verb *shang* ‘wounded’ illustrates that the tiger was wounded through the deeds of *da* ‘hit’, *kan* ‘hack’, and *ci* ‘stab’ respectively. The verb compounds show clearly a causal event composed of two verbs: each represents a sub-part of the event and with distinct lexical semantics. The examples also show that the ordering of the two verbs is rigid with the verb denoting the means of action always preceding the verb describing the resulting state change. Moreover, the affected entity must follow the verb compound as shown by the ungrammaticality of (10c) and (11c), and the perfective marker must occur after the whole verb compound to mark the event as one single incident as shown in (10b) and (11b).

The significance of Tsai’s Principle of Temporal Sequence with respect to the main claims of this thesis is that he brings forth the importance of our natural perception of the world on event description and sentence formation in Mandarin. His theory provides indirect evidence to support my claim that a Mandarin verb or verb phrase carries energy that follows event dynamics as are perceived in our conceptual world and syntactically marks its pre-verbal nominal as the proto-agent and its post-verbal nominal as the proto-patient. Thus, a speaker is able to drop an argument if the argument occurs in its default syntactic position as determined by its semantic role and its relative position to the verb. A proto-agent argument is also more probable to be dropped if it is deprived of its default pre-verbal position when the proto-patient is promoted pre-verbally. In other words, the two syntactic claims proposed in this chapter make it

possible to predict an argument drop in the language. In the next section, I will present two syntactic constructions from the data to illustrate how the two syntactic claims can be applied to explain argument realization phenomena in the language.

4.4 Data examples

In this section, I present two sentence constructions from the data to support my two main claims of this chapter. The two constructions in question are conjoined clauses and quasi-passive construction.

4.4.1 Evidence from conjoined clauses

Conjoined clauses are a syntactic construction in which two or more clauses are linked together without necessarily the aid of a coordinating conjunction word. Conjoined clauses have been proposed to be a valid construction to test for subjecthood. It has been put forward that the relevance of the notion ‘grammatical subject’ can be substantiated by conjunction reduction (Keenan 1976; Cole et al 1980). When two or more clauses are conjoined and an argument is omitted from the subsequent clauses, a language with a grammatical subject will have the omitted argument as co-referent with the subject (S or A argument) of the first clause and be the subject of its local clause. This syntactic constraint on co-reference in complex sentences has also been termed as ‘semantic neutralization’ (LaPolla 1993; 1995).

LaPolla has described Mandarin as a language without ‘semantic neutralization’ because it allows an argument shared by two conjoined clauses to become a zero argument in the second clause even though it may not share the same thematic role as the grammatical subject. Let us recall LaPolla’s examples in Chapter 3, repeated here as (13):

- (13) a. The man went downhill and Ø saw the dog.
b. The dog went downhill and Ø was seen by the man.
c. * The dog went downhill and the man saw Ø.

According to LaPolla (1990; 1993), a language with grammatical relations, such as English, disallows an argument in a conjoined construction to become zero if it does not assume the same role as the subject of the initial clause, as shown by the ungrammaticality of the sentence in (13c); the ellipsis noun must assume the same semantic role as its co-referent as shown by the sentences in (13a) and (13b). He claims that it is possible to have a corresponding sentence to (13c) in Mandarin, that is, ‘the dog’ in the second clause can appear as a zero regardless of whether it is in the ‘agent’ or ‘patient’ role (c.f. Chapter 3, p.36). In other words, he suggests that Mandarin has no ‘semantic neutralization’ in its conjoined construction.

I have found contrary evidence to challenge such a claim in my data: when there is a chain of two or more clauses, if a core argument of the verb in the sub-clauses shares the same referent, the referent is very likely to be expressed only in the initial clause and dropped in subsequent clauses. If this core argument has the proto-agent role, the syntactic position that is left empty in subsequent clauses will be in the pre-verbal position where the core argument would have occupied. Conversely, if the core argument takes the proto-patient role, then the syntactic position that is likely to be empty in subsequent clauses would be in the post verbal position. Below is one such example from my data of the mainland Mandarin variety. In this example, speaker A is recounting that some of her friends had gone to visit the United Nations office in Geneva and were disappointed because of their high expectations:

(14)

- | | | |
|---|---|---|
| 1 | A | 他们 刚 开始 都 说 <i>tamen</i> <i>gang</i> <i>kaishi</i> <i>dou</i> <i>shou</i> 3PL just beginning all say ‘At the beginning, they all said’ |
| 2 | | 特别 开心 <i>tebie</i> <i>kaixin</i> very excited ‘very excited’ |

- 3 觉得 去 联合国 总部
juede qu lianheguo zongbu
 feeling go United Nations headquarters
 ‘feeling going to the United-Nations headquarters’
- 4 可能 期待 特别 高
keneng qidai tebie gao
 possibly expectation very high
 ‘expectations were very high (expected highly)’
- 5 去 到 那边
qu dao nabian
 go reach there
 ‘when arrived there’
- 6 就 发现 没 什么
jiu faxian mei sheme
 then find NEG distinctive
 ‘found nothing too distinctive’

This extract has the structure of a conjoined construction with six separate sub-clauses. It also fits the description of a ‘topic-chain’ which, as we recall from the previous section, has been defined as a chain of clauses that share the same referent as its topic and the topic is only overtly expressed in the initial clause.

Apart from the initial clause, each of the subsequent clauses in (14) has one of the coarguments of the main verb unexpressed. The verb *shou* ‘to say’ in line 1, *juede* ‘to feel’ in line 3, *qu* ‘go’ in line 5, as well as *faxian* ‘to find’ in line 6 subcategorize for both a subject and an object or a complement clause (*shou* ‘to say’ + complement clause, *juede* ‘to feel’ + complement clause, *qu* ‘to go’ + location, *faxian* ‘to find’ + object/complement clause). In line 4, *qidai* can be used both as a noun, to mean ‘expectation’, or a verb, to mean ‘to expect’, but with either interpretation – ‘expectations were very high’ or ‘expected highly’ - the core argument which specifies the referent or referents of the predicate is omitted. Similarly, the argument of the adjective in line 2 is missing. As we explained earlier, the main predicate in a Mandarin adjective clause is headed by an adjective, since there is no specification as to what is

the entity that is *tebie kaixin* ‘very excited’. This clause, therefore, is also analyzed as a clause with an unexpressed main argument.

A closer examination of (14) shows that for the meaning of this clause chain to remain intact, the unexpressed argument in each sub-clause needs to share the same referent as the initial clause, in this instance, *tamen* ‘they’. That is, if the implicit arguments are to be expressed overtly in (14) without changing the semantics of the entire clause chain, they must appear before the main verb as shown in (15):

(15)

- | | | | | | | |
|---|---|---|---------------|---------------|------------------|---------------|
| 1 | A | 他们 | 刚 | 开始 | 都 | 说 |
| | | <i>tamen</i> | <i>gang</i> | <i>kaishi</i> | <i>dou</i> | <i>shou</i> |
| | | 3PL | just | beginning | all | say |
| | | ‘At the beginning, they all said’ | | | | |
| | | | | | | |
| 2 | | 他们 | 特别 | 开心 | | |
| | | <i>tamen</i> | <i>tebie</i> | <i>kaixin</i> | | |
| | | 3PL | very | excited | | |
| | | ‘they were very excited’ | | | | |
| | | | | | | |
| 3 | | 他们 | 觉得 | 去 | 联合国 | 总部 |
| | | <i>tamen</i> | <i>juede</i> | <i>qu</i> | <i>lianheguo</i> | <i>zongbu</i> |
| | | 3PL | feeling | go | United Nations | headquarters |
| | | ‘they felt going to the United-Nations’ headquarters’ | | | | |
| | | | | | | |
| 4 | | 他们 | 可能 | 期待 | 特别 | 高 |
| | | <i>tamen</i> | <i>keneng</i> | <i>qidai</i> | <i>tebie</i> | <i>gao</i> |
| | | 3PL | possibly | expectation | very | high |
| | | ‘they expected too highly’ | | | | |
| | | | | | | |
| 5 | | 他们 | 去 | 到 | 那边 | |
| | | <i>tamen</i> | <i>qu</i> | <i>dao</i> | <i>nabian</i> | |
| | | 3PL | go | reach | there | |
| | | ‘when they arrived there’ | | | | |
| | | | | | | |
| 6 | | 他们 | 就 | 发现 | 没 | 什么 |
| | | <i>tamen</i> | <i>jiu</i> | <i>faxian</i> | <i>mei</i> | <i>sheme</i> |
| | | 3PL | then | find | NEG | distinctive |
| | | ‘they then found nothing too distinctive’ | | | | |

A closer analysis shows that in (15), *tamen* ‘they’ takes up the Agent thematic role in lines 1, 5, and 6 and the Experiencer role in lines 2, 3, and 4; in other words, the pronoun *tamen* ‘they’ is the proto-agent argument in each sub-clause and shared by all the clauses. Being a proto-agent, the syntactic position for *tamen* ‘they’ is determined by the main verb to appear pre-verbally. Therefore, it is possible to express it only in the initial clause in a conjoined construction because the only syntactic position in which it can occur in subsequent clauses is pre-verbal. Due to the semantic function of the verb, the hearer would have no difficulty recovering the unexpressed referent in this conjoined construction; they would canonically assign *tamen* to the pre-verbal position in all the sub-clauses in (15).

The semantic function of a Mandarin main verb makes it possible for a speaker to drop both the core arguments in a transitive clause if their semantic roles have been established over the course of the conversation. This is because the main verb dictates that a proto-agent can only occur pre-verbally and a proto-patient must occur post-verbally if unmarked. Below is an extract from the Mainland Mandarin data which gives further evidence to show that a main verb in Mandarin does have crucial semantic function; without it, the recovery of the unexpressed referents would not be possible.

In (16), speaker M is presenting his opinion regarding the cultural disparity between Mainland China and Taiwan. Prior to extract (16), speaker M was discussing with his friends on whether there were cultural differences between the two regions, despite the fact that the inhabitants from both regions share the same heritage origins. In (16), speaker M states his affirmative answer and expresses that after the political separation between the two regions in 1949 due to the civil war between the Nationalists and the Communists, the Nationalists who retreated to Taiwan were eventually assimilated to the local Taiwanese culture.

(16)

| | | | | | | |
|---|---|-----------------------------|--------------|---------------|-----------|--------------|
| 1 | M | 我 | 觉得 | 文化 | 的 | 差异 |
| | | <i>wo</i> | <i>juede</i> | <i>wenhua</i> | <i>de</i> | <i>chayi</i> |
| | | 1SG | feeling | culture | POSS | difference |
| | | ‘I feel cultural disparity’ | | | | |

- 2 它 是 存在 的
ta shi cunzai de
3SG COP exist EPIS
‘it exists’
- 3 因为 去 到 台湾 之后
yinwei qu dao Taiwan zhihou
because arrive to Taiwan afterwards
‘because after arriving in Taiwan’
- 4 他们 会 越来越 融入 当地 的 文化
tamen hui yuelaiyue rongru dangdi de wenhua
3PL will more-and-more assimilate local POSS culture
‘they would become more and more assimilated with the local culture’
- 5 越来越 吸收
yuelaiyue xishou
more-and-more absorb
‘(they) would absorb (the local culture) more and more’
- 6 然后 是 以 当地 文化 为 标准
ranhou shi yi dangdi wenhua wei biaozhun
then COP with local culture as standard
‘then with the local culture as a base’
- 7 往 里面
wang limian
toward inside
‘into (the local culture)’
- 8 不断 添加 和 融合
buduan tianjia he ronghe
continuously add and blend
‘(they) continuously add and blend in (their own culture)’

In this example, the clauses in lines 5 and 8 warrant a more detailed analysis because both are completely bare of arguments; the only expressed syntactic component expressed in the surface structure in these two lines is the verb phrase. A closer examination indicates that all the verbs in these two lines are transitive and call for a subcategorization of at least two arguments. The verb *xishou* ‘to absorb’ in line 5 and the

two verbs *tianjia* ‘to add’ and *ronghe* ‘to blend’ in line 8 require two syntactic arguments to complete their subcategorization frame: X absorbs Y, X is added to Y, X and Y are blended, yet both core arguments of each verb are omitted.

In Chapter 3, we mentioned that in the discussion regarding the argument realization pattern in Mandarin, ‘discourse topic’ has been attributed to be one important factor controlling null arguments. Huang (1984, 1989) has proposed that a Mandarin empty category is not referentially dependent upon the matrix subject but rather is bounded by the discourse topic (c.f. Chapter 3). Other linguists have also suggested that the discourse notion of ‘topic’ controls the pronominalization or deletion of all the coreferential NPs in a sequence of clauses which share the same discourse topic (Tsao 1979, 1990; Zhao 2012). Such a sequence of clauses has been referred to as a ‘topic chain’, which can be headed “by a topic which serves as a common link among all the clauses (Tsao 1990: 63)”, and which referent can be “referred to in the first clause, and then there follow several more clauses talking about the same referent but not overtly mentioning that referent (Li & Thompson 1981: 659)” (c.f. Chapter 3). However, I have found that the proposal that ‘discourse topic’ controls argument drop cannot concretely explain speech clauses which contain only bare verb phrases. For one, in most stretches of talk, it is difficult to pinpoint exactly what is its ‘topic’ and which noun or noun phrase can best represent it. Take (16) as an example, this extract certainly can be described as a topic chain because it does consist of a sequence of clauses which are headed by some kind of discourse topic related to cultural disparity between the two Chinese regions. Nevertheless, when we want to pin down the noun or noun phrase that embodies its ‘discourse topic’, it is unclear which should be the best choice: is it *tamen* ‘they’ (line 4) referring to the Nationalists who retreated to Taiwan, or *wenhua* ‘culture’; and if it is the latter, should it be *dangdi wenhua* ‘local culture’ referring to the Taiwanese culture or the implied Mainland Chinese culture (line 8)? If we cannot identify the right noun entailing the right discourse topic, then is it possible to ascertain which referent should be recovered for the unexpressed arguments? In short, to suggest that an empty category in Mandarin is controlled by a discourse topic is inadequate to explain the referent recovery process in an utterance with full-fledged argument drop such as the ones in lines 5 and 8.

Furthermore, even if the ‘discourse topic’ could be determined, how would the hearer recover the respective referent for the unexpressed arguments when there is more than one referent at the scene of the discourse? As in (16), we have both core arguments dropped in lines 5 and 8; this means there are two referents that have been left unsaid. How does the hearer recover the respective referent for the core arguments and arrive at the best interpretation of the speaker’s utterance?

Where the notion of ‘discourse topic’ fails, my proposal of the semantic function of the Mandarin main verb succeeds in outlining a syntactic constraint that determines the canonical position of an argument in relation to the verb; thus, even when the core arguments of a transitive verb are dropped by the speaker, upon referent recovery, the hearer is able to assign the more agentive referent before the main verb and the less agentive referent after the verb, deciphering consequently the most likely interpretation of the utterance. Similarly, the semantic function of the verb allows speakers to be more confident to drop core arguments in their speech when they deem the semantic role of identifiable referents in the discourse context has been established. This is because the syntactic constraint of the verb restrains the referents to occur only in a certain position according to the semantic role they carry.

Take line 5 of (16) as an example, repeated here with its preceding line:

- | | |
|---|--|
| 4 | 他们 会 越来越 融入 当地 的 文化 |
| | <i>tamen hui yuelaiyue rongru dangdi de wenhua</i> |
| | 3PL will more-and-more assimilate local POSS culture |
| | ‘they would become more and more assimilated with the local culture’ |
| 5 | 越来越 吸收 |
| | <i>yuelaiyue xishou</i> |
| | more-and-more absorb |
| | ‘(they) would absorb (the local culture) more and more’ |

In line 5, the main verb *xishou* ‘to absorb’ requires two arguments in order for its argument structure to be well formed, yet both of its core arguments are omitted from the surface structure. From the discourse context, it appears that *tamen* ‘they’ and *dangdi*

de wenhua ‘the local culture’ are the most suitable referents to fill in the subject and object argument of the verb since both are the most immediate mentions, occurring only one line prior. In addition, *tamen* ‘they’ and the noun phrase *dangdi de wenhua* ‘the local culture’ are also part of the discourse topic since the stretch of talk is about speaker M’s conviction of Nationalists from mainland China being assimilated into the Taiwanese culture. Both referents are retrievable from the context, yet it is the semantic function of the verb that enables both to be dropped from the predicate because, upon referent recovery, the pronoun *tamen* ‘they’ can only be expressed pre-verbally while *dangdi de wenhua* ‘the local culture’ can only appear post-verbally.

In the same vein, full-fledged argument omission is possible in line 8 (repeated below) because retrievable referents are syntactically constrained to occur in a certain position related to the main verb.

| | | | | |
|---|--|----------------|-----------|---------------|
| 8 | 不断 | 添加 | 和 | 融合 |
| | <i>buduan</i> | <i>tianjia</i> | <i>he</i> | <i>ronghe</i> |
| | continuously | add | and | blend |
| | ‘(they) continuously add (their own culture?) and blend in with (the local culture)’ | | | |

Again, the verbs *tianjia* ‘to add’ and *ronghe* ‘blend into’ require at least a clear object argument in their argument structure, i.e. to ‘add’ something and to ‘blend’ something, yet the only expressed syntactic component is the verb itself. What is more interesting about this line is that, even though both *tianjia* ‘to add’ and *ronghe* ‘to blend’ occur in the same clause, they can take a different referent as their object. That is, *tianjia* ‘to add’ may take a referent other than the object referent of *ronghe* ‘to blend’ to be its object referent and still makes the sentence grammatical, as exemplified in (17):

(17)

| | | | | | |
|---|---|----------------|-------------|-----------|---------------|
| 8 | 不断 | 添加 | 自己 | 的 | 文化 |
| | <i>buduan</i> | <i>tianjia</i> | <i>ziji</i> | <i>de</i> | <i>wenhua</i> |
| | continuously | add | own | POSS | culture |
| | ‘(they) continuously add their own culture’ | | | | |

| | | | | |
|---------------------------------------|---------------|---------------|-----------|---------------|
| 和 | 融合 | 当地 | 的 | 文化 |
| <i>he</i> | <i>ronghe</i> | <i>dangdi</i> | <i>de</i> | <i>wenhua</i> |
| and | blend | local | POSS | culture |
| 'and blend in with the local culture' | | | | |

In (17), we witness an interesting case of two object drops in one utterance which can call for two different referents. It provides some evidence to support the claim that it is possible to have extensive argument omission in a Mandarin discourse when the referents are retrievable from the context. More importantly, it emphasizes the significant role the main verb plays in determining the default syntactic position of implied referents if they are to be made phonologically present in the surface structure.

Extracts (18) and (19) provide two more examples to illustrate that a Mandarin main verb is an important syntactic pivot in differentiating the semantic function of its core arguments. The reason the two extracts are presented is to show that when the object referent is shared in a clause chain, it can also be expressed only in the initial clause and dropped in the rest of the clauses.

In (18), the male speaker (M) is giving a hypothetical example to explain the meaning of a new slang term ‘*aojiao*’ which, according to speaker M, is gaining popularity among young people in mainland China. The term is used to describe someone who appears nonchalant or ‘cool’ on the outside but in truth they have a shy and caring personality. Notice that the topic of this talk, *zhe ge dongxi* ‘this thing’, is introduced in the first line, which is then omitted entirely in the rest of the speech.

(18)

| | | | | | | |
|---|---|--------------------------------|-----------|---------------|------------|---------------|
| 1 | M | 这 | 个 | 东西 | 很 | 好吃 |
| | | <i>zhe</i> | <i>ge</i> | <i>dongxi</i> | <i>hen</i> | <i>haochi</i> |
| | | this | CL | thing | very | delicious |
| | | ‘This thing is very delicious’ | | | | |

- 2 我 很 爱 吃
 wo *hen* *ai* *chi*
 1SG very love eat
 ‘I love to eat (it) very much’
- 3 但是 我 不 想 让 你 知道 我 很 爱 吃
 danshi *wo* *bu* *xiang* *rang* *ni* *zhidao* *wo* *hen* *ai* *chi*
 but 1SG NEG want let 2SG know 1SG very love eat
 ‘yet I don’t want to let you know that I love to eat (it) very much’
- 4 所以 我 就 一直 吃
 suoyi *wo* *jiu* *yizhi* *chi*
 so 1SG then continue eat
 ‘I then continue to eat (it)’
- 5 但是 我 又 说 这 个 一般般
 danshi *wo* *you* *shuo* *zhe* *ge* *yibanban*
 but 1SG again say this CL ordinary
 ‘but I keep on saying this is just so-so’
- 6 然后 又 一直 吃
 ranhou *you* *yizhi* *chi*
 then again continue eat
 ‘then again carry on eating (it)’

In this extract, we understand that the object argument of *chi* ‘to eat’ in lines 2, 3, 4, and 6 is dropped because *chi* in this context subcategorizes for both the subject and the object. *Chi* ‘to eat’ is a labile verb in Mandarin which can appear either as transitive or intransitive as in *wo chi fan le* ‘I have had the meal’ or *wo chi le* ‘I have eaten’. However, in (18) *chi* can only be interpreted as transitive because the demonstrative pronoun *zhege* ‘this’ in line 1 has already pinpointed a definite entity as the object of eating, and the transitive interpretation is maintained throughout the discourse even though the object entity is overtly flagged only in the first sentence.

Wo ‘I’, on the other hand, appears before the verb *chi* ‘eat’ from line 2 to line 5, unmistakably establishing itself as the agent. As the thematic role of these two nouns – *wo* ‘I’ and *zhe ge dongxi* ‘this thing’ – are lucid, it becomes inconsequential whether they are expressed or not because the hearer is now able to differentiate their thematic

relationship and know in which position relative to the verb they should appear if they were to be expressed orally. Indeed, both core arguments are dropped in the last line.

Example (19) provides similar evidence:

(19)

- | | | | | | | | | | |
|---|---|---|-------------|---------------|---------------|---------------|-----------------|-----------|------------|
| 1 | M | 如果 | 你 | 需要 | 听 | 什么 | 声音 | 的 | 话 |
| | | <i>ruguo</i> | <i>ni</i> | <i>xuyao</i> | <i>ting</i> | <i>shenme</i> | <i>shengyin</i> | <i>de</i> | <i>hua</i> |
| | | if | 2SG | need | listen | whatever | sound | REL | case |
| | | ‘In the case if you need to listen to whatever sound’ | | | | | | | |
| | | | | | | | | | |
| 2 | | 你 | 可以 | 回来 | 放大 | 一 | 次 | | |
| | | <i>ni</i> | <i>keyi</i> | <i>huilai</i> | <i>fangda</i> | <i>yi</i> | <i>ci</i> | | |
| | | 2SG | can | return | amplify | once | CL | | |
| | | ‘you can come back to amplify (the sound) once’ | | | | | | | |
| | | | | | | | | | |
| 3 | | 都 | 可以 | 听 | | | | | |
| | | <i>dou</i> | <i>keyi</i> | <i>ting</i> | | | | | |
| | | all | can | listen | | | | | |
| | | ‘(you) can always listen to (the sound)’ | | | | | | | |

(19) is again taken from the data of Mainland Mandarin variety in which speaker M is recounting his experience as a television reporter. In line 1, *ni* ‘you’ is clearly the agent because it occurs before the main verb *ting* ‘listen’, and *shengyin* ‘sound’ is the theme because it occurs after. Once both nouns have established their respective thematic role as dictated by their relative position to the main verb, it becomes possible for the speaker to drop both arguments and express the verb predicate alone in line 3 since the thematic relationship of the participants of the event is clear to the hearer, and speaker M can expect his hearers to understand that *ni* ‘you’ is the unexpressed subject of the verb *ting* ‘to listen’, and *shengyi* ‘sound’ is the unexpressed object.

In the next section, I will provide more evidence from a quasi-passive construction found in the data to illustrate that a Mandarin verb or verb phrase does not only have the syntactic function of marking the semantic role of its core arguments, it

also carries dynamic energy that follows natural events as are perceived in our conceptual world.

4.4.2 Evidence from quasi-passives

The second syntactic proposition I make in this chapter is that ‘a Mandarin main verb or verb phrase disallows a proto-agent to occur post-verbally. This claim implies that when a proto-patient argument occurs pre-verbally, it is mostly likely that the proto-agent is dropped from the surface structure. As explained earlier, since a Mandarin verb or verb phrase provides direction of energy force to its co-arguments as perceived in our conceptual world, thus when two participants are involved in an event, the entity that is placed before the verb takes up the proto-agent thematic role and functions as the initiator of the event, and when an entity follows the verb or verb phrase it becomes the affected object of the event and assumes the proto-patient thematic role. It follows that when a patient argument is shifted to the pre-verbal position, the agent argument is prohibited to occur post-verbally as it is illogical for the initiator of an event to occur after the event.

In the data, I have located a total of 37 tokens of a syntactic construction which has the syntactic structure of an active sentence but whose subject argument must semantically be interpreted as assuming a non-agentive role. The construction bears one important syntactic attribute characteristic of a passive sentence, namely the referent in the subject position appears to be a promoted direct patient object of the verb. What is more, the construction in question almost always carries only one overt argument and assumes a telic reading. Below are some examples taken from the data:

(20)

- | | | | | |
|---|-------------------------------------|------------|-----------------|-----------|
| a | 旅馆 | 都 | 找好 | 了 |
| | <i>lǚguan</i> | <i>dou</i> | <i>zhao hao</i> | <i>le</i> |
| | hotel | all | find | PFV |
| | ‘The hotels have all been reserved’ | | | |

- b 琴 练 完 了
qin lian wan le
 piano practice complete PFV
 ‘piano practicing is completed’
- c 厨房 使用 过 了
chufang shiyong guo le
 kitchen use already PFV
 ‘The kitchen has been used’
- d 梦 里面 很多 场景 都 忘 了
meng limian henduo chanjing dou wang le
 dream inside many scene all forget PFV
 ‘Many scenes in the dream are all forgotten’
- e 绘本 还 没 画 完
huiben hai mei hua wan
 drawing-book yet NEG draw complete
 ‘The drawing book has not yet been completed’
- f 电脑 可以 带 回家
diannao keyi dai huijia
 computer can take return-home
 ‘The computer can be taken home’
- g 你 们 的 薪水 不 用 扣
ni men de xinshui bu yong kou
 2SG PLU POSS salary NEG Need deduct
 ‘Your salary needs not to be deducted’
- h 个性 怎么 可能 改
gexing zenme keneng gai
 character how can change
 ‘How can one’s character be changed?’

A closer examination of these examples in (20) shows two interesting observations. First, all the clauses consist of only one argument in the verb predicate and this sole argument must be interpreted as assuming a non-agentive thematic role. Second, the verb predicate in all the clauses describes an event which is either telic or appears to be non-dynamic. For instance, the clauses in (a) – (d) all denote an event that is bounded

and finite - the perfective marker *le* at the end of the verb predicate is an unmistakable beacon. Similarly, the clauses in (e) – (h) may not describe a bounded event, but the proposition conveyed in each clause is non-dynamic; they appear to be declarations, making some sort of general assertion. For instance, the speaker of (e) makes the observation of a picture book that has not yet been completed, the sentences in (f) and (g) express the speaker's command of 'taking the computer home' and 'not deducting the salary' – the deontic modality is clear through the use of modal verbs of *keyi* 'can' and *yong* 'need'. The sentence in (h) is a personal statement declaring that people's personality is not easily altered. Notice that in all the clauses, the proto-agent argument is not expressed.

The first observation shows that all the clauses in (20) exhibit the major syntactic characteristic of passivization which is to put the theme or patient argument on a higher topic position than the agent argument. Cross-linguistically, the idea of deriving the passive from a canonical active construction is universally understood to be based on the general understanding that these two describe the same event but with different emphasis. A passive construction generally involves syntactically promoting the object argument of an active construction to the subject position without altering its thematic role (Siewierska 1984; Kemmer 1993; Aikhenvald, Dixon & Onishi 2001; Alexiadou & Schäfer 2013). Since Mandarin lacks morphology for marking its subject or object, therefore there is no morphological evidence to indicate that passivization has taken place in all the instances in (20). However, syntactically there is evidence to show otherwise. Each sole argument in (20) is interpreted as in the non-agentive role yet it appears before the verb – a position canonically reserved for the proto-agent argument. This suggests that in the clauses in (20), an argument with a lower thematic role has been promoted to occupy a syntactic position that normally accommodates arguments with a higher thematic role. In other words, the clauses in (20) exhibit a major characteristic of passivization.

However, the second observation of (20) – namely that the agentive argument in each clause is always covert – may be a common feature of a passive construction but it is not universal. There exist variations across languages on how they employ strategies to form a passive sentence. For instance, there are languages that use periphrastic means

to form a passive such as English, German and Spanish in which a form of the verb ‘to be’ or ‘become’ is employed to create a passive construction. There are also languages which make use of special morphemes to form a passive sentence such as Turkish, Icelandic and Modern Greek. Some languages employ more than one standard syntactic form to describe the passive, such as Polish which can form a passive through the use of periphrastic auxiliary and a number of reflexive constructions (Kibort 2005). Mbun of the Bantu language family is another example which has been described as having a ‘functional passive’ formed through two different types of word order inversion (Bostoen & Mundeke 2011). A number of Bantu and Nilo-Saharan languages have also been noted to create a passive meaning by using object left-dislocation instead of employing actual passive morphology (Hamloui 2013).

Even though the number of strategies available for expressing the passive function in a particular language depends greatly on language-specific linguistic features, as well as its language internal characteristics of the passive, during the operation of passivization, the subject argument may be demoted but it does not have to be removed from the sentence structure. However, in our clauses in (20), the agentive argument is always unexpressed. There are a total of 37 tokens of this passive-like construction found in the data sources, and all except one have the proto-agent argument removed from the surface structure (more detailed discussion in 4.5.2.2).

I believe this phenomenon supports my first main claim of this chapter, which states that a Mandarin main verb or verb phrase carries dynamic energy that follows natural events as are perceived in our conceptual world. Thus, when two participants are involved in an event, the NP that occurs pre-verbally assumes the proto-agent thematic role whereas the NP that occurs post-verbally assumes the proto-patient thematic role. This also implies that when the proto-patient argument is promoted to the pre-verbal position, the proto-agent argument becomes ‘deprived’ of its possible syntactic position and is likely to disappear from the surface structure, because it has lost its function to ‘initiate’ the event denoted by the verb.

To have a proto-patient occurring before a proto-agent also violates the general concept of a natural event flow: it is illogical for an affected proto-patient to occur before the event and the initiation. Thus, in the quasi-passive construction in (20), when

the patient/theme argument is promoted to the pre-verbal position, the verb or verb phrase loses its volitional force and becomes a non-dynamic predicate of a telic event. In the literature on Chinese linguistics, this type of construction is not widely discussed, but in the rare instances when it is mentioned, it has been referred to as the ‘unmarked’ passive. We will first review what has been said about this sentence construction before moving on to examine some examples from the data sources.

