

Definite Plurals and Tense-chains in Cantonese

by

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DEFINITE PLURALS AND TENSE-CHAINS IN CANTONESE

BY

CARINE YUK MAN YIU

A Thesis/Practicum submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements for the degree of

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Abstract

This thesis examines the function of the Cantonese nominal suffix *-muhn*, and **Definiteness Effects (DEs)** which arises when NPs with *-muhn* and other definite NPs occur in the postverbal position of Cantonese existential *yauh*-sentences.

DEs refer to the ungrammaticality which arises when definite NPs occur in the postverbal position of existential sentences. That *-muhn* is necessary to pluralize pronouns, and that *-muhn* NPs are unambiguously plural suggest that *-muhn* is a plural marker. It follows that *-muhn* NPs should be allowed to occur in the postverbal position of existential *yauh*-sentences. However, such a prediction fails.

This thesis proposes that *-muhn* is a definite plural marker attaching to definite plurals. If this account is adopted, DEs in existential *yauh*-sentences containing *-muhn* NPs are accounted for. *-Muhn* NPs are definite plurals, and thus are not allowed to occur in the postverbal position of existential *yauh*-sentences.

There is an exception in which *-muhn* NPs and other definite NPs followed by stage-level predicates in the sense of Diesing (1992) are allowed to occur in existential *yauh*-sentences. In all other cases, DEs arise if *-muhn* NPs and other definite NPs occur in the postverbal position of existential *yauh*-sentences. This exception is not explained if all existential *yauh*-sentences are identical in structure. Instead, this thesis proposes that two

types of existential *yauh*-sentences, **ontological** and **periphrastic *yauh*-sentences** should be distinguished. This classification is similar to Milsark's (1974) classification of English *be*-existential sentences. Additionally, *yauh* is shown to function as an auxiliary, displaying properties of an ergative verb in the sense of Burzio (1981), in that it does not select a D-structure subject.

Gueron and Hoekstra's (1995) **Tense-chain** theory of Case assignment is adopted to show that the rise of DEs in each type of existential *yauh*-sentence containing definite NPs including *-muhn* NPs is the result of the failure of definite NPs to acquire accusative Case.

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1: Introduction

1.1. Background

In this thesis, standard Cantonese is the language being studied and is distinguished from Mandarin and colloquial Cantonese.¹ The rationale for distinguishing standard Cantonese from Mandarin is that first the phonology of standard Cantonese differs substantially from that of Mandarin. Second, although standard Cantonese has major syntactic features in common with Mandarin, the syntax of standard Cantonese is increasingly influenced by colloquial Cantonese. For example, a Mandarin passive sentence does not obligatorily require the presence of an agent, whereas it is necessary for an agent NP to occur in a standard Cantonese passive sentence which is a feature of a colloquial Cantonese passive sentence.² The facts that the phonology of standard Cantonese is different from Mandarin and that the syntax of standard Cantonese is increasingly influenced by colloquial Cantonese suggest that standard Cantonese should not be considered Mandarin. On the other hand, standard Cantonese should also be distinguished from colloquial Cantonese. First, standard Cantonese is taught in schools and is used in formal contexts such as broadcasting and academic settings. Educated Cantonese speakers also use standard Cantonese as the written form in most contexts. In contrast, colloquial Cantonese is mainly used in daily conversation and lacks

¹ In this thesis, colloquial Cantonese refers to the one spoken in Hong Kong.

² See Matthews & Yip (1994) for discussions of Cantonese passive sentences.

characters for all of its words. Second, the same grammatical item is pronounced differently in standard and colloquial Cantonese. For example, the perfective aspect is pronounced as *-liuh* in standard Cantonese, but it is pronounced as *-jo* in colloquial Cantonese. Third, standard Cantonese preserves a lot of the grammatical features present in Mandarin, which are largely lost in colloquial Cantonese. The nominal suffix *-muhn* being studied in this thesis serves as an example, showing that a Mandarin grammatical feature is still used in standard Cantonese but has already lost in colloquial Cantonese. These facts show that standard Cantonese should also be distinguished from colloquial Cantonese.

The nominal suffix *-muhn* is the standard Cantonese (henceforth referred to simply as Cantonese) equivalent of the Mandarin nominal suffix *-men*. In colloquial Cantonese, the nominal suffix *-deih* has a function similar to *-muhn*, which is to pluralize pronouns. However, *-deih* can only be used with the human noun *yahn* 'a person(s)', whereas *-muhn* can be used with all other human nouns. Although *-muhn* is the Cantonese equivalent of the Mandarin nominal suffix *-men*, it has several puzzling properties which are not explained if *-muhn* is analyzed solely as a marker of plurality, just as its Mandarin counterpart *-men* is often regarded as solely a plural marker.³ Instead, this thesis will show that the function of *-muhn* and the DE arises when *-muhn* NPs occur in postverbal positions of existential *yauh*-sentences are best accounted for if the definite plural marker analysis of *-muhn* is adopted as proposed in this thesis.

³ Cf. Chao (1968), Li & Thompson (1981), Lin (1984) for analyses of *-men* solely as a marker of plurality.

No written romanization system comparable to Mandarin *Pinyin* has emerged for use with Cantonese. In this thesis, the Yale system developed by Parker Huang and Gerald Kok shall be adopted, as it is the system used by the University of Hong Kong. The New Asia-Yale-in-China Chinese Language Centre of the Chinese University also uses the Yale system in its courses and in its English-Cantonese/Cantonese-English dictionaries.

1.2. Standard analysis of *-muhn*

In the standard analysis, *-muhn* is analyzed as a marker of plurality. Hence, if NPs with *-muhn* are solely plurals, they should have the same distribution as other indefinite NPs. However, such a prediction fails. For example, *-muhn* NPs cannot occur in the postverbal position of existential *yauh*-sentences whereas indefinite NPs can.⁴ The present study attempts to provide a comprehensive analysis of the function of the Cantonese nominal suffix *-muhn*, and an account of the Definiteness Effect which arises when *-muhn* NPs and other definite NPs occur in the postverbal position of Cantonese existential *yauh*-sentences.

1.3. Present analysis of *-muhn*

This thesis proposes that *-muhn* is a definite plural marker which signals definiteness and plurality of NPs. Therefore, it is expected that Definiteness Effects (DEs) will arise whenever

⁴ There is an exception in that *-muhn* NPs are allowed in existential *yauh*-sentences when they are followed by stage-level predicates. In all other cases, DEs arise when *-muhn* NPs occur in the postverbal position of existential *yauh*-sentences. See Chapter 4 for the distribution of DEs in existential *yauh*-sentences containing *-muhn* NPs, and section 4.3.1 for stage and individual-level predicates.

The absence of DEs in (3) is not expected under any of the existing analyses and the account provided by this thesis will be shown to accurately capture the distribution of DEs in existential *yauh*-sentences.

1.4. Overview of the thesis

This thesis is organized as follows: chapter 1 is a brief introduction. Chapter 2 shows that in Cantonese, plurality may be marked in three ways: 1) by a separate plural quantifier, 2) by a numeral, and 3) by *-muhn*. The basic usage of *-muhn* will be discussed, followed by two arguments for suggesting that *-muhn* is a marker of plurality: 1) *-muhn* is necessary to pluralize pronouns, and 2) *-muhn* NPs are unambiguously plural. However, that *-muhn* NPs receive definite readings, and that *-muhn* NPs are not allowed to occur in existential *yauh*-sentences are not expected,⁹ if *-muhn* is analyzed solely as a marker of plurality. Instead, the function of *-muhn* and Definiteness Effects (DEs) arising in existential *yauh*-sentences containing *-muhn* NPs are best accounted for if the definite plural marker analysis of *-muhn* is adopted. Additional evidence for the definiteness of *-muhn* includes 1) *-muhn* NPs can function as topics of sentences, 2) *-muhn* NPs always receive presuppositional readings. Taken together, this means that *-muhn* is not solely a marker of plurality, but also functions as a marker of definiteness.

In Chapter 3, two types of existential *yauh*-sentences, ontological *yauh*-sentences and periphrastic *yauh*-sentences, will be distinguished. Such a proposal is based on the fact that the two types of existential *yauh*-sentences differ in: 1) the involvement of secondary

⁹ See footnote 4 (p.3).

predicates, 2) meanings expressed and 3) Definiteness Effects (DEs) arising from having definite NPs. In addition, *yauh* is shown to function as an auxiliary, and displays properties of an ergative verb in the sense of Burzio (1981),¹⁰ in that it does not select a D-structure thematic subject. Both the auxiliary and the ergative property of *yauh* are important for the different Case-assignment patterns of *yauh*, which in turn, accounts for the distribution of DEs in each type of existential *yauh*-sentence.

Chapter 4 presents the distribution of Definiteness Effects (DEs) arising from the occurrence of definite NPs including *-muhn* NPs in the postverbal position of existential *yauh*-sentences. Huang's (1987) accounts of DEs of Mandarin *you*-sentences will be presented, and it will be shown that they cannot accurately capture DEs in Cantonese *yauh*-sentences containing definite NPs. In particular, Huang's account cannot be extended to explain the absence of DEs in periphrastic *yauh*-sentences containing definite NPs which are followed by stage-level predicates. Therefore, Huang's accounts cannot be adopted for DEs in Cantonese *yauh*-sentences containing definite NPs. Instead, the account provided by this thesis correctly captures the DEs in existential *yauh*-sentences containing definite NPs.

Chapter 5 discusses the structural relationship of the postverbal NP and its following modifying phrase in Cantonese. In particular, this chapter argues for a small clause analysis along the lines of Stowell (1981) for such a structural relationship. The small clause analysis for such a structural relationship is also necessary for the formation of Tense-chain (T-chain) of Gueron and Hoekstra (1995), which in turn, explains how the postverbal definite NP

¹⁰ Burzio (1981) analyzes verbs which do not assign theta-roles to their subjects, nor accusative Case to their objects, as ergative verbs.

acquires its accusative Case, and how the failure of the definite NP to acquire accusative Case gives rise to Definiteness Effects (DEs). Three controversial accounts, including the **bare NP analysis** (William 1975), the **small clause (SC) analysis** (Stowell 1981), and the **adjunct analysis** (Milsark 1974) will be presented. This chapter further shows that only the SC analysis accurately captures the structural relationship between the postverbal NP and its following modifying phrase in Cantonese. In particular, the two have the relationship of subject and predicate.

Chapter 6 presents the Tense-chain (T-chain) theory of Gueron and Hoekstra (1995), and this theory will be adopted to explain how the postverbal definite NP acquires accusative Case in Cantonese. In addition, the distinction between stage/individual-level predicates along the lines of Diesing (1992) will be adopted, which is closely tied to the T-chain formation. In particular, a T-chain can only be formed if a stage-level predicate is involved, whereas a T-chain cannot be formed if an individual-level predicate is involved. The T-chain correctly predicts that the Definiteness Effects (DE) does not arise if the postverbal definite NP is followed by a stage-level predicate as it is Case-licensed, but the DE arises consistently when a definite NP is followed by an individual-level predicate, which results from the failure of the postverbal definite NP to receive accusative Case. Belletti's (1988) proposal of partitive-Case assignment of ergative verbs will also be adopted to account for the Case assignment of the postverbal indefinite NP when a T-chain is precluded. The analyses presented in this chapter all show that the rise of DEs in both types of existential *yauh*-sentences containing definite NPs is the result of the failure of definite NPs to acquire accusative Case. The conclusion will follow in Chapter 7.

2: *-Muhn* as a definite plural marker

2.1. Introduction

The following chapter shows that the Cantonese nominal suffix *-muhn* is not solely a marker of plurality, but a marker of both plurality and definiteness. In Cantonese, the marking of plurality is optional. If plurality is marked, it may be marked in three ways: 1) by plural quantifiers such as *soyauh* 'all', *hou-do* 'many', etc., 2) by numerals such as *yat* 'one', *leuhng* 'two', etc., and 3) by the nominal suffix *-muhn*. The use of each of these plurality marking devices is illustrated in section 2.2. In particular, the use of the nominal suffix *-muhn* is the major concern of this thesis. Section 2.3 presents the basic usage of *-muhn*. Since *-muhn* is often regarded solely as a marker of plurality, syntactic and semantic arguments for such a claim are presented in section 2.4. Section 2.5 outlines some problems arising from analyzing *-muhn* solely as a marker of plurality: 1) *-muhn* NPs receive definite readings, and 2) *-muhn* NPs cannot occur in existential *yauh*-sentences.¹¹ Instead, these problems are best accounted for if the definite plural marker analysis of *-muhn* is adopted. Additional evidence that *-muhn* is a definite plural marker includes 1) *-muhn* NPs can be topics, and 2) *-muhn* NPs always receive presuppositional readings. This evidence is presented in section 2.6.

¹¹ See footnote 4 (p.3).

2.2. Plurality marking in Cantonese

The NP *syu* 'a book(s)' is allowed to receive either a singular or a plural reading. If plurality is to be expressed unambiguously, it is typically marked in three ways: 1) by a separate plural quantifier such as *soyauh* 'all', *houdo* 'many', 2) by a numeral such as *saam* 'three', *sei* 'four', and 3) by the nominal suffix *-muhn*. The following examples are unambiguously plural, representing each type of plurality marking:

- | | |
|--------------------------------------|----------------|
| (4) soayuh hohksaang
all student | 'All students' |
| (5) saam goh yahn
three CL person | 'Three people' |
| (6) yahn-muhn
person-MUHN | 'The people' |

In Cantonese, all numerals and certain plural quantifiers must be used in conjunction with classifiers before nouns.¹² Examples of classifiers in Cantonese are *goh* 'an individual', *jeung* 'a sheet', *hahp* 'a box', *baan* 'a group', *deui* 'a pair', etc.

Sections 2.2.1-2.2.3 illustrate how each of the three plurality marking devices is used.

2.2.1. The use of plural quantifiers

In cases in which plurality is marked by utilizing a plural quantifier such as *soyauh* 'all', *houdo* 'many', etc., the exact number of the entity is not expressed, only indicating that there is more than one entity in question.¹³ For example:

¹² Cf. Li & Thompson (1981) for the definition of classifiers.

¹³ Depending on the context, NPs preceded by plural quantifiers may be ambiguous between plural and collective readings, if followed by countable nouns such as *yahn* 'a person(s)', *syu*

(7) houndo haaihji 'Many children'
many child

(8) soyauh yahn 'All people'
all person

The English equivalents to these Cantonese plural quantifiers are determiners such as *many, some, a few, all, etc.*

In some cases, it is possible for a plural quantifier to immediately precede the head noun it modifies, as in (9), whereas in other cases this is not possible and the use of a classifier is obligatory, as in (10):

(9) houndo yahn 'Many people'
many person

(10) houndo baan yahn 'Many different groups of people'
many CL person

Semantically, (9) and (10) differ in terms of the reading they express. Example (9) merely emphasizes that the number of people is large, whereas (10) stresses that there are many groups of people and that they are different.¹⁴

'book(s)', etc. However, plural quantifiers followed by mass/uncountable nouns such as *chin* 'money', *sihgaan* 'time', etc., only have mass readings.

¹⁴ The use of classifiers can be found in languages other than Cantonese. Swedish for instance, has quantifiers which have functions somewhat similar to Cantonese classifiers.

(i) en liter rott vin
a/one liter red wine (Swedish; Delsing 1991:89)

2.2.2. The use of numerals

When a numeral is used to mark plurality, the exact number of the entity is expressed. In addition, the numeral has to be used in conjunction with a classifier. The numeral-classifier sequence will be referred to as a numeral phrase.¹⁵ The word order of the numeral phrase is that the numeral and the classifier together form a numeral phrase. The numeral precedes the classifier which is then followed by a noun.

- | | |
|--|-----------------------|
| (11) yat goh yahn noun.
one CL person | 'One person' |
| (12) saam jek gau
three CL dog | 'Three dogs' |
| (13) leuhng jeung ji
two CL paper | 'Two sheets of paper' |

2.2.3. The use of the nominal suffix *-muhn*

As previously mentioned, the nominal suffix *-muhn* can also be used to express plurality

(cf.(6)):

- | | |
|------------------------------------|----------------|
| (14) haaihji-muhn
child-MUHN | 'The children' |
| (15) pahngyauh-muhn
friend-MUHN | 'The friends' |

¹⁵ In Cantonese, a numeral phrase is sometimes referred to as a classifier phrase, because no noun can be immediately preceded by a numeral without the intervention of an obligatory classifier. Different analyses have been offered of the structure of the numeral-classifier sequence. However, this issue will not be taken up further in this thesis. See Gao (1994) for further discussions of numeral/classifier phrases.

Examples (14) and (15) show that with the use of *-muhn*, NPs are unambiguously interpreted as plurals.¹⁶

2.3. The basic usage of *-muhn*

The focus of this thesis is the nominal suffix *-muhn*, and the following section presents the basic usage of *-muhn*.

2.3.1. *-Muhn* with pronouns and human nouns

The use of the nominal suffix *-muhn* is restricted to pronouns and human nouns, as shown in (16). Example (17), on the other hand, shows that *-muhn* cannot be used with proper nouns, inanimate nouns, and animate but non-human nouns.

(16) a. ngoh-muhn I-MUHN	'We'
b. neih-muhn you-MUHN	'You (pl)'
c. ta-muhn s/he-MUHN	'They'
d. hohksaang-muhn student-MUHN	'The students'
e. sinsaang-muhn teacher-MUHN	'The teachers'

¹⁶ It is not clear why when a numeral phrase or a plural quantifier precedes a *-muhn* NP, such an NP is not acceptable. For example, **saam goh haaihji-muhn* 'the three children' or **houdo haaihji-muhn* 'the many children' is unacceptable. This issue is beyond the scope of this thesis and I will leave it for further research.

- | | | |
|---------|----------------------------------|--------------------|
| f. | louhbaan-muhn
boss-MUHN | 'The bosses' |
| (17) a. | *siu-mihng-muhn
Siu ming-MUHN | 'Siu Ming's group' |
| b. | *syu-muhn
book-MUHN | 'Books' |
| c. | *gau-muhn
dog-MUHN | 'Dogs' |

Both human nouns and pronouns are unambiguously interpreted as plurals, when they are suffixed with *-muhn*. In contrast, nouns without *-muhn* can receive either singular or plural readings, as illustrated previously with the bare NP *syu* which may be interpreted either as 'a book' or 'books'. However, this does not hold for pronouns. Pronouns without *-muhn* are singulars, and those with *-muhn* are plurals.

2.4. *-Muhn* solely as a plural marker

In the standard analysis, *-muhn* is analyzed as a marker of plurality. The following section presents both syntactic and semantic evidence consistent with such an analysis.

2.4.1. *-Muhn* as a pronoun pluralizer

The fact that *-muhn* pluralizes pronouns suggests that *-muhn* is a marker of plurality.

(18)	sg	pl
1st	ngoh	ngoh-muhn
2nd	neih	neih-muhn
3rd	ta	ta-muhn

There are three persons in Cantonese: *ngoh* 'I', *neih* 'you sg', and *ta* 's/he'. In each case, the plural form of a pronoun is formed by the addition of the suffix *-muhn* to the respective singular form. This suggests that *-muhn* is a marker of plurality.

2.4.2. *-Muhn* NPs unambiguously plurals

Additional evidence that *-muhn* is a plural marker comes from the fact that NPs with *-muhn* are unambiguously interpreted as plurals.

(19) *haaihji wuihloih-liuh.* 'The child(ren) came back.'
child come back-Asp

(20) *haaihji-muhn wuihloih-liuh.* 'The children came back.'
child-MUHN come back-Asp

Bare NPs are ambiguous between a singular and a plural reading. The subject *haaihji* in (19) can mean either 'the child' or 'the children'. However, NPs with *-muhn* can only receive a plural reading. The subject *haaihji-muhn* in (20) can only mean 'the children'. The obligatory plural reading of *-muhn* NPs again suggests that *-muhn* marks plurality.

2.5. Problems of the plural marker analysis of *-muhn*

The following section presents conflicting data which are not explained if *-muhn* NPs are analyzed solely as plurals.

2.5.1. *-Muhn* NPs receive definite readings

The first problem of analyzing *-muhn* as solely a plural marker is that *-muhn* NPs receive definite readings.¹⁷

(21) *yahn-muhn* 'The people'
person-MUHN

(22) *haaihji-muhn* 'The children'
child-MUHN

Examples (21) and (22) show that when the NPs *yahn-muhn* 'the people' and *haaihji-muhn* 'the children' are uttered, they do not refer to people or children in general. Instead, they refer to the friends and the children in question. For example: *yahn-muhn* 'the people' can never have a generic reading, i.e. *yahn-muhn* means given individuals, but not mankind. This demonstrates that *-muhn* NPs are definite and can never receive a generic or an indefinite reading. In fact, section 2.6.2 shows that *-muhn* NPs always receive presuppositional readings, which is a related property of definite NPs. That *-muhn* NPs receive definite readings is not explained if *-muhn* is solely a marker of plurality.

2.5.2. *-Muhn* NPs cannot occur in existential *yauh*-sentences

If *-muhn* NPs are solely plurals, they are expected to occur in existential *yauh*-sentences, just like English plurals can occur in existential *there*-sentences. However this prediction fails to be borne out.¹⁸

¹⁷ Ijic (1994) also points out that in Mandarin NPs with *-men* (the Mandarin equivalent of *-muhn*) only refer to a situationally anchored and defined group. See Rygaloff (1973), and Yorifuji (1976) for a similar discussion of the definiteness of NPs with *-men*.

¹⁸ See footnote 4 (p.3).

people' cannot occur in an existential sentence,¹⁹ whereas *people* can. In fact, the ungrammaticality in (1) parallels that in (25), if the definite plural marker analysis of *-muhn* is adopted. As definite determiners cannot appear with postverbal NPs in existential sentences, and as *-muhn* is a definite plural marker, NPs with *-muhn* are thus not allowed to occur in existential *yauh*-sentences.²⁰ Hence, (1) further casts doubt on the analysis of claiming *-muhn* as a marker of plurality. In addition, the ungrammaticality arising when *-muhn* NPs occur in existential *yauh*-sentences parallels the ungrammaticality arising when other definite NPs occur in existential *yauh*-sentences.

- | | |
|---|------------------------------|
| (1) *yauh yahn-muhn.
have person-MUHN | *'There are the people.' |
| (27)*yauh siu-mihng.
have Siu-ming | *'There is Siu-ming.' |
| (28)*yauh siu-mihng dik syu.
have Siu-ming LP book | *'There is Siu-ming's book.' |
| (29)*yauh ta.
have 3sg | *'There is him/her.' |
| (30)*yauh na goh yahn.
have that CL person | *'There is that person.' |

The ungrammaticality in (1) patterns with that in (27)-(30), each of which has a definite NP in the postverbal position of the existential *yauh*-sentence. The NPs *Siu-mihng* (27), *Siu-mihng dik syu* 'Siu-ming's book' (28), the third person pronoun *ta* (29) and *na goh yahn* 'that person' (30) are typical definite NPs, hence are not allowed to occur in postverbal

¹⁹ See footnote 4 (p.3).

²⁰ See footnote 4 (p.3).

positions of existential *yauh*-sentences.²¹ The fact that the *-muhn* NP *yahn-muhn* 'the people' in (1) patterns with typical definite NPs in (27)-(30) demonstrates that *yahn-muhn* 'the people' in (1) is definite.

Throughout this thesis, it will be shown that in addition to being a plural marker, the suffix *-muhn* also serves to express definiteness. In other words, *-muhn* is analyzed as a definite plural marker, attaching to definite plural NPs.

2.6. *-Muhn* as a definite plural marker

In the following section, additional evidence that *-muhn* is a definite plural marker is presented.

2.6.1. Only definite NPs can be topics

The first argument for analyzing *-muhn* as a definite plural marker comes from the definite nature of the discourse-semantic function of topics.²² A topic denotes the function of the constituent that the sentence is about. With the role of fore-grounding a particular individual as the subject of a predication, a topic is specific, referring expression. Under the dynamic-semantic framework,²³ the role of topics (referred to as links in this framework) is to direct

²¹ Definite NPs can occur in existential *yauh*-sentences if they are followed by stage-level predicates. See Chapter 4 for the distribution of DEs in existential *yauh*-sentences containing definite NPs.

²² Cf. Kiss (1995) for a further discussion of the discourse-semantic function of topics.

²³ The dynamic-semantic framework is a sub-branch of pragmatics which concerns with the structure of the information contained in a sentence. In particular, it concerns with how a speaker directs a hearer to retrieve the information encoded in a sentence and to enter it into

the hearer to a given address in the hearer's knowledge store under which the new information carried by the sentence is to be entered. In other words, a topic necessarily refers to something which the hearer already knows about. It follows that topics must be definite.

- (31)*_T[Minden kutya] szerintem [_{VP} szereti a csontot].
 every dog according-to-me likes the bone
 'According to me, all dogs like bones.'
 (Hungarian; Kiss 1995:9)

Example (31) is ungrammatical, because the NP *kutya* 'dog' being quantified by the universal quantifier²⁴ *minden* 'every' is neither referential nor specific. Thus, the sentence is ungrammatical when the universal NP *minden kutya* 'every dog' occurs in the topic position.