4.4.2.1 The ‘unmarked’ passive

Some Chinese linguists have described the type of clause construction in (20) as the ‘unmarked’ passive’ (Xiong 2003; Deng 2003). For instance, when discussing about the possible lexical category for the Chinese morpheme *bei*, Xiong argues that it is not a preposition even though it has the syntactic function of introducing the agent NP, similar to that of the English preposition *by* in a passive sentence (2003:207):

(21)

- | | | | | | |
|---|---------------------------------|----------------|----------------|----------------|-----------|
| a | 敌人 | [被 | 我们] | 消灭 | 了 |
| | <i>diren</i> | <i>BEI</i> | <i>women</i> | <i>xiaomie</i> | <i>le</i> |
| | enemy | by | 1PL | destroy | PFV |
| | ‘The enemy was destroyed by us’ | | | | |
| | | | | | |
| b | 敌人 | 被 | 消灭 | 了 | |
| | <i>diren</i> | <i>BEI</i> | <i>xiaomie</i> | <i>le</i> | |
| | enemy | by | destroy | PFV | |
| | ‘The enemy was destroyed’ | | | | |
| | | | | | |
| c | 敌人 | 消灭 | 了 | | |
| | <i>diren</i> | <i>xiaomie</i> | <i>le</i> | | |
| | enemy | destroy | PFV | | |
| | ‘The enemy was destroyed’ | | | | |

Xiong goes on to explain that the reason the morpheme *bei* cannot be a preposition is because in Mandarin, it is possible to express the morpheme on its own without the agent argument, as in (21b). It is also possible to omit the morpheme completely to form an ‘unmarked’ passive (21c). However, Xiong only briefly mentions

the term ‘unmarked passive’ and does not provide any more evidence to show why this sentence type should be considered a passive and not a topic-comment construction, as suggested by some Chinese linguists such as Xiao (Xiao, McEnery & Qian 2006). Xiao, too, points out that the construction in question appears to be a quasi-passive when conducting a corpus-based contrastive account of passive construction in English and Mandarin. However, unlike Xiong, Xiao suggests that this quasi-passive construction exhibits a syntactic topic-comment structure where the patient argument takes up the topic position and the remaining is the comment. Thus, (21c) would have been parsed as *diren* ‘enemy’ being the topic and *xiaomie le* ‘destroyed’ being the comment.

When discussing the argument structure of resultative verb compounds, Cheng & Huang (1994) bring up one interesting point which is highly relevant to our discussion in this chapter. They propose that a type of pseudo-passive construction with a resultative verb compound is the result of argument suppression of the agent role and the application of NP-movement (1994: 207). By their definition, a resultative verb compound refers to a verb compound which consists of two verb components such as the ones presented in the previous examples of (10), (11), and (12). Two of which – *zhe-wan* ‘break-bend’ and *da-shang* ‘hit-wound’ – are repeated below:

(22)

- | | | | | |
|---|--|-----------------|-----------|---------------|
| a | 他 | 折弯 | 了 | 树枝 |
| | <i>ta</i> | <i>zhe-wan</i> | <i>le</i> | <i>shuzhi</i> |
| | 3SG | break-bend | PFV | branch |
| | ‘He broke and bend the branch’ | | | |
| | | | | |
| b | 猎人 | 打伤 | 了 | 老虎 |
| | <i>lieren</i> | <i>da-shang</i> | <i>le</i> | <i>laohu</i> |
| | hunter | hit-wound | PFV | tiger |
| | ‘The hunter hit and wounded the tiger’ | | | |

They explain that the subject of the verb compounds such as *ku-shi* ‘cry-wet’ and *chui-po* ‘burst-broken’ in (23) should be an agent because the first verb of the compound clearly denotes an activity, as is the case with (22). Instead, the subject is clearly a

theme/patient:

(23)

- a 手帕 哭湿 了
 shoupa *ku-shi* *le*
 handkerchief cry-wet PFV
 ‘The handkerchief was wet (from someone’s crying
- b 气球 吹破 了
 qiqiu *chui-po* *le*
 balloon burst-broken PFV
 ‘The balloon was popped’

They propose that this pattern is a result of ‘argument-suppression followed by NP-movement’ (1994: 207), which has an underlying transitive argument structure, with an agent as subject and a theme or patient as object, as illustrated in (24).

(24)

- a 他 哭湿 了 手帕
 ta *ku-shi* *le* *shoupa*
 3SG cry-wet PFV handkerchief
 ‘He cried the handkerchief wet’
- b 他 吹破 了 气球
 ta *chui-po* *le* *qiqiu*
 3SG burst-broken PFV balloon
 ‘He popped the balloon’

In short, Cheng & Huang claim that (23) is a syntactic derivation of (24); by ‘de-thematization’ of the agent role and application of NP-movement, the theme or patient argument surfaces as the subject. They label this type of surface intransitives as ‘derived ergatives’ (1994:207) and as examples of the ‘middle construction’.

One implication which ensues from Cheng & Huang’s analysis is that these ‘middle constructions’ – which bear identical syntactic configuration as the construction

of our discussion – has a syntactic trace for its agent. However, their proposal has not provided a sound rationale for the unexpressed agent in the surface structure; to ‘de-thematize’ the agent role does not fully account for its absolute removal from the surface structure. I believe such phenomena can be explained based on my principal claim of this chapter, which states that a Mandarin main verb or verb phrase carries dynamic energy from its pre-verbal to its post-verbal position, following the natural event sequence as perceived in our conceptual world. By shifting the theme/patient before the verb compound means that the agent has lost its default position. Since it violates the natural event sequence to have a proto-patient before a proto-agent, the agent is restricted to appear after the verb compound.

4.4.2.2 Data Analysis

Extract (25) is found to contain the most tokens of this passive-like construction in the data sources. It is from the fifth conversation of the NCCU corpus, and the selected section shows a casual conversation between four friends, two males and two females, who are having hot-pot for dinner. A Chinese hot-pot dinner typically consists of putting different food ingredients such as sliced meat, vegetables, and seafood into a simmering metal pot at the center of the dining table. The food ingredients are put into the pot in stages so diners can chat while cooking at the table. Notice the clauses in lines 4, 7 and 8; they all contain just one nominal argument which is expressed before the verb and assumes proto-patient thematic role:

(25)

- | | | | | | | | |
|---|----|----------------------|-----------------|------------|-----------|-----------|-----------|
| 1 | F2 | 我 | 刚刚 | 捞 | 了 | 一 | 个 |
| | | <i>wo</i> | <i>ganggang</i> | <i>lao</i> | <i>le</i> | <i>yi</i> | <i>ge</i> |
| | | 1SG | just-now | scoop | PFV | one | CL |
| | | ‘I just scooped one’ | | | | | |
| | | | | | | | |
| 2 | | 可以 | 吃 | 吗 | | | |
| | | <i>keyi</i> | <i>chi</i> | <i>ma</i> | | | |
| | | can | eat | INT | | | |
| | | ‘Can (I) eat (it)?’ | | | | | |

- 3 F1 可以
 keyi
 can
 ‘Yes’
- 4 这些 要 煮 很 久
 zhexie yao zhu hen jiu
 these need cook very long
 ‘These need to be cooked for a long time’
- 5 刚刚 是 煮 很 久
 ganggang shi zhu hen jiu
 just-now COP cook very long
 ‘just now, (those) have been cooked for a long time’
- 6 要 盖 起来 吗
 yao gai qilai ma
 need cover up INT
 ‘Does (the lid) need to be put on?’
- 7 肉 都 还 没 放
 rou dou hai mei fang
 meat all yet NEG put
 ‘Meat has not yet been put in/added’
- 8 菜 都 还 没 放
 cai dou hai mei fang
 vegetable all yet NEG put
 ‘Vegetables have not yet been put in/added’

Let us first separate these three lines from the extract for a closer examination:

(26)

- 4 这些 要 煮 很 久
 zhexie yao zhu hen jiu
 these need cook very long
 ‘These need to be cooked for a long time’

- 7 肉 都 还 没 放
 rou *dou* *hai* *mei* *fang*
 meat all yet NEG put
 ‘Meat has not yet been put in/added’
- 8 菜 都 还 没 放
 cai *dou* *hai* *mei* *fang*
 vegetable all yet NEG put
 ‘Vegetables have not yet been put in/added’

Examining from the pure syntactic perspective, there are two possible analyses to describe these three clauses: they can be described either as an object fronting with a phonologically null subject or as a passive construction with a promoted object and a demoted subject. One major difference between an object fronting and a passive construction is that the former involves a displacement of the object NP to a position where a fixed grammatical function is not assigned; in contrast, in a passive construction, the object NP is displaced to a position where the grammatical function of subject is assigned. This syntactic difference can be seen from the fact that the main verb does not agree with the fronted object NP in an object fronting whereas in a passive construction, the main verb agrees with the object NP after it has been displaced into the subject position (Siewierska 1984). Below are two example sentences in English to illustrate the different syntactic features between the two constructions:

(27)

- a. Object fronting: *This question we have already discussed.*
- b. Passive construction: *This question has already been discussed.*

In (27a), we can see that the main verb *have* agrees with the subject pronoun *we* and not the topicalized NP *this question*. On the other hand, the verb in (27b) is inflected for the theme argument *this question* which has been promoted to occupy the subject position after the operation of passivization.

As there are no inflections or derivations on Mandarin verbs, it is therefore not possible to use subject-verb agreement to determine if the sole argument in the clause is a topic or a subject. In other words, the sentences in (26) can have two likely underlying syntactic structures: as a passive construction with a promoted patient object and a demoted agent subject, or as an object fronting with a phonologically null agent subject. However, in either case, if the agent is to be made overt, it can only appear in the pre-verbal position.

First, I would like to argue that the clauses in (26) should be considered as a passive construction in which the proto-patient argument is promoted and the proto-agent argument has become oblique because of the deprivation of its syntactic position. One reason to support this hypothesis is that the sole argument occurring before the main verb in each clause must be interpreted as assuming a non agentive thematic role, and when a proto-agent argument appears overtly in the predicate, it can only be expressed pre-verbally. For instance, when the animate human agent *wo* ‘I’ is added to the clause in line 4 of (26), it can occur as a topic (28a), a subject (28b), or the agent argument of a causation (28c); in all instances, it can only occur before the main verb *zhu* ‘to cook’:

(28)

- a 我 这些 要 煮 很 久
 wo *zhexie* *yao* *zhu* *hen* *jiu*
 1SG these need cook very long
 ‘I need to cook these for a long time’
- b 这些 我 要 煮 很 久
 zhexie *wo* *yao* *zhu* *hen* *jiu*
 these 1SG need cook very long
 ‘These, I need to cook for a long time’
- c 我 要 煮 这些 很 久
 wo *yao* *zhu* *zhexie* *hen* *jiu*
 1SG need cook these very long
 ‘I need to cook these for a long time’

One important syntactic attribute of a passive construction is the operation of promoting the object noun of an active sentence to the subject position. In the process, the subject noun may be demoted to a non-obligatory oblique. The clauses in (24) clearly show the passive counterpart of (26), in which the patient noun of each main verb – *zhexie* ‘these’, *rou* ‘meat’, *cai* ‘vegetables’ – is promoted to the pre-verbal position; it is a syntactic promotion because a patient argument is put into a syntactic slot which is canonically reserved for arguments with a higher thematic role. Moreover, if the clauses in (24) were merely object fronting, we would have found a more balanced distribution of expressed versus unexpressed agent argument in the data. This is because object fronting does not involve the syntactic demotion of the subject noun or NP, thus there should be a higher frequency of agent subject nouns being expressed in the surface structure. Since in all the tokens found in the corpora, the agent argument is consistently covert, we have, therefore, stronger evidence to suggest that the clauses in (24) have gone through the process of passivization rather than topicalization.

In addition, it has been observed that the prosodic contour of the clauses in (24) does not show a discernible phonological break between the sole nominal and the rest of the clause. As we mentioned before, in a passive construction the promoted patient/theme argument is shifted to a syntactic position where the grammatical function of subject is assigned, whereas in object fronting the object argument is merely ‘dislocated’ outside the clause boundary. This syntactic difference can be mirrored in their prosodic structure. It has been noted that in an object fronting construction, a pause is often discerned between the fronted argument and the rest of the sentence (Givon 2001). However, in all the tokens found in the data, there is no noticeable phonological break between the sole argument and the rest of the clause, signifying that the patient argument in the construction in question is an integral part of the clause and not a displaced constituent outside the main clause.

The only one exception is (29). As I mentioned earlier, in all 37 tokens of the quasi-passive constructions found in the data, there is only one token which has both the agent and patient arguments expressed overtly. This token appears in the first conversation of the NCCU Corpus and it shows features of a topicalization.

In (29), two student-teachers of English, F1 and F3, are giving advice to another fellow student-teacher, also their friend, on how to improve the performance of an unwilling student:

(29)

- 1 F1 他 懒 是 本来 就 这样 了
ta lan shi benlai jiu zheyang le
3SG lazy COP originally ADV like-this PFV
‘He has always been lazy’

- 2 如果 你 觉得 时间 太 少
ruguo ni juede shijian tai shao
if 2SG feel time too little
‘If you feel there is little time’

- 3 F1 那 目标 你 可以 放 在
na mubiao ni keyi fang zai
then goal 2SG can set at

让 他 比较 喜欢 英文
rang ta bijiao xihuan yingwen
let 3SG in-comparison like English
‘then goal you can set at making him like English more’

- 4 F3 不 要 放 在 说 他 可以 很 会 背
bu yao fang zai shuo ta keyi hen hui bei
NEG want put at like 3SG can very capable memorize
‘do not set at he can memorize very well’

- 5 考试 考 很 好
kaoshi kao hen hao
exam tak very well
‘get good exam results’

- 6 我 觉得 那 个 目标 不 要 放 太 远
wo juede na ge mubiao bu yao fang tai yuan
1SG feel that CL goal NEG want set too far
‘I feel that goal should not be set too high’

7 你 也 比较 有 成就 感
 ni *ye* *bijiao* *you* *chengjiu* *gan*
 2SG also in-comparison have achievement sense
 ‘You will also have more sense of achievement’

The most interesting lines in this extract are lines 3 and 6. They each exemplify an instance of passive construction and topicalization. The complement clause of line 6 is a quasi-passive construction because a patient/theme argument functions as the subject of the verb *fang* ‘to put’ or ‘to set’, and the agent argument has become oblique (30):

(30)

目标 不 要 放 太 远
mubiao *bu* *yao* *fang* *tai* *yuan*
 goal NEG want set too far
 ‘I feel that goal should not be set too high’

In contrast, the patient/theme *mubiao* ‘goal’ in line 3 is the result of a topicalized operation: it is shifted past the agent argument *ni* ‘you’ and placed at the beginning of the sentence.

(31)

目标 你 可以 放 在 让 他 比较 喜欢 英文
mubiao *ni* *keyi* *fang* *zai* *rang* *ta* *bijiao* *xihuan* *yingwen*
 goal 2SG can set at let 3SG in-comparison like English
 ‘Goal, you can set at making him like English more’

The purpose of showing examples (30) and (31) is to strengthen the main syntactic claim of this chapter: a Mandarin main verb functions as a syntactic pivot for marking the semantic relations between the co-arguments of a transitive clause. It marks the pre-verbal argument as more agent-like and the post-verbal argument as more

patient-like. This linear order follows our concept of natural event flow: an agent needs to occur first in order for the initiation of the event to happen, which will consequently have an effect on another entity. This also means that when the patient/theme argument is shifted to the pre-verbal position as in the quasi-passive construction of our discussion, the agent argument is ‘deprived’ of its possible syntactic position and is likely to disappear from the surface structure because it has lost its function to ‘initiate’ the event as denoted by the verb. This plausibly accounts for the finding that in all 37 tokens of quasi-passive construction found in the data, there is only (31) which appears to have the agent entity expressed overtly; and this token has been shown to be an object fronting rather than a passive construction. In other words, due to the semantic restriction imposed by the main verb, an agentive argument is prohibited to occur after the verb when occurring with a patient argument. This restriction makes it possible for a speaker to drop arguments in their utterances once the semantic role of each core argument is established.

To clarify, I have provided the following example to show that when the patient object has already been promoted to the pre-verbal position, the agent subject can only be expressed overtly at the position in the sentence indicated by (Agent). Notice (Agent) can only occur before the verb and not after the verb:

(32)

- 4a 这些 (Agent) 要 煮 很 久
 zhexie *yao* *zhu* *hen* *jiu*
 those need cook very long
 ‘These need to be cooked for a long time’
- *4b 这些 要 煮 (Agent) 很 久
 zhexie *yao* *zhu* *hen* *jiu*
 those need cook very long
- 7a 肉 (Agent) 都 还 没 放
 rou *dou* *hai* *mei* *fang*
 meat all yet NEG put
 ‘Meat has not yet been put in/added’

| | | | | | | |
|-----|---|------------|------------|------------|-------------|-------------|
| *7b | 肉 | 都 | 还 | 没 | 放 | (Agent) |
| | <i>rou</i> | <i>dou</i> | <i>hai</i> | <i>mei</i> | <i>fang</i> | |
| | meat | all | yet | NEG | put | |
| 8a | 菜 | (Agent) | 都 | 还 | 没 | 放 |
| | <i>cai</i> | | <i>dou</i> | <i>hai</i> | <i>mei</i> | <i>fang</i> |
| | vegetable | | all | yet | NEG | put |
| | ‘Vegetables have not yet been put in/added’ | | | | | |
| *8b | 菜 | 都 | 还 | 没 | 放 | (Agent) |
| | <i>cai</i> | <i>dou</i> | <i>hai</i> | <i>mei</i> | <i>fang</i> | |
| | vegetable | all | yet | NEG | put | |

Notice the possible positions that the oblique agent can be expressed in (32). It can appear before and after the subject argument but not after the main verb as shown by the ungrammaticality of the sentences in (b).

4.5.3 More evidence from the BA construction

Here is another extract which offers one more interesting syntactic feature to support my claim, namely the BA-construction. BA-construction provides evidence to illustrate that the relative position to a Mandarin verb assigns default semantic roles to the core arguments of the verb predicate: the argument occurring before the verb assumes the default agentive semantic role while the argument after the verb takes up the default theme/patient semantic role. When the default position of the arguments is disrupted or altered, certain changes take place in the original syntactic structure. The quasi-passive construction is one example: when the patient argument is promoted to the pre-verbal position, the agent argument is dropped because its default syntactic position is taken over. The BA-construction provides similar evidence but with a reverse syntactic situation: when both the core arguments of the verb are deemed prominent enough to appear before the verb for syntactic markedness, the functional particle ‘BA’ can be employed to differentiate the semantic roles of the arguments.

(33) shows examples of BA-construction (a) with their canonical counterparts without BA (b). The sentences in (a) were extracted from the data and the sentences in (b) illustrate what they would be like if the functional particle ‘BA’ was removed from the structure:

(33)

1a 她 把 相片 拍得 很 好
ta ba xiangpian paide hen hao
 3SG BA photo take very well
 ‘She took the photos very well’
 [NCCU Corpus: conversation 2]

1b 他 拍 了 很 好 的 相片
ta pai le hen hao de xiangpian
 3SG take PFV very well POSS photo

2a 我 把 课本 拿 回去
wo ba keben nan huiqu
 1SG BA textbook take back
 ‘I will take back the textbook’
 [NCCU Corpus: conversation 6]

2b 我 拿 课本 回去
wo nan keben huiqu
 1SG take textbook back

3a 你 把 本性 表露 出来
ni ba benxing bialou chulai
 2SG BA inner-self express out
 ‘You let out your inner self’
 [NCCU Corpus: conversation 6]

3b 你 表露 出来 本性
ni bialou chulai benxing
 2SG express out inner-self
 ‘You let out your inner self’

As illustrated in (33), in a BA-construction, the object patient noun or noun phrase is shifted from its canonical post-verbal position to the pre-verbal, changing the unmarked word order, SVO to SOV. It has been noted that this movement changes the referential properties of the object noun or noun phrase and the aspectual value of the clause (Liu 1997; Shi & Li 1999; Li 2001). Thus, the underspecified object NP in a canonical SVO obligatorily receives a definite or specific interpretation; it also induces a telic reading to the sentence. I provide the example below to summarize the results of these findings.

(34)

- a 他 吃 了 香蕉
 ta *chi* *le* *xiangjiao*
 3SG eat PFV banana
 ‘He ate banana’
- b 他 把 香蕉 吃 了
 ta *ba* *xiangjiao* *chi* *le*
 3SG BA banana eat PFV
 ‘He ate the banana’

(34a) is a canonical active sentence while (34b) is its BA counterpart. There are two major differences in the interpretation of the two sentences. The object noun *xiangjiao* ‘banana’ in (34a) has an indefinite reading, meaning that it can be any banana that *ta* ‘he’ ate. The object noun in (34b), on the other hand, can only denote a specific *xiangjiao* ‘banana’, meaning that the banana *ta* ‘he’ ate is a definite entity. By the same token, the *xiangjiao* in (34a) can be completely devoured, or there is still some of it left, while the *xiangjiao* in (34b) can only mean that it is completely eaten. The difference in telicity can be proved by the ungrammaticality in (35b)

(35)

- a 他 吃 了 香蕉 但 没 吃 完
 ta chi le xiangjiao dan mei chi wan
 3SG eat PFV banana but NEG eat finish
 ‘He ate banana, but did not finish’
- *b 他 把 香蕉 吃 了 但 没 吃 完
 ta ba xiangjiao chi le dan mei chi wan
 3SG BA banana eat PFV but NEG eat finish
 ‘He ate the banana, but did not finish’

The significance of the discussion on BA is that it provides some evidence to support both claims of this chapter, namely that a Mandarin main verb carries energy force to its co-arguments in the direction as perceived in our conceptual world. When both core arguments in a verb predicate occur simultaneously pre-verbally, the functional particle of BA must appear to help mark their semantic roles since their relative position to the main verb no longer differentiates which of the arguments is the more agentive and which is the more patient-like.

Also notice that in the BA-construction, when both arguments are in the pre-verbal position, the sentence is interpreted as being telic, but when the patient object is shifted back to its default post-verbal position, the sentence becomes atelic, as evidenced in (33). The change in telicity can be well explained if it is attributed to the lack of volitional force caused by the altered position of the patient object in relation to the verb; that is, when the patient object is shifted to the pre-verbal position, it is no longer affected by the volitional force exerted by the main verb, hence the action becomes non-dynamic and without transitivity. To illustrate this more clearly, let us examine the following example.

Extract (36) is from the sixth conversation of the NCCU Corpus and the conversation orients around a female speaker (F2) contemplating on how her own personality has evolved from being timid to more forthcoming.

(36)

- 1 F2 我 以前 是 人家 说 什么
wo yiqian shi renjia shuo shenme
1SG before COP others say what
‘I was like whatever others said’

- 2 我 就 听 什么
wo jiu ting shenme
1SG then listen to what
‘I would listen’

- 3 F1 那 为什么 会 变 这 样子 呢
na weishenme hui bian zhe yangzi ne
then why would change this appearance INT
‘Then why did (you) change?’

- 4 F2 人生 有 了 历练 以后
rebsgebg you le lilian yihou
life EXIST PFV experience after
‘After having life experiences’

- 5 我 完全 不 一样 了
wo wanquan bu yiyang le
1SG completely NEG same PFV
‘I have completely changed’

- 6 个性 完全 改变 了
gexing wanquan gaibian le
personality completely change PFV
‘Personality is completely changed’

- 7 F1 这 应该 是 本性 吧
zhe yinggai shi benxing ba
this should COP inner-self FP
‘This should be the inner-self!’

- 8 本性 激发 出来 了
benxing jifa chulai le
inner-self release out PFV
‘The inner-self is released’

- 9 可是 个性 怎么 可能 改
keshi gexing zenme keneng gai
 but personality how possibly change
 ‘but how can personality possibly change?’
- 10 F2 会 啊
hui a
 yes FP
 ‘Yes, (it) can’
- 11 F1 你 有 见 过 人家 个性 改 的 吗
ni you jian guo renjia gexing gai de ma
 2SG have see PFV others personality change REL INT
 ‘Have you seen those whose personality has changed?’
- 12 F2 有 啊
you a
 yes FP
 ‘Yes!’
- 13 我 就 改 了
wo jiu gai le
 1SG then change PFV
 ‘I have changed’
- 14 F1 你 改 什么
ni gai shenme
 2SG change what
 ‘What have you changed?’
- 15 你 是 把 本性 好好的 表露 出来 而已
ni shi ba benxing haohaode bialou chulai eryi
 2SG COP BA Inner-self well express out only
 ‘You have only fully let out (your) inner self’

The BA-construction occurs in line 15. Here the object patient *benxing* ‘inner self’ is brought before the verb while the subject agent *ni* ‘you’ is still overt. This movement syntactically promotes the object argument but thematically it also elevates the object argument from a less prominent to a more prominent level as it changes the object NP from an indefinite entity to a definite entity. Again, the sentence in line 15

must be interpreted as a completed action and the object noun *benxing* ‘inner self’ becomes definite as shown by the English translation: “You have fully let out your inner self”.

If my claim regarding the main verb assigning the default thematic role to its arguments hold true, then when both the agent and the patient arguments occur together before the main verb, as in the case of ‘BA’ construction, their thematic roles would conflate. And indeed, this would be the case if not for ‘BA’ which obligatorily marks the NP before it as the agent and the argument after it as the patient. In this sense, ‘BA’ is a grammatical evidence to indicate that there is syntactic restriction for the proto-patient to occur after the verb. In order for both to occur before the verb, a linguistic device becomes necessary to differentiate the thematic roles of both arguments.

In this example, there are also three quasi-passive constructions occurring in lines 6, 8 and 9 which are worth analyzing.

| | | | | | |
|---|--|----------------|----------------|---------------|------------|
| 6 | 个性 | 完全 | 改变 | 了 | |
| | <i>gexing</i> | <i>wanquan</i> | <i>gaibian</i> | <i>le</i> | |
| | personality | completely | change | PFV | |
| | ‘Personality is completely changed’ | | | | |
| 8 | 本性 | 激发 | 出来 | 了 | |
| | <i>benxing</i> | <i>jifa</i> | <i>chulai</i> | <i>le</i> | |
| | inner-self | release | out | PFV | |
| | ‘The inner-self is released’ | | | | |
| 9 | 可是 | 个性 | 怎么 | 可能 | 改 |
| | <i>keshi</i> | <i>gexing</i> | <i>zenme</i> | <i>keneng</i> | <i>gai</i> |
| | but | personality | how | possibly | change |
| | ‘but how can personality possibly change?’ | | | | |

In each clause, either the noun *gexing* ‘personality’ or *benxing* ‘inner self’ forms the sole nominal argument in the clause. The main verb in line 8 *jifa* ‘to release’ is a transitive verb (to release something) and has the subcategorization frame of both the subject and object. However, in this clause, only the patient argument is expressed. In a similar vein, the verb *gaibian* ‘to change’ in line 6 and *gai* which also means ‘to change’

in line 9, too have the patient argument alone overtly expressed. Even though *gaibian* ‘to change’ can be intransitive as well as transitive, in this particular context it can only be analyzed as transitive because in line 13 speaker F2 has specifically stated that ‘she has changed’ (presumably her personality), thus clearly signifying herself as the agent of the verb *gai* ‘to change’. In other words, the main verb of each line subcategorizes for both the subject and object arguments in the underlying syntactic structure, yet in the surface structure only the patient/theme argument of the verb is expressed and the agent argument is omitted.

4.6 Conclusion

My two syntactic claims in this chapter are: (1) a Mandarin main verb or verb phrase by default marks its pre-verbal argument as a proto-agent and the post-verbal argument as a proto-patient, and (2) a Mandarin main verb or verb phrase disallows a proto-agent to occur post-verbally. These two claims have the following practical implications on the argument realization phenomenon in the Mandarin language. First, since the relative position to a transitive verb or verb phrase designates the semantic role of an argument, it is possible for speakers to drop arguments in their utterances because the pre-verbal position by default marks for a proto-agent while the post-verbal position marks for a proto-patient. Second, when the proto-patient argument of an active verb or verb phrase is placed pre-verbally, the proto-agent argument is likely to be dropped from the syntactic structure because it is deprived of its default position; at the same time, the verb or verb phrase becomes the description of a changed state rather than that of an action.

In the next two chapters, we will turn to the pragmatic domain and examine what non-syntactic factors are at play in triggering an argument drop in Mandarin Chinese.

Chapter Five

Pragmatic Constraints I: The Factor Of ‘R-Importance’

5.1 Introduction

In the last chapter we discussed the formal conditions under which arguments may or may not remain unexpressed. We have also shown that pure syntactic analysis cannot account for all the instances of selective omissions of arguments. Pragmatics also plays a role in guiding the interpretation of an unexpressed argument. Therefore for a full understanding of the argument realization pattern in the data, we also need to examine non-syntactic factors. This will be the main focus of this chapter and the next.

In the next chapter I will show that ‘definiteness’ and ‘verbal conceptual representations’ are two key predicators that can determine whether a given argument is more likely or not to be omitted from the clause: the former refers to the recoverability of an intended referent and the latter is tied to the lexical semantics of the verb. In this chapter, however, I will present my theoretical argument that the principle of ‘relevance-importance’ (hence ‘r-importance’) is a crucial pragmatic factor behind the reason why speakers tend to express some and not all of the arguments in their speech. When one linguistic component in the syntactic structure which contributes the most relevance-importance to the proposition of the speaker, it may be the only syntactic element expressed in the surface structure. R-importance also applies to the factor of ‘event’, meaning that when the description of the event is the focus of the utterance, all the core arguments of the main verb can be dropped, leaving a bare verb or verb phrase in the predicate.

‘R-importance’ is a term developed from the main ideas proposed in Sperber & Wilson’s Relevance Theory (1986, 1995). In this thesis, ‘r-importance’ refers to an element of a linguistic utterance that is relevance-important to the extent that it makes a contribution to the relevance of the proposition expressed by the speaker’s utterance. This element can be any syntactic component of the utterance: be it a noun, a noun phrase, a verb, a verb phrase, a preposition or a prepositional phrase.

This chapter is organized as follows. In 5.2, I will first outline current discourse-pragmatic approaches to the discussion on argument realization and the basic principles of Relevance Theory on which my definition of r-importance is based. In 5.3, I will explain how r-importance is developed from Sperber and Wilson's Relevance Theory and how this approach can fill a niche in the understanding of the interaction between syntax and pragmatics. In 5.4, relevant data examples are provided to illustrate how r-importance can be applied to describe the argument dropping phenomenon in the data, especially for explaining instances of bare verb predicates.

A high number of intransitive and transitive clauses containing only the verb or verb phrase have been found in the data. In many instances, it is unclear whether an agentive or a patient referent should fill the unexpressed sole argument. Such a phenomenon seems to suggest that when the description of the event is the main proposition of the utterance, the verb or verb phrase which denotes the event itself becomes the linguistic component that carries the highest r-importance and it is the only constituent retained in the surface structure. Such a phenomenon is given a detailed analysis in 5.5. Lastly the main arguments and findings of this chapter are summarized in the conclusion in 5.6.

5.2 Literature Review

5.2.1 Discourse-Pragmatic discussion on argument drop

Linguists approaching language from the discourse-functional perspective consider pragmatics a crucial factor in comprehensively understanding how speakers selectively express or omit an argument in an ongoing speech interaction (Grice 1975, 1981; Givon 1997; Du Bois 2003; Pan & Hu 2008; Ariel 2010). One significant contribution along this line of enquiry is the assumption that the speaker chooses to express or not express an argument based primarily on their assessment of the degree of accessibility of the referent for the hearer at the point of its occurrence in the discourse. The core ideas within these models lie in the belief that, during the ongoing discourse, entities or referents are mentally recorded in the hearer's mind, with some easier to be recalled than others. The speaker uses various linguistic expressions to help the hearer retrieve the

intended referent, depending on how accessible they presume the referent is to the hearer. An argument whose referent is not highly accessible is more likely to be expressed overtly than an argument which is highly accessible (Gundel et al 1993; Chafe 1994; Dryer 1996; Ariel 1990, 2001).