- (32) loihbun-muhn ngoh hongin-liuh. 'The guests, I saw them.'
 guest-MUHN I see -Asp
- (33) pahngyauh-muhn ngoh jaaudou-liuh. 'The friends, I found them.'
 friend-MUHN I find-Asp
- (34)*yahn ngoh hongin-liuh. '*A person(s), I saw him/her/them.'
 person I see-Asp

In (32) and (33), NPs with *-muhn* are allowed to occur as topics in sentence-initial positions, where topics must be definite. This suggests that *loihbun-muhn* 'the guests' in (32) and *pahngyauh-muhn* 'the friends' in (33) are definite, and that they have known plural referents. In contrast, having an indefinite NP such as *yahn* 'a person(s)' in the topic position, receiving an indefinite reading, results in ungrammaticality, as exemplified in (34). On the

his/her knowledge store. See Valldurí (1992) for discussions of the dynamic-semantic framework.

²⁴ Universal quantifiers are words whose meaning can be analyzed in terms of universal quantification. They quantify over universal sets. An example of English universal quantifiers is *every*. See Milsark (1974) for a discussion of properties of universal quantifiers.

other hand, if non-human animate and inanimate NPs have to be unambiguously marked as definite, demonstratives are always used.²⁵

(35) na jek maau, ngoh hongin-liuh. 'That cat, I saw it.'
that CL cat I see-Asp

(36) na bun syu, ngoh maaiah-liuh. 'That book, I bought it.'
that CL book I buy-Asp

Examples (35) and (36) show that NPs with demonstratives are definite, hence the occurrence of the demonstrative-preceded NPs *na jek maau* 'that cat' and *na bun syu* 'that book' in the topic position is expected. The fact that *-muhn* NPs can be topics just like NPs with demonstratives can suggest that *-muhn* NPs are definite.

2.6.2. *-Muhn* NPs always receive presuppositional readings

The second argument for the definite nature of *-muhn* derives from the fact that NPs with *-muhn* always receive presuppositional readings, and they can never be assigned indefinite readings.

The notion of presuppositionality ties closely to the weak/strong determiners distinguished by Milsark (1974). Strong determiners presuppose the existence of the entities they are applied to, whereas weak determiners are ambiguous between presuppositional readings and non-presuppositional readings, in which they only assert the existence of the entities they are applied to. For example:

(37) a. There are some ghosts in my house. (unstressed *some*, asserts existence of ghosts)

²⁵ Demonstratives cannot immediately precede NPs they modify. They have to be used in conjunction with classifiers.

- b. **SOME** ghosts are in the pantry; the others are in the attic. (presupposes the existence of ghosts)

(Diesing 1992:59)

According to Diesing, the NP *some ghosts* in (37a) has a non-presuppositional or a cardinal reading. In this sentence, *some* is unstressed, and the sentence asserts the existence of ghosts in my house. The NP *some ghosts* in (37b), on the other hand, receives a presuppositional reading, presupposing the existence of ghosts.²⁶

The fact that *-muhn* NPs always receive presuppositional readings which is a related property of definite NPs suggests that *-muhn* NPs are definite.

(38) pahngyauh ngoi gong wah. 'Friends (in general) love talking.'
 friend love talk word

(39) pahngyauh-muhn ngoi gong wah. 'The friends love talking.'
 friend-MUHN love talk word

The bare NP *pahngyauh* in (38) can receive a generic reading. Hence, (38) means 'Friends (in general) love talking.' On the other hand, the *-muhn* NP *pahngyauh-muhn* 'the friends' in (39) receives a presuppositional reading, referring to friends who have been mentioned previously in the discourse. The fact that *-muhn* NPs receive presuppositional readings is expected if they are definite.

2.7. Summary

This chapter has shown that *-muhn* is a definite plural marker. Evidence for the definiteness of *-muhn* includes 1) *-muhn* NPs receive definite readings, 2) *-muhn* NPs cannot occur in

²⁶ Cf. Milsark (1974), Diesing (1992) for a further discussion of the tie between strong determiners and presuppositional readings.

existential *yauh*-sentences,²⁷ 3) *-muhn* NPs can be topics, 4) *-muhn* NPs always receive presuppositional readings. The above properties of *-muhn* NPs are not expected if *-muhn* is solely a marker of plurality. Chapter 3 proposes that two types of existential *yauh*-sentences should be distinguished. Such a proposal is necessary to account for the fact that some existential *yauh*-sentences containing definite NPs including *-muhn* NPs exhibit Definiteness Effects (DEs) consistently, whereas other existential *yauh*-sentences do not exhibit DEs when they contain definite NPs.

²⁷ See footnote 4 (p.3).

3: Two types of existential *yauh*-sentences

In this chapter, evidence is presented to show that similar to Milsark's (1974) classification of English *be*-existential sentences, two types of existential *yauh*-sentences, ontological *yauh*-sentences and periphrastic *yauh*-sentences, should be distinguished in Cantonese. The evidence includes 1) whether secondary predicates are involved, 2) whether different meanings are expressed, and 3) whether Definiteness Effects (DEs) arising from having definite NPs in the sentence are different. These differences cannot be explained if only one type of existential *yauh*-sentence is assumed to exist. Instead, these differences are best accounted for if two types of existential *yauh*-sentences are distinguished. Section 3.2 shows that *yauh* can function like an auxiliary, hence it suggests that *yauh* can be considered an auxiliary in both types of existential *yauh*-sentences. As an auxiliary, *yauh* also displays properties of an ergative verb in the sense of Burzio (1981), in that it does not select a D-structure thematic subject. The present study adopts Huang's (1987) analysis, claiming that the subject position in both types of existential *yauh*-sentences is filled with a null expletive. Later in this thesis, it will be shown that both the auxiliary and the ergative properties of *yauh* are important to the different Case-assignment patterns of *yauh*, which in turn account for the distribution of DEs in both types of existential *yauh*-sentences containing postverbal definite NPs, and the absence of DEs in existential *yauh*-sentences containing postverbal indefinite NPs.

3.1. Evidence of two types of existential *yauh*-sentences

The following section presents evidence supporting the proposal of two types of existential *yauh*-sentences. Following Milsark's (1974) terminology, the first type of existential *yauh*-sentence is referred to as an ontological *yauh*-sentence and the other as a periphrastic *yauh*-sentence. In the former case, *yauh* subcategorizes solely for NPs, whereas in the latter case, *yauh* selects clausal complements, specifically small clause complements.

3.1.1. Milsark's classification of English *Be*-ES

The two types of existential *yauh*-sentences analyzed in this thesis are similar to Milsark's (1974) classification of English *be*-**existential sentences (ESs)**. Milsark classifies English *be*-ESs into three types, according to the form of the material that follows *be*. Examples (40)-(42) represent the **ontological ES**, the **locational ES**, and the **periphrastic ES**:

- | | |
|----------------------------------|-----------------------|
| (40) There are cats. | (the ontological ES) |
| (41) There is a cat in the tree. | (the locational ES) |
| (42) a. There is a man swimming. | (the periphrastic ES) |
| b. There was a man caught. | |
| c. There is a man drunk. | |

The ontological *yauh*-sentences analyzed here parallel the ontological ESs in English in that the ergative verb is followed by an NP. In contrast, rather than having locational and periphrastic *yauh*-sentences, the former is grouped with the latter, because PPs, VPs, etc., can all function as predicates. Hence, the classification becomes much more simple when locational and periphrastic *yauh*-sentences are combined. Milsark's classification of English

be-ESs is used to show that the same rationale (i.e. differences exist within *be*-ESs and existential *yauh*-sentences) is behind his classification of English *be*-ESs and the proposal of two types of Cantonese existential *yauh*-sentences in this thesis.

3.1.2. Involvement of secondary predicates

The first noticeable difference within existential *yauh*-sentences is whether a secondary predicate is involved. For example:

(2) *yauh yahn.*
have person

'There is/are a person(s).'

(43) *yauh yahn loih-liuh.*
have person come

'There has/have a person(s) come.'

Examples (2) and (43) show that in some existential *yauh*-sentences, a secondary predicate such as *loih-liuh* 'came' in (43) is involved, whereas in other existential *yauh*-sentences, no secondary predicate is involved, as shown in (2). If one type of existential *yauh*-sentence is assumed to exist, this difference cannot be explained. This in turn, suggests that two types of existential *yauh*-sentences should be distinguished.

3.1.3. Different readings

The second difference within existential *yauh*-sentences is that a different meaning is expressed. Some existential *yauh*-sentences serve solely to assert the existence of an entity, which is typically represented by an NP, as illustrated in (44). Some existential *yauh*-sentences not only assert that an entity exists, but also that it is participating in a certain activity, or is at a particular location. The additional information that is conveyed by these

(47)*yauh haaihji-muhn.
have child-MUHN

'*There are the children.'

(48) yauh haaihji-muhn joih gong gusih.
have child-MUHN at tell story

'*There are the children telling stories.'

The DE observed in (47) is expected. As the definite plural *haaihji-muhn* 'the children' occurs in the postverbal position of the existential *yauh*-sentence, violating the **Definiteness Restriction (DR)**, which requires the NP in the postverbal position of existential sentences to be indefinite. The grammaticality in (48) is not predicted. As *haaihji-muhn* 'the children' is a definite plural, it presumably is not allowed to occur in existential *yauh*-sentences. Despite this, the sentence unexpectedly turns out to be grammatical. The absence of DEs is also found when definite NPs followed by stage-level predicate occur in the postverbal position of existential *yauh*-sentences.

(30)*yauh na goh yahn.
have that CL person

'*There is that person.'

(49) yauh na goh yahn loih-liuh.
have that CL person come-Asp

'*There was that person who had come.'

The rise of a DE in (30) is expected since the definite NP *na goh yahn* 'that person' occurs in the postverbal position of the existential *yauh*-sentence, violating the DR. However, the absence of a DE in (49) is not expected, when the definite NP *na goh yahn* 'that person' followed by the stage-level predicate *loih-liuh* 'came' occurs in the postverbal position of an existential *yauh*-sentence. The different DEs exhibited in existential *yauh*-sentences containing definite NPs again suggest that two types of existential *yauh*-sentences should be distinguished.

The differences (i.e. whether secondary predicates are involved, different meanings are expressed, and Definiteness Effects (DEs) associated with *-muhn* and other definite NPs are different) found within existential *yauh*-sentences are not explained if only one type of existential *yauh*-sentence is assumed to exist. Instead, the differences are best accounted for if two types of existential *yauh*-sentences are distinguished, as proposed in this thesis.

Henceforth, ontological *yauh*-sentences refer to the type of existential *yauh*-sentences: 1) which do not involve secondary predicates, 2) only assert the existence of an entity, and 3) exhibit Definiteness Effects (DEs) whenever they contain definite NPs. Periphrastic *yauh*-sentences, on the other hand, refer to the type that 1) involve secondary predicates, 2) assert the existence of an entity which participates in a certain activity or is at a particular location, and 3) exhibit DEs only if the definite NP is followed by an individual-level predicate, and no DE arises if the definite NP is followed by a stage-level predicate.

3.2. *Yauh* as an auxiliary

The following section presents evidence showing that *yauh* can function as an auxiliary. Hence, it suggests that *yauh* can be considered an auxiliary in both types of existential *yauh*-sentences.

3.2.1. *Yauh* alternating with *-liuh* in marking perfective aspect

The first evidence showing that *yauh* is an auxiliary comes from the fact that *yauh* alternates with *-liuh* in marking perfective aspect. Perfective aspect is usually marked with *-liuh* after

the verb, as in (50). However, if there is a negative marker within the VP, the perfective aspect shows up as *yauh* immediately after the negative but before the verb, as in (51):

(50) ngoh cheng-liuh siu-mihng. 'I hired Siu-ming.'
I hire-Asp Siu-ming

(51) ngoh meih-yauh cheng siu-mihng. 'I did not hire Siu-ming.'
I not-have hire Siu-ming

Examples (50) and (51) show that *yauh* and *-liuh* are in complementary distribution, which in turn suggests that they are the same morpheme showing up in different environments.²⁹ Example (52) shows that *yauh* and *-liuh* do not co-occur in the same verb, thus further suggesting that *yauh* and *-liuh* are the same morpheme.

(52)*ngoh meih-yauh cheng-liuh siu-mihng. 'I did not hire Siu-ming.'
I not-have hire-Asp Siu-ming

Examples (50)-(52) show that *yauh* situates in the Inflection (Infl) node as an auxiliary, marking perfective aspect.