In many studies, ‘accessibility’ is linked to ‘saliency’ and related to referent activation (Gundel et al. 1993; Chafe 1994; Dryer 1996; Ariel 1990). For instance, Chafe (1994) suggests that a referent is salient in the discourse if it is activated, and it can be at any of the three levels of activation state: active, semi-active, and inactive during the unfolding of discourse. Referents at different levels of activation state are associated with different referential forms: an active referent is often associated with zero anaphora because it is already in the cognitive focus of the interlocutors and need not be overtly expressed. Conversely, a semi-active or an inactive referent is associated with full noun phrases or proper names as they are not yet registered in the speakers’ consciousness and are necessary to be made explicit. Ariel (1990:73) formalizes this mapping between the degree of accessibility of entities and the type of linguistic referring expressions into an accessibility scale, and on this scale, a modified full name is at the extreme end of the least accessible marker whereas zero anaphora is at the other end of the most accessible marker (1):

(1)

Full name + modifier > full name > long definite description > short definite description > last name > first name > distal demonstrative + modifier > proximate demonstrative + modifier > distal demonstrative + NP > proximate demonstrative + NP > distal demonstrative (-NP) > proximate demonstrative (-NP) > stressed pronoun + gesture > stressed pronoun > unstressed pronoun > cliticized pronoun > verbal person inflections > zero

Other linguists have discussed entity accessibility in relation to information structure. According to Lambrecht, referent activation can be explained in terms of given or new information (Lambrecht 1996). Given information represents what is already known to the hearer and therefore is already active in the hearer’s consciousness

at the time of utterance. On the other hand, new information serves as the main part of the utterance in terms of information content and is thus newly activated in the hearer's consciousness. Lambrecht contends that regarding syntactic position, given information is encoded in the 'topic' and new information in the 'focus' part of the clause; in English, 'topic' tends to occur at the beginning of the sentence whereas 'focus' occurs at the end of the sentence. Informational 'oldness' and 'newness' have also been related to preferred argument structure (Du Bois 1985, 1987; Bavin 2000). It is proposed that new information is introduced either in the intransitive subject position (S) or the object position (O) of a transitive clause, while the transitive subject position (A) is more likely to accommodate old information. As 'old' information is less likely to be restated in discourse than 'new' information, it is predicted that 'A' is more likely to be dropped than 'S' or 'O'.

5.2.2 Relevance Theory

Relevance Theory can be described as a theoretical model that aims to explain the cognitive processes involved in bridging the gap between what is linguistically represented - such as grammar, vocabulary, punctuation - and the actual intended meaning of the speaker. It has been described as a theoretical approach to pragmatics with a view of semantics attached because it makes the distinction between the process of decoding messages and the process of making inferences from evidence (Blakemore 1987: 60).

In proposing Relevance Theory, Sperber and Wilson (1986, 1995) suggest that there are two key cognitive concepts behind human communication. One is that every ostensive communication has the intention of conveying some meaning. In other words, the hearers are licensed to assume that speakers always intend to 'say' something, explicitly or implicitly, when they are engaged in communications. The second is that every ostensive communication is geared towards the maximization of its relevance, implicating that speakers would try to make their words as relevant to their intended meaning as possible, so their listeners can expend the least effort to get the truest interpretation of their uttered sentences (Sperber and Wilson 1986, 1995; Clark 2013).

Let us first review the first key concept proposed in Relevance Theory and clarify what is ‘ostensive communication’. Sperber and Wilson describe ostensive behaviour as one that is “designed to attract an audience’s attention and focus it on the communicator’s meaning” (2006:611). This can be either non-verbal or verbal. As a non-verbal example, let us consider the following scenario. Imagine that when we are walking home, we suddenly see someone waving at us from across the street; we immediately notice this act of waving because it is unusual for people to wave on the road. Similarly, when we are quietly reading in the library, the librarian comes alongside us and starts pointing at his watch. We instantly become aware of this action because it is atypical for librarians to point at their watches in libraries. The waving and the pointing are ostensive stimuli which are overt acts designed by the communicator to attract the attention of their audience. According to Sperber and Wilson, the reason that communicators produce an ostensive stimulus is because they have something to convey. Thus, the person waving across the road could be indicating to us that he is one of our acquaintances and wishes for us to recognize him. Equally, by pointing to his watch, the librarian may be gesturing to us that it is near the library’s closing time and we should be preparing to leave the premises. In such a way, an ostensive communication is executed with the intention on the speaker’s part to inform their audience of something.

Verbally it is also possible to be ostensive. By manipulating the linguistic form of an utterance, the speaker can draw attention to certain of its implications and do their best to indicate to the hearer how the implications can be arrived at. At the same time, by drawing relevance between various linguistic and contextual clues, the hearer can derive the speaker’s most likely intended meaning. To exemplify this notion, let us consider the different interpretations generated by sentences such as *Peter is married to Madeline* and *It is Peter who is married to Madeline*. The hearer will assume that the speaker wants to convey a particular implication by making the effort to accentuate ‘Peter (it is Peter)’ when they could have just uttered ‘Peter’. In other words, if one can express the proposition of A sufficiently using syntax A, there must be a reason to have chosen to use a syntax B. It is for the hearer to recover the implied meaning for the alternative syntactic use by accessing relevant contextual cues, i.e. perhaps the speaker has syntactically emphasized ‘Peter’ due to the fact that it was ‘John’ whom everyone had

expected Madeline to marry. Thus, Relevance Theory is concerned with how the hearer can arrive at the intended meaning of an utterance through establishing relevance between linguistic code and contextual clues.

In processing ostensive stimuli, Sperber and Wilson state that it is a human intuition to take in inputs that are relevant for us, so as to draw conclusions that matter to us. There are three ways the inputs can interact with existing contextual information to yield new assumptions, in other words, there are three types of cognitive effects. First, the new stimulus can interact with the existing sets of assumptions to strengthen the original assumptions. Second, it can weaken or eliminate the original assumptions, and third, it can combine with the original assumptions to yield a different conclusion. To better illustrate this concept, let us envisage the following scenario. Imagine a business man by the name of John is reading today's newspaper while waiting for his train on the platform. When he sees a train arriving, even though this may not be the train he is waiting for, he looks up. Since arriving at the station, he is constantly surrounded by people on the platform who are engaged in various activities such as walking, reading or talking on the phone, but John chooses to look up at this point because the stimulus of a train approaching is relevant to improving his knowledge of whether this is the right train to get on. The people around him in comparison are irrelevant on improving this knowledge and therefore are not worthy of his attention. He may then decide to quickly put his newspaper under his arm to prepare to board the train after he confirms to himself that the train is indeed the one he is waiting for. This exemplifies the first type of cognitive effect in that a new stimulus (an oncoming train) combines with an existing assumption (there is a train expected to arrive at time X which is bound for a destination that John needs to get to) to strengthen an original assumption (a train bound for a destination that John needs to get to is scheduled to arrive at time X has arrived). It is also possible that the arriving train is going to a different destination, thus John continues with his reading because the new stimulus has eliminated his original assumption (a scheduled train bound for a destination John needs to get to has not arrived at time X). Having realized that the arriving train is not the one he is waiting for, John may look at his watch because the time he reads on his watch combined with the knowledge that the train is not the right one is relevant to give him a possible new

contextual implication: ‘his train is late’. This is the third type of cognitive effect in which a new stimulus has combined with an original assumption to yield a different conclusion.

One important notion that should be taken away from this hypothetical scenario is that relevance is a matter of degree and not an all-or-none principle. This means that we are constantly receiving inputs around us: a sound, a smell, a sight, a memory, etc., but we do not have the ability to attend to them all. Instead, we pick out from the mass of competing stimuli and processes the ones that are the most relevant to us at the time. This means that if processing a stimulus can yield the most worthwhile conclusion, this stimulus is the most relevant compared with other stimuli available at the time. In other words, in Relevance theoretical terms, with everything else being equal, the greater the positive cognitive effect that can be achieved using the least cognitive effort to process an input, the greater the relevance of that input will be. This is also the core idea entailed in the second key concept proposed in Relevance Theory, and a fundamental notion forming the central claims of my proposal of Relevance-Importance, or ‘r-importance’.

This second key concept states that human communication is constrained by the presumption of optimal relevance, and here I quote its two definitions as provided by Sperber and Wilson (1995:207):

Presumption of Optimal Relevance

- A. The ostensive stimulus is relevant enough for it to be worth the addressee’s effort to process it
- B. The ostensive stimulus is the most relevant one compatible with the communicator’s abilities and preferences

The first definition explains what we have already illustrated with the *It is Peter who is married to Madeline* example. It stipulates that any effort expended by the hearer should be awarded with cognitive effects. The second clause stipulates that the hearer can reasonably assume that the speaker is aiming for the utmost relevance when making an utterance consistent with the speaker’s abilities and preferences.

The main implication behind these two definitions is that while complying with the presumption of optimal relevance, speakers are also trading effort for effect for their own benefits, meaning that speakers would try to make their words as relevant to their intended meaning as possible, so that their listeners can expend the least effort to get the truest interpretation of their uttered sentences. More specifically, the presumption of optimal relevance implies that there is a trade-off between cognitive effort and cognitive effect, so when a speaker makes an utterance, he is aiming to utilize the least cognitive effort to achieve the best cognitive effect; that being said, it may not be possible for a communicator to always achieve optimal relevance, but it is certainly within his interests to gear his utterance towards the highest degree of relevance possible when engaged in verbal communication.

5.2.3 Implication of Presumption of Optimal Relevance on argument realization

So, what is the implication of the Presumption of Optimal Relevance on argument realization? As explained earlier, what the concept implies is that human utterances are constrained by the presumption of optimal relevance and that speakers would provide the most relevant linguistic code in view of the contextual information available at the time for their hearers to stop at the first interpretation that satisfies their expectation of relevance. This also means that a hearer, upon hearing an utterance, is entitled to believe that the speaker has strived to produce his sentence, which interpretation requires the least amount of processing effort. Thus, if a speaker has produced an utterance which interpretation requires contextual assumptions that are not available to the hearer, the speaker has failed at meeting the level of optimal relevance. Similarly, if the speaker has produced an utterance that causes unnecessary cognitive effort by requiring the hearer to process highly accessible contextual assumptions, he has also failed to comply with the presumption of optimal relevance. To illustrate, I have provided below three sets of dialogues in (2) to show how a speaker may fail at meeting optimal relevance with his utterance. The dialogues in (2) are hypothetically produced with A addressing B in the setting in which A and B are standing at a mountain top watching the sunset:

(2)

- a. A: Magnificent!
B: Definitely!
- b. A: A river flows across a plain.
B: ??
- c. A: The sunset we are looking at standing on top of this mountain
is magnificent!
B:...

Among the three dialogues, speaker A in (2a) is the most relevant with his utterance because he has taken in the contextual information of the surroundings and produced a linguistic code that best strengthens his proposition, namely, the sunset is 'magnificent'. By only expressing the adjective, A is also pointing out to B that this is what needs to be processed to arrive at his best intended meaning. Semantically, the utterance in (2c) encodes the same proposition but under the communicative principle of relevance, (2c) has failed at being optimally relevant because it contains redundant information that is already known to B, i.e. they are already at the top of the mountain and they are already in the act of watching a sunset. Hence, some linguistic coding in (2c) does not result in any cognitive effects, in other words, by being overtly verbal, speaker A in (2c) has caused his hearer to undertake unnecessary cognitive processing. In the same vein, the utterance in (2b) is also inconsistent with the presumption of optimal relevance because its interpretation involves contextual information which is not available to B and therefore the utterance does not yield any cognitive effects.

Thus, it follows that expressing all the constituents of an utterance does not necessarily achieve optimal relevance. In fact, in most communicative situations a speaker may be more consistent with the principle of relevance if he does not express the linguistic units that do not contribute to achieving the highest level of relevance of his utterance. Applying this to argument realization phenomenon, we can suppose that when an argument is phonologically unexpressed in the surface structure, this is done on the speaker's part to either save processing effort or increase cognitive effects for the hearer; conversely the hearer can assume that when a speaker drops an argument, this is done

because either the argument is not relevant enough to the speaker's intended proposition or it is omitted for the purpose of achieving other implied cognitive effects, e.g. the speaker's omitting of an argument may be for the purpose of conveying a hidden meaning such as an implicature (also see Grice: 1981, 1989). To summarize, the idea behind the presumption of optimal relevance is that hearers can assume speakers are communicating something to them when making an utterance and that speakers expect their hearer to utilize their cognitive resources via the easiest route to derive at the closest interpretation of their utterance.

5.3 Proposal of 'r-importance'

5.3.1 Why 'r-importance'?

If the presumption of optimal relevance can be applied to help explain the phenomenon of argument realization, then what contribution does my proposal of Relevance-Importance, or 'r-importance', make in deepening the understanding of why speakers choose to express or omit an argument during verbal interaction? More precisely, how does 'r-importance' differ from what has already been proposed in Relevance Theory?

As explained earlier, Relevance Theory is a cognitive approach to understanding how speakers create meaning by establishing optimal relevance between an ostensive code and its various contextual clues, therefore the term 'relevance' in the framework of Relevance Theory is not strictly applied to linguistic stimuli but to any type of non-verbal stimuli as well. It examines human communication from a macro perspective and does not restrict itself to addressing the more structural aspects of sentence formation. In other words, it can be applied to explain the cognitive processes of how an utterance may be decoded, interpreted, or inferred on the hearer's part on the basis of the evidence provided, but it is not explicit enough to explain clause-internal relativity of relevance of each individual linguistic component to the whole proposition of the utterance. That is, the concept of relevance in Relevance Theory can capture the whole property of an utterance but not part of it. 'R-importance', on the other hand, can explain the relevant importance of a constituent in a clause at the time of its occurrence, be it a noun, a verb, a noun phrase, or a predicate. It describes the relevance of a sub-part in a clause and its

contribution to the expression of the whole proposition of the utterance, and hence, its possible appearance in the sentence structure. In brief, r-importance provides a compositional approach to pragmatics and offers a finer-grained approach to data analysis in the area of argument realization.

To briefly illustrate the main difference between my proposal of ‘r-importance’ and the relevance construct in Relevance Theory, let us take a look at the following example given by Sperber & Wilson (2005:253). In the original text, the example in (3) was given for the purpose of showing how the relevance of alternative inputs may be compared in terms of effort and effect. However, I will use it to demonstrate how the concept of ‘r-importance’ can fill the niche in analyzing the phenomenon of argument drop in terms of relevance.

(3)

Mary, who dislikes most meat and is allergic to chicken, rings her dinner party host to find out what is on the menu. Here are three possible things her host could tell her:

- A. We are serving meat.
- B. We are serving chicken.
- C. Either we are serving chicken or $(7 \times 7 - 3)$ is not 46

According to Sperber & Wilson, all three utterances would be relevant to Mary in relevance-theoretical terms, but (B) would be more relevant than either (A) or (C) because (B) entails (A), and thus yields all the conclusions derivable from (A). (C) is less relevant for the reason that the second part of the clause requires Mary’s extra effort to work out why it is related to her question (2005:253). As we can see, the relevance construct in Relevance Theory takes into account the whole property of the utterance and does not deal with a sub-part of it. If it were able to focus on the smaller linguistic components in a clause, then (C) in the above example would have been analyzed as containing a relevant sub-part *we are serving chicken* and an irrelevant sub-part *$(7 \times 7 - 3)$ is not 46* in the supplied context. R-importance, on the other hand, examines the function of relevance of a sub-part in a clause and how this sub-part contributes to the relevance

of the whole proposition. Take (3A) as an example, under the proposal of r-importance, the noun *meat* would be analyzed as containing more r-importance than the pronoun *we* even though both arguments are relevant to the proposition of the utterance. This is because *we*, representing the dinner party host, is already a known fact to Mary – if she knows who to call to inquire about the party food, she must know of their identity – therefore the identity of who the pronoun *we* refers to is redundant and does not contribute to maximizing the relevance of the host’s response. On the other hand, since the purpose of her call is to find out the type of food that is going to be served at the party, what is more relevant to Mary is, therefore, the information entailed in the object noun of the verb *serve*, that is, she is more interested in knowing what is to be served than who is serving it. Therefore, whether the host chooses to answer *we are serving meat*, or *we are serving chicken*, the object noun *meat* or *chicken* would carry higher r-importance than the subject pronoun *we*. Relating this to argument realization, the subject of the verb *to serve* in this particular speech context would be more likely to be omitted from the surface structure than its object noun. And indeed, if the party host had simply said ‘meat’ in (3A) in response to Mary’s question or ‘chicken’ in (3B), he would still be understood since he is expressing the most relevant linguistic component relating to his intended proposition in each respective utterance. Thus, it follows that it is possible for an utterance to achieve its maximization of relevance if it expresses only the linguistic unit that has the highest r-importance – in some instances, it may be the only way for an utterance to arrive at its optimal relevance, as I will demonstrate in my data analysis. Conversely, if an utterance misses out the sub-part that carries the highest r-importance to its proposition, then the utterance could not possibly achieve its optimal relevance.

In addition, the proposal of r-importance enables us to evaluate the degree of r-importance of a linguistic component relative to others in maximizing the level of relevance of the utterance in which it occurs. Returning to our examples in (3), we can apply the construct of r-importance to point out clause-internally why (3B) (“We are serving chicken”) is more relevant to Mary than (3A) (“We are serving meat”). In terms of the trade-off between cognitive effort and cognitive effect, *we are serving meat* does not yield the best cognitive effect because extra effort is required by Mary to process the

information in order to find out if the type of meat served at the dinner party is going to affect her physically. This means that Mary needs to pose another question such as “What type of meat is going to be served?” before she can get the most satisfactory answer to her question. In other words, even though both nouns *meat* and *chicken* are relevant to Mary’s enquiry, in terms of degree of relevance, or their value of r-importance, *chicken* certainly has higher r-importance than *meat* because the former can bring the level of relevance of the host’s response to its maximum. As *chicken* carries the highest degree of r-importance, higher than the noun *meat*, the pronoun *we*, or the main verb *to serve*, if the dinner host had previous knowledge of Mary’s dietary preferences, *chicken* would therefore be the least likely argument to be omitted from his response to Mary if he is to maximize the level of relevance of his utterance.

One may argue it appears that ‘new information’ tends to carry more r-importance in relation to ‘given information’. For example, in (3B), *chicken* is new information compared to the subject pronoun *we* or the clause *we are serving*, and that is the reason why *chicken* is a more relevant response to Mary’s question. But this is not entirely true: *meat* in (3A), in this particular context, is also new information – something Mary was not aware of before she posed her question – but weighed against *chicken*, *meat* clearly carries a lesser degree of relevance to Mary, and so to Mary, ‘*We are serving chicken*’ becomes a more relevant utterance than ‘*We are serving meat*’.

Thus, ‘r-importance’ can be said to be based on Relevance Theory and assumes all its proposed key concepts. However it is an extension of the theory in that it proposes a concept of r-importance which applies to individual elements of the utterance. It focuses on the correlation between how a speaker evaluates the relevance weight of a particular linguistic component or components in the ongoing conversation and their realization in the structure in the overall process of utterance interpretation. In other words, ‘r-importance’ is linked to each individual component in the sentence and how its expression or omission may contribute to the utterance achieving its optimal relevance.

5.3.2 The definition of ‘r-importance’

So, what is the definition of Relevance-Importance (r-importance) in this thesis? R-importance is defined as the degree of relevance a linguistic component of an utterance

carries for establishing the speaker's intended meaning at the point of its occurrence in the speech. A linguistic component under my proposal of r-importance can be any constituent of a sentence, be it a noun, a noun phrase, a verb, a verb phrase, a preposition, or a prepositional phrase; any linguistic sub-part of an utterance is possible to carry any degree of r-importance. To be more specific, as relevance is a matter of degree and not an all-or-none principle, even though all the sub-parts of an utterance may be relevant to the expression of the intended proposition of the utterance, they may, therefore, vary in their degree of r-importance.

However, similar to the concept of 'relevance' put forward in Relevance Theory, r-importance is proposed primarily as a cognitive construct which refers to an element of a linguistic utterance that is relevance-important to the extent that it makes a contribution to the relevance of the proposition expressed by the speaker. It specifically refers to the degree of relevance-importance of a linguistic component in an utterance for establishing the speaker's intended meaning relative to the other linguistic components at the point of its occurrence in the utterance. This means r-importance is assessed relatively and not absolutely, therefore, it must be noted that the degree of r-importance cannot be quantified.

One important aspect of r-importance which differs from the main claim of Relevance Theory is that it focuses more on the speaker's rather the hearer's perspective in terms of trade-off between communication effort and effect. As described earlier, the main fundamental claim of Relevance Theory is that utterances are constrained by the presumption of optimal relevance, meaning that speakers would try to make their words as relevant to their intended meaning as possible, so their listeners can expend the least effort to get the relevant interpretation of the speaker's utterances. In other words, Relevance Theory provides a cognitive framework that explains how a listener arrives at the best interpretation of the utterance they hear. 'R-importance' on the other hand, explains how speakers are also using the concept of relevance for their own benefits in terms of effort-effect trade-off. This is to say that speakers may not always producing their utterances with reducing the cognitive effort of their listeners in mind, rather they follow the principle of economy and provide the least linguistic cues that they think are necessary for their listeners to arrive at the most correct interpretation of their utterance.

As linguistic stimuli are given at the minimum, this means the listener may need to make more processing effort before reaching the most relevant interpretation of the utterance they heard. In other words, ‘r-importance’ explains argument drop phenomenon from the speaker’s perspective and not from the hearer’s perspective. Putting this into context with my use of the term ‘relevance’, this means speakers are inclined to express the noun phrases which they deem are the most relevant to their intended meaning at the point of occurrence in the utterance and omit the ones that they consider less relevant, disregarding the possibility that by dropping arguments, contextual ambiguity may arise for the hearer.

In the next section, I will provide examples from my data source to show how the construct of r-importance can help explain argument drop in verbal discourse.

5.4 Data analysis

Our first example is the ‘hot-pot’ extract from the fifth conversation of The NCCU Corpus of Spoken Chinese. The same extract is also under discussion in Chapter 4 although it was a shorter version. In Chapter 4, we observed that in certain intransitive clauses of this extract, there is semantic ambiguity because it is unclear whether an agentive or a patient referent should fill the unexpressed sole argument. We have also raised the possibility that pragmatic factors, rather than syntactic factors, are the reason behind the omission of the main arguments. Now let us examine the extract in more detail. First, let us review the scene of the conversation: the verbal interaction occurs between four friends, aged between 29 and 34, who are having a hot-pot dinner on a coffee table in the living room while watching a baseball game on television. A Chinese hot-pot dinner consists of placing a simmering metal pot at the centre of the dining table. While the hot pot is kept simmering, food ingredients such as sliced meat, vegetables, meatballs and seafood are put into the pot. Normally, the ingredients are not put in all at once but in stages, thus the diners can enjoy a conversation while cooking at the table.

(1)

- 1 F1 要 煮 得 够 久
 yao *zhu* *de* *gou* *jiu*
 must cook ADV enough long
 ‘Must cook long enough’
- 2 才 能 吃
 cai *neng* *chi*
 then can eat
 ‘then able to eat’
- 3 F2 我 刚刚 捞 了 一 个
 wo *ganggang* *lao* *le* *yi* *ge*
 1SG just-now take-out PFV one CL
 ‘I just took out one’
- 4 可以 吃 吗
 keyi *chi* *ma*
 can eat INT
 ‘Can (I) eat (it)?’
- 5 F1 可以
 keyi
 can
 ‘Yes’
- 6 这些 要 煮 很 久
 zhexie *yao* *zhu* *hen* *jiu*
 these need cook very long
 ‘These need to be cooked for a long time’
- 7 F2 刚刚 是 煮 很 久
 ganggang *shi* *zhu* *hen* *jiu*
 just-now COP cook very long
 ‘just before now, (those) had been cooked for a long time’
- 8 M1 要 盖 起来 吗
 yao *gai* *qilai* *ma*
 need cover up INT
 ‘Does (the lid) need to be put on?’

- 9 F2 肉 都 还 没 放
rou dou hai mei fang
 meat all yet NEG put
 ‘Meat has not yet been put in/added’
- 10 M2 菜 都 还 没 放
cai dou hai mei fang
 vegetable all yet NEG put
 ‘Vegetables have not yet been put in/added’
- 11 F1 放 一些 好 了
fang yixie hao le
 put some fine FP
 ‘Better to put some in’
- 12 F2 那 这 个 呢
na zhe ge Ne
 then this CL INT
 ‘How about this?’
- 13 M2 那 个 不 要
na ge bu yao
 that CL NEG want
 ‘Not that one!’
- 14 M1 这样 够 了
zheyang gou le
 this enough FP
 ‘This is enough!’
- 15 F1 要 盖 起来 喽
yao gai qilai lo
 will cover up FP
 ‘Will put the pot-lid on’
- 16 F2 等 一下
deng yixia
 wait a-moment
 ‘Wait’
- 17 这 个
zhe ge
 this CL
 ‘this’

| | | | | | | | | | |
|----|----|-------------------------------------|--------------|--------------|------------|-----------|-------------|-------------|-----------|
| 18 | M1 | 哇 | 你 | 吃得 | 完 | 吗 | | | |
| | | <i>wa</i> | <i>ni</i> | <i>chide</i> | <i>wan</i> | <i>ma</i> | | | |
| | | wow | 2SG | eat | complete | INT | | | |
| | | ‘Wow, can you eat all?’ | | | | | | | |
| 19 | M2 | 会 | 啦 | | | | | | |
| | | <i>hui</i> | <i>la</i> | | | | | | |
| | | can | FP | | | | | | |
| | | ‘Of course’ | | | | | | | |
| 20 | F2 | 而且 | 我 | 觉得 | 这 | 个 | 少 | 少 | 的 |
| | | <i>erqie</i> | <i>wo</i> | <i>juede</i> | <i>zhe</i> | <i>ge</i> | <i>shao</i> | <i>shao</i> | <i>de</i> |
| | | also | 1SG | think | this | CL | little | little | ADV |
| | | ‘Also, I think this is very little’ | | | | | | | |
| 21 | F1 | 四 | 片 | 而已 | | | | | |
| | | <i>si</i> | <i>pian</i> | <i>eryi</i> | | | | | |
| | | four | slice | only | | | | | |
| | | ‘Only four slices’ | | | | | | | |
| 22 | | 都 | 下去 | | | | | | |
| | | <i>dou</i> | <i>xiaqu</i> | | | | | | |
| | | all | put-in | | | | | | |
| | | ‘All in’ | | | | | | | |

This full version consists of 22 lines and the contents of the conversation revolve around what food ingredients should or should not be put into the hot pot. In Chapter 4, we have discussed specifically the syntactic structure of the clauses such as the one in lines 7 and 8, in which I demonstrated that in an intransitive clause in Mandarin, either an agent or a patient/theme can be mapped onto the sole argument of the intransitive verb; as Mandarin lacks verb morphology, when the sole argument of an intransitive verb is not expressed in the surface structure, semantic ambiguity may arise, i.e. we are not certain if the utterance should be interpreted as an active or passive voice. Thus, the clause in lines 7 and 8 can incur either the reading in (a) or the reading in (b) as illustrated below:

(4)

- 7 a 我 刚刚 是 煮 很 久
 wo *ganggang* *shi* *zhu* *hen* *jiu*
 1SG just-now COP cook very long
 ‘just before now, I had cooked for a long time’
- b 菜 刚刚 是 煮 很 久
 cai *ganggang* *shi* *zhu* *hen* *jiu*
 vegetable just-now COP cook very long
 ‘just before now, vegetables had been cooked for a long time’
- 8 a 我 要 盖 起来 吗
 wo *yao* *gai* *qilai* *ma*
 1SG need cover up INT
 ‘Do I need to put on (the lid)?’
- b 盖子 要 盖 起来 吗
 gaizi *yao* *gai* *qilai* *ma*
 lid need cover up INT
 ‘Does the lid need to be put on?’

As can be seen from (4), the expression of the subject noun in each clause can clarify the voice type of the utterance –either it is in the active voice signifying the speaker doing the action themselves or it is in the passive voice indicating an inanimate entity (*cai* ‘vegetables’ or *gaizi* ‘lid’) is the affected object of the verb; so why does the speaker choose not to specify the referent of the sole argument?

Using the principle of relevance proposed under Relevance Theory, the omission of the sole argument can be attributed to either (A) it is not relevant enough to achieve the optimal relevance of the speaker’s intended meaning or (B) it is to generate certain implicatures. We can disregard the possibility of (B) because the speaker would only be conveying the same proposition of the utterance if he had made explicit the referent. That is, the fully expressed version of lines 7 and 8 as shown in (4) communicate the same meaning as their actual utterances without the sole argument. There does not appear to be a hidden implicature which requires the hearer to follow a route by which he must decode the sentence meaning at the explicit level to arrive at the most likely

interpretation at the implicit level. In fact, the fully-expressed sentences in (4) would yield better cognitive effects because they provide clearer information for the hearer to better recover the most likely thought of the speaker.

One may argue that it is possible to attribute the omission of the sole argument in lines 7 and 8 to the fact that the speaker does not consider the expression of its referent relevant enough for the hearer to expend his cognitive effort. Indeed, since all the information to disambiguate reference assignment is already retrievable from the immediate hot-pot context - the diners can clearly see who is speaking, what is being cooked in the pot, what objects are available at the scene for covering the pot, and so on – the overt expression of either the agent or the patient would therefore not serve the purpose of maximizing the relevance of the utterance to the speaker’s intended meaning. However, the speaker would only have achieved optimal relevance if the referent of the unexpressed sole argument could be clearly retrieved from the speech context, the hearer would then have achieved the best cognitive effect using the least cognitive effort; but this is not the case in (3). Since all the possible referents are contextually inferable, meaning the hearer has more than one entity to choose from as the referent of the omitted subject argument, the speaker has in fact created multiple routes of interpretation for the hearer by not expressing the right referent, hence causing the hearer more cognitive processing effort. In other words, under Relevance Theory, the speakers of lines 7 and 8 in (3) have in fact failed to comply with the presumption of optimal relevance by not providing enough information for their hearers to arrive at the truest interpretation of their utterances using the least processing effort.

If we analyze these two lines again using the principle of r-importance, there is only one explanation to account for the disappearance of the sole argument, namely it does not carry enough r-importance to be realized in the surface structure. This means that, weighed against the other linguistic components in the utterance, the speaker of each utterance deems the agent or the patient of the main verb *zhu* ‘to cook’ or *gai* ‘to cover’ the least r-important to maximize his proposition of the utterance since he chooses not to overtly express this sub-part. Let us recall one of the main implications of r-importance: the expressed linguistic sub-parts always carry higher r-importance than the unexpressed linguistic sub-parts at the point where the utterance occurs. This implies

that when uttering lines 7 and 8, the speaker does not consider whoever is cooking or putting on the lid or what is being cooked or what should be put on the pot important enough for his hearer to spend effort on. Take line 7 as an example, since what has been overtly expressed in the surface structure are the temporal adverb *ganggang* ‘just now’ and the verb phrase *zhu hen jiu* ‘cook very long’, we can assume that the speaker wants his hearer to focus on the event itself (‘cook very long’) and the time frame it occurs in (‘just now’) rather than the initiator (the person doing the cooking) or the affected object of the event (the thing being cooked).