3.2.2. *Yauh* introducing different kinds of predicates

According to William (1984), an auxiliary differs from a main verb in that an auxiliary can introduce different kinds of predicates, whereas a main verb cannot.³⁰

(53) ngoh *yauh* mahn-gwo. 'I have asked/did ask.'
I have ask-Asp

(54) ngoh *yauh* yihngjan dik. 'I was serious.'
I have serious PRT

²⁹ Cf. Wang (1965) for a discussion on the alternation between Mandarin *-le* and *you*.

³⁰ Cf. William (1984) for further detail regarding the distinction between a main verb and an auxiliary verb.

(55) neih yauh joih ga-leuih ma? 'Were you home?
you have at home-inside QP

(56) ngoh yauh yat bun syu. 'I have a book.'
I have one CL book

(57) ngoh yauh yat bun syu feiseuhngji yauhcheui.
I have one CL book extremely interesting
'I have a book which is extremely interesting.'

Examples (53)-(57) show that *yauh* can introduce VPs, APs, PPs, NPs, and clauses.

Hence, it suggests that *yauh* can function as an auxiliary, in accordance with William (1984).

3.2.3 *Yauh* immediately before verbs

Yauh occurs immediately before verbs, as typical auxiliaries do:

(58) ngoh yauh heui. 'I have gone/ did go.'
I have go

(59) ngoh wuih heui. 'I will go.'
I will go

In (58), *yauh* asserts the existence of an event, which is my going, whereas *wuih* 'will' in (59) denotes the possibility of my going. That *yauh* immediately precedes verbs, as typical auxiliaries do, once again suggests that *yauh* can function as an auxiliary.

3.3. *Yauh* displays properties of an ergative verb

The following section shows that *yauh* as an auxiliary also displays properties of an ergative verb in the sense of Burzio (1981), in that it does not assign a theta-role to its subject nor accusative Case to its object.³¹

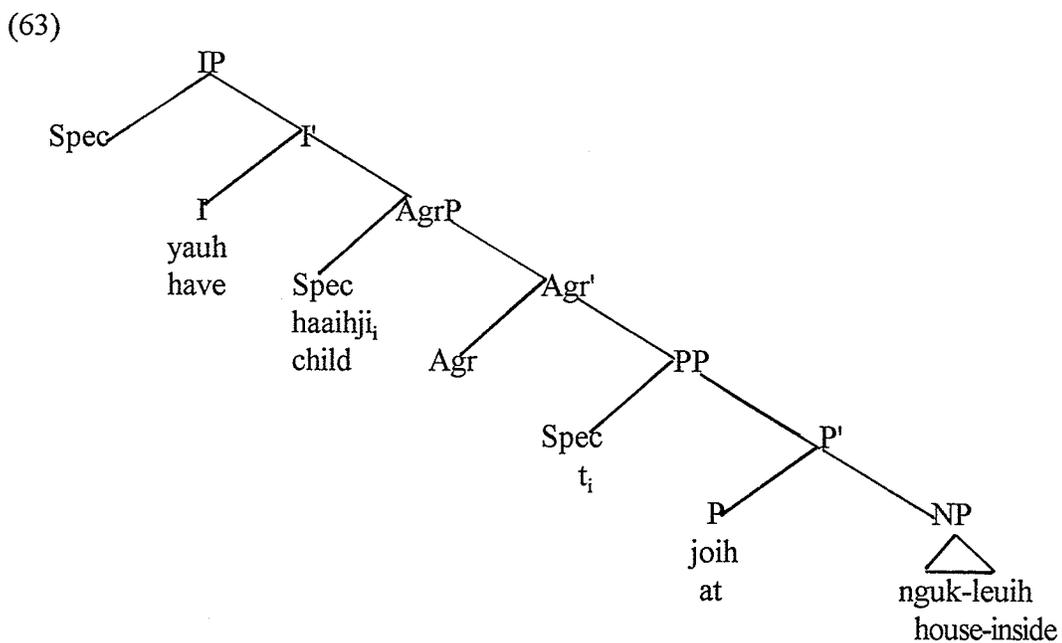
³¹ Cf. Burzio (1981) for a discussion of ergative verbs.

postverbal indefinite NP, it also assigns partitive Case to that NP.

In periphrastic *yauh*-sentences, *yauh* subcategorizes for a small clause complement, as illustrated in (62):

- (62) [_{IP}yauh [_{SC}haaihji joih nguk-leuih]].
 have child at house-inside
 'There is/are a child(ren) inside the house.'

Evidence will be given in Chapter 5 showing that the clausal complement subcategorized by *yauh* is an SC. In example (62), *yauh* subcategorizes for a PP small clause *haaihji joih nguk-leuih* 'a child(ren) inside the house'. The structure of (62) is represented in (63):



X governs Y iff

- (i) X is either of the category A, N, V, P, I; or X and Y are coindexed;
- (ii) X c-commands Y;
- (iii) no barrier intervenes between X and Y;
- (iv) minimality is respected.

(Haegeman 1991; 511)

Chapter 6 will show that according to Gueron and Hoekstra (1995), in predication phrases the presence of an Agreement Phrase (AGRP) is obligatory, checking the agreement feature of the predicate, and the AGRP itself is checked by the raised small clause (SC) subject *haaihji* 'a child(ren)'. In addition to checking the feature of the AGRP, the SC subject *haaihji* 'a child(ren)' has to be raised to Specifier (Spec) of AGRP to be Case-licensed under the Spec-Head relationship inside the AGRP by the Tense-chain.

3.4. Summary

This chapter has illustrated that two types of existential *yauh*-sentences should be distinguished, due to the differences found within existential *yauh*-sentences. The differences include 1) whether a secondary predicate is involved, 2) a different meaning is expressed, and 3) the Definiteness Effect (DE) arising from having definite NPs is different. In addition, I have shown that *yauh* can function as an auxiliary, displaying properties of an ergative verb, in that it does not select a D-structure subject. Chapter 4, in turn, will provide a further discussion regarding the distribution of DEs being observed for each type of existential *yauh*-sentence.

4: Huang's accounts of Definiteness Effects cannot be extended to Cantonese

This chapter shows that Huang's (1987) accounts regarding the Definiteness Effect (DE) observed in Mandarin *you*-sentences cannot accurately capture the DE in Cantonese *yauh*-sentences containing definite NPs. The following chapter first presents the DE observed in Mandarin *you*-sentences, and the DE in Cantonese *yauh*-sentences. This is followed by Huang's accounts of the DE of Mandarin *you*-sentences. Evidence is then given to show that Huang's accounts cannot be extended to explain the distribution of DEs in Cantonese *yauh*-sentences. Instead, the account provided in this thesis will be shown to be a much more adequate explanation of DEs in Cantonese *yauh*-sentences containing definite NPs.

4.1. Definiteness Effects in Mandarin existential *you*-sentences

Huang (1987) observes that there is a difference with respect to the distribution of the Definiteness Effect (DE) in existential *you*-sentences, depending on whether a *you*-sentence contains a predication phrase. The following section will first present the DE arising in *you*-sentences without a predication phrase, followed by the DE in *you*-sentences with a predication phrase.

You-sentences without predication phrases allow both definite and indefinite NPs to occur in the postverbal position, as long as the subject position is filled with a lexical NP. For example:

- (64) a. ni you-mei-you yiben shu zai zheli?
you have-not-have one book at here
'Do you have a book here?'
b. ni you-mei-you yiben shu?
you have-not-have one book
'Do you have (a copy of) this book here?'
- (65) a. zheli you-mei-you yiben shu?
here have-not-have one book
'Is there a book here?'
b. zheli you-mei-you zheben shu?
here have-not-have this book
'Is there (a copy of) this book here?'

(Mandarin; Huang 1987:240)

Example (64) shows that a *you*-sentence with a possessor NP in the subject position allows both indefinite NPs such as *yiben shu* 'one book' in (64a) and definite NPs such as *zhebun shu* 'this book' in (64b) to occur in the postverbal position. Similarly, (65) shows that when a locative NP occurs in the subject position of *you*-sentences, the indefinite NP *yiben shu* 'one book' in (65a) and the definite NP *zhebun shu* 'this book' in (65b) again can occur in the postverbal position of *you*-sentences. Examples (64) and (65) show that if the subject position of *you*-sentences is filled with a lexical NP, both indefinite and definite NPs are allowed to occur in the postverbal position of *you*-sentences. On the other hand, if the subject position of *you*-sentences is not filled with a lexical NP, only indefinite NPs can occur in the

postverbal position of *you*-sentences, as in (66a), whereas the Definiteness Effect (DE) arises when a definite NP occurs in the postverbal position of *you*-sentences, as in (66b):

- (66) a. you-mei-you yiben shu zai zheli?
have-not-have one book at here
'Is there a book here?'
- b. *you-mei-you zheben shu zai zheli?
have-not-you this book at here
'Is there this book here?' (Mandarin; Huang 1987:240)

You-sentences with a predication phrase, on the other hand, exhibit DEs whenever a definite NP occurs in the postverbal position of *you*-sentences, regardless whether or not the subject position is filled with a lexical NP.

- (67) you yige/*neige ren hen youqian.
have one/that man very rich
'There is a/*the man very rich.'
- (68) wo you yiben/*zheben shu hen youqu.
I have one/ this book very interesting
'I have a/*the book which is very interesting.'
(Mandarin; Huang 1987:243)

Example (67) shows that when a *you*-sentence contains a predication phrase and has a lexically unfilled subject position, only indefinite NPs such as *yige ren* 'one man' can occur in the postverbal position, whereas the DE arises when definite NPs such as *neige ren* 'that man' occurs in the postverbal position. Example (68) shows that a *you*-sentence with a predication phrase exhibits a DE when the definite NP *zheben shu* 'this book' occurs in the postverbal position, even when the subject position is filled with a possessor NP *wo* 'I'. Examples (67) and (68) show that *you*-sentences with a predication phrase exhibit DEs regardless whether or not the subject position is filled with a lexical NP.

4.2. Definiteness Effects in Cantonese ontological *yauh*-sentences

In Cantonese ontological *yauh*-sentences, the Definiteness Effect (DE) arises when definite NPs occur in the postverbal position, as illustrated in (69):

- (69)**yauh* Leihsei/ta/muigoh yahn/daaidoso yahn.
have Leisei/he/every person/ most person
'*There is/are Leisei/him/every person/most people.'

The proper name *Leisei*, the pronoun *ta*, an NP with the universal quantifier *mui* 'every' and an NP with the quantifier *daaidoso* 'most' are restricted from occurring in ontological *yauh*-sentences. Following the above discussion, it should be expected that definite plurals are also not allowed to occur in ontological *yauh*-sentences, as is indeed the case in (70):

- (70)**yauh* yahn-muhn/pahngyauh-muhn/neuihsih-muhn.
have person-MUHN/friend-MUHN/ lady-MUHN
'*There are the people/the friends/the ladies.'

4.3. Definiteness Effects in Cantonese periphrastic *yauh*-sentences

The Definiteness Effect (DE) also arises in periphrastic *yauh*-sentences, when definite NPs including definite plurals are followed by individual-level predicates,³³ as in (71):

- (71)**yauh* yahn-muhn/je goh yahn chungmihng.
have person-MUHN/this person clever
'*There are the people/this person clever.'

Example (71) shows that when the definite plural *yahn-muhn* 'the people' and the definite NP *je goh yahn* 'this person' followed by the individual-level predicate *chungmihng*

³³ Individual-level predicates refer to predicates which denote more or less permanent states. See Carlson (1977), and Diesing (1992) for the distinction between stage/individual-level predicates.

'clever' occur in the postverbal position of a periphrastic *yauh*-sentence, DEs arise.

However, in periphrastic *yauh*-sentences, DEs do not arise when definite NPs followed by stage-level predicates³⁴ occur in the postverbal position, as shown in (72):

- (72) *yauh yahn-muhn/je goh yahn joih cheunggo.*
have person-MUHN/this person at sing
'*There are the people/this person singing.'

Example (72) shows that when the definite plural *yahn-muhn* 'the people' and the definite NP *je goh yahn* 'this person' followed by the stage-level predicate *joih cheunggo* 'at sing' occur after *yauh*, no DE arises.

4.3.1. Stage/individual-level predicates

Carlson (1977) distinguishes two types of predicates, stage-level predicates and individual-level predicates. Stage-level predicates typically refer to temporary states such as *available*, and transitory activities such as *raining*. For example:

- (73) John is available.

- (74) It is raining.

Individual-level predicates, on the other hand, correspond to more or less permanent states such as *intelligent*, *lazy*, etc. For example:

- (75) John is intelligent.

- (76) Peter is lazy.

³⁴ See footnote 7 (p.4).

The condition which determines whether a predicate is stage/individual-level is compositional.