In addition, r-importance can explain clause-internal syntactic movement of the arguments. Let us take a look at lines 6, 9, and 10 again from the extract in (3), repeated here as (5):

(5)

- | | | | | | | |
|----|----|---|------------|------------|------------|-------------|
| 6 | | 这些 | 要 | 煮 | 很 | 久 |
| | | <i>zhexie</i> | <i>yao</i> | <i>zhu</i> | <i>hen</i> | <i>jiu</i> |
| | | these | need | cook | very | long |
| | | ‘These need to be cooked for a long time’ | | | | |
| | | | | | | |
| 9 | F2 | 肉 | 都 | 还 | 没 | 放 |
| | | <i>rou</i> | <i>dou</i> | <i>hai</i> | <i>mei</i> | <i>fang</i> |
| | | meat | all | yet | NEG | put |
| | | ‘Meat has not yet been put in/added’ | | | | |
| | | | | | | |
| 10 | M2 | 菜 | 都 | 还 | 没 | 放 |
| | | <i>cai</i> | <i>dou</i> | <i>hai</i> | <i>mei</i> | <i>fang</i> |
| | | vegetable | all | yet | NEG | put |
| | | ‘Vegetables have not yet been put in/added’ | | | | |

As I demonstrated in the previous chapter, the pre-verbal position in a Mandarin sentence is the default position for the subject argument; when the subject argument of a transitive verb is an inanimate entity such as the one in lines 9 and 10, it is most likely that the sentence has undergone a passive operation in which a patient object has been promoted to the subject position and the agent argument has been demoted to a complete removal from the syntactic structure. This explains why, in lines 9 and 10, the inanimate

entities *rou* ‘meat’ and *cai* ‘vegetables’ occupy the pre-verbal position and function as the only expressed argument of the verb. In Chapter 4, I also explained, following a review on the literature on passiveness, that the motivation behind a passive construction is to mark the more thematic prominence of the patient argument. However, this is looking at passivization from the perspective of syntax and information structure. In terms of r-importance, we can argue that because the speakers are more concerned with what is being put into the pot than who is doing the ‘putting’ in these utterances, the patient arguments *rou* ‘meat’ and *cai* ‘vegetables’ are therefore endowed with higher r-importance than the agent argument. Since they carry higher r-importance, they are not only expressed overtly in the surface structure but also promoted to the subject position. In other words, the degree of r-importance carried by the core arguments of a verb can greatly affect their realization in the syntactic structure, and at the same time, it can also affect their syntactic position during the unfolding of discourse.

Let us examine another example. (6) provides another interesting instance of a speaker dropping an argument at the expense of creating contextual ambiguity because the argument carries little r-importance to the expression of her proposition. It is taken from the eighth Mandarin conversation in the NCCU corpus. The two female speakers, F1 and F2, are mother and daughter who work at separate clothes stores. In this extract, the daughter (F2) describes to her mother (F1) how she and her colleague were about to enjoy *yumi nongtang* ‘corn soup’ that she had bought for breakfast, when a group of customers came in and prevented them from having it:

(6)

- | | | | | | | |
|---|----|--|----------------|--------------|----------------|-------------|
| 1 | F2 | 我 | 昨天 | 跟 | Lynn | 说 |
| | | <i>wo</i> | <i>zuotian</i> | <i>gen</i> | <i>Lynn</i> | <i>shuo</i> |
| | | 1SG | yesterday | with | Lynn | say |
| | | ‘I said to Lynn yesterday’ | | | | |
| | | | | | | |
| 2 | | 明天 | 我们 | 上 | 全班 | |
| | | <i>mingtian</i> | <i>women</i> | <i>shang</i> | <i>quanban</i> | |
| | | tomorrow | 1PL | go | full-shift | |
| | | ‘we will be working full shift tomorrow’ | | | | |

- 3 我 买 一 碗 玉米 农汤 去
 wo mai yi wan yumi nongtang qu
 1SG buy one CL corn chowder go
 ‘I will buy and bring one corn soup’
- 4 F1 *um*
 um
 DM
 ‘um’
- 5 F2 我 帮 你 买 一 碗
 wo bang ni mai yi wan
 1SG help 2SG buy one CL
 ‘I’ll buy one for you’
- 6 我 说 很 好 喝
 wo shuo hen hao he
 1SG say very good drink
 ‘I said it was very delicious’
- 7 F1 *um*
 um
 DM
 ‘um’
- 8 F2 结果 我们 两 个 已经 要 吃 早餐 了
 jieguo women liang ge yijing yao chi zaocan le
 then 1PL two CL already will eat breakfast PRT
 ‘then we two were just about to have breakfast’
- 9 就 一些 杂事 都 弄好 了
 jiu yixie zashi dou nonghao le
 then some chore all Do-RESULT PFV
 ‘(we) had finished some chores’
- 10 才 准备 要 吃
 cai zhunbei yao chi
 just prepare will eat
 ‘(we) were about to eat’
- 11 就 开始 有 一 组 客人
 jiu kaishi you yi zu keren
 then begin have one group customer
 ‘then came a group of customers’

- 12 弄 超 久 的
 nong chao jiu de
 do super long PRT
 ‘We dealt with them for a super long time’ (?)
 ‘They dawdled for a super long time’ (?)
- 13 我们 很 饿 你 知道 吗
 women hen e ni zhidao ma
 1PL very hungry 2SG know INT
 ‘We were so hungry, you understand’

The clause in line 12 is interesting for analysis in that the identity of the subject referent is in need of being expressed because of contextual ambiguity, yet the speaker selects to make it phonologically null. In this line, there are two possible contextual referents for the unexpressed subject argument which can be either the pronoun *women* ‘we’, representing the speaker and her colleague, or the noun phrase *zhe zu keren* ‘this group of customers’, representing the group of customers who just came into the store. Both the pronoun and the noun phrase can fill the subject position of the main verb *nong* ‘do’ and still form a perfectly grammatical sentence as in accordance with the flow of the conversation (7):

(7)

- 12 a 这 组 客人 弄 超 久 的
 zhe zu keren nong chao jiu de
 this group customer do super long PRT
 ‘This group of customers dawdled for a super long time’
- b 我们 弄 超 久 的
 women nong chao jiu de
 1PL do super long PRT
 ‘We dealt for a super long time’

The main verb in line 12, *nong* ‘do’, is a verb that bears similar meaning to the English verb ‘do’ but can be used in association with a wide range of activities, for

instance, it can mean ‘play with’ as in 在家里弄孩子 *zaijia le nong haizi* ‘play with kids at home’ or ‘make dinner’ as in 弄晚餐 *nong wancan* ‘make dinner’. In this particular context, it can either refer to the ‘dealing with the customers’ on the sales ladies’ part, or the ‘dawdling-around-the-shop’ on the customers’ part. In the next chapter we will discuss how the conceptual representation projected by a verb’s lexical semantics can aid referent recovery - if the scope of nouns which can be collocated with a particular verb is small, especially for its object argument, this specificity can lead to its argument or arguments being dropped because the lexical idiosyncrasy of the verb can facilitate referent recovery. However, the verb *nong* ‘do’ of line 12 is a more generic verb which has a wide range of noun collocation - that is, it can take many types of noun or noun phrases as its complement. This means if the speaker had wanted to make her utterance as relevant as possible and not create ambiguity, she should have made overt the subject referent of the verb. In addition, since there are two competing entities in the immediate discourse scene, i.e. the speaker and her colleague contrastive with the group of customers, it is therefore even more urgent for the speaker to express the intended agent if she wants her utterance to achieve its optimal relevance.

However, applying the principle of r-importance, which stipulates that expressed linguistic sub-parts carry higher r-importance than unexpressed linguistic sub-parts, we can deduce that the speaker considers that the verb predicate *nong chao jiu de* ‘doing for a long time’ carries higher r-importance than the subject argument. If we examine the verb phrase in line 12 more carefully, we can see that the adjective phrase employed to modify the verb is structurally complex: F2 has employed the adverb *chao* ‘super’ to modify the adjective *jiu* ‘long’ as well as adding the modal particle ‘*de*’ at the end of the clause. The modal particle ‘*de*’ is used to indicate that the speaker is certain about what they are saying (He 2011). All three are linguistic codes used to accentuate the long event that could be the long, strenuous dealing with the customers on the speaker and her colleague’s part or the lengthy loitering of the customers who try on clothes without intending to purchase any. By lengthening the modifying phrase to the main verb and making it structurally more complex, speaker F2 is syntactically marking it and emphasizing its relevance to her intended meaning. In other words, the main verb phrase

carries the highest r-importance pertaining to F2's intended proposition at this point in the conversation. Conversely, by making the subject argument covert – despite its appearance could have clarified the identity of the subject referent – speaker F2 is indicating to the addressee its relatively low degree of r-importance and communicating to F1 that she considers the main focus of the clause to be the depiction of the long process of the event and not its participants, therefore, there is no need for F1 to identify who is doing the action or resolve the intended subject referent. In other words, with r-importance, we can focus more on clause internal explanation and suggest that whatever may be the subject of the verb *nong* 'to do' is relatively unimportant to the speaker; hence its omission from the clause surface structure.

Below, I present another example taken from the sixth conversation of the NCCU Mandarin corpus. It is chosen to illustrate that the degree of r-importance a noun or noun phrase carries to the most likely intended proposition of the speaker can affect its syntactic position as well as its realization in the clause structure. In this extract, the two female speakers, F1 and F2, are friends and they are discussing a new type of pill that F2 has recently been prescribed.

(8)

- | | | | | | | |
|---|----|--------------------------------------|----------------|-----------|------------|------------------|
| 1 | F1 | 那 | 应该 | 不 | 是 | 安眠药 |
| | | <i>na</i> | <i>yinggai</i> | <i>bu</i> | <i>shi</i> | <i>anmianyao</i> |
| | | that | should | NEG | COP | sleeping-pill |
| | | 'Those should not be sleeping pills' | | | | |
| | | | | | | |
| 2 | F2 | 是 | 啦 | | | |
| | | <i>shi</i> | <i>la</i> | | | |
| | | COP | PRT | | | |
| | | 'They are' | | | | |
| | | | | | | |
| 3 | F1 | 是 | 吗 | | | |
| | | <i>shi</i> | <i>ma</i> | | | |
| | | COP | INT | | | |
| | | 'Is that so?' | | | | |

- 4 一般 医生 不 能 开 那么 多
yiban yisheng bu neng kai name duo
 generally doctor NEG can prescribe that many
 ‘Generally doctors cannot prescribe that many’
- 5 一般 安眠药 不 会 开 那么 多
yiban anmianyao bu hui kai name duo
 generally sleeping-pill NEG would prescribe that many
 ‘Generally sleeping-pills would not be prescribed that many’
- 6 F2 那 是 管制 药
na shi guanzhi yao
 that COP restricted medicine
 ‘That is restricted medicine’
- 7 我 还 要 签名
wo hai yao qianming
 1SG still need sign
 ‘I needed to sign’

The clause in line 4 can be analyzed as a canonical active sentence with the head noun *anmianyao* ‘sleeping-pill’ omitted from the object noun phrase. The fully expressed sentence would be the one in (9).

(9)

医生 不 能 开 那么 多 安眠药
yisheng bu neng kai name duo anmianyao
 doctor NEG can prescribe that many sleeping-pill
 ‘Doctors cannot prescribe that many sleeping pills’

There are two possible pragmatic analyses for the dropping of the head noun in the object NP in line 4. If we analyse the disappearance of *anmianyao* ‘sleeping-pill’ in terms of information structure, *anmianyao* ‘sleeping-pill’ can be described as given information as it has just been mentioned in line 1, therefore it is still a salient and active referent and would impose no difficulty for speaker F2 to retrieve its identity if F1 omits it. However, one may also put forward the explanation, that at this point in the

conversation, F1 wants to convey that the subject noun *yisheng* ‘doctor’ carries more r- importance than the object head noun *anmianyao* ‘sleeping-pill’, pertaining to her intended meaning as she wants to accentuate that in regard to sleeping pills, it is expected that ‘doctors’ should not prescribe ‘that many’.

The line that offers the most insight for analysis comes in line 5. Whereas speaker F1 chooses to omit the noun *anmianyao* ‘sleeping-pill’ in the object NP in line 4, she expresses it overtly in line 5 and promotes it to the subject position:

(10)

| | | | | | |
|------------------|-----------|------------|------------|-------------|------------|
| 安眠药 | 不 | 会 | 开 | 那么 | 多 |
| <i>anmianyao</i> | <i>bu</i> | <i>hui</i> | <i>kai</i> | <i>name</i> | <i>duo</i> |
| sleeping-pill | NEG | would | prescribe | that | many |

‘Generally sleeping-pills would not be prescribed that many’

According to native speakers, it is valid to leave out the subject argument *anmianyao* ‘sleeping-pill’ in line 5, though it would become semantically ambiguous with regard to the identity of the subject referent since the agent argument *yisheng* ‘doctor’ can also take up the pre-verbal position, as demonstrated by the grammaticality of all three sentences in (11):

(11)

- a
- | | | | | | | |
|--------------|------------------|-----------|------------|------------|-------------|------------|
| 一般 | 安眠药 | 不 | 会 | 开 | 那么 | 多 |
| <i>yiban</i> | <i>anmianyao</i> | <i>bu</i> | <i>hui</i> | <i>kai</i> | <i>name</i> | <i>duo</i> |
| generally | sleeping-pill | NEG | would | prescribe | that | many |
- ‘Generally sleeping-pills would not be prescribed that many’
- b
- | | | | | | | |
|--------------|----------------|-----------|------------|------------|-------------|------------|
| 一般 | 医生 | 不 | 会 | 开 | 那么 | 多 |
| <i>yiban</i> | <i>yisheng</i> | <i>bu</i> | <i>hui</i> | <i>kai</i> | <i>name</i> | <i>duo</i> |
| generally | doctor | NEG | would | prescribe | that | many |
- ‘Generally doctors would not prescribe that many (sleeping pills)’

- c 一般 不 会 开 那么 多
yiban bu hui kai name duo
generally NEG would prescribe that many
‘Generally (sleeping-pills) would not be prescribed that many’
‘Generally (doctors) would not prescribe that many (sleeping-pills)’

We also discussed in Chapter 4, when the speaker wishes to mark the patient argument, it is an option for them to shift it to the syntactically more prominent position – the pre-verbal position, and at the same time demote the agent argument to the oblique to form a quasi-passive construction. Even when they consider the agent argument is still important enough to be phonologically pronounced in this situation, it is syntactically possible to express both core arguments pre-verbally through utilizing the topic position. In other words, speaker F1 could also have uttered the following sentence in (12):

(12)

安眠药 医生 不 会 开 那么 多
anmianyao yisheng bu hui kai name duo
sleeping-pill doctor NEG would prescribe that many
‘Sleeping-pills, doctors cannot prescribe that many’

The fact that Speaker F1 shifted the object argument to the subject position and made overt only this argument when she has several options to express the same sentence can be attributed to the fact that she considers that at this juncture in the discourse, the argument *anmianyao* ‘sleeping-pill’ carries the highest r-importance. In contrast to the subject noun *yishen* ‘doctor’ whose r-importance has been brought out in line 4, speaker F2 now shifts the subject of discourse to *anmianyao* ‘sleeping-pill’. This is a substance, as she specifically states in the subsequent lines (lines 6 and 7), which should not be prescribed too many because it is *guanzhi yao* ‘restricted medicine’ and needs to be signed for. Thus, in line 5, the patient argument *anmianyao* ‘sleeping-pill’ carries comparatively more r-importance than the agent argument for contributing to the

optimal relevance of her intended proposition, hence it is expressed while *yishen* ‘doctor’ is dropped in the clause.

The concept of r-importance is also particularly significant in explaining instances of bare verb predicate found in the data. In the process of data analysis, I have found quite a number of transitive or intransitive clauses which contain only a verb or verb phrase in the syntactic structure. We have seen such tokens in the hot-pot extract (*keyi chi ma* ‘Can (I) eat (it)?’ *Yao gai qilai ma* ‘Does (the lid) need to be put on? / Do (I) need to put on (the lid)?’). We have also seen one instance in (6) - *nong chao jiu de* ‘doing for a long time’ – in which it is unclear if an agentive or patient referent should fill the unexpressed sole argument. Such a phenomenon seems to suggest that in Mandarin, when the description of the event is the main proposition of the utterance, the verb or verb phrase can be the only linguistic component expressed in the surface structure as it carries the highest r-importance in the utterance. Below, I present one such example.

Example (13) is taken from the mainland Mandarin data. In this extract, speaker L is asking her friend, speaker M, what other things he is planning for the upcoming Christmas holiday. Speaker M first explains that he needs to complete a paper which he must submit by the due date, then he moves on to tell his friend that he has just submitted a paper to an academic conference and is unsure whether his paper would get accepted. In mainland Mandarin variety, to ‘submit a paper to a conference’ is expressed as *shenqing huiyi* ‘apply to a meeting/conference’, meaning to apply for approval to present one’s paper at a chosen conference.

(13)

- | | | | | | | | | | |
|---|---|---|------------|--------------|--------------|------------|---------------|--------------|-----------|
| 1 | L | 那 | 你 | 假期 | 还 | 有 | 什么 | 计划 | 吗 |
| | | <i>na</i> | <i>ni</i> | <i>jiaqi</i> | <i>hai</i> | <i>you</i> | <i>shenme</i> | <i>jihua</i> | <i>ma</i> |
| | | then | 2SG | holiday | yet | have | what | plan | INT |
| | | ‘What other plans do you have for the holiday?’ | | | | | | | |
| | | | | | | | | | |
| 2 | M | 尽量 | 多 | 写 | paper | 喽 | | | |
| | | <i>jinliang</i> | <i>duo</i> | <i>xie</i> | <i>paper</i> | <i>lou</i> | | | |
| | | do-best | more | write | paper | PRT | | | |
| | | ‘Do (my) best to write the paper’ | | | | | | | |

- 3 写 完 就 没 事 了
xie wan jiu mei shi le
 write complete then without work PFV
 ‘Once finished writing, (I) will be free’
- 4 要 交 的 那 天
yao jiao de na tian
 must turn-in REL that day
 ‘The day that I need to turn in (the paper)’
 ‘The day that it needs to be turned in’
- 5 肯定 要 写 完
kending yao xie wan
 certainly must write complete
 ‘I must finish (it)’
 ‘The paper must be finished’
- 6 而且 我 前 一阵子 刚刚 申请 了
erqie wo qian yizhenzi ganggang shenqing le
 also 1SG before period just apply PFV
- 一 个 会议
yi ge huiyi
 one CL conference
 ‘Not long ago I just applied to a conference’
- 7 还 不 知道 能 不 能 通过
hai bu zhidao neng bu neng tongguo
 yet NEG know can NEG can pass
 ‘Don’t know if I/it will get accepted’
- 8 L 应该 能
yinggai neng
 should can
 ‘It/you will’
- 9 去 那里
qu nali
 go where
 ‘To where?’
- 10 M 忘 了 是 哪儿 了
wang le shi naer le
 forget PFV COP where PRT
 ‘Forgot where’

- 11 忘 了 今 年 是 哪 儿 了
wang le jin nian shi naer le
 forget PFV this year COP where PRT
 ‘Forgot where this year’
- 12 忘 了 今 年 是 在 哪 儿 开 会 了
wang le jin nian shi zai nali kaihui le
 forget PFV this year COP LOC where have-a-meeting PRT
 ‘Forgot where the conference is held this year’

First, let us examine lines 3, 5, 7, 8, 9, and 10, repeated here to make the analysis clearer:

- 3 写 完 就 没 事 了
xie wan jiu mei shi le
 write complete then without work PFV
 ‘Once finished writing, (I) will be free’
- 5 肯 定 要 写 完
kending yao xie wan
 certainly must write complete
 ‘I must finish’
 ‘The paper must be finished’
- 7 还 不 知 道 能 不 能 通 过
hai bu zhidao neng bu neng tongguo
 yet NEG know can NEG can pass
 ‘Don’t know if I/it will get accepted’
- 8 L 应 该 能
yinggai neng
 should can
 ‘It/you will’
- 9 去 那 里
qu nali
 go where
 ‘To where?’

| | | | | | | |
|----|---|----------------|-----------|------------|-------------|-----------|
| 10 | M | 忘 | 了 | 是 | 哪儿 | 了 |
| | | <i>wang</i> | <i>le</i> | <i>shi</i> | <i>naer</i> | <i>le</i> |
| | | forget | PFV | COP | where | PRT |
| | | 'Forgot where' | | | | |

One interesting feature about these six lines is that all their subject arguments are unexpressed, even though the verb subcategorizes for it: the verbs *xie* 'to write', *zhidao* 'to know', and *wang le* 'forgot' can be transitive or intransitive, but they require an agentive argument as its subject which is not expressed in the utterance. The same applies to *tongguo* 'to pass' in line 7 which can also be transitive or intransitive, and it allows either an agentive or a patient-like argument to be its subject. However, no core arguments are phonologically present. Similarly, *qu* 'to go' in line 9 subcategorizes both an agentive subject and a locative object (S[person] + go + O[place]), yet only the locative object is expressed (go + where). It has been observed in the literature that first and second person pronouns tend to be dropped more frequently in discourse than third person pronouns because the former are more salient in the speech context than the latter due to their physical presence at the scene of conversation (Ewing 2014; Oh 2007; Li & Yonezawa 2008). According to the Animacy Hierarchy - first proposed by Silverstein (1976) and later discussed by Dixon (1979) and Croft (1990:112) – with all things being equal, human nouns are more likely to be encoded as agent and to syntactically occupy the subject position because humans are more likely to evoke empathy and be foregrounded in the discourse. As speakers themselves are the most immediate human nouns in the context of an ongoing conversation, they can be readily inferred from the context and consequently more likely to be unexpressed by the speaker if this is syntactically possible. However, in the case of lines 3, 5, 7, and 8, it is not clear whether the speaker is the referent for the omitted subject argument, and therefore, by dropping the subject argument the speaker has created referent ambiguity.

Take line 7 as an example, which is a subordinate clause with only the verb predicate overtly expressed in the matrix and the dependent clause:

| | | | | | | | | |
|---|------------|-----------|---------------|---|-------------|-----------|-------------|----------------|
| X | 还 | 不 | 知道 | Y | 能 | 不 | 能 | 通过 |
| | <i>hai</i> | <i>bu</i> | <i>zhidao</i> | | <i>neng</i> | <i>bu</i> | <i>neng</i> | <i>tongguo</i> |
| | yet | NEG | know | | can | NEG | can | pass |

‘X don’t know if Y will get accepted’

It is contextually derivable to infer that the speaker himself is the subject referent for the verb *zhidao* ‘to know’; as explained earlier, since expressing ‘I’ or ‘you’ in a context where they are already retrievable does not produce the best cognitive effects, it is therefore understandable that speaker M chooses to omit the subject argument here. However, the same cognitive process does not apply to *tongguo* ‘to pass’. The lexical semantics of the verb *tongguo* allows either the agent *wo* ‘I’ or the patient *lunwen* ‘paper’ to be its subject referent in this particular speech context. (14) demonstrates two possible ways of uttering line 7 in its fully expressed form which have been attested by native speakers:

(14)

- a
- | | | | | | | | | |
|-----------|------------|-----------|---------------|---------------|-------------|-----------|-------------|----------------|
| 我 | 还 | 不 | 知道 | 论文 | 能 | 不 | 能 | 通过 |
| <i>wo</i> | <i>hai</i> | <i>bu</i> | <i>zhidao</i> | <i>lunwen</i> | <i>neng</i> | <i>bu</i> | <i>neng</i> | <i>tongguo</i> |
| 1SG | yet | NEG | know | paper | can | NEG | can | pass |
- ‘I don’t know if the paper will get accepted’
-
- b
- | | | | | | | | | |
|-----------|------------|-----------|---------------|-----------|-------------|-----------|-------------|----------------|
| 我 | 还 | 不 | 知道 | 我 | 能 | 不 | 能 | 通过 |
| <i>wo</i> | <i>hai</i> | <i>bu</i> | <i>zhidao</i> | <i>wo</i> | <i>neng</i> | <i>bu</i> | <i>neng</i> | <i>tongguo</i> |
| 1SG | yet | NEG | know | 1SG | can | NEG | can | pass |
- ‘I don’t know if I will get accepted’

Compare (14) to the original line, we can observe that in both the matrix and dependent clauses, only the verb phrase is phonologically realized in the original line. By omitting the subject argument in the dependent clause, referent ambiguity arises because it is uncertain if *wo* ‘I’ or *lunwen* ‘paper’ should be the subject of the verb *tongguo* ‘to pass’. If we analyze this line based on Relevance Theory, we can attribute the dropping of the subject argument in both clauses to the possibility that the speaker

wishes to generate an utterance which has optimal relevance to his intended meaning – this can be either that he considers the dropped arguments not relevant enough to aid the best interpretation of his most likely proposition, or there is an implicature to be generated on the hearer’s part regarding the unexpressed arguments.

One key idea in Relevance Theory is that hearers are guided by the presumption of optimal relevance when interpreting the intended meaning of the speaker’s utterances. This presumption of optimal relevance compels the hearer to follow a route by which he must decode the sentence meaning at the explicit level to arrive at the most likely interpretation at the implicit level. En route he may need to disambiguate, assign reference, infer, or enrich the given code in order to get to the most likely interpretation of the speaker’s intended meaning. This cognitive process is especially noticeable in processing a metaphorical or hyperbolic expression. For instance, on hearing *John has a square mind* the hearer may initially process the sentence at its face value and interpret it as ‘a person called John who has a mind which has the shape of a square’. In real life, however, this would not be possible – since ‘mind’ is not a concrete entity and cannot take shape. Being under the presumption of optimal relevant, the hearer would have to go to a different processing route as he expects the speaker to make his utterance as relevant as possible and not to create a nonsensical sentence. Thereby he combines the concept of ‘square’ with real-life contextual information to yield a possible implicature: ‘John is somewhat rigid in his thinking’.

Now returning to our line 7 of extract (13), if the speaker had wanted to direct the hearer via the easiest route to reach the best interpretation of his intended proposition, he should have expressed overtly the subject argument of the verb *tongguo* because it would have saved the hearer the extra effort of thinking “is there an implicature I need to take into account in my cognitive processing of the verb phrase *neng bun eng tongguo* ‘if X will get accepted’”; that is, by leaving two possible options for the referent of the subject argument, the speaker has fabricated an extra route for the hearer to process.

The construct of ‘r-importance’ does not involve the intricate cognitive processing of implicatures; rather it provides a pragmatic rationale to explain the obligatory and optional realization of certain arguments in the clause structure. In the case of line 7, we can account for the implicit arguments by suggesting that both *wo* ‘I

and *lunwen* ‘my paper’ are dropped because they carry less r-importance compared to the verb phrase *bu zhidao* ‘don’t know’ and the verb *tongguo* ‘to pass’. Under the principle of ‘r-importance’, we can hypothesize that speaker M is providing the linguistic components that he deems to carry the highest r-importance for his hearer to decipher his most likely proposition of the utterance. More specifically, in terms of r-importance, it is possible to describe the trade-off between effects and efforts from the perspective of the speaker.

One of the major implications entailed in Relevance Theory regarding the degree of relevance is that the greater the effect of a listener’s understanding, the more relevant the utterance. This means the level of relevance of an utterance is evaluated by how easily it can be processed by the hearer, suggesting that under Relevance Theory, the equation of effect-for-effort is tilted more towards the hearer. Under the principle of r-importance, however, the trade-off between effects and efforts is more for the benefit of the speaker. That is, speakers may not always produce their utterances with the aim of reducing the cognitive effort of their listeners in mind; they also follow the principle of economy and spend the least effort to achieve their communication goals. This involves evaluating the value of r-importance that is carried by each individual linguistic sub-part of his utterance, and expressing only the ones that have the highest r-importance. Applying this to line 7 of extract (13), this means that even though by expressing the referent for the subject of the verb *tongguo* ‘to pass’, the speaker would have given the clearest linguistic cues to enable his listener to expend the least effort in getting the truest interpretation of his utterance, speaker M still chooses to omit the subject argument because by expressing only the linguistic components that carry the highest value of r-importance, he has conveyed his proposition with the least possible effort on his part.

Similar strategy is again seen in speaker L’s response in line 8, repeated here as (15):

(15)

8 L 应该 能
 yinggai *neng*
 should can
 ‘It/you will’

In this line, speaker L’s reply is economical, expressing only the clausal component which has the highest r-importance in view of the present contextual information. Again, there are two possible versions to the fully expressed form for line 8:

(16)

- a 论文 应该 能 通过
 lunwen *yinggai* *neng* *tongguo*
 paper should can pass
 ‘The paper should get accepted’
- b 你 应该 能 通过
 ni *yinggai* *neng* *tongguo*
 2SG should can pass
 ‘You should get accepted’

Comparing the original line 8 to (16), we observe that not only the subject argument of the verb *tongguo* ‘to pass’ is dropped, the verb itself is also left out. What stays in the clause structure is the modal verb *neng* ‘can’ together with the epistemic modal verb *yinggai* ‘should’. Again, in terms of semantic clarity, it would be more apparent if speaker L had expressed the subject referent of this clause because there are two possible entities present in the speech context and both can take the position of the subject legitimately, i.e. *wo* ‘I’ and *lunwen* ‘the paper’. However, neither *wo* ‘I’ nor *lunwen* ‘the paper’ carries as much r-importance as the modal verbs *yinggai* ‘should’ and *neng* ‘can’ pertaining to speaker L’s intended proposition – she presumably wants to assure her friend of his doubt about his paper. In other words, the linguistic component of this utterance that can best serve her purpose of reassuring her friend is the modal verb, so it carries the highest r-importance. By expressing the linguistic sub-part that

carries the highest r-importance, speaker L is conveying her intended meaning via the most economical way possible.

Speaker M's reply in lines 6, 7, and 8 offers more evidence to indicate that in human interactions, speakers tend to express the linguistic components that carry the most r-importance to achieve the most economical communication. Let us look at these three lines again, repeated here as (17):

(17)

- 10 M 忘 了 是 哪儿 了
 wang le shi naer le
 forget PFV COP where PRT
 'Forgot where'
- 11 忘 了 今 年 是 哪儿 了
 wang le jin nian shi naer le
 forget PFV this year COP where PRT
 'Forgot where this year'
- 12 忘 了 今 年 是 在 哪儿 开会 了
 wang le jin nian shi zai nali kaihui le
 forget PFV this year COP LOC where have-a- PRT
 meeting
 'Forgot where the conference is held this year'

A closer examination of these three lines shows that despite the fact that speaker M utters three different clauses, they essentially convey the same proposition, namely: 'I have forgotten the location where the annual meeting is going to take place'. However, if he is expressing the same proposition, what speculation can be made from the different argument realization pattern manifested in each of the clauses?

It is possible that speaker M is initially providing what he considers the most relevant linguistic information in response to L's questions *qu nail* 'Where to?'. This means the verb phrase *wang le* 'forgotten' and the complement *naer* 'where' are the two linguistic components that carry the most r-importance pertaining to his intended meaning as these are the ones that are overtly expressed in line 10. Afterwards, he seems

to think that what he has said may cost L more cognitive effort in order to decipher his intended meaning, therefore he adds the temporal adverb *jin nian* ‘this year’ in line 11, and provides almost the full statement in line 12. What speaker M seems to have done in these three lines is to change his view on how r-important the relevant parts of the utterance are and subsequently expresses them accordingly.

As can be seen from some of the previous examples, it is not uncommon for Mandarin speakers to express only the verb or verb phrase in the syntactic structure. In many instances, the omission of core arguments can give rise to semantic ambiguity. One possible explanation that can be offered to account for this phenomenon is that when the event is the focus of the proposition, the speaker may drop all the arguments the main verb subcategorizes and retain phonologically only the verb or verb phrase in the surface structure. Since the main verb or verb phrase provides information about the event type, when description of the event becomes the intended proposition, the main verb or verb phrase is endowed with the highest value of r-importance. In addition, as I demonstrated in Chapter 4, a Mandarin verb has the syntactic function of marking the semantic role of its core arguments, thus when the semantic role of the core arguments in a verb predicate is known and the depiction of the event is the focus of the speaker’s intention, it is likely that the verb or verb phrase is the only linguistic component retained in the surface sentence structure.

5.5 Conclusion

The evidence presented in this chapter has supported one of my major claims regarding the pragmatic factors that motivate a speaker’s choice in the overt expression or omission of an argument. This claim suggests that the degree of ‘r-importance’ an argument carries at the point of its occurrence pertaining to the speaker’s intended meaning can affect its realization in the syntactic structure. If an argument carries little r-importance pertaining to the intended meaning of the speaker, it is likely to be dropped. On the other hand, if an argument carries substantial r-importance to the speaker’s proposition, then it is likely to be made overt.

The main difference between my proposal of ‘r-importance’ and Relevance Theory is that Relevance Theory explains the cognitive process of how a hearer can infer the speaker’s meaning on the basis of the evidence provided, whereas ‘r-importance’ refers to the relevant importance of a constituent in a clause at the time of its occurrence. The former seeks to explain the property of an utterance, not parts of it, while the latter examines the function of the relevance of its parts, and so a linguistic sub-part can have relevance in the whole composition of the utterance.

In the process of applying r-importance to analyze argument realization pattern, I have also found that speakers are inclined to be economical with their proposition expressions. They minimize their linguistic production within the syntactic constraints of the language to the extent that they believe they have provided sufficient input for their hearer to interpret their intended meaning. Tying this to the notion of r-importance, speakers are more likely to omit arguments which do not carry enough r-importance and express only the clausal components – be it a verb or a verb predicate- which carries the highest value of r-importance; in some cases, the arguments are dropped at the expense of creating semantic ambiguity.

In the next chapter I will show that ‘definiteness’ and ‘verbal conceptual representations’ are two key predictors that can determine whether a given argument is more likely, or not, to be omitted from the verb phrase: the former refers to the recoverability of an intended referent and the latter is tied to the lexical semantics of the verb.

Chapter Six

Pragmatic Constraints II: The Factors Of Definiteness And Verb Conceptual Representation

6.1 Introduction

In this chapter I will discuss ‘definiteness’ and ‘verb conceptual representation’ as two pragmatic predictors which have been found to consistently underlie implicit arguments in verb phrases in my data. Evidence from the data indicates that whether the referent of an argument is definite or not highly determines its realization in the syntactic structure. The observation that definiteness is a factor contributing to the possibility of noun omission is hardly new. In the domain of pragmatics, studies have shown that when a speaker assumes that there is sufficient contextual knowledge for the addressee to retrieve the referent for an anaphor, a noun or noun phrase, the latter can be omitted (DuBois 1980; Chafe 1987; Gundel et al. 1993). In this thesis, ‘definiteness’ is used as a term along similar lines, to refer to the identity of a referent that can be recovered from the discourse context regardless of its distance from the missing argument or whether it can be verbally expressed. Examples are found to show that the referent of an implicit argument almost always refers to a definite entity which can be recovered from either the discourse context or from the speakers’ shared knowledge. Data analysis also indicates that the main strategy for the recovery of the definite entity is to use a verb as a trigger, thus the factor of verb semantics is also discussed in this chapter. Evidence shows that it is not an arbitrary act for a particular verb to be utilized to cue the retrieval of the most appropriate referent or referents; the selection restrictions projected by the verb’s conceptual representation is a strong determinant. The term ‘verb conceptual representation’ is adopted from Jackendoff’s (1972) theoretical proposal of ‘conceptual semantics’ to refer to the semantic association between a verb and a certain type of noun. Examples from the data illustrate that if there is a very strong semantic association

between a verb and a certain type of noun, the verb is often the only overt syntactic component in the verb phrase.

This chapter is arranged as follows: in section 6.2, an outline of how ‘definiteness’ is defined in the literature is first provided, and then the definition of the same term as adopted in this thesis is elucidated. Section 6.3 provides a review on the discussions in the literature that relate verb semantics to the phenomenon of implicit arguments in the verb phrase. In particular, it gives a detailed description of Jackendoff’s theoretical proposal of ‘conceptual semantics’ that offers revealing insights into the link between the conceptual representation of a verb and the realization of the arguments it carries (Jackendoff 1990, 1991, 2007). In section 6.4, the major claim of this chapter is presented, namely that the selection restrictions projected by a verb’s lexical semantics can influence the argument realization pattern of the verbal predicate in Mandarin. In 6.4, data analyses are presented to show that the factor of ‘definiteness’ and the scope of the conceptual representation of the verb can significantly influence the realization of the core arguments in its verb phrase. The arguments of this chapter are then summarized in 6.5.

6.2 Literature Review

6.2.1 Definiteness

6.2.1.1. The theory of ‘uniqueness’

What is ‘definiteness’? The general understanding of the term in pragmatics is that it is a feature of nouns or noun phrases which denote referents or entities that can be identified, or not, in a given context. However, this is a somewhat vague definition because the distinction between ‘definiteness’ and ‘indefiniteness’ is not always a clear-cut dichotomy, even in languages with formal markings for definiteness. For instance, the English article *the* may mark nouns or noun phrases as definite, as in *the car*, *the apple*, and *a/an* as indefinite, as in *a car*, *an apple*, but when someone says *I bought a car yesterday*, they are not referring to any random car but rather a car which they can

clearly distinguish in their mind. Therefore, in a strict sense, the indefinite noun phrase *a car* actually refers to a definite entity as far as the speaker is concerned.

Also consider the following example in English:

- (1) a: We went to see a wonderful play last night.
 b: Then we talked to the playwright.

On this occasion, a native speaker would explain that the definite article in (1b) describes a definite entity *playwright*, and it is understood to refer to the object of the indefinite description of (1a) even though there is no preceding reference to any playwright. This accentuates the fact that the grammatical function of definiteness in a language does not always clearly differentiate the differences between definiteness and indefiniteness under all circumstances. In the case of English, one can only suggest that the grammatical category of articles is the basic instantiations of definiteness. Moreover, there is considerable variation in the expression of definiteness across world languages: there are languages which have a lexical category to indicate definiteness and indefiniteness such as English; there are also languages which have affixes for this function, like the Arabic definite prefix *al-* and indefinite suffix *-n*; others may employ language specific means to contrast definiteness and indefiniteness. Thus, the great variety of marking definiteness across languages makes it even more difficult to make a generalized description for the concept.

In the literature on the discussion of definiteness, there are two major approaches. The first is ‘uniqueness’, of which the basic ideas are broadly based on Bertrand Russell’s theory of perception involving the denotation of noun phrases in the formal language of logic (Russell, 1905). In this approach, it is posited that definiteness differs from indefiniteness in that definiteness signals uniqueness while indefiniteness does not.

According to Russell, a sentence such as (2):

- (2) The King of France is wise.

can be expressed in the following logic formulation (Russell, 1905; quoted in Hawkins 1978:93):

$$(3) \quad (\exists x)(Kx \ \&(y)(Ky \supset y=x) \ \& \ Wx)$$

The equation indicates that there is an entity x which is the King of France, and if any entity, y , is King of France, then y will be identical to x , and x is wise.

The logic translation of (3) makes the following three claims accordingly; the first two are functions of the definite description *the King of France* and the third applies to the predication *is wise*:

- (4)
- a. Existence: There is a King of France
 - b. Uniqueness: There is only one King of France and no others are exactly like this one.
 - c. Predication: This unique individual is wise

On the other hand, the corresponding indefinite description of (2) would be (5):

$$(5) \quad \text{A King of France is wise.}$$

and its logic translation would be (6) (adopted from Hawkins 1991: 407):

$$(6) \quad \exists x(P(x) \ \& \ D(x))$$

The formulation indicates that there is an entity x who is a King of France, and x is wise. For the description of (6) to be true, there must be at least one King of France in existence and he is wise. Logically, this implies that there can be only one or many Kings of France in existence, thus (6) can be described as entailed in (2), but not vice versa. To be more specific, in Russell's 'uniqueness' approach to definite descriptions,

there is only one possible entity that matches the description used. In this respect, indefiniteness does not contradict with definiteness, but rather the difference between the two lies in that ‘definiteness’ has the addition of uniqueness by being the one, and only one, entity in existence while ‘indefiniteness’ merely asserts existence of an entity which meets the description of the NP.

Lyon (1999) has used many examples from English to clarify this concept of ‘uniqueness’ on definiteness. One clear example is the inherent uniqueness associated with the English usage of *the sun*. English uses the definite article for the sun in our solar system, as opposed to *a sun*, to signal its uniqueness – when *the sun* is used, native speakers of English can immediately understand it to be the sun that provides us warmth, rises in the east and sets in the west in the sky. In contrast to *a sun*, *the sun* signals an entity that is distinctive and only one of its own kind. The same can be applied to proper names and many English definite noun phrases such as *the moon*, *the earth*, *the pope*.

However, Russell’s logical theory of definite descriptions is criticized as being inadequate and incomplete when applied on the referential interpretations of natural language use. Strawson (1950), for one, says that Russell’s proposal of ‘uniqueness’ does not generalize the meaning of the definite article in English. For instance, when one utters ‘The garden is full of flowers’, one does not mean that there is only one garden in the world, as would have been represented according to Russell’s theory of uniqueness (there is one garden, and only one garden, and the garden is full of flowers). Searle (1969) also raises the question of identifiability of the definite referent in the real world of natural speech. A definite noun phrase such as *the president*, *the museum*, *the school* cannot be inherently unique in any absolute sense because there are many presidents, many museums, and many schools in the world; in order for each to be unique in its own right, it has to be able to be identified by the interlocutors involved. In this sense, the uniqueness of a definite noun phrase lies in its possibility to be interpreted by both the speaker and the hearer. This then leads us to a different theory which attempts to capture some of the more sufficient conditions to describe definite references.

6.2.1.2 The theory of ‘familiarity’

The second approach in defining the concept of ‘definiteness’ in the literature is

‘familiarity’ and an often cited linguist associated with this approach is Paul Christophersen (1939). He suggests that the extent to which the addressee is familiar with the noun or noun phrase in an utterance is what distinguishes the definite from the indefinite descriptions: “now the speaker must always be supposed to know which individual he is thinking of; the interesting thing is that the *the*-form supposes that the hearer knows it too” (1939:28). This concept can be well illustrated by the following English example provided by Lyon (1999:2/3):

- (7) a. I bought a car this morning
 b. I bought the car this morning

According to Lyon, the indefinite object NP in (7a) does not denote any random car in the world, but is referring to one particular car in the speaker’s mind; as far as the speaker is concerned, *a car* in (7a) describes a definite entity even though grammatically it employs an indefinite article. However, when compared with (7a), *the car* in (7b) in some sense still projects a more ‘definite’ and ‘individualized’ connotation than *a car*. The main difference between the two utterances lies in the fact that the referent for *the car* in (7b) is not just clear to the speaker but can be identified by the hearer as well.

This brings out one important pragmatic observation on the differences between definiteness and indefiniteness, as noted by Christophersen (1939:28):

“Now the speaker must always be supposed to know which individual he is thinking of; the interesting thing is that the *the*-form supposes that the hearer knows it too. For the proper use of the form it is necessary that it should call up in the hearer’s mind the image of the exact individual that the speaker is thinking of. If it does not do that, the form will not be understood”

To illustrate, in Christophersen’s theory of familiarity, in order for the definite noun phrases to be understood in an utterance such as, “Grab me the vase from the table”, the speaker would have to assume that the hearer knows exactly which vase to

grab from which table. If the hearer cannot conjure up the exact image of the designated entities, the utterance entails no referential meaning.

This view is partially refuted by Hawkins (1978, 1991) who proposes that ‘familiarity’ can be extended to an ‘associative relationship’ between two entities and the hearer does not have to have an exact image of the designated individual in order to give an appropriate definite interpretation, as suggested by Christophersen. Take my example (1) again as an illustration, repeated here as (8):

- (8) a: John went to see a wonderful play last night.
 b: Then he talked to the playwright.

As explained earlier, a native speaker of English would have interpreted *the playwright* in (8b) as referring to the writer of *a wonderful play* in (8a), even though they may not be able to conjure up the exact physical appearance of *the playwright*, i.e. the identity of the *playwright* may be unknown to them. However, to the hearer, *the playwright* still presents itself as a definite entity in some sense because it designates a particular play writer who is associated with writing a particular play that John went to see last night. According to Hawkins, the reason that the hearer is able to identify *the playwright* as referring to someone related to the play mentioned in the preceding line is because there is a shared knowledge of an associated relationship between the entity of *play* and the entity of *playwright* in our real world. It is in our common knowledge that a play should involve a playwright, and not an architect or a doctor for its creation. The associative relationship between the two designated entities is a conceptual knowledge which we share about the real world we live in. This is a pragmatic aspect of accounting for the referential meaning of definiteness that cannot be solely captured by a logistic formulation or by Christophersen’s definition of ‘familiarity’.

Thus, Hawkins’ proposal of ‘familiarity’ as a theory of explaining the referential meaning of the English definite article *the* is a broader and a more general one than that of Christophersen’s. It can be applied in situational circumstances in which the immediate physical proximity of a referent contributes to the shared knowledge of the

speakers, as with *the table* in (9); or the referent of a definite noun phrase is a conceptual shared knowledge between the speaker and the hearer as illustrated in (8), or the familiarity stems from a linguistic text rather than from an actual situation as in the case of the anaphoric use of *the* in (10) (adopted from Lyon 1999:3).

- (9) Please pass my reading glasses from *the table*.
- (10) An elegant dark-haired woman, a well-dressed man with dark glasses, and two children entered the compartment. I immediately recognized *the woman*. *The children* also looked vaguely familiar.

To summarize, Hawkins' proposed sources that typify an entity as definite are more discourse-oriented and they consist of four main types. First, it can be the domain of a very general world knowledge in which an 'associative relationship' can easily be found between the entity in question and other entities, such as the previously mentioned example of *play*; the speaker can immediately talk of its *playwright* (8). Second, the source can be the physical environment of the speech context itself in which the entity in question can be identified without being pointed out (9). Third, the source can be the shared knowledge domain of both interlocutors, for instance: "inhabitants of the same town who have never met before can immediately talk about the mayor, meaning the unique mayor of their town" (Hawkins 1991:408). Fourth, the source can be the linguistic context in which a previous mention permits subsequent reference to the same entity (10).

6.2.2 Definition of 'definiteness' in this thesis

Taking into account the past discussions on the description of definiteness, I adopt the following definition to describe the referential meaning of 'definiteness' in this thesis:

"A noun or noun phrase, whether it is verbally expressed or not, is categorized as definite if the identity of its referent can be recovered by interlocutors either from the discourse context or from their shared general knowledge of the world."

6.3 The proposal of ‘verb conceptual representation’

In this section, I present my claim that the conceptual representation denoted in the verb’s inherent lexical meaning can put restrictions on the noun entities it can associate with. This selection restriction projected by the verb’s lexical semantics, together with the factor of ‘definiteness’, can influence the argument realization pattern of the verbal predicate in Mandarin. This claim has its foundation in Jackendoff’s ‘conceptual semantics’ (1990, 1991, 2007) and is based on empirical evidence found in my data.

I have found strong evidence in the data to indicate that whether a noun or noun phrase is definite or not is closely related to its realization in the syntactic structure. This phenomenon is particularly consistent with object drop instances. When a noun or noun phrase denotes a definite referent, it is more likely to be dropped since it can be recovered by both speakers either from the speech context or from their shared knowledge about the referent (cf. 6.2.2). However, a closer examination of the tokens shows that definiteness is not the only factor to motivate an argument drop, there is another factor at play which is concerned with the conceptual representation of the main verb. I have found that the selection restriction on noun types projected by the conceptual semantics of the main verb is a key accomplice in the orchestration of argument drop in Mandarin.

6.3.1 Interaction between definiteness and verb semantics

It is no coincidence that the analysis of definiteness in natural language often goes hand-in-hand with the discussion of verb semantics. Research exploring the phenomenon of lexical or syntactic unrealized arguments has often related it to the subcategorization frame of the verb and whether the verb takes definite or indefinite arguments. The subcategorization frame of a verb is synonymous to its transitivity or the number of participants a verb can take. According to Payne (1997), a transitive verb is one that describes the relation between two arguments such that one acts towards or upon the other. An intransitive verb is one that describes a state, action or situation involving only one argument.

Earlier discussion on verb semantics and verb transitivity can be traced back to Vendler’s work on verb classes (Vendler 1957). He proposes that a verb can be

classified according to the internal temporal structure of the events they denote and there are four aspectual types of verb: state, activity, achievement, and accomplishment. In a nutshell, state verbs describe non-dynamic situations, such as *to like*, *to see* and *to know*; activity verbs describe dynamic events that do not have an inherent temporal endpoint, such as *I ran*, *She poured the water*, *He worked for a period*; accomplishment verbs describe events which are ‘telic’ or have an inherent point at which a result is achieved, such as *I filled the mug with water*, *I spot a lion*, *She noticed my mistake*; achievement verbs describe events that are instantaneous and the moment at which the transition to a result state occurs, such as *The window broke*, *The train arrived*, *The building exploded*.

According to Role and Reference Grammar (RRG), developed by Foley & Van Valin in the 1980s (Foley & Van Valin 1984; Van Valin & La Polla 1997), the event-type a verb describes can determine its semantic valence. Role and Reference Grammar argues that verbs have semantic as well as syntactic valence, and a verb’s syntactic valence is not always equal to its semantic valence. Semantic valence can be determined by the number of macro-roles the verb carries. Macro-roles are based on two semantic notions of ‘actor’ and ‘undergoer’. Actor is a generalization across agent, experiencer, instrument and other similar roles and ‘undergoer’ is a generalization including patient, theme, recipient and other similar roles. Agent is the prototype of actor while patient is the prototype of undergoer. So a sentence such as (11) can be analyzed as having the syntactic valence of two but semantic valence of one:

(11) *I ate pizza for an hour.*

The syntactic valence of the sentence in (11) is two because there are two logical arguments, *I* and *pizza*, in the syntactic structure, but semantically the sentence has only one valence because it carries only one macro-role *I*. This is because the verb *eat* is used as an unbounded activity, so the non-referential, non-agentive argument *pizza* only serves to characterize the action and does not qualify as a macro-role. The validity of such an analysis can be seen from the fact that the patient argument *pizza* would not have appeared as the subject in its passive sentence, **Pizza was eaten by me for an hour*.

On the other hand, if *eat* functions as an accomplishment verb, as in *I ate the pizza in five minutes*, the activity is now bounded and *pizza* becomes referential or definite, thus the sentence carries both the agent macro-role *I* as well as the non-agent macro-role *pizza*.

Fillmore (1986) relates the factor of definiteness to the constraints for a null object to occur in English. He makes a distinction between ‘definite null complements’ and ‘indefinite null complements’ (Fillmore 1986:96). ‘Definite null complements’ are those in which the missing element must be able to be retrieved from the context and ‘indefinite null complements’ are the ones in which the identity of the missing element is either unknown or of no serious consequence. He suggests that one test to determine if a null complement is ‘definite’ or ‘indefinite’ is to see whether it sounds odd for the speaker to express ignorance of the identity of the missing object. For instance, the verb phrase ‘to find out’ would sound unnatural with an object that is indefinite as in ‘they found out; I wonder what they found out’. In contrast, a verb such as ‘to eat’ would be acceptable to be without an object that is indefinite, i.e. ‘he ate, I wonder what he ate’. However, not all verbs fall neatly into the two categories of allowing for ‘definite null complements’ or ‘indefinite null complements’; some verbs must occur with an object even if the object is definite, such as the verb ‘to lock’, as it is ungrammatical to say: *Did you lock?* and leave out the object argument even though everyone concerned may already know which particular door is in question (Fillmore 1986: 98). Therefore, according to Fillmore, whether the identity of an argument or complement can be retrieved from the context is not the determinant for null object phenomenon in English; rather it is the semantic frame of a particular verb or a particular sense of a verb (in the case of polysemy) that determines whether it is permissible for the verb to be expressed without an object complement. Fillmore provides the following sentences containing the English verb ‘contribute’ to clarify his argument. He describes ‘contribute’ as having the valence description of three complements: the Giver, the Gift and the Receiver, but each of the complements has its own omission restriction:

(12)

- A. I contributed to the movement.
- B. I contributed five dollars.
- C. I've already contributed.

When the Gift complement is not mentioned, as in A and C, the nature or quantity of the gift is indefinite as its reference is obligatorily disjointed from the context. On the other hand, the Receiver complement is 'definite omissible' (Fillmore 1986: 98) because even when it is omitted the hearer must be able to recover its reference from the context. Thus, B and C can only be understood in context where the identity of the Receiver can be pinpointed, such as an agency, fund or movement. To conclude, Fillmore suggests that pragmatic context alone cannot explain the object omission phenomenon in English and he proposes that verbs should be represented as having certain of their arguments marked for definite omission or indefinite omission.

Another branch of research on lexical semantic-syntax interface has adopted a slightly different approach to examining the correlation between verb semantics and argument expression. Linguists working in this branch primarily focus on forming representation mapping between a verb's lexical meaning and its argument structure, and such mapping often takes the form of formulaic templates (Dowty 1979; Pinker 1989; Jackendoff 1990; Rappaport Hovav and Levin 1998, 2005). For instance, a non-causative verb, such as *break* in the sentence *The chair broke*, can be represented as (13a) and an activity verb such as *dance* as in *She danced* can be depicted as (13b):

- (13) a. Noncausative *break*: [y BECOME *BROKEN*]
b. dance: [y DO *DANCE*]

The representations in (13) display a predicate decomposition in which there are two sub-parts – one is a constant (y) and the other is a primitive predicate (BECOME *BROKEN*; DO *DANCE*). The constant has been described as 'the idiosyncractic meaning of the verb' which is irrelevant to the verb's grammatical behaviour while the predicate

is ‘the structural component of the verb’ which exhibits salient morpho-syntactic properties (Rappaport Hovav and Levin 1998:107).

Although such representation of a verb’s lexical meaning and its argument expression is fundamentally a formal approach, the concept of ‘verb idiosyncratic meaning’ brought forward in this theoretical framework has pragmatic implication and has some relevance to the proposals of this chapter.

Rappaport Hovav and Levin suggest that verbs can be categorized into different semantic classes according to their ‘root meaning’, and members of the same class exhibit similar argument expression pattern (1998, 2005). For instance, the English verbs *sweep*, *wipe* and *rub* may denote different manners of action but they essentially describe an activity which involves ‘surface contact through motion’. They also appear in similar syntactic contexts as illustrated in (14) and (15). (14) shows the possible range of argument expressions for *sweep* and (15) illustrates that *wipe* can occur in a similar range of argument expressions as *sweep* (Rappaport Hovav and Levin 1998:97):

- (14) a. Terry swept.
b. Terry swept the floor.
c. Terry swept the crumbs into the corner.
d. Terry swept the leaves off the sidewall.
e. Terry swept the floor clean.
f. Terry swept the leaves into a pile.

- (15) a. Terry wiped.
b. Terry wiped the floor.
c. Terry wiped the crumbs into the corner.
d. Terry wiped the leaves off the sidewall.
e. Terry wiped the floor clean.
f. Terry wiped the leaves into a pile.

They propose that in English there are essentially two main sets of verb semantic classes, one is the class of manner verbs and the other is the class of result verbs. Manner verbs, such as *sweep*, *whistle*, *ran*, typically lexicalize the manner but not the result of the action carried out. Result verbs, such as *break*, *arrive*, *go*, on the other hand,

typically lexicalize the result but not the manner of the action denoted by the verb. They also argue that despite the fact that a verb may have its own variation of argument expressions projected by its idiosyncratic meaning, this variation does not belong to individual verbs but rather to a group of verbs that fall into the same semantic class – as with the English verbs, *sweep*, *wipe*, and *rub*, which may differ in the manner in which the action is delivered, but fundamentally they are all verbs describing some form of surface contact through motion and can occur in similar syntactic contexts. In other words, Rappaport Hovav and Levin may draw the spotlight on the idiosyncratic meaning of a verb but it is still defined in the strict context of semantics and has not been applied to natural discourse.

6.3.2 Jackendoff's 'conceptual semantics'

The semantic theoretical framework that offers the most interesting insights for the data analysis of this chapter, and hence my proposal in the next section, is Jackendoff's 'conceptual semantics' (1990, 1991, 2007). 'Conceptual semantics' may adopt a formal approach to the understanding of natural language meaning (i.e. Jackendoff proposes that sentences can be represented with ontological categories), but its fundamental idea is not just about 'semantics', as it also potentially falls under the labels of 'pragmatics' and 'world knowledge'. The central premise of Jackendoff's theory proposes that natural language meaning does not occur solely on the level of linguistic representation, which may be characterized as 'pure syntactic level' or 'pure grammatical level'; rather, meanings are notions of mental concepts which are based on our understanding of the world. That is, the meaning of a word or a sentence cannot materialize if it is isolated from our mental understanding of the external world. For instance, the computer vocabulary such as 'upload', 'download', 'wi-fi' that comes so easily to us in this era of technology, would carry no meaning to someone living in the pre-technology period. Similarly, someone who has spent all their life in the tropical region of the world would find it difficult to comprehend the large variety of words used for snow in the Inuit languages since they do not share the same living environment and hence may not integrate the knowledge about snow into their mental understanding of the world.

Since meanings are structured conceptual representations, Jackendoff proposes that they can be broken down into ‘a finite set of mental primitives and a finite set of principles of mental combination’ (Jackendoff 1990:9). He says that like a physical scientist who breaks down a matter in order to observe it, human conceptions can also be ‘decomposed’ into smaller components. For instance, a sentence like *Nina went into the room* (Jackendoff 1991:13) can have a syntactic structure of (16a) and also a conceptual structure, represented in (16b), which consists of the four ontological categories of EVENT, THING, PATH, and PLACE:

(16)

- a. [S [NP Nina] [VP [V went] [PP [P into] [NP the room]]]]
- b. [EVENT GO ([THINGNina], [PATH TO ([PLACE IN ([THINGroom])])])]

Like parts of speech such as nouns, verbs, or adjectives, to which words can be assigned depending on their syntactic and semantic functions, ontological categories such as the ones in (16b) constitute the major groups of conceptualization on which our mental perception of the world is based. Thus, ‘Nina’ and ‘room’ correspond to our conception of THING, the verb ‘go’ corresponds to our conception of EVENT, and the prepositional phrase ‘into the room’ corresponds to our conception of PATH. Besides THING, EVENT and PATH, Jackendoff also puts forward ACTION, DIRECTION, PROPERTY, AMOUNT and MANNER as other major ontological categories. The verb ‘go’ in the sentence *The inheritance went to Philip* (Jackendoff 1990:25) would include the concept of PROPERTY.

Going back to (16), the other three elements in (16b), i.e. GO, TO, and IN, are functions which can contain arguments. For example, IN has the function of containing one argument which can map the object to a PLACE, as in ‘the room’. TO also has the function of containing one argument that can be mapped to a PLACE or a THING. GO, on the other hand, has the function of containing two arguments which are mapped to a THING and a PATH.

Similarly, verb meanings can also be decomposed into conceptual components.

A verb such as ‘put’ can be represented as (17) (Jackendoff 1990:80):

- (17)
[EVENT CAUSE([THING], [EVENT GO ([THING], PATH TO ([PLACE]))])]]]

Here ‘put’ is represented as occurring with two THINGS and a PATH that incorporates a PLACE (as in ‘he put the book on the table’). If we translate this conceptual representation into the argument structure of ‘put’, it indicates that ‘put’ can occur with three arguments: two arguments mapped onto THING and one argument mapped onto PATH. To be more specific, under the theoretical proposal of Conceptual Semantics, verbs can be represented with the type of nouns that they can occur with: be it a THING type of nouns, or a PLACE type of nouns, or both.

One crucial implication extending from this approach to verb meaning is that the conceptual representation carried by a verb can give access to the possible type or types of noun that can ‘fit’ into that conceptual representation. This also gives rise to the understanding that if the conceptual representation of a verb has a very limited selection of noun type, the argument or arguments of the verb can be left implicit since the verb alone can evoke the argument type.

Take the verb ‘drink’ as our example. The conceptual representation of the verb indicates that the object argument it takes must be something belonging to the type of ‘liquid’; other types of argument would not be congruent with the mental representation invoked by ‘drink’. Thus, even though the verb ‘drink’ subcategorizes for an object argument, its conceptual representation selects only the arguments that belong to the type ‘liquid’. Similarly, the English verb ‘prescribe’ subcategorizes syntactically for an object argument, but conceptually it coerces two types of noun: one is associated with ‘remedy’, as in *to prescribe a painkiller*, *to prescribe three months of therapy*, or ‘rules of action’, as in *the law prescribes a prison sentence*, *the government prescribes the regulations*. Compared to other transitive verbs, ‘prescribe’ may share similar syntactic valence of two arguments, but in terms of conceptual representation, it is limited to appear with two types of noun.

6.4 Verb conceptual representation on argument drop

In this section I propose that there is a correlation between verb conceptual representation and the phenomenon of argument realization in Mandarin. I believe that in the discussion of the relationship between verb semantics and argument realization, it is necessary to examine the idiosyncratic meaning of a verb and the degree of mapping strength between the verb and its particular scope of nouns. The restriction that a verb can impose on its arguments because of its conceptual representation can greatly influence the appearance or non-appearance of the core arguments. When the idiosyncratic meaning of a verb is strong in coercing a particular noun or noun type, this particular noun can be left unexpressed in the predicate. This is because the lexical meaning of the verb alone can direct the hearer to recover the referent or referents from the context without relying on syntactic binding. In my data, I have found evidence to indicate that this is especially the case for argument drop tokens in the object position.

When we think of a verb, its idiosyncratic meaning can conjure up certain conceptional images in our minds, for instance, when someone says *I am running*, the verb *run* calls up the image of someone or something moving at a speed faster than walking and never has both legs on the ground at the same time. Similarly, when someone says *The children sang beautifully last night*, the verb *sing* evokes the image of mouths opening and closing to produce words set to a musical tune. The verb *run* in *I am running* does not subcategorize for an object because the actual event it describes does not involve a theme or patient participant. The verb *sing*, on the other hand, can conjure up something more than just the event itself: it can invoke a type of musical sound fabricated by the action of *singing*, such as a Christmas carol, a popular musical number, or an aria; it is less likely to conjure up entities which are not associated with the event of *singing*, say ‘a floor lamp’, ‘a quarrel’, or ‘an elevator’. This is because the lexical meaning of *singing* projects a conceptual association with ‘sounds’, i.e. to sing is for the purpose of making some type of musical sound with your vocal voice. In other words, a transitive verb such as *sing* selects a particular set of nouns with the inherent meaning of ‘a type of musical sound’.