(77) The contrabassoonists always play loudly.

(77) shows that when the adverbial *always* is involved in the sentence, the predicate *play loudly* can receive an individual-level interpretation. On the other hand, if the progressive form of *be* is used, a temporary interpretation of *play loudly* is possible, as in (78):

(78) The contrabassoonists are playing loudly.

Example (78) shows that with the use of progressives, a predicate is interpreted as stage-level.

The point here is that the conditions determining whether a predicate is stage-level or individual-level are compositional. It not only depends on whether a predicate itself denotes a temporary or permanent state, but also on factors such as aspects, adverbials, sentential modifiers and contexts which may play a part in classifying a predicate as stage-level or individual-level.³⁵

The distinction between stage/individual-level predicates is important to the formation of a Tense-chain (T-chain), assigning accusative Case to the postverbal definite NP. Chapter

³⁵ Complications arise when more than one of these factors are involved. For example, in 'He is always getting into trouble.', the progressive *be* and the adverbial *always* are involved in the sentence and it receives an individual-level interpretation. There is no coherent theory which can accurately predict whether a predicate is stage/individual-level and this issue will not be taken up further in this thesis. See Diesing (1992) for additional tests used to classify stage/individual-level predicates.

6 will show that if a T-chain is not formed, *youh* cannot assign accusative Case to a postverbal definite NP in which case the Definiteness Effect will arise.

4.4. Huang's accounts of the Definiteness Effect of Mandarin *you*-sentences

To account for the Definiteness Effect (DE) of *you*-sentences without a predication phrase, Huang (1987) adopts a lexical-semantic approach. According to this approach, existential sentences assert the existence of an entity, which presents a problem to the fact that when a definite NP is used, it presupposes the existence of an NP. Hence, tautology or contradiction results when a definite NP occurs in an existential sentence. Since existential *you*-sentences are highly existential in the sense that they mainly serve to assert the existence of an entity, the occurrence of a definite NP in a *you*-sentence will result in tautology or contradiction.

On the other hand, Huang adopts a functional-pragmatic approach to account for the DE of *you*-sentences with a predication phrase. According to this account, a predication phrase is solely used as a continuative description of an NP which is new to the discourse. Such an NP has to be indefinite (See Heim 1982). Hence, a predication phrase cannot be used with a definite NP which is already mentioned in the discourse. It follows that ungrammaticality arises without exception in *you*-sentences containing definite NPs which are followed by predication phrases.

4.4.1. A counter-argument against Huang's account

According to the functional-pragmatic account, a predication phrase is used for the purpose of elaborating on an indefinite NP being introduced into the discourse. In other words, a

predication phrase cannot be used with a definite NP which has been previously mentioned in the discourse. Following this, the Definiteness Effect (DE) should arise without exception in periphrastic *yauh*-sentences, when a definite NP followed by a predication phrase occurs in the postverbal position. However, such a prediction fails to account for the fact that a DE does not arise in periphrastic *yauh*-sentences, when definite NPs are followed by stage-level predicates, as in (79) and (80):

(79) (nguk-leuih) *yauh yahn-muhn/pahngyauh-muhn joih cheunggo.*
 house-inside have person-MUHN/friend-MUHN at sing
 '*There were the people/the friends singing inside the house.'

(80) (nguk-leuih) *yauh je goh yahn joih cheunggo.*
 house-inside have this CL person at sing
 '*There is this person singing inside the house.'

In example (79), when the definite plural *yahn-muhn* 'the people' and *pahngyauh-muhn* 'the friends' followed by the stage-level predicate *joih cheunggo* 'at sing' occur after *yauh*, no Definiteness Effect (DE) arises. Similarly, when the definite NP *je goh yahn* 'this person' in (80) followed by the stage-level predicate *joih cheunggo* 'at sing' occurs after *yauh*, again no DE arises. (79) and (80) show that the functional-pragmatic account adopted by Huang fails to predict that DEs do not arise in periphrastic *yauh*-sentences, when definite plurals and other definite NPs are followed by stage-level predicates.

In summary, the functional-pragmatic account Huang adopts fails to explain why no DE arises in periphrastic *yauh*-sentences, when definite NPs are followed by stage-level predicates (cf. (79) and (80)). These Cantonese facts demonstrate that Huang's account cannot be extended to explain DEs observed in Cantonese existential *yauh*-sentences containing definite NPs.

4.5. Summary

This chapter has shown that Huang's account of Definiteness Effects (DEs) in Mandarin *you*-sentences cannot be extended to explain DEs in Cantonese *yauh*-sentences containing definite NPs. It will be shown that the account provided in Chapter 6 shows much more explanatory adequacy in explaining the DE observed in Cantonese *yauh*-sentences containing definite NPs. Chapter 5 discusses the structural relationship of the postverbal NP and its following modifying phrase in Cantonese periphrastic *yauh*-sentences. In particular, a small clause (SC) analysis along the lines of Stowell (1981) is argued for such a structural relationship. The SC analysis is necessary for the formation of a Tense-chain, which is responsible for the Case assignment of the postverbal definite NP, and the rise of DEs is shown to be the result of the failure of the definite NP to acquire accusative Case.

5: The small clause analysis

This chapter argues for a small clause (SC) analysis along the lines of Stowell (1981), on the grounds that there is a structural relationship between the postverbal NP and its following modifying phrase in periphrastic *yauh*-sentences.³⁶ The structural relationship between the postverbal NP and its following modifying phrase in existential sentences has been an issue debated repeatedly in linguistics, with many different analyses having been offered to account for such a relationship. Three of the analyses, the bare NP analysis, the adjunct analysis and the small clause (SC) analysis will be presented, along with the arguments offered in support of each. Counter-arguments against the bare NP analysis and the adjunct analysis, and arguments in favour of the SC analysis, will also be provided. The SC analysis is necessary for the Tense-chain formation which is responsible for the Case assignment of the postverbal definite NP. This in turn, is shown to accurately capture the distribution of Definiteness Effects in existential *yauh*-sentences containing definite NPs.

Three structures, as exemplified in (82)-(84), have been proposed for the English *there*-sentence in (81):

³⁶ Huang (1987) also argues that the modifying phrase following the postverbal NP is a predicate of that NP.

- (81) There was a pig roasted.
- (82) There was [_{NP} a pig roasted]. (bare NP analysis)
- (83) There was [_{NP} a pig] [_{AP} roasted]. (adjunct analysis)
- (84) There was [_{SC} a pig roasted]. (small clause analysis)

Example (82) represents the structure proposed by the bare NP analysis, championed by William (1975). The structure of (83) is assumed by the adjunct analysis, advocated by Milsark (1974), whereas the structure of (84) is proposed by the small clause analysis, elaborated by Stowell (1981).

5.1. The issue

The following sections show how the small clause analysis accounts for the structural relationship between the postverbal NP and its following modifying phrase in Cantonese, whereas the bare NP analysis and the adjunct analysis fail to explain such a relationship.

- (85) *yauh* [_{NP}*haaihji*] [_{XP}*joih syuh-hah*].
 have child at tree-bottom
 'There is/are a child(ren) at the bottom of a tree.'

In particular, the discussion below focuses on the structural relationship between the postverbal NP *haaihji* 'a child(ren)' and the XP *joih syuh hah* 'at the bottom of a tree'.³⁷

³⁷ In Cantonese, progressives take the form of a locative construction, as in (85). The progressive is indicated by the use of the preposition *joih* 'at' before *syuh-hah* 'at the bottom of a tree'. Similar use of a locative construction to indicate progressives is found in Dutch, as in (i) and (ii) below:

- (i) *Ik ben aan het lezen.* 'I am reading.'
 I am at the read-Inf
- (ii) *Ik ben aan het opruimen.* 'I am cleaning up.'
 I am at the up-cleaning

(Dutch; Gueron and Hoekstra 1995:84)

5.2. Bare NP analysis

The first analysis to be examined is the bare NP analysis, which holds that the sequence of [NP,XP] forms a constituent in which the NP is the head, and is modified by the following XP. One of the major arguments William (1984) proposes for the bare NP analysis is that the bare NP structure, i.e. *there be NP*, can generate all *there be NP XP* strings without exception, as in (86)-(88). In these sentences, the (a) sentences are *there*-insertion sentences (TISs), and the (b) sentences are their respective sources. William (1984) claims that the bare NPs and their postnominal modifiers of the (b) sentences can be easily transformed into the postverbal objects of the (a) sentences, with the application of the *there*-insertion rule:

- (86) a. There is [_{NP} someone [_{AP} sick]].
 b. [_{NP} Someone [_{AP} sick]] is in the next room.
- (87) a. There is [_{NP} someone [_{IP} believed to be a liar]].
 b. [_{NP} Someone [_{IP} believed to be a liar is in the next room]].
- (88) a. There is [_{NP} someone [_{AP} running]].
 b. [_{NP} Someone [_{AP} running]] is in the next room.

(William 1984:132)

The bare NPs and their modifiers of the (b) sentences, *someone sick* (86), *someone believed to be a liar* (87), *someone running* (88), become the postverbal objects in their respective (a) sentences, after the *there*-insertion rule is applied. This shows that the postnominal modifiers must be part of the postverbal NP. If this were not the case, the postnominal modifiers would not be able to undergo the transformation and surface after the

In Cantonese, the progressive-use of locative constructions always receive a stage-level interpretation as they denote temporary states.

postverbal NP in TISs. The following section presents three counter-arguments against the bare NP analysis.

5.2.1. First counter-argument

Cantonese nominal modifiers such as relative clauses, adjectival phrases, possessive phrases, and numeral phrases all have to appear prenominally, as exemplified in (89)-(92):

- | | |
|---|--|
| (89) yihngsik ngoh dik <u>yahn</u>
know I LP person | 'People that know me'
(Relative clause) |
| (90) chungmihng dik <u>hohksaang</u>
clever LP student | 'Clever students'
(Adjectival phrases) |
| (91) ngoh gaan <u>nguk</u>
I CL house | 'My house'
(Possessive phrase) |
| (92) yat ga che
one CL car | 'One car'
(Numeral phrase) |

Examples (89)-(92) show that restrictive nominal modifiers must occur before the nouns they modify, with the intervention of a linking particle (LP) between the modifier and the head noun. This is illustrated with the LP *dik* used in the relative clause in (89) and in the adjectival phrase in (90). For possessive phrases and numeral phrases, a classifier serves as an LP preceding the head noun, as shown in (91) and (92).

Example (93), on the other hand, illustrates that ungrammaticality arises if the nominal adjectival phrase occurs postnominally, even with the presence of an LP.

(93)*hohksaang dik chungmihng 'Student(s) who is/are clever'
student LP clever

In contrast, only descriptive/non-restrictive modifiers (which will be referred to as predicates) can occur postnominally, as shown in (94) and (95):

(94) je bun syu hang yauhcheui. 'This book is very interesting.'
this CL book very interesting

(95) je goh haaihji hang laahndoh. 'This child is very lazy.'
this CL child very lazy

Examples (94) and (95) show that a predicate differs from a nominal restrictive modifier in the following ways: 1) a predicate must follow the noun it predicates over, such as *hang yauhcheui* 'very interesting' in (94) and *hang laahndoh* 'very lazy' in (95); 2) a predicate can immediately follow the noun it predicates over without the intervention of a linking particle. Examples (89)-(95) demonstrate that restrictive nominal modifiers must occur prenominally, whereas predicates can occur postnominally.

Given that in Cantonese, restrictive nominal modifiers must occur prenominally, the bare NP analysis fails to explain the generation of postnominal modifiers in periphrastic *yauh*-sentences, but not in other constructions.³⁸ For example:

(96) yauh yahn joih syuh-hah.
have person at tree-bottom
'There is/are a person(s) at the bottom of a tree.'

According to the bare NP analysis, the PP *joih syuh-hah* 'at the bottom of a tree' is a nominal modifier which is part of the NP *yahn* 'a person(s)'. However, following the above

³⁸ Huang (1987) also claims that since Mandarin nominal modifiers have to occur prenominally, the generation of postnominal modifiers in accordance with the bare NP analysis conflicts with the prenominal requirement of Mandarin nominal modifiers.

discussion, *joih syuh-hah* 'at the bottom of a tree' is a predicate rather than a restrictive nominal modifier, as it occurs postnominally and has no linking particle. This demonstrates that the XP is not a postnominal modifier in accordance with the bare NP analysis which should therefore not be adopted for Cantonese.

5.2.2. Second counter-argument

That the bare NP analysis is not the correct account for the structural relationship of the sequence [NP,XP] in Cantonese is further supported by the fact that the bare NP analysis fails to explain the obligatory presence of an XP in periphrastic *yauh*-sentences.

- (97) [_{IP} *yauh* [_{NP} *pahngyauh* [_{PP} *joih nguk-leuih*]]].
have friend at house-inside
'There is/are a friend(s) inside the house.'

As shown in Chapter 3, a secondary predicate is involved in periphrastic *yauh*-sentences. This shows that the PP *joi nguk-leuih* 'inside the house' is obligatory. However, the bare NP analysis fails to predict the obligatory presence of the PP in (97), as nominal modifiers are always optional.

5.2.3. Third counter-argument

In English and Cantonese, nominal modifiers occurring prenominally tend to have restrictive functions, whereas modifiers appearing postnominally tend to have descriptive functions.³⁹

³⁹ Cf. Huang (1987) for the same semantic difference between prenominal and postnominal modifiers in Mandarin.

Such semantic differences are observed in English, as in (98)-(99), and in Cantonese, as in (100)-(101):

(98) There are sick people.

(99) There are people sick.

(100) *yauh yat bun hang yauhcheui dik syu.* 'There is a very interesting book.'
have one CL very interesting LP book

(101) *yauh yat bun syu hang yauhcheui.* 'There is a book very interesting.'
have one CL book very interesting

When the nominal modifiers *sick* in (98) and *hang yauhcheui* 'very interesting' in (100) appear prenominal, they have restrictive functions, i.e. they assert the existence of sick people and a very interesting book respectively. In contrast, when the two modifiers appear postnominally, they have descriptive rather than restrictive functions. In other words, (99) asserts the existence of people and goes on to describe that those people are sick. Likewise, (101) asserts the existence of a book, and continues to make the comment that there is something very interesting about this book.

With regard to the semantic differences between prenominal and postnominal modifiers, Huang's analyses are adopted. Huang (1987) suggests that two problems arise from analyzing *sick* in (99) and *hang yauhcheui* 'very interesting' in (101) as postnominal modifiers, in accordance with the bare NP analysis. First, Huang claims that in English, *sick* in (99) does not have the comma intonation typical of non-restrictive modifiers, as in (102):

(102) People, who are sick are everywhere.

According to Huang, in English there is a small break in the air stream between the head noun *people* in (102) and its non-restrictive modifier *who are sick*. However, there is

no such break between *people* and *sick* in (99). This illustrates that *sick* in (99) should not be regarded as a postnominal modifier. On the other hand, Huang argues that the analysis of *hang yauhcheui* 'very interesting' in (101) as a postnominal modifier is problematic, because it is not clear why postnominal modifiers are possible only when they are non-restrictives.

The three counter-arguments to the bare NP analysis (i.e. the lack of a linking particle with the use of postnominal modifiers and the prenominal requirement of nominal modifiers, the obligatory presence of an XP in periphrastic *yauh*-sentences, and the non-restrictive requirement of postnominal modifiers), all suggest that the bare NP analysis should not be adopted to account for the structural relationship of the [NP,XP] in periphrastic *yauh*-sentences.

5.3. Adjunct analysis

In the adjunct analysis, the postverbal NP and its XP are sisters of the verb, with the latter serving as an adjunct to the preceding NP. Hence, the postverbal NP and its XP do not form a constituent, and the XP is optional. Therefore, the structure proposed by the adjunct analysis can readily capture the optionality of the XP in TISs in English.

(103) There is a dog (in the backyard).

According to the adjunct analysis, the PP *in the backyard* in (103) is claimed to be an adjunct of the preceding NP *a dog*. When analyzed as an adjunct, the PP *in the backyard* is optional, as indicated by the parenthesis. This is to say that the presence or the absence of the PP will not affect the grammaticality of the sentence. The following section presents two counter-arguments against the adjunct analysis.

5.3.1. First counter-argument

The first argument against the adjunct analysis comes from the fact that adjuncts in this analysis can only occur after but not before an NP in periphrastic *yauh*-sentences, as in (104):

(104) *yauh neuhaaihji joih syuh-hah.*
have girl at tree-bottom
'There is/are a girl(s) at the bottom of a tree.'

(105)**yauh joih syuh-hah neuhaaihji.*
have at tree-bottom girl

Examples (104) and (105) show that the PP *joih syuh-hah* 'at the bottom of a tree' must follow the NP *neuhaaihji* 'girl(s)'. If the order of the NP and the PP is reversed, ungrammaticality arises, as in (105).⁴⁰ The adjunct analysis fails to explain why an adjunct cannot precede an NP. Hence, the adjunct analysis fails to account for the relative order of the NP and the XP, and cannot be adopted for Cantonese.

5.3.2. Second counter-argument

As mentioned in section 5.2.2, the XP is obligatory in periphrastic *yauh*-sentences, as in (106):

(106) *yauh pahngyauh-muhn joih nguk-leuih.* '*There are the friends inside the house.'
have friend-MUHN at house-inside

⁴⁰ I assume that adjuncts are identical to nominal modifiers in that both are optional. If Cantonese nominal modifiers have to occur preminally, then it is not clear why the PP *joih syuh-hah* 'at the bottom of a tree' cannot occur preminally in (105). This again suggests that the PP *joih syuh-hah* 'at the bottom of a tree' in (105) is not an adjunct.

(107)**yauh pahngyauh-muhn*.⁴¹
have friend-Muhn

Examples (106) and (107) show that the presence of the PP *joih nguk-leuih* 'inside the house' is obligatory. Otherwise, ungrammaticality arises, as in (107). If *joih nguk-leuih* 'inside the house' is analyzed as an adjunct, according to the adjunct analysis, it is expected to be optional. Hence, (107) should be grammatical, when in fact it is not. The grammaticality contrast between (106) and (107) demonstrates that the adjunct analysis fails to capture the obligatory presence of the XP in periphrastic *yauh*-sentences. The two counter-arguments (i.e. the obligatory precedence of the NP before the XP, and the obligatory presence of an XP in periphrastic *yauh*-sentences) show that the adjunct analysis cannot be adopted to account for the structural relationship of the [NP,XP] in Cantonese.

5.4. Small clause analysis

The small clause (SC) analysis, on the other hand, claims that the NP and the XP form a clausal constituent, with the XP rather than the NP as the maximal projection of the constituent. Additionally, a relationship of subject and predicate is held between the NP and the XP. The two assumptions above are supported by the fact that adjuncts associated with the main verb of the sentence cannot occur internally in an SC, as in (108):

(108)*_{IP}[Peter wants [_{SC}Mary [_{PP} very much in his office]]].

⁴¹ (107) illustrates that if the secondary predicate is missing, the intended meaning '*There are the friends inside the house' is not possible and the ungrammaticality arises from the absence of a secondary predicate in a periphrastic *yauh*-sentence. In fact, if the periphrastic *yauh*-sentence is not distinguished from the ontological *yauh*-sentence, the lack of DEs in (106) will not be expected.

According to Haegeman (1991), in (108) the degree adjunct *very much* which modifies the verb *want* cannot intervene between the small clause subject *Mary* and the PP predicate *in his office*. This shows that the NP *Mary* and the PP *in his office* form a single constituent.

5.4.1. First argument for the small clause analysis

According to the small clause (SC) analysis, the NP *neuihaaihji* 'a girl(s)' in (104) is the subject of the following PP *joih syuh-hah* 'at the bottom of a tree'. The relationship of subject and predicate held between the NP and the PP accurately captures the fact that the NP *neuihaaihji* 'a girl(s)' in (104) must precede the PP *joih syuh-hah* 'at the bottom of a tree'.

(104) *yauh neuihaaihji joih syuh-hah.*
have girl at tree-bottom
'There is/are a girl(s) at the bottom of a tree.'

As a predicate must occur after its subject in Cantonese, it follows that the NP *neuihaaihji* 'a girl(s)' must precede the PP *joih syuh-hah* 'at the bottom of a tree'. Hence, the SC analysis fares better than the other two analyses in explaining why the NP must precede the XP, and why the XP need not be marked by a linking particle, if it were to occur as a postnominal modifier.

5.4.2. Second argument for the small clause analysis

The small clause (SC) analysis also fares better than the other two analyses in explaining the obligatory presence of the XP in periphrastic *yauh*-sentences.

(106) [_{IP}yauh [_{SC}[_{NP}pahngyauh-muhn [_{PP}joih nguk-leuih]]]].
 have friend-MUHN at house-inside
 '*There are the friends inside the house.'

(107)*yauh pahngyauh-muhn.⁴² '*There are the friends.'
 have friend-MUHN

The SC analysis claims that an SC consists of an NP and an XP, in which a relationship of subject and predicate is held between the NP *pahngyauh-muhn* 'the friends' and the PP *joih nguk-leuih* 'inside the house' in the SC complement. The ungrammaticality of (107) follows, as a predicate is missing inside the SC, violating the structural requirement of an SC. This demonstrates that the SC analysis is able to account for the obligatory presence of an XP in periphrastic *yauh*-sentences.

The two arguments presented above (i.e. the ability to explain the precedence of the NP before the XP, and the obligatory presence of an XP in periphrastic *yauh*-sentences) show that the SC analysis is the correct analysis for the structural relationship of the [NP,XP] in periphrastic *yauh*-sentences.

5.5. The formation of Tense-chains

In terms of the Case assignment of postverbal definite NPs, a Tense-chain (T-chain) of Gueron and Hoekstra (1995) will be adopted. According to them, full clauses contain a T-chain, consisting of a Tense-operator (TO) and Tense, which is lacking in small clauses (SCs). The function of a TO is to hook the predicate to the world, making it referential. Since SCs lack TOs, they have to be linked to a TO by means of an auxiliary. A T-chain can only be

⁴² See footnote 42 (p.53).

formed if it consists of a TO and an event-role (e-role). It follows that a chain consisting of a TO and an auxiliary lacking an e-role cannot be formed. To accommodate this situation, the auxiliary Tense-marks the SC predicate, which provides the auxiliary with an e-role, so that the auxiliary can assign accusative Case to the postverbal NP and the SC predicate can also be linked to the TO.

The formation of a T-chain can integrate a predicate into a referential domain. It also makes possible the Case assignment of postverbal definite NPs, as the Tense of the matrix clause provides a licensing domain for the SC. In addition, the feature of accusative Case is passed to the Agreement Phrase (AGRP) from the SC predicate through the extended T-chain. Hence, postverbal NPs are assigned accusative Case by virtue of a Spec-Head relationship inside the AGRP. Without the formation of a T-chain, there is no licensing domain for the SC subject, and the feature of accusative Case cannot be passed to the AGRP. Hence, postverbal definite NPs cannot be Case-licensed, violating the Case Filter and giving rise to Definiteness Effects. Chapter 6 will show that the formation of a T-chain is able to account for DEs in both types of existential *yauh*-sentences containing definite NPs.

5.6. Summary

In summary, this chapter has shown that the small clause (SC) analysis accurately captures the structural relationship of the postverbal NP and its XP. A relationship of subject and predicate is held between the postverbal NP and the XP, in accordance with the SC analysis. By assuming such a relation, it explains why the postverbal NP must precede the XP, and not vice versa. The SC analysis is also able to account for the fact that XPs are obligatory in

periphrastic *yauh*-sentences, since SCs are structurally required to have an NP argument and an XP predicate. These arguments show that the SC analysis correctly accounts for the structural relationship of the postverbal NP and its XP. The bare NP analysis, on the other hand, falls short of explaining why a nominal modifier can occur postnominally without the presence of a linking particle, an element obligatorily required with the use of typical nominal modifiers. It also fails to explain why an XP is obligatory in periphrastic *yauh*-sentences, in contrast to the optionality of nominal modifiers. Additionally, it is not clear why postnominal modifiers are possible only with non-restrictives. These anomalies demonstrate that the XP is not a postnominal modifier, but instead, functions as a predicate. Hence, the bare NP analysis cannot be adopted to account for the structural relationship of the [NP,XP]. The adjunct analysis does not fare much better than the bare NP analysis. First, the adjunct analysis fails to account for the fact that the postverbal NP must precede the XP. Furthermore, when analyzed as an adjunct, the XP should be optional, but in periphrastic *yauh*-sentences the XP is obligatory. Hence, the adjunct analysis fails to capture the obligatory presence of the XP, and also should not be adopted for the structural relationship of the postverbal NP and its XP.

This chapter has argued for a small clause (SC) analysis to account for the structural relationship of the postverbal NP and its following XP. Chapter 6 will show that the adoption of an SC analysis is necessary for Tense-chain formation, which is responsible for the Case assignment of postverbal definite NPs. The rise of Definiteness Effects will be shown as the result of the failure of the definite NP to acquire accusative Case.