The set of noun types a transitive verb can select varies greatly from verb to verb and their range can have big discrepancies. Take *kick* for example. It subcategorizes for

an object which can be anything ranging from human to non-human, from animate to inanimate: *She kicked me in the shin; I kicked a pebble into the pond. Drink and sing*, on the other hand, select a narrower set of nouns to be their object argument; the former typically selects the category of ‘liquid’ (*I drank some red wine to help me sleep*) while the latter picks the set of ‘musical sound’ (*The children sang the Christmas carol beautifully*). The verbs *kick*, *drink*, *sing* may all be categorized syntactically as transitive and subcategorize for an object argument, but the conceptual representation projected by each of their lexical meaning coerces a different set of nouns.

Moreover, the noun set coerced by individual verbs can vary in size. Thus, a more generic verb, such as the English *make* which coerces a considerably wider scope of nouns: *to make a bed, to make dinner, to make money, to make furniture, to make a living*, would project a weaker verb-noun association and be less likely to activate an argument drop in the object position because the association is not strong enough for the verb to evoke the possible referents for the object argument in the hearer’s mind. Conversely, a verb such as the English *prescribe*, as noted earlier, selects only two types of noun and thus projects a stronger coercion power to evoke certain referents for its object argument. This power affords the verb to allow more frequent argument drop in the object position as the strong verb-noun association activates sufficient noun recoverability without it being overtly expressed.

The aim of this chapter is not to examine a particular group of verbs and specify the noun sets that they can coerce with their idiosyncratic meaning, or to calculate the quantity of noun sets that can be coerced by any individual verb. The main contribution this chapter is aiming to provide is to present evidence to show that conceptual representation of the main verb as well as definiteness are important factors in influencing the realization of core arguments in a verb phrase in Mandarin.

6.5 Data analysis

Our first example (18) is a clear instance which illustrates that an argument is dropped because its referent is definite and the conceptual representation of the main verb can unmistakably pinpoint the right type of referents for the argument to be unexpressed.

This abstract is from the eighth Mandarin conversation in the NCCU corpus and the two speakers, F1 and F2, are mother and daughter who work at separate clothes stores. In (18), daughter F2 is telling her mother that she and her colleague were about to take a break and have *yumi nongtang* ‘corn soup’ for breakfast when a group of customers came in and interrupted them from their meal:

(18)

- | | | |
|---|----|---|
| 1 | F2 | 我 昨天 跟 Lynn 说 <i>wo zuotian gen Lynn shuo</i> 1SG yesterday with Lynn say ‘I said to Lynn yesterday’ |
| 2 | | 明天 我们 上 全班 <i>mingtian women shang quanban</i> tomorrow 1PL go Full-shift ‘we will be working full shift tomorrow’ |
| 3 | | 我 买 一 碗 玉米 农汤 去 <i>wo mai yi wan yumi nongtang qu</i> 1SG buy one CL corn chowder go ‘I will buy and bring one corn soup’ |
| 4 | F1 | um <i>um</i> DM ‘um’ |
| 5 | F2 | 我 帮 你 买 一 碗 <i>wo bang ni mai yi wan</i> 1SG help 2SG buy one CL ‘I’ll buy one for you’ |
| 6 | | 我 说 很 好 喝 <i>wo shuo hen hao he</i> 1SG say very good drink ‘I said it was very delicious’ |
| 7 | F1 | um <i>um</i> DM ‘um’ |

- 8 F2 结果 我们 两 个 已经 要 吃 早餐 了
jieguo women liang ge yijing yao chi zaocan le
 then 1PL two CL already will eat breakfast PRT
 ‘then we two were just about to have breakfast’
- 9 就 一些 杂事 都 弄好 了
jiu yixie zashi dou nonghao le
 then some chore all Do-RESULT PFV
 ‘(we) had finished some chores’
- 10 才 准备 要 吃
cai zhunbei yao chi
 just prepare will eat
 ‘(we) were about to eat’
- 11 就 开始 有 一 组 客人
jiu kaishi you yi zu keren
 then begin have one group customer
 ‘then came a group of customers’
- 12 弄 超 久 的
nong chao jiu de
 do super long PRT
 ‘We dealt with them for a super long time’ (?)
 ‘They dawdled for a super long time’ (?)
- 13 我们 很 饿 你 知道 吗
women hen e ni zhidao ma
 1PL very hungry 2SG know INT
 ‘We were so hungry, you understand’
- 14 F1 那 结果 有 买 吗
na jieguo you mai ma
 then as-a-result PFV buy INT
 ‘In the end, bought anything?’
- 15 F2 有 就 买 了 一 件
you jiu mai le yi jian
 yes only buy PFV one CL
 ‘Yes, just bought one piece’

- 16 F1 还 ok 呀
hai ok ya
 still ok FP
 ‘OK then!’
- 17 F2 我们 从 十一 点 多
women cong shiyi dian duo
 1PL from eleven o’clock more
 ‘We handled from past eleven’
- 18 弄 到 一 点 多 耶
nong dao yi dian duo ye
 do till one o’clock more FP
 ‘until past one o’clock!’
- 19 F1 怎么 这样
zenme zheyang
 why this
 ‘Why is it so?’
- 20 F2 他们 待 了 一 个 多 小时 啊
tamen dai le yi ge duo xiaoshi a
 3PL stay PFV one CL more hour FP
 ‘They stayed more than an hour!’
- 21 F1 几 个 人
ji ge ren
 how-many CL person
 ‘How many people?’
- 22 F2 两 个 啊
liang ge a
 two CL FP
 ‘Just two!’
- 23 就 买 了 一 件
jiu mai le yi jian
 only buy PFV one CL
 ‘Only bought one piece of clothing’
- 24 F1 时间 还 真 多 耶
shijian hai zhen duo ye
 time still indeed plenty FP
 ‘So much leisure time!’

- 25 F2 然后 我们 很 想 吃 你 知道 吗
ranhou women hen xiang chi ni zhidao ma
then 1PL very want eat 2SG know INT
‘and then we were so eager to eat, you know’
- 26 F1 不 就 都 凉 了
bu jiu dou liang le
NEG then all cold PFV
‘Must have all gone cold’
- 27 F2 冷 了
leng le
cold PFV
‘All gone cold’
- 28 F1 不 好 喝 了
bu hao he le
NEG good drink PFV
‘No longer delicious’

In (18), there are two sets of reference resolutions which are triggered by a verb. The first occurs in line 14 with the verb *mai* ‘buy’, which is used to recover the referent for both the phonologically null subject and the object of the clause. It is the main verb of the clause and its basic subcategorization frame includes a subject and an object argument (X buys Y); however, both arguments are dropped in line 14, repeated here as (19):

- (19)
- 那 结果 有 买 吗
na jieguo you mai ma
then as-a-result PFV buy INT
‘In the end, bought anything?’

This is an instance in which both the unexpressed subject and object arguments can only be satisfactorily accounted for based on definiteness of the referent and the conceptual representation of the verb. Recalling the literature review in the previous

chapter: one major pragmatic assumption in the field regarding how speakers selectively express or omit an argument in an ongoing speech interaction refers to the degree of saliency or accessibility of the referent as two main factors. However, my analysis of (18) does not support this assumption. In view of the speech context, either one of the two animate pronouns, *women* ‘we’ and *ni* ‘you’, in the previous line (line 13) would be the most qualified referent to fill the empty subject position of the verb *mai* ‘buy’ in terms of saliency and accessibility because they are syntactically the most adjacent nouns and the most activated mentions as they have just been uttered prior to line 14. But both referents encounter mismatch in the reference resolution with the conceptual representation of the verb. The conceptual representation of *mai* ‘buy’ suggests that its subject argument is the type of ‘buyer’ and its object argument is the type of ‘thing’ that can be bought. Semantically, both the pronouns *women* ‘we’ and *ni* ‘you’ in line 13 could have very well fit into the type of ‘buyer’ as they possess the animate feature of being able to perform the action of buying. However in the present speech context, they are indexed to a ‘saleslady’ and a ‘listener’ respectively – two less appropriate referents than ‘the group of customers’ to be a type of ‘buyer’ – thus the conceptual representation of the verb *mai* ‘buy’ helps to point to ‘the group of customers’ as the most logical referent for its missing subject even though the noun phrase is syntactically further away (in line 11) than the two personal pronouns. The conceptual representation of *mai* ‘buy’ also points to ‘clothing’ as its intended object despite the fact that the noun has not been overtly expressed and can only be inferred from the speech context (as the transaction occurred in a clothes store). That ‘clothing’ is the intended referent for the unexpressed object is further confirmed one line later (line 15), with the use of the classifier 件 *jian* - a classifier which is associated with pieces of clothing in Mandarin:

(20)

| | | | | | |
|------------|------------|------------|-----------|-----------|-------------|
| 有 | 就 | 买 | 了 | 一 | 件 |
| <i>you</i> | <i>jiu</i> | <i>mai</i> | <i>le</i> | <i>yi</i> | <i>jian</i> |
| yes | only | buy | PFV | one | CL |

‘Yes, just bought one piece’

The dropping of the subject NP ‘a group of customers’ and the object head noun ‘clothing’ in (20) is significant in that it provides evidence to support the claim that an argument does not have to be explicitly expressed in the discourse context in Mandarin if its referent can be recovered from the context. In this instance, the referent recovery process is facilitated by the idiosyncractic meaning of the verb *mai* ‘buy’. The conceptual representation projected by the idiosyncractic meaning of *mai* restricts certain nouns in the speech context to qualify as its subject and certain nouns to qualify as its object, thus it functions as a reference tracker and makes it possible for the speaker to leave out its core arguments.

The second set of reference resolution in (18) occurs in line 25 with the verb *chi* ‘eat’. What is interesting about this resolution is the distance between the verb *chi* ‘eat’ and its intended referent for the unexpressed argument in the object position.

The verb in line 25 *chi* ‘eat’, repeated here as (21), can be analyzed as either transitive, to mean speaker F2 and her colleague want to eat something, or intransitive, to mean speaker F2 and her colleague want to do the action of eating:

(21)

| | | | | | | | |
|---------------|--------------|------------|--------------|------------|-----------|---------------|-----------|
| 然后 | 我们 | 很 | 想 | 吃 | 你 | 知道 | 吗 |
| <i>ranhou</i> | <i>women</i> | <i>hen</i> | <i>xiang</i> | <i>chi</i> | <i>ni</i> | <i>zhidao</i> | <i>ma</i> |
| then | 1PL | very | want | eat | 2SG | know | INT |

‘then we were so eager to eat, you know’

However, the hearer F1’s response in the following line: *bu jiu dou liang le* ‘must have all gone cold’, indicates that F1 is interpreting the verb as transitive and she is recovering the unexpressed object to be the only food mentioned in the context *yumi nongtang* ‘corn soup’. The conceptual representation projected by the idiosyncratic meaning of *chi* ‘eat’ selects the type of nouns denoting ‘food’ to be its object; the only referents mentioned in the whole stretch of extract in (18) that can qualify as such are *yumi nongtang* ‘corn soup’ in line 3 and *zaocan* ‘breakfast’ in line 8. We also understand from the beginning of the interaction in (18) that *yumi nongtang* ‘corn soup’ is the breakfast for both speakers; in other words, *zaocan* ‘breakfast’ in line 8 conflates with

yumi nongtang ‘corn soup’ in line 3, therefore the only logical referent for the object argument of *chi* ‘eat’ in this particular context is *yumi nongtang* ‘corn soup’.

That the hearer F1 perceives *yumi nongtang* ‘corn soup’ as the object argument of *chi* ‘eat’ is shown by her confidence in leaving out the subject argument of her utterance *bu jiu dou liang le* ‘must have all gone cold’ in line 26:

| | | | | | | | |
|----|----|---------------------------|------------|------------|--------------|-----------|--|
| 26 | F1 | 不 | 就 | 都 | 凉 | 了 | |
| | | <i>bu</i> | <i>jiu</i> | <i>dou</i> | <i>liang</i> | <i>le</i> | |
| | | NEG | then | all | cold | PFV | |
| | | ‘Must have all gone cold’ | | | | | |

Without specifying the subject, this utterance would be semantically incomplete if it were produced out of context because the hearer would not understand what has or had gone cold. However, in this particular speech context, the conceptual representation of *chi* ‘eat’ has clearly pointed to *yumi nongtang* ‘corn soup’ as its logical object noun, which is in turn picked up as the subject of F1’s utterance in line 26. F2 confirms F1’s interpretation with her echoing comment in the following line *leng le* ‘all gone cold!’ In other words, the referent for the unexpressed object in line 25, and the subsequent unexpressed subjects in lines 26 to 28, share the same entity *yumi nongtang* ‘corn soup’ as illustrated in (22):

(22)

| | | | | | | | | | |
|----|--|--------------|------------|--------------|--------------|----------------------------|-----------|---------------|-----------|
| 25 | 然后 | 我们 | 很 | 想 | 吃 | 玉米农汤 | 你 | 知道 | 吗 |
| | <i>ranhou</i> | <i>women</i> | <i>hen</i> | <i>xiang</i> | <i>chi</i> | <i>yuminongtang</i> | <i>ni</i> | <i>zhidao</i> | <i>ma</i> |
| | then | 1PL | very | want | eat | corn soup | 2SG | know | INT |
| | ‘And then we were so eager to eat, you know’ | | | | | | | | |
| | | | | | | | | | |
| 26 | 玉米农汤 | 不 | 就 | 都 | 凉 | 了 | | | |
| | <i>yuminongtang</i> | <i>bu</i> | <i>jiu</i> | <i>dou</i> | <i>liang</i> | <i>le</i> | | | |
| | corn soup | NEG | then | all | cold | PFV | | | |
| | ‘Must have all gone cold’ | | | | | | | | |

- | | | | | | |
|----|-----------------------|-------------|------------|-----------|-----------|
| 27 | 玉米农汤 | 冷 | 了 | | |
| | <i>yuminongtang</i> | <i>leng</i> | <i>le</i> | | |
| | corn soup | cold | PFV | | |
| | 'All gone cold' | | | | |
| | | | | | |
| 28 | 玉米农汤 | 不 | 好 | 喝 | 了 |
| | <i>yuminongtang</i> | <i>bu</i> | <i>hao</i> | <i>he</i> | <i>le</i> |
| | corn soup | NEG | good | drink | PFV |
| | 'No longer delicious' | | | | |

Although *yumi nongtang* 'corn soup' is expressed twenty lines away at the beginning of the conversation, F2 is still able to retrieve it as the intended referent for the dropped object of *chi* 'eat' because the conceptual representation of *chi* 'eat' restricts its object to be a type of 'food', and as this type of food must also be definite or recoverable from the context, the only possible candidate falls on the noun *yumi nongtang* 'corn soup'.

Here is another example that illustrates both definiteness and that the selection restrictions projected by the verb conceptual representation are relevant for an argument drop. (23) is taken from the first conversation of the NCCU Mandarin corpus. It is uttered by a female student tutor who is responding to her colleague's suggestion of tutoring her students on a one-to-one basis. In line 7, there is an obvious argument drop in the subject position as the verb *mopo* 'scrape' subcategorizes for a subject argument which is unexpressed in the surface structure:

(23)

- | | | | | | | |
|---|----|---|---------------|-------------|--------------|------------------|
| 1 | F2 | 除非 | 你 | 有 | 办法 | 一对一 |
| | | <i>chufei</i> | <i>ni</i> | <i>you</i> | <i>banfa</i> | <i>yi-dui-yi</i> |
| | | unless | 2SG | have | method | One-to-one |
| | | 'Unless you have methods for one-to-one tutoring' | | | | |
| | | | | | | |
| 2 | F1 | 我 | 以前 | 可以 | | |
| | | <i>wo</i> | <i>yiqian</i> | <i>keyi</i> | | |
| | | 1SG | before | can | | |
| | | 'I could before' | | | | |

- 3 但 现在 不 行
dan xianzai bu xing
but now NEG can
‘but cannot now’
- 4 你 知道 为什么 吗
ni zhidao weishenmo ma
2SG know why INT
‘You know why?’
- 5 因为 我 现在 有 牙套
yinwei i xianzai you yatao
because 1SG now Have braces
‘because I am wearing braces now’
- 6 我 不 太 想要 讲 太 多 话
wo bu tai xiangyao jiang tai duo hua
1SG NEG too want speak too many word
‘I don’t want to talk too much’
- 7 会 磨破 我的 嘴皮
hui mopo wode zuipi
can scrape my mouth-skin
‘(it) can scrape the skin of my mouth’

According to the Animacy Hierarchy - first proposed by Silverstein (1976) and later discussed among others such as Dixon (1979) and Croft (1990:112) - with other things being equal, human nouns are more likely to be encoded as agent and to syntactically occupy the subject position because humans are more likely to evoke empathy and be foregrounded in the discourse. As human nouns are more salient in the context of an ongoing conversation, they are also easier to be retained in the interlocutors’ memory and consequently more likely to be unexpressed by the speaker. This is not the case with (23). Although the missing argument in line 7 occurs in the subject position and there is also a human antecedent *wo* ‘I’ just one line before, the human antecedent *wo* ‘I’ in line 6 cannot be the intended referent to fill the implicit subject position of the verb even though it is the nearest human referent. This is because

the conceptual representation projected by the idiosyncratic meaning of the verb *mopo* ‘to scrape’ does not select a human entity as its subject.

The verb *mopo* in Mandarin has the English-equivalent definition of ‘to scrape or wear away by friction or erosion’, meaning *mopo* selects the types of ‘tool’ that can cause damage through friction or erosion as its subject. A closer examination of the data in (23) indicates that the only inanimate entity in this extract that has the power to *mopo* ‘scrape’ *zuipi* ‘mouth-skin’ is *yatao* ‘braces’. Thus, the conceptual representation projected by the verb’s lexical semantics makes it possible to direct the right referent to a less likely entity - an entity that is both lower in rank in animacy and further away in referential distance than a human entity that is more likely to be a subject referent. However, *yatao* ‘braces’ still needs to be definite in the context in order for it to be ‘recovered’, providing evidence for the fact that both selection restrictions by the semantic representation of the verb and the definiteness of the intended referent are two important factors to trigger an argument drop in Mandarin.

The next example is selected to demonstrate that a noun phrase can be definite in discourse merely through the shared knowledge of the speakers. In this example, verb lexical semantics does not play as much a key role as the factor of definiteness in triggering an argument drop. In (24), a subject argument is not expressed overtly in the speech context because its intended referent is definite to the speakers involved and can be identified by both through their shared knowledge.

Example (24) is taken from the ninth conversation of the NCCU corpus. It is a dialogue between two young female speakers: F1 is the girlfriend of F2’s elder brother. Prior to this section, F2 had been implying that F1 should be thinking about marrying F2’s brother. In this extract, she asks how many years the couple have been together.

(24)

| | | | | | | |
|---|----|-----------------------------------|------------|------------|-------------|-----------|
| 1 | F2 | 你们 | 有 | 十 | 年 | 了 |
| | | <i>nimen</i> | <i>you</i> | <i>shi</i> | <i>nian</i> | <i>le</i> |
| | | 2PL | have | ten | year | PFV |
| | | ‘You are together for ten years?’ | | | | |

- 2 F1 没 有
mei you
 NEG have
 ‘No’
- 3 F2 八 年 九 年
ba nian jiu nian
 eight year nine year
 ‘Eight years? Nine years?’
- 4 F1 八 年
ba Nian
 eight year
 ‘Eight years’
- 5 可是 我 中间 有 去 别的 地方
keshi wo zhongjian you qu biede difang
 but 1SG In-between have go other place
 ‘But I have been to other places during this time’
- 6 不 是 真的 满 八 年
bu shi zhende man ba nian
 NEG COP really full eight year
 ‘not really fully eight years’
- 7 F2 哦 你 去 芝加哥
o ni qu zhijiage
 o 2SG go Chicago
 ‘Oh, you went to Chicago’
- 8 F1 中间 有 四 年 都 在 念书
zhongjian you si nian dou zai nianshu
 In-between have four year all PRG study
 ‘During this time, for four years (I?We?) were studying’
- 9 F2 可是 有 在 一起 啊
keshi you zai yiqi a
 but have been together FP
 ‘but (you) were together’
- 10 F1 有 在 一起
you zai yiqi
 have been together
 ‘Yes, (we) were together’

11 可是 在 不同 地方
 keshi zai butong difang
 but LOC different place
 ‘but at different places’

12 F2 好 怪 哦 你们
 hao guai o nimen
 how strange FP 2PL
 ‘How strange! you two’

Line 8 is an interesting line for analysis in that the subject argument of the main verb *nianshu* ‘to study’ is missing but it is vague as to what is its intended referent. Again, in terms of animacy and accessibility, the first person pronoun *wo* ‘I’ referring to the speaker herself seems to be the most appropriate candidate because speaker F1 has just referred to herself in line 5 and speaker F2 has just made a comment about F1 in the previous line: *o ni qu zhijiage* ‘O you went to Chicago’. However, the adverb *dou* meaning ‘both’ or ‘all’ makes this choice uncertain as *dou* modifies the noun or noun phrase that comes before it. Since speaker F1 has not made overt the subject argument of the verb *nianshu* ‘to study’, it is possible that *dou* is modifying any of the nouns or noun phrases related to F1’s proposition in line 8, that is, it can modify the personal pronoun *wo* ‘I’ referring to speaker F1 herself, or *ta* ‘he’ referring to speaker F1’s boyfriend who was also studying in the States at that time, or *women* ‘we’ referring to both, or the noun phrase *si nian* ‘four years’ to mean that the activity of *nianshu* ‘to study’ took the whole period of four years:

(25)

a 中间 有 四 年 我们 都 在 念书
 zhongjian you si nian women dou zai nianshu
 In-between have four year 1PL all PRG study
 ‘During the period of four years, we were studying’

b 他 中间 有 四 年 都 在 念书
 ta zhongjian you si nian dou zai nianshu
 3SG In-between have four year all PRG study
 ‘He was studying during the whole period of four years’

- c 我 中间 有 四 年 都 在 念书
Wo zhongjian you si nian dou zai nianshu
 1SG In-between have four year all PRG study
 ‘I was studying during the whole period of four years’
- d 我们 中间 有 四 年 都 在 念书
women zhongjian you si nian dou zai nianshu
 1PL In-between have four year all PRG study
 ‘We were studying during the whole period of four years’

To an outsider who does not share the same knowledge as the speakers themselves, it is unclear who F1 is selecting as the subject of *nianshu* ‘studying’, but this may not be the case for F2 since she is well acquainted with F1 and she must have knowledge regarding her brother’s studying history. Therefore, a seemingly ‘indefinite’ referent to outsiders who do not share the same knowledge as the two speakers involved in the dialogue can become a ‘definite’ referent for the speakers themselves. From F1’s comment in line 10, *hao guai o nimen* ‘how strange, you two’, it suggests that the missing subject argument of the verb in line 8, as well as the missing agent argument in line 9 and line 10, all refer to the couple, hence the *nimen* ‘you two’ in F1’s comment. This is an example that supports one of the proposals in this chapter, namely, ‘definiteness’ does not have to be an entity overtly expressed in the speech context, it can exist in the shared knowledge of the speakers that is readily retrievable when triggered with the right verb.

6.5.1 Object Drop

Based on the findings presented in Chapters 3 and 4, argument drop in the object position in Mandarin discourse has been found to be less frequent and not as conditioned by syntactic constraints as argument drop in the subject position (an object argument is able to appear pre-verbally and post-verbally). Recalling from Chapter 3, when discussing pro-drop in Mandarin from a formal perspective, Huang (1984) has proposed that there is a binding between discourse topic and a null object. He suggests that a true empty category can have a covert discourse topic as its antecedent; it can have an

antecedent in the previous discourse by a different speaker or in a preceding clause of a complex sentence by the same speaker. This assumption makes clear that an empty object can refer to a discourse topic outside the matrix, but it also points out the inefficiency of using only syntax to account for such a phenomenon. For one, if the antecedent for a true empty category can be ‘covert’, occurring ‘in the previous discourse by a different speaker’, or ‘occurring in a preceding clause by the same speaker’, there are no apparent set rules the hearer can follow to retrieve the intended referent. Furthermore, when there is more than one topic in the discourse, syntax alone cannot explicitly explain the linkage between the empty category and its respective topic antecedent (c.f. Chapter 3: 19). However, through the pragmatic factors of ‘definiteness’ and ‘conceptual representation of verb semantics’, referent resolution can be predicted: when the speaker is confident that the referent of an object argument is definite and can be retrieved by their hearer with the aid of a verb’s conceptual representation, the object argument can be omitted from the clause regardless of its distance from the intended referent or if the referent has been mentioned in the context or not.

Here is one example taken from the data of Mainland Mandarin variety. Although it is a short extract, it illustrates how an object drop can be related to the two pragmatic factors central to the discussion of this chapter: definiteness and verb conceptual representation. In this monologue, F1 is recounting the details of an unsolved murder case in which a family was found dead inside a privately owned cremator:

(26)

- | | | | | | | | | | | | |
|---|---|---|-------------|---------------|-------------|-----------------|---------------|-----------------|---------------|--------------|---------------|
| 1 | F | 在 | 家 | 里面 | 建 | 焚化炉 | 已经 | 非常 | 奇怪 | | |
| | | <i>zai</i> | <i>jia</i> | <i>limian</i> | <i>jian</i> | <i>fenhualu</i> | <i>yijing</i> | <i>feichang</i> | <i>qiguai</i> | | |
| | | LOC | home | inside | build | cremator | already | very | strange | | |
| | | ‘It’s already very queer to build a cremator inside the house’ | | | | | | | | | |
| | | | | | | | | | | | |
| 2 | | 一般 | 自己 | 家 | 是 | 不 | 会 | 建 | 那 | 种 | 东西 |
| | | <i>yiban</i> | <i>ziji</i> | <i>jia</i> | <i>shi</i> | <i>bu</i> | <i>hui</i> | <i>jian</i> | <i>na</i> | <i>zhong</i> | <i>dongxi</i> |
| | | normally | self | home | COP | NEG | will | build | that | kind | stuff |
| | | ‘One would not normally build that kind of stuff in one’s home’ | | | | | | | | | |

3 那 富豪 就 建 了
 na fuhao jiu jian le
 that millionaire then build PFV
 ‘That millionaire then built (cremator)’

In line 3 there is clearly an object drop as the verb *jian* ‘to build’ is transitive and requires an object argument. If analyzed out of context, the clause in line 3 would be syntactically ungrammatical because the verb *jian* ‘to build’ subcategorizes for both the subject and the object arguments but the object position is unfilled. Semantically, the clause would also be vague if uttered out of context as it is unclear what exactly was built by the millionaire. However, in (26) the conceptual representation of the verb *jian* ‘to build’ pinpoints *fenhualu* ‘cremator’ as its intended object referent because it is the only noun that fulfills both pragmatic conditions of being the referent of an implicit argument: it is in the types of noun projected by the conceptual representation of the verb ‘to build’ and it is ‘definite’, or recoverable from the context.

Here is another example taken from the ninth conversation of the NCCU corpus. In this extract, F1 and F2 are commenting on a couple known to them both who have recently just had a baby daughter. The new father apparently is not ready to take on the responsibility of a parent and often leaves the baby to his wife, Susan, to look after:

(27)

- 1 F1 你 看 他 就是 这 种 个性
 ni kan ta jiushi zhe zhong gexing
 2SG look-at 3SG COP this type personality
 ‘Look at him, (he) is this kind of person’
- 2 女儿 生 下来 了
 nüer sheng xialai le
 daughter birth out PFV
 ‘Daughter is now born’
- 3 他 也是 出去
 ta yeshi chuqu
 3SG still go-out
 ‘He still goes out’

- 4 小 孩子 就是 丢 给 Susan
xiao haizi jiushi diu gei Susan
 little child COP throw to Susan
 ‘The baby is left to Susan’
- 5 回来
huilai
 come-bak
 ‘When (he) is back’
- 6 在 那边 逗 女儿
zai nabian dou nüer
 LOC there tease daughter
 ‘(he) teases his daughter’
- 7 逗 完 了
dou wan le
 tease finish PFV
 ‘afterwards’
- 8 他 就 去 做 他的 事情
ta jiu qu zuo tade shiqing
 3SG then go do his thing
 ‘he goes off to do his things’
- 9 F2 um
um
 ‘um’
- 10 F1 他 想 玩 的 时候 就 玩
ta xiang wan de shihou jiu wan
 3SG want play POSS time then play
 ‘When he wants to play (with her), then play (with her)’
- 11 可是 小 孩子
keshi xiao haizi
 but little child
 ‘but little child’
- 12 不 是 只要 你 跟 她 玩 而已
bu shi zhiyao ni gen ta wan eryi
 NEG COP only 2SG with 3SG play nothing-more
 ‘it is not just playing with her’

The verb *wan* ‘to play with’ in line 10 is an interesting token for analysis in that it subcategorizes for an object noun, yet the object noun is not expressed but is identified through definiteness and the verb’s conceptual representation. In Mandarin, *wan* is a polysemic verb which makes it possible to behave as either transitive or intransitive depending on the context. When it means ‘to enjoy’ or ‘to play around, to fool around’, as in *women wan de hen kaixin* ‘we really enjoyed ourselves’, *ta hen ai wan* ‘he likes to fool around’, *wan* functions as an intransitive verb. On the other hand, when *wan* has the implication of ‘playing with something’ such as *wan youxi* ‘play games’ or *wan yueqi* ‘play musical instruments’, then *wan* behaves as a transitive verb. In (27), *wan* must be interpreted as a transitive verb because it has a clear object NP in line 12 (*ni gen ta wan* ‘you play with her’). Even though the object noun in this instance is a third person pronoun *ta*, and personal pronouns in Mandarin do not inflect for gender or case, meaning that in line 12 the accusative *ta* could be ‘him’ or ‘her’, the lexical meaning of *wan* as a transitive verb suggests that its object argument is something or someone the subject of the verb can ‘play with’. The referent which is definite and can be retrieved from the context, at the same time falls under the conceptual representation projected by the lexical meaning of *wan*, which points to the man’s baby daughter as the intended NP for the object of the verb. Therefore, even though the object NP of *wan* is covert in line 10, its intended referent is directed to *ta* ‘her’, referring to the man’s baby daughter.