6: An account of Definiteness Effects of existential *yauh*-sentences

6.1. Review of Definiteness Effects

As previously mentioned in Chapter 4, Definiteness Effects (DEs) arise consistently in ontological *yauh*-sentences containing definite NPs, as shown in (109). In contrast, in periphrastic *yauh*-sentences DEs arise only if definite NPs are followed by individual-level predicates, as in (110), and not if definite NPs are followed by stage-level predicates, as in (111):

(109)**yauh louhsih-muhn/je goh yahn* '*There are the teachers/this person.'
have teacher-MUHN

(110)**yauh yahn-muhn/je goh yahn hou.*
have person-MUHN/this person good
'*There is the people/this person good.'

(111) *yauh haaihji-muhn/je goh yahn joih seuigaau.*
have child-MUHN/this person at sleep
'*There is/are the children/this person sleeping.'

This chapter shows that DEs arising in each type of existential *yauh*-sentence containing definite NPs are the result of the failure of the definite NP to acquire Case, violating the Case Filter (CF). *Yauh* is an ergative verb in the sense of Burzio (1981) in that it does not assign accusative Case to the postverbal NP. Nevertheless, Belletti's (1988) partitive-Case assignment of ergative verbs is adopted, hence *yauh* can assign partitive Case

to its postverbal NP only if it is indefinite. It explains why CF is not violated in existential *yauh*-sentences containing indefinite NPs. This thesis further adopts the Tense-chain (T-chain) theory of Case assignment of Gueron and Hoekstra (1995), which allows *yauh* to assign accusative Case to postverbal definite NPs in existential *yauh*-sentences. With the formation of a T-chain, the postverbal definite NP receives accusative Case from *yauh*, and the CF is not violated.

6.2. Overview of the Tense-chain formation

Gueron and Hoekstra (1995) propose that a predicate must be integrated into a referential domain to be predicated of a temporal object, which is located within a discourse domain. The predicate is made referential by means of a Tense-operator (TO), linking the predicate to the world. In addition, Gueron and Hoekstra (1995) propose that the formation of a Tense-chain (T-chain) is necessary to provide a licensing domain for the subject of a small clause (SC). The reason is that since overt NPs need abstract Case and Case is assigned to an NP if such an NP is in a Case-licensing domain. However, an SC lacks a licensing domain since it is a lexical projection in the sense that it lacks a TO and Tense. Hence, SCs themselves cannot serve as licensing domains. With the formation of a T-chain, Tense of the matrix clause provides a licensing domain for the SC. The SC subject is raised to the Specifier (Spec) position of Agreement Phrase (AGRP) to receive accusative Case under the Spec-Head relationship inside the AGRP, and the agreement feature of the AGRP can also be checked. According to Gueron and Hoekstra, a typical SC has the structural representation given in (112):

(112) [_{AGRP} John_i AGR [_{AP} t_i foolish]]

Gueron and Hoekstra propose that each predication involves an AGRP, containing the node Agreement (AGR). Since the adjective *foolish* functions as a predicate, an AGRP is involved in (112). The feature of the adjectival predicate *foolish* is checked by the AGR, which in turn, is checked by the raised SC subject *John* by virtue of a Spec-Head relationship inside the AGRP. Hence, the subject of the SC *John* must be raised to the Spec position of the AGR in order to check the AGR.

Full clauses are different from SCs in that full clauses contain a TO and Tense, while SCs lack both. Hence, a T-chain can form inside a matrix clause but not in an SC.

(113) TO_i TNS_i [John reads_i this book].

(113) shows the structure of a T-chain in a matrix clause. The T-chain is headed by a TO which is followed by Tense (TNS) and a verb foot. With the formation of the T-chain, the subject *John* is licensed, as is the present tense agreement feature that surfaces as the suffix *-s* on the verb *read*. However, since the SC lacks a TO and Tense, no T-chain can be formed within the SC. Gueron and Hoekstra propose that the T-chain of a matrix clause can be extended to the SC, if it is mediated by an intermediate auxiliary. The matrix clause will thus provide a licensing domain for the SC. In cases such as this, the T-chain consists of a TO, an auxiliary, and the predicate of an SC, as in (114):

(114) TO_i [_{IP} There is_i [_{AGRP} a man_j AGR [t_j coming_i]]].

The T-chain in (114) consists of a TO, the auxiliary *is*, and the VP predicate *coming*. With the formation of a T-chain, the VP predicate *coming* is checked by AGR, which itself

is checked by the subject of the SC *a man*, raised to [Spec,AGRP]. Additionally, the raised subject *a man* is Case-licensed under the Spec-Head relationship inside the AGRP.

Gueron and Hoekstra further propose that in order to make the T-chain formation possible, each T-chain must bear an event-role (e-role). According to Gueron and Hoekstra, any category that has lexical content such as adjectives, nouns, verbs, etc., bears an e-role. Following this, the auxiliary *is* in (114) denotes neither a state nor an event, so it needs to be supplied with an e-role. Since the VP predicate *coming* has an e-role to transmit to the auxiliary, the auxiliary *is* Tense-marks (T-mark) the VP predicate *coming*.⁴³ As a result, the predicate *coming* becomes a part of the T-chain, supplying the auxiliary *is* with its e-role. Hence, a T-chain forms and the auxiliary can assign accusative Case to its postverbal NP.

To put it simply, an extended T-chain consists of a TO, an auxiliary and the predicate of an SC which has an e-role to transmit to the auxiliary. The TO functions to hook the TNS-predicate complex to the world, making the predicate referential. The auxiliary links the SC predicate to the TO by means of T-marking the SC predicate, therefore allowing the predicate to supply the auxiliary with its e-role and a T-chain forms. On the other hand, a T-chain cannot be formed if the predicate lacks an e-role to transmit to the auxiliary. In addition to providing the auxiliary with an e-role, the predicate also licenses the accusative feature in AGR through the extended T-chain. With the formation of a T-chain, an SC subject is provided with a Case-licensing domain by the Tense of the matrix clause. Hence, the SC subject is Case-licensed under the Spec-Head relationship inside the AGRP.

⁴³ The auxiliary verb *be* is situated in Tense. Hence, it is realized in the present tense form *is*. It follows that *is* can T-mark the VP predicate *coming*.

The auxiliary itself lacks an e-role which must be transmitted to it from a secondary predicate having an e-role. With an e-role provided by a secondary predicate, a T-chain forms and *yauh* assigns accusative Case to its postverbal NP. The present study further adopts a distinction between predicates that have an e-role and those that do not, along the lines of Diesing (1992).⁴⁴ This distinction is similar to the stage/individual-level distinction proposed by Carlson (1977). In particular, stage-level predicates have an e-role, whereas individual-level predicates lack e-roles, in accordance with Diesing (1992). Diesing following Kratzer (1989) suggests that stage-level predicates have e-roles available for binding, just as variables are bound by operators, whereas individual-level predicates lack e-roles for binding. With the distinction between predicates which have e-roles and those that do not, only stage-level predicates can become a part of the T-chain, supplying the auxiliary with an e-role, whereas individual-level predicates cannot be part of the T-chain as they lack e-roles to transmit to the auxiliary. It will be shown later how this distinction of stage/individual-level predicates is related to the formation of a T-chain, which in turn, will account for Definiteness Effects in the two types of existential *yauh*-sentences, containing definite NPs.

6.3. Partitive case-assignment of *yauh*

An additional proposal that needs to be made in order to account for the Definiteness Effect (DE) in both types of existential *yauh*-sentences is that *yauh* assigns partitive Case to postverbal indefinite NPs without the formation of a Tense-chain. Such a proposal is necess-

⁴⁴ According to Diesing (1992), e-roles refer to some abstract event arguments. Predicates are divided into those which have event arguments, and those that do not.

ary to explain how the postverbal indefinite NP acquires its Case in *yauh*-sentences, which preclude the formation of T-chains.

Partitive Case is different from nominative or accusative Case in that the former is assigned depending on the theta-role assignment and government, whereas the latter are assigned solely according to government.⁴⁵ In other words, partitive Case is assigned by *yauh* to an NP, if and only if *yauh* theta-marks and governs that NP. In addition, partitive Case is only assigned to indefinite NPs, whereas definite NPs are not assigned such Case.

The following section shows that the partitive-Case assignment of *yauh* is necessary to explain how postverbal indefinite NPs acquire their Case, when T-chains are precluded in ontological *yauh*-sentences and periphrastic *yauh*-sentences containing individual-level predicates. Furthermore, since Cantonese lacks overt expletives and since Case can only be transmitted from an overt Case-bearing NP to another NP which lacks Case, no theta-chain is formed between the subject expletive and the object NP, as proposed by Safir (1982). Hence, the postverbal indefinite NP must receive its partitive Case from *yauh* in order to satisfy the **Case Filter (CF)**, which requires all overt NPs to have Case.⁴⁶

6.3.1. No theta-chain formation in Cantonese

Safir (1982) suggests that in a *there*-sentence, given the ergative verb *be* which does not assign accusative Case to its object NP, the object NP acquires its Case by its occurrence in a theta-chain along with the subject expletive *there*. Such a theta-chain formation captures

⁴⁵ See footnote 32 (p.31).

⁴⁶ Cf. Haegeman (1991) for a discussion of the CF.

the DE in *there*-sentences according to Safir. The object NP c-commanded by the co-indexed expletive should theoretically result in a violation of Principle C.⁴⁷ However, Safir proposes that indefinite theta-chains are exempted from this binding principle,⁴⁸ whereas theta-chains consisting of an expletive and a definite NP in *there*-sentences will be ruled out as a violation of Principle C.

Cantonese is a topic-prominent language, in the sense of Li & Thompson (1976), so the notion of subject does not play a prominent role. Therefore, unlike subject-prominent languages such as English, German, French, etc., which obligatorily require the presence of an overt subject in a sentence, even when the subject does not play a semantic role, Cantonese simply need not have an overt subject. Since Case can only be transmitted from an overt Case-bearing NP to another NP which lacks Case, the lack of overt expletives in Cantonese shows that Case cannot be transmitted from an overt expletive in subject position to the postverbal NP, as proposed by Safir (1982). Hence, Case is assigned to the postverbal NP in a different way. In particular, this thesis proposes that *yauh* can assign partitive Case to its postverbal indefinite NP without the formation of a T-chain.

⁴⁷ Principle C states that all referring expressions must be free, in the sense that they must not be c-commanded by another element in the sentence. See Haegeman (1991) for a further discussion of the binding principle C.

⁴⁸ Indefinite theta-chains contain an expletive in the subject position and an indefinite NP in the postverbal position.

indefinite NP *yahn* 'a person(s)', it can assign partitive Case to that indefinite NP. The evidence presented in this section demonstrates that partitive Case can only be assigned by *yauh* to its postverbal indefinite NPs, when *yauh* theta-marks and governs that indefinite NP.

6.3.3. Partitive-Case assignment in Finnish

That ergative verbs have the capacity to assign partitive Case is further supported by evidence from Finnish, which marks the postverbal NP of an ergative verb with partitive Case:

- (117) Pöydällä on kirjoja. 'There are some books on the table.'
on the table is (some) books (part, pl)

(Finnish; Belletti 1988:2)

- (118) Helsingistä tulee kirjeitä.
from Helsinki comes (some) letters (part, pl)
'There comes some letters from Helsinki.'

(Finnish; Belletti 1988:2)

Both Finnish examples illustrate that only the accusative-assigning capacity of ergative verbs is suspended, whereas their capacity to assign partitive Case is maintained. In particular, the indefinite NPs *kirjoja* 'some books' in (117) and *kirjeitä* 'some letters' in (118) are assigned partitive Case by the ergative verbs in their respective sentences.

Partitive Case is only assigned to indefinite NPs of ergative verbs, while definite NPs on the other hand, will not be assigned partitive Case. This is evidenced by the different Cases received by the postverbal NPs of transitive verbs in Finnish:

- (119) Hän pani kirjat pöydälle.
he put (some) books (acc, pl) on the table

(Finnish; Belletti 1988:1)

(120) Hän pani kirjoja pöydälle.
he put (some) books (part,pl) on the table

(Finnish; Belletti 1988:1)

Examples (119) and (120) show that in Finnish, transitive verbs have the capacity to assign either accusative or partitive Case to postverbal NPs, depending on the reading associated with the NP. In (119), accusative Case is assigned to the definite NP *kiriat* 'the book', whereas the indefinite NP *kirjoja* 'some books' in (120) is assigned partitive Case. These examples demonstrate that partitive Case cannot be assigned to postverbal definite NPs of ergative verbs.

6.3.4. Partitive-case assignment of *Be*

In English, too, it is suggested that *be* is able to assign partitive Case to its postverbal indefinite NPs, but not to its postverbal definite NPs, as illustrated in (121) and (122):⁵⁰

(121) There is a man in the backyard.