Here is another similar example taken from the Mainland Mandarin data. In this extract, speaker A is describing a legal case between a man and a woman who went to court because either party refused to pay for the meal they had together on a blind date:

(28)

- | | | | | | | |
|---|---|---------------------------------------|--------------|------------|---------------|--------------|
| 1 | A | 他们 | 两 | 在 | 一起 | 聚餐 |
| | | <i>tamen</i> | <i>liang</i> | <i>zai</i> | <i>yiqi</i> | <i>jucan</i> |
| | | they | both | PROG | together | have-meal |
| | | ‘they were both having meal together’ | | | | |
| | | | | | | |
| 2 | | 聚 | 完 | 餐 | 之后 | |
| | | <i>ju</i> | <i>wan</i> | <i>can</i> | <i>zhihou</i> | |
| | | have | complete | meal | afterward | |
| | | ‘after finished the meal’ | | | | |

- 3 A 不 是 没 有 看上 吗
bu shi mei you kanshang ma
 NEG COP NEG have fancy INT
 ‘(they) did not fancy (each other), right?’
- 4 不 是 有 餐费 吗
bu shi you canfei ma
 NEG COP have bill INT
 ‘there was the bill, wasn’t there?’
- 5 可能 男生 在 出
keneng nansheng zai chu
 maybe man PROG pay
 ‘maybe the man was paying’
- 6 男生 出 了 之后
nansheng chu le zhihou
 man pay PFV afterward
 ‘after the man paid’
- 7 就 觉得 说
jiu juede shuo
 then feel that
 ‘(he) felt’
- 8 不 能 白吃 我的
bu neng baichi wode
 NEG can eat-without-pay mine
 ‘you cannot eat off me’
- 9 你 要 把 那 个 钱 给 我
ni yao ba na ge qian gei wo
 2SG must BA that CL money to me
 ‘you must give the money to me’
- 10 那 个 女的 就 不 给
na ge nüde jiu bu gei
 that CL woman then NEG give
 ‘that woman would not pay’

11 还 闹 到 法庭 去
 hai *nao* *dao* *fating* *qu*
 even rant-and-rave to court go
 ‘(they) even rant-and-raved to the court’

In this extract, there are four clauses with an object drop occurring in lines 3, 5, 6, and 10. In line 3 the verb *kanshang* ‘to take a fancy to’ is transitive and subcategorizes for an object (i.e. ‘to take a fancy to’ + NP). However, the speaker drops the object because the idiosyncratic meaning of the verb selects ‘someone or something’ that ‘one can fancy’ as its object. As the only entities in the speech context that meet the semantic representation of the verb are the man and the woman on the blind date, since they are the only ones who can ‘fancy’ someone or something, therefore it becomes unnecessary to express the object overtly since the verb itself can trigger the right referent. Similarly, the referent resolution for the unexpressed object argument for the verb *chu* ‘to pay, to produce’ in lines 5 and 6 can be established by selecting the most likely definite entity in the discourse context that falls under the semantic representation of the verb.

The verb *chu* has the connotation of ‘to be out, to produce’ and is among the most common verbs to take *qian* ‘money’ as an object to mean ‘to pay money’, i.e. *chu qian* ‘to pay money’, thus if it is uttered in a context of ‘paying’, the hearer can expect money to be the intended object even if only the verb *chu* is phonologically expressed. This is the case in (28) in which, at the end of a blind date, *canfei* ‘the bill’ is mentioned pertaining to the dinner. The noun *canfei* ‘the bill’ in line 4 anticipates the speaker’s upcoming intention to refer to a possible scenario of ‘paying’, therefore even though the verb *chu* is expressed in the subsequent lines (lines 5 and 6) without its object, the semantic representation projected by *chu*, as well as its strong verb-noun association with *qian* ‘money’ to mean ‘pay’, make it effortless for the hearer to understand that *canfei* ‘the bill’ is the intended object referent even though the noun is phonologically null.

The verb *gei* ‘to give’ in line 10 is a more interesting case. *Gei* has the similar definition of the English verb *give* to mean ‘freely transferring an object from one person to another’. It subcategorizes an object which can either refer to ‘someone’ or to

‘something’, i.e. it is grammatical in (28) for the verb *gei* to take either the third person pronoun *ta* as its object to mean ‘to pay the man’ (29a) or to take the noun *qian* ‘money’ as its object to mean ‘to pay money’ (29b):

(29)

- | | | | | | | | |
|---|----------------------------------|-----------|-------------|------------|-----------|------------|-------------|
| a | 那 | 个 | 女的 | 就 | 不 | 给 | 他 |
| | <i>na</i> | <i>ge</i> | <i>nüde</i> | <i>jiu</i> | <i>bu</i> | <i>gei</i> | <i>ta</i> |
| | that | CL | woman | then | NEG | give | 3SG |
| | ‘that woman would not pay him’ | | | | | | |
| | | | | | | | |
| b | 那 | 个 | 女的 | 就 | 不 | 给 | 钱 |
| | <i>na</i> | <i>ge</i> | <i>nüde</i> | <i>jiu</i> | <i>bu</i> | <i>gei</i> | <i>qian</i> |
| | that | CL | woman | then | NEG | give | money |
| | ‘that woman would not pay money’ | | | | | | |

This is an example of focusing on the event rather than on the participants, as I have discussed in great detail in the previous chapter. I proposed that when the description of the event is the main proposition of the utterance in Mandarin, it is very likely that the core arguments of the verb predicate are dropped and that the verb is the only component expressed in the verb phrase because the depiction of the event itself overrides the identity of the participants. By expressing only the verb overtly, the speaker is foregrounding the ‘event’ but at the same time backgrounding the participants, pragmatically marking the ‘event’ as predominant and the participants irrelevant. In line 10 of (28), an ambiguity regarding the referent of the object of the verb *gei* ‘to give’ arises because the speaker chooses to omit the object argument. By expressing the verb alone at the expense of creating ambiguity on the object noun, the speaker conveys her proposition through linguistic means to suggest that it does not matter if ‘the woman pays the man’ or ‘the woman gives the money to the man’, the main focus of the event here is that ‘the woman would not pay’.

The next two extracts - (30) and (31) - are again taken from the NCCU corpus of Mandarin Chinese. The reason for presenting these two examples is to show that when a particular verb is strongly associated with a particular type of noun, it is possible for the

verb to be expressed alone without the noun being mentioned at all but only implied through the speech context.

Extract (30) is taken from the ninth conversation of the NCCU corpus. This is a dialogue between two young female speakers. F1 is the girlfriend of F2's elder brother who has recently paid a visit to a postnatal care centre to see a female friend and her new born daughter. Staying at a postnatal care centre is the alternative to the Chinese tradition of *zuoyuezi* which is a traditional belief that mothers should have a complete rest for a period of one month after giving birth. Clearly, the topic of the interaction revolves around child birth. Notice the verb *sheng* in lines 3 and 7 – a verb often associated with child birth – is expressed alone without its object argument:

(30)

- | | | |
|---|----|--|
| 1 | F2 | 那 你 以后 也 会 去 坐月子 中心 |
| | | <i>na ni yihou ye hui qu zuoyuezi zhongxin</i> |
| | | then 2SG In-future also will go postnatal centre |
| | | 'Then will you also go to a postnatal centre in the future?' |
| | | |
| 2 | F1 | 我 为什么 |
| | | <i>wo weishenme</i> |
| | | 1SG why |
| | | 'Me? Why?' |
| | | |
| 3 | | 基本上 我 不 想 生 哪 |
| | | <i>jibenshang wo bu xiang sheng na</i> |
| | | basically 1SG NEG want give-birth FP |
| | | 'Basically I don't want to give birth!' |
| | | |
| 4 | F2 | 是 吗 |
| | | <i>shi ma</i> |
| | | yes INT |
| | | 'Is that so?' |
| | | |
| 5 | F1 | 为什么 一定 要 生 |
| | | <i>weishenme yiding yao sheng</i> |
| | | why must will give-birth |
| | | 'Why must give birth?' |

| | | | | | | | |
|---|----|--|------------|---------------|--------------|------------|------------|
| 6 | F2 | 有 | 个 | 小 | 孩子 | 作 | 伴 |
| | | <i>you</i> | <i>ge</i> | <i>xiao</i> | <i>haizi</i> | <i>zuo</i> | <i>ban</i> |
| | | have | CL | small | child | keep | company |
| | | ‘Having a small child to keep company’ | | | | | |
| 7 | | 不 | 是 | 比较 | 可爱 | 吗 | |
| | | <i>bu</i> | <i>shi</i> | <i>bijiao</i> | <i>keai</i> | <i>ma</i> | |
| | | NEG | COP | more | sweet | INT | |
| | | ‘isn’t that sweeter’ | | | | | |

The verb *sheng* in lines 3 and 5 has the connotation of ‘to give birth, to grow, to produce’. In other words, the lexical meaning of the verb *sheng* selects the type of entities that can be born, grown, or produced to be its object argument. Indeed, browsing through the list of possible nouns that can be compounded with the verb, we find that these nouns share the commonality of being able to be produced or grown. Here are some examples: *sheng cai* ‘to grow money, to make money’, *sheng dan* ‘to produce eggs, to lay eggs’, *sheng gen* ‘to grow root, to take root (habit, studies), *sheng kong* ‘to produce fear, to be afraid’. In lines 3 and 5 of (30), speaker F1 chooses to make overt only the verb *sheng* in the verb phrase even though *sheng* does subcategorize for an object argument. We can speculate that, as the two speakers have been talking about births and postnatal care centres, the speech context has narrowed down the possible object nouns for the verb *sheng* to be some kind of human offspring – an infant, a baby, or a child, because they are the most logical types of noun which fit with the speech context, as well as falling under the conceptual representation projected by the verb *sheng*. This is confirmed by F2’s turn in line 6 when she comments that it is a sweet idea to have *haizi* ‘children’ around.

Similarly, in (31), the speech context and the strong verb-noun association between the verb *jie* ‘to bind’ and *hun* ‘marriage’ trigger the drop of *hun* ‘marriage’ almost throughout the extract. Extract (31) is also from the ninth conversation of the NCCU corpus, and it occurs only a few lines after (30) when F2 implies that F1 should be thinking about marriage to F2’s brother. Prior to (31), F2 reveals that her aunt is already considering going to F1’s house to ask for her parent’s permission. In more

traditional Chinese families in Taiwan, when a young couple decides to get married, it is ceremonial for an elder relative from the male's family to pay a visit to the female's family to officially ask for her parent's permission. However, F2 never mentions *jie* 'to bind' or *hun* 'marriage' prior to (31). F1 apparently understands what her boy friend's sister is hinting at, because in (31) she answers that she will not consider marriage unless both she and F2's brother are ready. Notice the verb *jie* 'bind' in lines 2, 3, 4, and 5:

(31)

- | | | | | | | | | | | |
|---|----|--|--------------|-----------------|-----------------|-----------------|------------|-----------------|-----------|------------|
| 1 | F1 | 我 | 觉得 | 这 | 种 | 事 | 你 | 急 | 不 | 得 |
| | | <i>wo</i> | <i>juede</i> | <i>zhe</i> | <i>zhong</i> | <i>shi</i> | <i>ni</i> | <i>ji</i> | <i>bu</i> | <i>de</i> |
| | | 1SG | feel | this | kind | thing | 2SG | rush | NEG | ADV |
| | | 'I feel you cannot rush into this kind of thing' | | | | | | | | |
| | | | | | | | | | | |
| 2 | | 我 | 觉得 | 他 | 有 | 想要 | | 结 | | |
| | | <i>wo</i> | <i>juede</i> | <i>ta</i> | <i>you</i> | <i>xiangyao</i> | | <i>jie</i> | | |
| | | 1SG | feel | 3SG | have | want | | to-bind | | |
| | | 'I feel he has wanted to marry' | | | | | | | | |
| | | | | | | | | | | |
| 3 | | 我 | 有 | 想要 | | 结 | | | | |
| | | <i>wo</i> | <i>you</i> | <i>xiangyao</i> | | <i>jie</i> | | | | |
| | | 1SG | have | want | | to-bind | | | | |
| | | 'I have wanted to marry' | | | | | | | | |
| | | | | | | | | | | |
| 4 | | 不 | 能 | 说 | 他 | 没 | 有 | 想要 | | 结 |
| | | <i>bu</i> | <i>neng</i> | <i>shuo</i> | <i>ta</i> | <i>mei</i> | <i>you</i> | <i>xiangyao</i> | | <i>jie</i> |
| | | NEG | can | say | 3SG | NEG | have | want | | to-bind |
| | | 'Cannot be like he has not wanted to marry' | | | | | | | | |
| | | | | | | | | | | |
| 5 | | 那 | 我 | 很 | 想要 | | 结 | | | |
| | | <i>na</i> | <i>wo</i> | <i>hen</i> | <i>xiangyao</i> | | <i>jie</i> | | | |
| | | that | 1SG | very | want | | bind | | | |
| | | 'but I really want to marry' | | | | | | | | |
| | | | | | | | | | | |
| 6 | | 我 | 就 | 逼 | 他 | | | | | |
| | | <i>wo</i> | <i>jiu</i> | <i>bi</i> | <i>ta</i> | | | | | |
| | | 1SG | then | force | 3SG | | | | | |
| | | 'I then force him' | | | | | | | | |

- 7 到 时候 结 婚 了
dao shihou jie hun le
 till then to-bind marriage PFV
 ‘When we are really married’
- 8 他 又 怪说
ta you guaishuo
 3SG then complain
 ‘he then complains’
- 9 干吗 一直 叫 我 这么 早 结 婚
ganma yizi jiao wo zheme zao jie hun
 why continuously tell 1SG this early to-bind marriage
 ‘Why keep telling me to get married so early’

The verb *jie* ‘to bind’ is defined in the Longman Dictionary of New Chinese as meaning ‘to bear (fruit), to tie, to bind’. *hun* ‘marriage’ is among some of the common nouns that are associated with the verb *jie*. Some other nouns listed in the dictionary include *guo* ‘fruit’, as in *jie guo* ‘to bear fruit’, *chou* ‘grudge’ as in *jie chou* ‘to bear grudge’, *bing* ‘ice’, as in *jie bing* ‘to form ice’. When *hun* is the object of the verb, *jie hun* literally means ‘to marry’. F1 chooses to express only the verb in lines 2, 3, 4, and 5 because she is interpreting all the utterances from F2 as hinting that she and her boyfriend should be thinking about marriage, therefore the noun *hun* ‘marriage’ is already a definite entity in both speakers’ minds even though it is not phonologically stated. With *hun* ‘marriage’ already activated in the speech context, the verb *jie* ‘to bind’ alone is enough to pinpoint it as the right referent since it is the only possible candidate that fits into this discourse context and that falls under the conceptional representation of the verb *jie* ‘to bind’.

6.6 Conclusion:

This chapter has provided two constraints that can determine the realization of an argument in a verb phrase. These two constraints are interlinked and have been observed to occur together to trigger a lexically-driven omission. One is ‘definiteness’ – when the

referent of an argument can be recovered from either the speech context or the shared knowledge of the speakers, it may be left unsaid, but how can one initiate the referent recovery process? The recovery process is often aided with the semantic representation of a particular verb. A verb's semantic representation is the conceptual representation projected by the idiosyncratic meaning of the verb. It is fundamentally different from the traditional understanding of transitivity in that, instead of describing the possible number of arguments a verb can categorize, the semantic representation of a verb defines the scope of possible nouns it can be collocated with. Thus when a referent which is 'definite' in the sense that it can be identified either through linguistic means, the discourse context, or the mutual knowledge of the speakers, whilst at the same time remains within the type or types of noun selected by the semantic representation of the main verb, it is very likely to be dropped because the verb alone is enough to evoke the most likely referent for the hearer.

Chapter Seven

Conclusion

7.1 Summary

The overriding purpose of this thesis is to find out the possible syntactic and pragmatic constraints on nominal argument drop in Mandarin Chinese. The findings based on the two spoken corpora indicate that both syntactic and pragmatic factors govern the argument realization pattern in the language.

Syntactically, arguments in Mandarin are found to be constrained by their relative position to the main verb of the sentence. Through examining conjoined clauses and a quasi-passive construction, we have found evidence to show that a Mandarin main verb carries energy from its pre-verbal to its post-verbal position, following the event sequence as perceived in the real world. The pre-verbal position of a transitive clause only accommodates the proto-agent while the post-verbal position caters the proto-patient. Since it is against the natural flow of events for the initiator to occur after the event hence, in a canonical Mandarin sentence, the proto-agent is prohibited to occur after the main verb. The implication of this for argument drop is that when the thematic role of the core arguments is established, speakers may omit one or both arguments in their utterances. This is because interlocutors can re-assign the referents to their appropriate syntactic positions in the sentence – the proto-agent before the main verb and the proto-patient after the main verb – consequently rightly reconstructing the intended meaning of the speaker's proposition.

Pragmatically, the notions of 'r-importance' and 'verb conceptual representation' have been found to play an important role in leveraging the appearance and disappearance of an argument in the surface structure. 'R'-importance, defined as the degree of relevance carried by an argument pertaining to the intended proposition of the speaker at the point of its occurrence in the speech, can affect the expression of an argument. Evidence from the data indicates that when an argument carries little r-

importance to the speaker's intended proposition, it is likely to be dropped. Conversely, if it carries substantial r-importance, it is retained in the surface structure.

Data examples have also shown that speakers are inclined to be economical with their linguistic production. They minimize their overt expression within the syntactic constraints of the language, and provide what they believe is sufficient linguistic input to express their intended meaning. Tying this to the proposal of r-importance, an implication arises which suggests that speakers may make overt only the linguistic component or components that carry the highest r-importance in their utterances, regardless of the possibility that this may create semantic ambiguity for the hearer. This claim is supported by the presentation of data extracts in which a full-fledged argument drop takes place. In such cases, the delineation of the event is the focus of the utterance, meaning the verb or verb phrase is the linguistic component that carries the highest r-importance. Consequently, all the core arguments are omitted, leaving only the bare verb or verb phrase in the surface structure.

The conceptual representation of a verb is another pragmatic factor. Evidence indicates that one important strategy for recovering the referent of a definite entity is to utilize a verb's conceptual representation. The lexical semantics of a verb can have a coercion power to evoke certain nouns; when there is a strong semantic association between a verb and a certain type of noun, the noun can be unexpressed since the verb alone may be an enough clue for the hearer to recover the missing referent. Clauses have been found in the data to support this claim: in these instances, even though the verb is the only overt syntactic component expressed in the verb phrase, it has a strong coercion power to evoke the missing referent, and hence direct the hearer to pinpoint the exact referent in the context.

In the main chapters of this thesis, data analysis has been provided in such a way as to illustrate each strand of the three proposed constraints. However, in reality, the integration of all three is necessary in order to fully account for the argument realization pattern in the data source. Below I present the analysis of one of the longest data examples in this thesis to demonstrate how the three main proposals - the semantic function of the main verb, r-importance, and verb conceptual representation - can be applied to explain the argument drop phenomenon in Mandarin discourse.

7.2 Application of all constraints on argument drop in one single example

The chosen example is the *yumi nongtang* ‘corn soup’ extract which is discussed extensively in Chapter 5 and 6. There are two main reasons for utilizing this particular example. Firstly, it is one of the longest stretches of talk in the data which provides enough tokens for discussion of each as well as the interaction of all three proposed constraints. Secondly, it is the only example from the main chapters which has been analyzed for both ‘r-importance’ and ‘verb conceptual representation’, meaning that it is a data sample which has been examined in great depth, therefore it should offer a more comprehensive picture regarding the interaction of all three proposed constraints.

Recall that this extract is from the eighth conversation of the NCCU corpus, in which F2 is telling her mother (F1) about an incident at work – a group of customers came into their clothes store while she and her colleague were about to have *yumi nongtang* ‘corn soup’ for breakfast:

(1)

- | | | | | | | | |
|---|----|--|----------------|--------------|----------------|-------------|-----------------|
| 1 | F2 | 我 | 昨天 | 跟 | Lynn | 说 | |
| | | <i>wo</i> | <i>zuotian</i> | <i>gen</i> | <i>Lynn</i> | <i>shuo</i> | |
| | | 1SG | yesterday | with | Lynn | say | |
| | | ‘I said to Lynn yesterday’ | | | | | |
| | | | | | | | |
| 2 | | 明天 | 我们 | 上 | 全班 | | |
| | | <i>mingtian</i> | <i>women</i> | <i>shang</i> | <i>quanban</i> | | |
| | | tomorrow | 1PL | go | Full-shift | | |
| | | ‘we will be working full shift tomorrow’ | | | | | |
| | | | | | | | |
| 3 | | 我 | 买 | 一 | 碗 | 玉米 | 农汤 |
| | | <i>wo</i> | <i>mai</i> | <i>yi</i> | <i>wan</i> | <i>yumi</i> | <i>nongtang</i> |
| | | 1SG | buy | one | CL | corn | chowder |
| | | | | | | | <i>qu</i> |
| | | ‘I will buy and bring one corn soup’ | | | | | |
| | | | | | | | |
| 4 | F1 | um | | | | | |
| | | <i>um</i> | | | | | |
| | | DM | | | | | |
| | | ‘um’ | | | | | |

- 5 F2 我 帮 你 买 一 碗
wo bang ni mai yi wan
 1SG help 2SG buy one CL
 ‘I’ll buy one for you’
- 6 我 说 很 好 喝
wo shuo hen hao he
 1SG say very good drink
 ‘I said it was very delicious’
- 7 F1 um
um
 DM
 ‘um’
- 8 F2 结果 我们 两 个 已经 要 吃 早餐 了
jieguo women liang ge yijing yao chi zaocan le
 then 1PL two CL already will eat breakfast PRT
 ‘then we two were just about to have breakfast’
- 9 就 一些 杂事 都 弄好 了
jiu yixie zashi dou nonghao le
 then some chore all Do-RESULT PFV
 ‘(we) had finished some chores’
- 10 才 准备 要 吃
cai zhunbei yao chi
 just prepare will eat
 ‘(we) were about to eat’
- 11 就 开始 有 一 组 客人
jiu kaishi you yi zu keren
 then begin have one group customer
 ‘then came a group of customers’
- 12 弄 超 久 的
nong chao jiu de
 do super long PRT
 ‘We dealt with them for a super long time’ (?)
 ‘They dawdled for a super long time’ (?)
- 13 我们 很 饿 你 知道 吗
women hen e ni zhidao ma
 1PL very hungry 2SG know INT
 ‘We were so hungry, you understand’

- 14 F1 那 结果 有 买 吗
na jieguo you mai ma
 then as-a-result PFV buy INT
 ‘In the end, bought anything?’
- 15 F2 有 就 买 了 一 件
you jiu mai le yi jian
 yes only buy PFV one CL
 ‘Yes, just bought one piece’
- 16 F1 还 ok 呀
hai ok ya
 still ok FP
 ‘OK then!’
- 17 F2 我们 从 十一 点 多
women cong shiyi dian duo
 1PL from eleven o’clock more
 ‘We handled from past eleven’
- 18 弄 到 一 点 多 耶
nong dao yi dian duo ye
 do till one o’clock more FP
 ‘until past one o’clock!’
- 19 F1 怎么 这样
zenme zheyang
 why this
 ‘Why is it so?’
- 20 F2 他们 待 了 一 个 多 小时 啊
tamen dai le yi ge duo xiaoshi a
 3PL stay PFV one CL more hour FP
 ‘They stayed more than an hour!’
- 21 F1 几 个 人
ji ge ren
 how-many CL person
 ‘How many people?’
- 22 F2 两 个 啊
liang ge a
 two CL FP
 ‘Just two!’

- 23 就 买 了 一 件
jiu mai le yi jian
only buy PFV one CL
‘Only bought one piece of clothing’
- 24 F1 时间 还 真 多 耶
shijian hai zhen duo ye
time still indeed plenty FP
‘So much leisure time!’
- 25 F2 然后 我们 很 想 吃 你 知道 吗
ranhou women hen xiang chi ni zhidao ma
then 1PL very want eat 2SG know INT
‘and then we were so eager to eat, you know’
- 26 F1 不 就 都 凉 了
bu jiu dou liang le
NEG then all cold PFV
‘Must have all gone cold’
- 27 F2 冷 了
leng le
cold PFV
‘All gone cold’
- 28 F1 不 好 喝 了
bu hao he le
NEG good drink PFV
‘No longer delicious’

Now let us compare (1) with (2), the latter is the version attested by native speakers to be the possible scenario when both F1 and F2 are as explicit as possible with their utterances. The bolded nouns or noun phrases in (2) are considered to be dropped arguments in (1) because they could have been expressed in (1) but were left out.

(2)

- 1 F2 我 昨天 跟 Lynn 说
wo zuotian gen Lynn shuo
1SG yesterday with Lynn say
'I said to Lynn yesterday'
- 2 明天 我们 上 全班
mingtian women shang quanban
tomorrow 1PL go Full-shift
'we will be working full shift tomorrow'
- 3 我 买 一 碗 玉米 农汤 去
wo mai yi wan yumi nongtang qu
1SG buy one CL corn chowder go
'I will buy and bring one corn soup'
- 4 F1 um
um
DM
'um'
- 5 F2 我 帮 你 买 一 碗 玉米 农汤
wo bang ni mai yi wan yumi nongtang
1SG help 2SG buy one CL **corn** **chowder**
'I'll buy one corn soup for you'
- 6 我 说 玉米 农汤 很 好 喝
wo shuo yumi nongtang hen hao he
1SG say **corn** **chowder** very good drink
'I said it was very delicious'
- 7 F1 um
um
DM
'um'
- 8 F2 结果 我们 两 个 已经 要 吃 早餐 了
jieguo women liang ge yijing yao chi zaocan le
then 1PL two CL already will eat breakfast PRT
'then we two were just about to have breakfast'

- 9 我们 就 一些 杂事 都 弄好 了
women *jiu* *yixie* *zashi* *dou* *nonghao* *le*
1PL then some chore all Do-RESULT PFV
‘we had finished some chores’
- 10 我们 才 准备 要 吃 玉米农汤/早餐
women *cai* *zhunbei* *yao* *chi* **yumi-nongtang/zaocan**
1PL just prepare will eat **corn chowder/ breakfast**
‘we were about to eat the corn soup’
- 11 就 开始 有 一 组 客人
jiu *kaishi* *you* *yi* *zu* *keren*
then begin have one group customer
‘then came a group of customers’
- 12 我们/他们 弄 超 久 的
women/tamen *nong* *chao* *jiu* *de*
1PL/3PL do super long PRT
‘We dealt with them for a super long time’ (?)
‘They dawdled for a super long time’ (?)
- 13 我们 很 饿 你 知道 吗
women *hen* *e* *ni* *zhidao* *ma*
1PL very hungry 2SG know INT
‘We were so hungry, you understand’
- 14 F1 那 结果 他们 有 买 衣服/东西 吗
na *jieguo* **tamen** *you* *mai* **yifu/dong-xi** *ma*
then as-a-result **3PL** PFV buy **cloth/thing** INT
‘In the end, did they buy any clothes/things?’
- 15 F2 有 他们 就 买 了 一 件 衣服
you **tamen** *jiu* *mai* *le* *yi* *jian* **yifu**
yes **3PL** only buy PFV one CL **cloth**
‘Yes, they just bought one piece of clothing’
- 16 F1 还 ok 呀
hai *ok* *ya*
still ok FP
‘OK then!’

- 17 F2 我们 从 十一 点 多
women cong shiyi dian duo
 1PL from eleven o'clock more
 'We handled from past eleven'
- 18 弄 到 一 点 多 耶
nong dao yi dian duo ye
 do till one o'clock more FP
 'until past one o'clock!'
- 19 F1 怎么 这样
zenme zheyang
 why this
 'Why is it so?'
- 20 F2 他们 待 了 一 个 多 小时 啊
tamen dai le yi ge duo xiaoshi a
 3PL stay PFV one CL more hour FP
 'They stayed more than an hour!'
- 21 F1 几 个 人
ji ge ren
 how-many CL person
 'How many people?'
- 22 F2 两 个 啊
liang ge a
 two CL FP
 'Just two!'
- 23 他们 就 买 了 一 件 衣服
tamen jiu mai le yi jian yifu
 3PL only buy PFV one CL cloth
 'They only bought one piece of clothing'
- 24 F1 时间 还 真 多 耶
shijian hai zhen duo ye
 time still indeed plenty FP
 'So much leisure time!'

- 25 F2 然后 我们 很 想 吃 玉米农汤/早餐
ranhou women hen xiang chi yumi-nongtang/zaocan
 then 1PL very want eat **corn chowder/ breakfast**
 ‘and then we were so eager to eat the corn soup,’
- 你 知道 吗
ni zhidao ma
 2SG know INT
 ‘you know’
- 26 F1 玉米农汤/早餐 不 就 都 凉 了
yumi-nongtang/zaocan bu jiu dou liang le
corn chowder/ breakfast NEG then all cold PFV
 ‘It must have all gone cold’
- 27 F2 玉米农汤/早餐 冷 了
yumi-nongtang/zaocan leng le
corn chowder/ breakfast cold PFV
 ‘it has all gone cold’
- 28 F1 玉米农汤 不 好 喝 了
yumi-nongtang bu hao he le
corn chowder NEG good drink PFV
 ‘The corn soup was no longer delicious’

There are a total of 16 bolded nouns or noun phrases in this conversation of 28 lines. However, I would consider only 14 of them are true argument drops, the noun *yifu* ‘clothes’ in lines 15 and 23 is considered as an unexpressed head noun of the object NP *yi jian yifu* ‘one piece of clothing’. This is because the internal structure of a standard Mandarin noun phrase typically comprises of a numeral, a classifier and a head noun (i.e. Number + Classifier + N; also see Cheng & Sybesma 2014), therefore *yifu* ‘clothes’ in lines 15 and 23 is analyzed as a head noun drop instead of a full object drop.

Comparing (1) to (2), we observe that both core arguments of the transitive verbs *chi* ‘eat’ and *mai* ‘buy’ are dropped in lines 10 and 14 respectively. However, when they are expressed in (2), the agent (*women* ‘we’, *tamen* ‘they’) takes up the pre-verbal position and the patient (*zaocan* ‘breakfast’) or theme (*yumi nongtang* ‘corn soup’) is expressed in the post-verbal position. Indeed, throughout (2), the agent is found to

appear in the pre-verbal position as in lines 9, 10, 12, 14, 15, 23. In the case of line 12 where there are two possible referents to head the subject of the verb phrase *nong chao jiu de* ‘do super long time’, the two referents – *tamen* ‘they’ and *women* ‘we’ – are allowed to be recovered only before the main verb (c.f. Chapter 5, section 5.4). As proposed in this thesis, a Mandarin main verb carries energy force from its pre-verbal to its post-verbal position; therefore it is possible to have a fully-fledged argument drop, leaving only a bare verb or verb phrase in the surface structure when the thematic role of potential referents is established. This is because the referents can only be recovered at a certain position relative to the main verb. In the case of lines 9, 10, 12, 14, 15, and 23, the personal pronouns *women* ‘we’ has been established as referring to speaker F2 and her colleague Lynn as early as line two; *tamen* ‘they’ in lines 14, 15, and 23 can be established as referring to the noun phrase *yi zu keren* ‘one group of customers’ in line 11. In other words, both interlocutors are aware from the beginning of their interaction who are represented by the personal pronoun *women* ‘we’, and from line 11 onwards, who are represented by *tamen* ‘they’. Since both pronouns clearly represent human agents, it is possible to drop them because if they were to reappear, as shown in (2), they could only appear in their default pre-verbal position.

However, syntax alone cannot account for the referent resolution for the argument drop in line 12 or lines 26 to 28, nor can it account for the fully-fledged argument drop in line 14. The pragmatic factors of r-importance and verb conceptual representation play indispensable roles too.

In Chapter 5, we explained that the unexpressed subject referent for the verb *nong* ‘do’ in line 12 can be recovered as *yi zu keren* ‘a group of customers’ or *women* ‘we’ referring to speaker F2 and her colleague. By leaving it out, speaker F2 creates semantic ambiguity regarding the identity of the event initiator. We also explained that r-importance can provide the rationale behind this argument drop. As detailed in Chapter 5, the fact that the bare verb phrase is the only overt syntactic component indicates that it entails information that carries the highest r-importance relevant to the speaker’s intended proposition; in the case of line 12, it leads to the implication that the speaker considers the depiction of the long process of the event (*nong chao jiu de* ‘do for a super long time’) more important than its participants. By expressing only the linguistic

component with the highest r-importance, the speaker has conveyed the most relevant information pertaining to her intended meaning with the least effort.

Although I only discussed line 12 at length in Chapter 5 to illustrate how r-importance can be applied to explain certain argument drops in discourse, the concept of r-importance underlies our general tendency to be economic with our words. By making overt what we consider the most relevant linguistic coding pertaining to our intended meaning at the point of their occurrence in the utterance and omitting what we consider less relevant – disregarding the possibility that by dropping arguments, ambiguity may arise – we are working towards spending the least effort to achieve the maximum result. In such a way, all the phonologically expressed phrases in (1) can be considered to be the linguistic component or components which the speaker considers to be carrying a higher or the highest r-importance at the point of their occurrence. Conversely, all the arguments which are not expressed in (1) are deemed to be carrying relatively low r-importance, which may have resulted in their disappearance from the surface structure. This is the case with line 12, so is the dropping of the subject argument from line 26 to 28. In the three lines of 26 to 28, only the adjective phrase of each clause is expressed: *bu jiu dou liang le* ‘all gone cold’, *leng le* ‘all cold’, *bu hao he le* ‘no longer delicious’. Since they are the only linguistic components that are overt in the syntactic structure, in terms of r-importance, we can interpret them to be carrying higher r-importance than the unexpressed subject referents. In other words, we can deduce that at this point of the conversation, speakers F1 and F2 consider the description of the resulting condition of the subject referent more important than the subject referent itself, hence they only express the adjective phrases overtly.

The subject drop in lines 26 to 28 may well be accounted for with r-importance, but to explain the reference resolution of these three lines needs the application of the factor of verb conceptual representation. We observe that all three adjectives subcategorize for a subject, i.e. the verb semantic of each adjective suggests that the unexpressed subject of each clause has to be something which can become *liang le* ‘gone cold’, *leng le* (also means ‘gone cold’) or *bu hao he le* ‘no longer delicious’. A search of the preceding discourse prior to line 26 does not provide any clear noun or noun phrase which can be the semantically logical referent for the adjectives in lines 26

to 28; the nominals which are closest in structural proximity are the personal pronouns *women* ‘we’ and *ni* ‘you’ in line 25, *shijian* ‘time’ in line 24, and *tamen* ‘they’ in line 20, however none can be satisfactorily associated with the lexical semantics of *liang le* ‘gone cold’, *leng le* ‘gone cold’ and *bu hou he le* ‘no longer delicious’. In fact, the most logical referents for the subject in lines 26 to 28 throughout this conversation are *yumi nongtang* ‘corn soup’ in line 3 and *zaocan* ‘breakfast’ in line 8. Both are more than 20 lines away. The resolution is only facilitated by the lexical semantics of the verb *chi* ‘to eat’ in line 25.

The conceptual representation projected by the idiosyncratic meaning of *chi* ‘to eat’ selects ‘food’ to be its object; the only mentions in this conversation that can qualify as such are *yumi nongtang* ‘corn soup’ and *zaocan* ‘breakfast’. Therefore, even though the right referent for the missing argument from line 25 through line 28 is remote in its structural distance in the conversation, the conceptual representation of the verb *chi* ‘to eat’ points to the right referent as its logical object noun, which is in turn picked up as the subject of lines 26 to 28.

The application of verb conceptual representation is also necessary to explain the reference resolution for the verb *mai* ‘buy’ in line 14. The verb *mai* ‘buy’ subcategorizes for a buyer and an object of purchase, i.e. X buy Y, but in line 14, there is only the verb phrase expressed overtly. It is possible to drop both core arguments because the idiosyncratic meaning of *mai* ‘buy’ selects human agents to be its subject. Although there are several possible qualified candidates – *wo* ‘I’ (lines 1, 3, 5, 6), *women* ‘we’ (lines 8, 13), *ni* ‘you’ (lines 5, 13), *yi zu keren* ‘a group of customers’ (line 11), but the conceptual representation of *mai* ‘buy’ selects the type of ‘buyer’ to be its subject and *yi zu keren* ‘a group of customers’ best fits into this description. The verb also selects ‘things that can be bought’ to be its object. Since the conversation takes place in a clothes store, ‘clothes’ becomes the most likely item which can be bought. One may argue *Yumi nongtang* ‘corn soup’ and *zaocan* ‘breakfast’ can also be purchased, but in this context, they have already been bought by F2 for herself and her colleague, therefore, strictly speaking, they are not for sell and do not logically fall under the semantic projection of *mai* ‘to buy’ in this particular speech context.

7.3 Practical implications of the findings and suggestions for future research

The findings of this thesis offer pedagogical implications to explain the basic sentence construction of the Mandarin language. The adoption of the topic-comment construction has been a predominant approach to describe a Mandarin sentence. However, stating that all Mandarin sentences exhibit topic-comment structure does not elucidate the semantic nuances expressed by the different word orders in this language. This is because an agent argument before the verb or a promoted patient argument before the verb can both be parsed as the ‘topic’, yet their projected semantics are completely different. The former needs to be interpreted as an initiator of an action while the latter is an affected entity. The syntactic claims proposed in this thesis help to clarify why among the variety of word orders possible in this language, the agent argument is never found to occur after the main verb in a transitive clause. They also explain why the aspect of a sentence can change with the altered position of the patient argument. The syntactic findings of this thesis offer a more precise model to explain the word ordering of Mandarin sentences in the area of pedagogy.

The findings of this thesis also give rise to one interesting implication concerning the syntactic structure of Mandarin Chinese. They suggest that the notion of ‘topic’ in this language may be syntactically more significant than previously assumed. Relevant evidence comes from the quasi-passive construction discussed in Chapter 3. Since the agent argument is disallowed to appear after the main verb, when the patient argument is promoted to the pre-verbal position, the only way the agent can co-occur with the patient is to be the ‘topic’ of the clause, thus forming SOV word order. In this way, ‘topic’ becomes an increased syntactic position before the verb, functioning as an extra spot to accommodate either the agent or the patient argument when both need to appear pre-verbally. Hence, it is logical to surmise that ‘topic’, in a language with impoverished morphology such as Mandarin Chinese, may not simply be a pragmatic notion, but a necessary syntactic element as a means to mark thematic prominence of certain noun phrases. This is one area worthy of further research.

References

- Aikhenvald, Alexandra, Dixon, R. M. W., and Onishi, Masayuki. 2001. *Non-canonical Marking of Subjects and Objects*. Amsterdam: John Benjamins.
- Alexiadou, Artemis, and Schäfer, Florian (eds). 2013. *Non-canonical passives*. Amsterdam: John Benjamins.
- Ariel, Mira. 1990. *Accessing noun-phrase antecedents*. London: Routledge
- Ariel, Mira. 1996. "Referring expressions and the +/-coreference distinction." In *Reference and Referent Accessibility*, ed. by Fretheim, T., and Gundel, J., 13-35. Amsterdam: John Benjamins.
- Ariel, Mira. 2001. "Accessibility theory: An Overview." In *Text representation: Linguistic and psycholinguistic aspects*, ed. by Ted J.M. Sanders, Joost Schilperoord and Wilbert Spooren, 29-87. Amsterdam: John Benjamins.
- Ariel, Mira. 2010. *Defining Pragmatics*. Cambridge University Press.
- Baker, Mark C. 1988. *Incorporation: A Theory of Grammatical Function Changing*. Chicago: University of Chicago Press.
- Baker, Mark C. 1997. "Thematic Roles and Syntactic Structure." In *Elements of Grammar: Handbook of Generative Syntax*, edited by L. Haegeman, 73-137, Kluwer, Dordrecht.
- Bavin, Edith L. 2000. "Introduction: a functional approach to ellipsis". *Linguistics* 38 (3): 449-455.
- Bender, Emily. 2000. "The Syntax of Mandarin *ba*: Reconsidering the Verbal Analysis". *Journal of East Asian Linguistics* 9: 100-145.
- Bickel, Balthasar. 2003. "Referential density in discourse and syntactic typology." *Language* 79 (4): 708-736.
- Blakemore, Diane. 1987. *Semantic Constraints on Relevance*. Blackwell.
- Bresnan, Joan and Kanerva, Jonni, M. 1989. "Locative inversion in Chichewa: A Case Study of Factorization in Grammar." *Linguistic Inquiry* 20 (1): 1-50.
- Bresnan, Joan. 1995. "Lexicality & Argument Structure." *Paris Syntax and Semantics Conference*.
- Bresnan, Joan. 2001. *Lexical-Functional Syntax*. Blackwell Text Books in Linguistics.

- Bybee, Joan L. 1985. *Morphology: A Study of the Relation between Meaning and Form*. Amsterdam: John Benjamins.
- Carroll, David. W. 2008. *Psychology of language (Fifth Edition)*. Thomson Wadsworth.
- Chafe, Wallace. 1976. "Givenness, contrastiveness, definiteness, subjects, topics and point of view". In *Subject and Topic*, ed. by Charles Li: 25-55. Academic Press.
- Chafe, Wallace. 1987. Cognitive Constraints on Information Flow. In *Coherence and Grounding in Discourse*, ed. By Russell Tomlin: 21-51. Amsterdam: John Benjamins.
- Chafe, Wallace. 1994. *Discourse, Consciousness, and Time*. Chicago and London: The University of Chicago Press.
- Chambers, G. C. & R. Smyth. 1998. Structural parallelism and discourse coherence: A test of centering theory. *Journal of Memory and Language* 39:593-608.
- Chao, Yuen Ren. 1968. *A Grammar of Spoken Chinese*. University of California Press, Berkeley/Los Angeles.
- Cheng, Lisa L-S. & Huang, James C-T. 1994. "On the Argument Structure of Resultative Compounds". In *In Honor of William S-Y. Wang: Interdisciplinary Studies on Language and Language Change*, ed. by M. Y Chen & O. L Tzeng: 187-221. Taipei: Pyramid Press:
- Cheng, Lisa L-S & Sybesma, Rint. 2014. "The syntactic structure of noun phrases". In *The Handbook of Chinese Linguistics*, ed. by Huang C. T. James, Y. H. Audrey Li, Simpson A. London: Blackwell Publishers.
- Chomsky, Noam. 1969. *Aspects of the Theory of Syntax*. MIT Press.
- Chomsky, Noam and Lasnik, Howar. 1977. "Filters and Control." *Linguistic Inquiry* 8: 425-504.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*, Foris, Dordrecht.
- Christophersen, Paul. 1939. *The articles: A study of their theory and use in English*. Copenhagen: Munksgaard.
- Chui, Kawai. 2009. The NCCU corpus of spoken Chinese: Mandarin, Hakka, and Southern Min.

- Chui, Kawai and Lai, Huei-Ling. 2009. The NCCU Corpus of Spoken Chinese: Mandarin, Hakka, and Southern Min. *Taiwan Journal of Linguistics* 6.2: 119-144.
- Clark, Billy. 2013. *Relevance Theory*. Cambridge University Press.
- Cole, Peter et al. 1980. 'The acquisition of subjecthood.' *Language* 56: 719-43.
- Comrie, Bernard. 1978. "Ergativity." In *Syntactic Typology*, ed. by W. Lehmann, 294-329. Austin: University of Texas Press.
- Comrie, Bernard. 1988. "Coreference and conjunction reduction in grammar and discourse." In *Explaining language universals*, ed. by J. A. Hawkins, 186-208. London: Blackwell.
- Cowper, Elizabeth A. 1992. *A Concise Introduction to Syntactic Theory: The Government-Binding Approach*. The University of Chicago Press.
- Crawley, R., R. Stevenson and D. Kleinman. 1990. The use of heuristic strategies in the interpretation of pronouns. *Journal of Psycholinguistic Research* 4: 245-264.
- Cumming, Susanna. 1984. "The sentence in Chinese." *Studies in Language* (8): 365-395
- Cumming, Susanna, Ono Tsuyoshi, and Laury Ritva. 2011. "Discourse, Grammar and Interaction". In *Discourse Studies: A Multidisciplinary Introduction*. ed. by Teun A. Van Dijk, 8-36. Sage Publications Ltd.
- Croft, William. 1990a. *Typology and Universals*. Cambridge: Cambridge University Press.
- Croft, William. 1990b. "Possible verbs and event structure." In *Meanings and Prototypes: Studies on Linguistic Categorization*, ed. by S. L. Tsahatzidis, 48-73. London: Routledge.
- Dixon, Robert. 1979. "Ergativity". *Language* 55: 59-138
- Dixon, Robert. 1994. *Ergativity*. *Cambridge Studies in Linguistics*. Cambridge University Press.
- Dowty, David. 1979. *Word Meaning and Montague Grammar*. Dordrecht: Reidel
- Dowty, David. 1991. "Thematic Proto-Roles and Argument Selection." *Language*, 67(3): 547-619.

- Dryer, Matthew S. 1996. "Focus, pragmatic presupposition, and activated propositions." *Journal of Pragmatics* 26(4): 475-523
- Dryer, Matthew S. 2013. "Order of Subject, Object and Verb" In *The World Atlas of Language Structures Online*, ed. by Dryer, Matthew S. & Haspelmath, Martin. Leipzig: Max Planck Institute for Evolutionary Anthropology.
(Available online at <http://wals.info/chapter/81>, Accessed on 2017-02-28.)
- Du Bois, John W. 1980. "Beyond Definiteness: The Trace of Identity in Discourse." In *The Pear Stories: Cognitive, Cultural, and Linguistic Aspects of Narrative Production*, ed. by Wallace L. Chafe, 203-74. Norwood, NJ: Ablex.
- Du Bois, John W. 1985. "Competing Motivations" In *Iconicity in Syntax*, ed. by John Haiman, 343-65. *Typological Studies in Language*, vol. 6. Amsterdam: Benjamins.
- Du Bois, John W. 1987. "The discourse basis of ergativity." *Language*, 63: 805-855
- Du Bois, John W. 2003. "Discourse and Grammar." *The new psychology of language: Cognitive and functional approaches to language structure*, 2: 47-87.
- Erteschik-Shir, Nomi. 2007. *Information Structure: The Syntax-Discourse Interface*: Oxford University Press, USA.
- Ewing, Michael C. 2014. "Motivation for first and second person subject expression and ellipsis in Javanese conversation." *Journal of Pragmatics* 63: 48-62.
- Fillmore, Charles J. 1968. "The case for case." In *Universals in Linguistic Theory*, ed. by Emmon. Bach, and Robert T. Harms, 1-210. New York: Holt, Rinehart, and Winston.
- Fillmore, Charles J. 1971. "Some Problems for Case Grammar." In *Report of the 22nd Annual Roundtable Meeting on Linguistics and Language Studies*, ed. by J. O'Brien, 35-56. Washington DC: Georgetown University Press.
- Fillmore, Charles J. 1986. "Pragmatically Controlled Zero Anaphora." In *Proceedings of the Twelfth Annual Meeting of the Berkeley Linguistics*, 95-107.
- Foley, William A. and Van Valin, Robert. 1984. *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Fox, Barbara A. 1996. *Studies in anaphora*. Amsterdam: Benjamins.

- Givón, Talmy. 1990. *Syntax: a functional-typological introduction*, Volume 1. Amsterdam/Philadelphia: John Benjamins.
- Givón, Talmy. 2001. *Syntax: An Introduction Volume II*. Amsterdam: John Benjamins Publishing Company.
- Givón, Thomas. 1997. *Conversation. Cognitive, Communicative and Social Perspectives*. Amsterdam: John Benjamins Publishing Company.
- Givón, Thomas. (ed.) 1997. *Grammatical Relations: A Functional Perspective*. John Benjamins.
- O'Grady, William, Yamashita, Yoshie, and Cho, Sookeun. 2008. "Object Drop in Japanese and Korean." *Language Acquisition* 15: 58-68
- Grewendorf, Günther. 2002. *Minimalistische Syntax*. Tübingen & Basel: Francke.
- Grice, H. Paul. 1975. "Logic and Conversation." In *Syntax and Semantics 3: Speech Acts*, ed. by Peter Cole and Jerry L. Morgan, 41-58. New York: Academic Press.
- Grice, H. Paul. 1981. "Presupposition and conversational implicature." In *Radical Pragmatics*, ed. by Peter Cole, 167-181. New York: Academic Press.
- Grice, H. Paul. 1989. *Studies in the Ways of Words*. Cambridge (Mass.): Harvard University Press.
- Gross, Maurice. 1979. On the Failure of Generative Grammar: *Language* 55(4): 859-885
- Gundel, Jeanette K., Headberg, Nancy., and Zacharski, Ron. 1993. "Cognitive Status and the Form of Referring Expressions in Discourse." *Language* 69: 274-307
- Halliday, Michael. A. K. 1967. "Notes on transitivity and theme in English." *Journal of Linguistics* 3:37-81
- Hamlaoui Fatima & Makasso Emmanuel-Moselly. 2013. Talk on "Object left-dislocation, topicalization and the syntax-phonology mapping of intonation phrases in Bàsàá".
- Hawkins, John A. 1978. *Definiteness and indefiniteness: a study in reference and grammaticality prediction*. London: Croom Helm.

- Hawkins, John A. 1991. "On (in)definite articles: implicatures and (un)grammaticality prediction." *Journal of Linguistics*, 27(2): 405-442.
- Ho, Yong. 1993. *Aspects of Discourse Structure in Mandarin Chinese*: Mellen University Press.
- Hopper, Paul J. and Thompson, Sandra A. 1980. "Transitivity in Grammar and Discourse." *Language* 56: 251-299.
- Hopper, Paul J. 2011. "Emergent Grammar and Temporality in Interactional Linguistics." In *Constructions: Emerging and Emergent*, ed. by Peter Auer and Stefan Pfänder, 22-44. Berlin/Boston: Walter de Gruyter GmbH and Co..
- Howard, Irwin. 1969. "A semantic-syntactic analysis of the Japanese passive." *The Journal-Newsletter of the Association of Teachers of Japanese* 6 (1), 40-46.
- Hsueh, F.F.S. 1989. "The structural meaning of *ba* and *bei* constructions in Mandarin Chinese." In *Functionalism and Chinese grammar*., ed. by J.H.Y. Tai and F.F.S. Hsueh. Chinese Language Teachers Association, Monograph Series No. 1.
- Huang, C.-T. James. 1984. "On the distribution and reference of empty pronouns." *Linguistic Inquiry* 15, 531-574.
- Huang, C-T. James. 1989. "Pro-drop in Chinese: a generalized control theory." In *The Null Subject Parameter*., ed. by Osvaldo Jaeggli and Ken Safir, 185-214. Boston: Kluwer Academic Publishers.
- Huang, C-T. James. (ed. with Li Yen Hui, Audrey). 1996. *New Horizons in Chinese Linguistics*. Kluwer Academic Publishers.
- Huang, Shuan-Fan. 1978. "Historical change of prepositions and the emergence of SOV order." *Journal of Chinese Linguistics*, 6(2): 212-242
- Huang, Yan. 1994. *The syntax and pragmatics of anaphora: A study with special reference to Chinese*. Cambridge: Cambridge University Press.
- Jackendoff, Ray S. 1972. *Semantic Interpretation in Generative Grammar*: MIT Press.
- Jackendoff, Ray S. 1990. *Semantic Structures*: MIT Press.
- Jackendoff, Ray S. 1991. "Parts and Boundaries." *Cognition* 42: 9-45.

- Jackendoff, Ray S. 2007. "Linguistics in cognitive science: The state of the art." *The Linguistic Review* 24, 347-401.
- Jaeggli, Osvaldo. 1982. *Topics in Romance Syntax*: Foris Publications.
- Jing-Schmidt, Zhuo., and Jing, Ting. 2011. "Embodied semantics and pragmatics: Empathy, sympathy and two passive constructions in Chinese media discourse." *Journal of Pragmatics* 43: 2826–2844.
- Keenan, Edward L. 1976. "Towards a Universal Definition of "Subject"." In *Subject and Topic*, ed. By Charles Li, 303-333: Academic Press.
- Kehler, A. and Rohde, H. 2013. "A probabilistic reconciliation of coherence-driven and centering-driven theories of pronoun interpretation." *Theoretical Linguistics* 39:1-37.
- Kemmer, Suzanne. 1993. *Typological Studies in Language, Volume 23: Middle Voice*. John Benjamins Publishing Company.
- Kibort, Anna. 2005. *Passive and Passive-Like Construction in English and Polish*. PhD Thesis (University of Cambridge).
- Kroeger, Paul R. 2006. *Analyzing Syntax: A Lexical-functional Approach*. Cambridge University Press.
- Langacker, Ronald. W. 1990. "Settings, participants, and grammatical relations." In *Meanings and Prototypes: Studies on Linguistic Categorization*, ed. by S. L. Tsohatzidis, 213-238. London: Routledge.
- LaPolla, Randy J. 1990. *Grammatical relations in Chinese: synchronic and diachronic consideration*. PhD dissertation. University of California, Berkeley.
- LaPolla, Randy J. 1993. "Arguments against 'Subject' and 'Direct Object' as Viable Concepts in Chinese." *Bulletin of the Institute of History and Philology*, 63: 759-813
- LaPolla, Randy J. 1995. "Pragmatic relations and word order in Chinese." In *Word Order in Discourse*, ed. by Pamela Dowling and Michale Noonan, 297-329. Amsterdam and Philadelphia: John Benjamins.
- LaPolla, Randy J. 2009. "Chinese as a Topic-Comment (Not Topic-Prominent and Not SVO) Language." In *Studies of Chinese Linguistics: Functional Approaches*, ed. by Janet Xing, 9-22. Hong Kong: Hong Kong University Press.

- Lambrecht, Knud. 1996. *Information Structure and Sentence Form*. Cambridge University Press.
- Lee Duck-Young, and Yonezawa, Yoko. 2008. "The role of the overt expression of first and second person subject in Japanese." *Journal of Pragmatics*, 40: 733-767.
- Levelt, Willem J. M. 1989. *Speaking: From intention to articulation*. Cambridge, MA: MIT Press
- Levinson, Stephen C. 1983. *Pragmatics*: Cambridge textbooks in linguistics.
- Levinson, Stephen C. (ed. with Gumperz, J). 1996. *Rethinking Linguistic Relativity*. Cambridge University Press.
- Levison, Stephen C. 1996. "From outer to inner space: linguistic categories and nonlinguistic Thinking." In *Language and Conceptualization*, ed. by J. Nuyts, and E. Pederson, 13-45. Cambridge University Press.
- Li, Charles, and Thompson, Sandra. 1974. "Historical change of word order: A case study in Chinese and its implications." In *Historical linguistics*, ed. by John M. Anderson & Charles Jones, 199-217. Amsterdam: Nort
- Li, Charles, and Thompson, Sandra. 1976. "Subject and Topic: A New Typology of Language." In *Subject and Topic*, ed. by Charles N. Li., 455-489. Academic Press: New York.
- Li, Charles, and Thompson, Sandra. 1981. *Mandarin Chinese: A Functional Reference Grammar*. University of California Press, Berkeley/Los Angeles.
- Li, Chao. 2007. "Split ergativity and split intransitivity in Nepali." *Lingua*, 117(8): 1462-1482
- Li, Wendan. 2004. "Topic Chains in Chinese Discourse." *Discourse Processes*, 37(1): 25-45.
- Li, Yen-Hui Audrey. 2014. "Born Empty." *Lingua* 151:43-68.
- Li, Yen-Hui Audrey. 2017. "BA-construction". In *Encyclopedia of Chinese language and linguistics: Studies in Linguistics*. Ed. by Sybesma Rint & Behr, Wolfgang & Gu "Born Empty." *Lingua* 151:43-68., Yueguo & Handel, Zev & Huang, C-T, James & Myers, james., Vol 3: 571-582

- Liu, Feng-hsi. 1997. "An aspectual analysis of ba." *Journal of East Asian Linguistics* 6: 51 – 99.
- Lock, Graham. 1989. "Aspects of Variation and Change in the Mandarin Chinese spoken in Singapore." *Australian Journal of Linguistics* Vol 9(2): 277-294.
- Lü, Shuxiang. 1982. *Zhongguo wenfa yaolue [An outline of Chinese Grammar]*. Shangwu Publishing Company.
- Lyon, Christopher. 1999. *Definiteness*. Cambridge University Press.
- Neeleman, Ad and Szendroi, Kriszta. 2007. "Radical Pro Drop and the Morphology of Pronouns." *Linguistic Inquiry* 38(4): 671-714.
- Oh, Sun-Young. 2007. "Overt reference to speaker and recipient in Korean." *Discourse Studies* 9: 462-492.
- Ouyang Shan. 1959. *San Jia Xiang* (三家巷 'Three Family Lane'). Guangzhou: Guangdong Renmin Chuanshe.
- Pan, Haihua and Hu, Jianhua. 2008. "A semantic–pragmatic interface account of (dangling) topics in Mandarin Chinese." *Journal of Pragmatics* (40):1966-1981.
- Payne, Thomas E. 1997. *Describing Morphosyntax: A Guide for Field Linguists*. Cambridge University Press.
- Pinker, Steven. 1989. *Learnability and Cognition: The Acquisition of Argument Structure*. Cambridge, Massachusetts: The MIT Press.
- Rappaport Hovav, M. and Levin, Beth. 1998. "Building Verb Meaning." In *The Projection of Arguments: Lexical and Compositional Factors*, ed. by M. Butt and W. Geuder, 97-134. CSLI Publications, Stanford, CA.
- Rappaport Hovav, M. and Levin, Beth. 2005. *Argument Realization*. Research Surveys in Linguistics Series, Cambridge University Press, Cambridge, UK.
- Reinhart, Tanya. 1983. "Coreference and bound anaphora: a restatement of the anaphora questions." *Linguistics and Philosophy* 6 (1): 47-88
- Russell, Bertrand. 1905. "On Denoting", reprinted in *Logic and Knowledge*, ed. By R. C. Marsh, London: Allen and Unwin.
- Sacks, Harvey, Schegloff, Emanuel A., and Jefferson, Gail. 1974. "A simplest systematics for the organization of turn-taking for conversation." *Language*, 50 (4): 696-735.

- Sag, Ivan A. and Wasow Thomas. 1999. *Syntactic Theory: A Formal Introduction*, 2nd Edition. CSLI Publications.
- Schegloff, Emanuel A. 2007. "Conveying who you are: the presentation of self, strictly speaking." In *Person Reference in Interaction*, ed. By Enfield, N. J., Stivers, T., 123-149. Cambridge: Cambridge University Press.
- Searle, J. R. 1969. *Speech Acts: An Essay in the Philosophy of Language*. Cambridge University Press, Cambridge, UK.
- Shi, Yuzhi and Li, Charles N. 1999. "Hanyu dongbu jegou de fazhan yu jufa jegou de shanbian (The development of the resultative construction and its consequences)." *Studies in Chinese Linguistics* 2: 83-100.
- Shyu, Shu-ing. 2015. "Information Structure." In *The Cambridge Grammar of the Chinese Language*, ed. By Chu-Ren Huang & Dingxu Shi, 518-576. Cambridge University Press.
- Siewierska, Anna. 1984. *The passive: A comparative linguistic analysis*. Croom Helm Ltd.
- Silverstein, Michael. 1976. "Hierarchy of features and ergativity." In *Grammatical Categories in Australian Languages*, ed. by R.M.W. Dixon, 112–171. Canberra: Australian Institute of Aboriginal Studies.
- Speas, Margaret. 2006. "Economy, agreement and the representation of null arguments." In *Arguments and Agreement*, ed. by Peter Ackema, Patrick Brandt, Maaïke Schoorlemmer, and Fred Weerman, 35–75. Oxford: Oxford University Press.
- Sperber, D. and Wilson, D. 1995. *Relevance: Communication and Cognition*. Oxford: Blackwell.
- Strawson, Peter Friedrich. 1950. "On Referring". In *Mind, New Series*, Vol 59, No.235: 320-344. Published by : Oxford University Press on behalf of the Mind Association.
- Sperber, D. and Wilson, D. 2005. "Relevance Theory". In *Handbook of Pragmatics*, ed. by L. Horn and G Ward, 249-287. Oxford: Blackwell.
- Sun, Chaofen. 1995. "Transitivity, the *ba* construction and its history." *Journal of Chinese Linguistics* 23: 159–195.
- Sybesma, Ring. 1999. *The Mandarin VP*. Dordrecht: Kluwer.

- Tai, James. H-Y. 1985. "Temporal Sequence and Chinese Word Order." In *Iconicity in Syntax: Proceedings of a symposium on iconicity in syntax*, Stanford, June 24-26, 1983, ed. by John Haiman, 49-72. John Benjamins Publishing Company.
- Tang, Sze-Wing. 2006. "Hanyu beidongju de san ge jufa wenti [Three syntactic issues of Chinese passives]". In *New Developments in the Studies of Chinese Passives*, ed. By F. Y. Xing, 92-99. [In Chinese]
- Tao, Hongyin. 1996. *Units in Mandarin Conversation: prosody, discourse, and grammar*. Amsterdam and Philadelphia: John Benjamins.
- Tao, Liang. 1995. *Zero anaphora in Chinese: Cognitive strategies in discourse processing*. PhD dissertation. University of Colorado, Boulder.
- Tao, Liang. 2009. "Serial Verb Construction in Mandarin Chinese: The interface of syntax and semantics." In *Proceedings of the 21st North American Conference on Chinese Linguistics (NACCL-21)*. Vol 2, ed. by Yun Xiao, 209-228. Smithfield, Rhode Island: Bryant University.
- Tsao, Feng-fu. 1977. *A Functional Study of Topic in Chinese: The First Step toward Discourse Analysis*. Doctoral dissertation, USC, Los Angeles, California.
- Tsao, Feng-fu. 1987. "A topic-comment approach to the ba-construction." *Journal of Chinese Linguistics* 15: 2-53.
- Vaish, Viniti and Roslan, Mardiana. 2011. "Crossing in Singapore." *World Englishes*, 30(3): 317-331
- Van Valin, Robert., and La Polla, Randy J. 1997. *Syntax: structure, meaning and function*. Cambridge University Press.
- Vendler Zeno. 1957. "Verbs and Times." *The Philosophical Review* 66(2),143-160
- Waltraud, Paul. 2015. *New Perspectives on Chinese Syntax*. De Gruyter Mouton.
- Wang, Li. 1985. *Zhongguo xiandai wenfa [China Modern Grammar]*. Shangwu Publishing Company.
- Xiao, Richard, McEnery Tony, and Qian Yufang.2006. "Passive constructions in English and Chinese: A corpus-based contrastive study." *Languages in Contrast*, 6, 1, 109-149 (41)
- Xiao, Richard, and McEnery Tony. 2004. *Aspect in Mandarin Chinese*. Amsterdam: John Benjamins.

Yu, K.C. 1972. *Cremation of the Crane: An anthology of lyrical and critical essays*.
Taipei: Zhōng-wēnshū Publishing Company. [in Chinese].

Yu, K.C. 1981. *On the Watershed: A collection of critical essays*. Taipei: Zhōng-wēnshū
Publishing Company. [in Chinese].