(122)*There is the man in the backyard.

As it is indefinite, *a man* in (121) can be assigned partitive Case by *be*, whereas the postverbal definite NP *the man* in (122) fails to receive partitive Case from *be*. Hence, the Definiteness Effect (DE) arises when the definite NP *the man* fails to acquire partitive Case. This illustrates that partitive Case is essentially incompatible with definite NPs. Furthermore, the capacity of *be* to assign partitive Case again suggests that the partitive-Case assignment of ergative verbs is available universally, as suggested by Belletti (1988).

⁵⁰ Cf. Lasnik (1992) for the partitive-Case assignment of the English ergative verb *be*.

6.4.2. Definite NPs in periphrastic *yauh*-sentences

As previously mentioned in Chapter 3, a secondary predicate is involved in periphrastic *yauh*-sentences. Hence, a T-chain can always be formed if the predicate involved is stage-level, having an e-role to transmit to the auxiliary, whereas a T-chain cannot be formed if the predicate involved is individual-level lacking an e-role to transmit the auxiliary.

(125) *yauh haaihji-muhn joih duhksyu.* '*There are the children studying.'
have child-MUHN at study

(126) $TO_i [_{IP} \text{yauh}_i [_{AGRP} \text{haaihji-muhn}_j \text{AGR} [_{VP} t_j \text{joih duhksyu}_i]]]$.

(127) *yauh na goh yahn loih-liuh.* '*There was that person coming.'
have that CL person come-Asp

(128) $TO_i [_{IP} \text{yauh}_i [_{na goh yahn}_j \text{AGR} [_{VP} \text{loih-liuh}_i]]]$

The predicate *joih duhksyu* 'at study' in (125) is stage-level, having an e-role to transmit to the auxiliary, and it predicates over the SC subject *haaihji-muhn* 'the children'.⁵¹ The structure of (125) is represented in (126), which shows that a T-chain is formed headed by a TO, which is followed by the auxiliary *yauh*, and the stage-level VP predicate *joih duhksyu* 'at study' providing the auxiliary with an e-role. With the formation of a T-chain, *haaihji-muhn* 'the children' is assigned accusative Case by virtue of the Spec-Head relationship inside the Agreement Phrase (AGRP). Hence, the Case Filter (CF) is satisfied and no Definiteness Effect arises. Similarly, the predicate *loih-liuh* 'came' in (127) is stage-level providing an e-role with the auxiliary and a T-chain forms. Hence, *na goh yahn* 'that person'

⁵¹ Cf. Chapter 5 for arguments for adopting the SC analysis for the structural relationship of the postverbal NP and its XP in periphrastic *yauh*-sentences.

is assigned accusative Case by *yauh* under the Spec-Head relationship inside the AGRP. Again, the CF is satisfied and no DE arises.

With a stage-level PP predicate, providing the auxiliary with an e-role, a T-chain can also form, as in (106):

- (106) *yauh pahngyauh-muhn joih nguk-leuih.*
 have friend-MUHN at house-inside
 '*There are the friends inside the house.'

The structure of (106) is represented by (129):

- (129) $TO_i [_{IP} \textit{yauh}_i [_{AGRP} \textit{pahngyauh-muhn}_j \textit{AGR} [_{PP} \textit{t}_j \textit{joih nguk-leuih}_i]]]$.

- (130) *yauh na goh yahn joih syuh-hah.*
 have that CL person at tree bottom
 '*There is that person at the bottom of the tree.'

- (131) $TO_i [_{IP} \textit{yauh}_i [_{AGRP} \textit{na goh yahn}_j \textit{AGR} [_{PP} \textit{t}_j \textit{syuh-hah}_i]]]$.

The PP predicate *joih nguk-leuih* 'inside the house' in (106) is a stage-level predicate, denoting a temporary state, and provides *yauh* with an e-role. Hence, a T-chain forms, consisting of a TO, the auxiliary *yauh*, and the stage-level PP predicate *joih nguk-leuih* 'inside the house'. With the formation of the T-chain, *pahngyauh-muhn* 'the friends' is assigned accusative Case by virtue of the Spec-Head relationship inside the AGRP. Hence, the CF is not violated and no DE arises. Likewise, with the presence of the stage-level predicate *joih syuh-hah* 'at the bottom of a tree' in (130) providing *yauh* with an e-role, a T-chain forms. Hence, the definite NP is assigned accusative Case and no DE arises.

In contrast, a T-chain cannot be formed if an individual-level predicate is involved, because it lacks an e-role to transmit to the auxiliary. Hence, the auxiliary fails to assign accusative Case to its postverbal definite NP violating the CF and the DE arises.

(132)**yauh haaihji-muhn chungmihng.* '*There are the children clever.'
 have child-MUHN clever

(133) $TO_i [_{IP} \text{yauh}_i [_{AGRP} \text{haaihji-muhn}_j \text{AGR} [_{AP} t_j \text{chungmihng}]]]$.

(134)**yauh je goh haaihji chungmihng.* '*There is this child clever.'
 have this CL child clever

(135) $TO_i [_{IP} \text{yauh}_i \text{je goh haaihji}_j \text{AGR} [t_j \text{chungmihng}]]]$

In (132), the AP predicate in the small clause *chungmihng* 'clever' is an individual-level predicate, denoting a trait of *haaihji-muhn* 'the children'. Hence, the individual-level predicate fails to provide *yauh* with an e-role. It follows that the DE arises when a T-chain fails to form, which in turn, fails to assign accusative Case to the definite plural in (132). Example (134) also shows that the DE arises when the definite NP *je goh haaihji* 'this child' followed by the individual-level predicate *chungmihng* 'clever' occurs after *yauh*. This is the result of the failure of the individual-level predicate to provide the auxiliary with an e-role. This in turn, leads to the failure of the definite NP to acquire accusative Case, violating the Case Filter.

6.5. Tense-chains and indefinite NPs

The following section shows how partitive Case is assigned by *yauh* without a Tense-chain, which in turn explains how indefinite NPs get their Case.

6.5.1. Indefinite NPs in ontological *yauh*-sentences

The following section shows that Definiteness Effects (DEs) do not arise in ontological *yauh*-sentences containing indefinite NPs.

(2) *yauh yahn.*
have person

'There is/are a person(s).'

The grammaticality of (2) repeated above is accounted for, if the partitive-Case assignment of *yauh* is assumed. A T-chain cannot be formed in ontological *yauh*-sentences due to the lack of secondary stage-level predicates providing an event-role (e-role) to the auxiliary. Example (2) is nevertheless grammatical, which suggests that the indefinite NP *yahn* 'a person(s)' must have received partitive Case from *yauh*. Partitive-Case assignment is possible, as *yauh* assigns a theta-role and governs the NP *yahn* 'a person(s)'. In addition, since the NP *yahn* 'a person(s)' is indefinite, *yauh* can assign partitive Case to it, and the Case Filter is not violated.

6.5.2. Indefinite NPs in periphrastic *yauh*-sentences

In periphrastic *yauh*-sentences, indefinite NPs receive accusative Case when a Tense-chain (T-chain) forms if it consists of a stage-level predicate with an event-role (e-role). In cases in which when an individual-level predicate is involved, a T-chain cannot form as the individual-level predicate lacks an e-role to transmit to the auxiliary. Nevertheless, the indefinite NP receives partitive Case from *yauh* and the Case Filter (CF) is satisfied.

(136) *yauh yahn joih nguk-leuih.*
have person at house-inside

'There is/are a person(s) in the house.'

(137) *yauh yahn hou chungmihng.*
have person very clever

'There is/are a person(s) very clever.'

The predicate *joih nguk-leuih* 'at the house' in (137) is a stage-level predicate, in the sense that the locative construction denotes a temporary state, yielding a stage-level

interpretation of the PP. Hence, the predicate *joih nguk-leuih* 'at the house' provides the auxiliary with an e-role. This in turn makes the accusative-Case assignment to the indefinite NP possible. Example (137), on the other hand, shows that a T-chain cannot be formed due to the lack of an e-role of the individual-level predicate *hou chungmihng* 'very clever'. Nevertheless, (137) is grammatical. This suggests that in cases in which no T-chain is formed, a postverbal NP can receive partitive Case from *yauh*, but only if it is indefinite.

6.6 Residual problems

In the previous sections, I have shown that the Tense-chain (T-chain) accurately accounts for the distribution of Definiteness Effects (DEs) in existential *yauh*-sentences. However, the T-chain fails to extend to account for the DEs in English *there*-sentences. For example, the T-chain predicts that (138) should be grammatical when in fact it is not.

(138)*There is the man coming up the driveway.

The predicate *coming up the driveway* in (138) is stage-level, as it denotes a temporary state. Hence, a T-chain should form Case-licensing the postverbal definite NP *the man*, and no DE should arise in accordance with the T-chain account developed in this chapter. However, (138) turns out to be ungrammatical. One possible explanation is that language variations exist between Cantonese and English. For example, according to Diesing (1992), in English only stage-level predicates can occur in *there*-sentences, whereas individual-level predicates cannot. This restriction does not apply to Cantonese, as both stage/individual-level predicates can occur in existential *yauh*-sentences, as in (139) and (140):

(139) *yauh yat goh yahn heui.* 'There is one person going.'
have one CL person go

(140) *yauh yat jek maau hou cheuiji* 'There is a cat very cute.'
have one CL cat very cute

Example (139) and (140) show that both stage/individual-level predicates can occur in existential *yauh*-sentences which is not expected according to Diesing. This suggests that Cantonese existential *yauh*-sentences behave differently from English *there*-sentences. Therefore, an account that works in one language does not mean it can also apply to another language. A coherent theory that can account for DEs across languages still needs to be worked out.

Another unsolved problem is that it is not clear why a demonstrative-preceded NP can occur in the postverbal position of a *yauh*-sentence, when the subject position is filled with a lexical NP, as in (141). However, ungrammaticality arises when a definite plural occurs in the postverbal position of a *yauh*-sentence, even when the subject position is filled with a lexical NP, as in (142):

(141) *naleuih yauh-muht-yauh je bun syu?*
there have-not-have this CL book
'Is there this book here?'

(142)**fonji-leuih yauh yahn-muhn.*
room-inside have person-MUHN
'*There are the people inside the room.'

I adopt Huang's (1987) analysis suggesting that the lexical NPs *neleuih* 'there' in (141) and *fonji-leuih* 'inside the room' in (142) are moved to the subject position from another position. In particular, I propose that the lexical NP is moved to the subject position from the

postnominal predicate position in the sentence. Hence, (141) and (142) are derived from (143) and (144):

(143) *yauh-muht-yauh je bun syu joih naleuih?*
have-not-have this CL book at there
'Is there this book here?'

(144) *yauh yahn-muhn joih fonji-leuih.*
have person-MUHN at room-inside
'*There are the people inside the room.'

The absence of DE in (143) and (144) is accounted for by the Tense-chain (T-chain) theory adopted in this thesis. Since both *joih naleuih* 'at there' in (143) and *joih fonji-leuih* 'inside the room' in (144) are stage-level predicates, having an event-role (e-role) to transmit to the auxiliary. Hence, the auxiliary can assign accusative Case to the postverbal definite NPs *je bun syu* 'this book' in (143) and *yahn-muhn* 'the people' in (144), and no DE arises. The question is why ungrammaticality arises in (142) when the predicate is moved to the subject position of the sentence, but not in (141). I do not have explanations for problems outlined in this section, and will leave them for further research.

6.7. Summary

This chapter has shown that Definiteness Effects (DEs) arising in the two types of existential *yauh*-sentences containing definite NPs are the result of the failure of definite NPs to acquire accusative Case. In periphrastic *yauh*-sentences, the Case assignment of postverbal NPs is achieved by the formation of a Tense-chain (T-chain). In addition to integrating the predicate of a small clause (SC) with a referential domain, as proposed by Gueron and Hoekstra (1995), the T-chain is also necessary for Tense of the matrix clause to provide the SC subject

a Case-licensing domain, and for the SC predicate to license the accusative feature of AGR. This chapter also adopts the distinction between predicates which have event-roles (e-roles) and those that do not, along the lines of Diesing (1992). According to Diesing, stage-level predicates have e-roles, whereas individual-level predicates lack e-roles. It follows that a T-chain can be formed only if it involves a stage-level predicate. In cases in which an individual-level predicate is involved, a T-chain cannot be formed. With the formation of a T-chain, both definite and indefinite NPs are always Case-licensed. In cases in which no T-chain is formed, only indefinite NPs are Case-licensed by receiving partitive Case from *yauh*. Definite NPs, on the other hand, cannot receive partitive Case from *yauh*, due to the incompatibility between the partitive-Case assignment and the definiteness of these NPs. By adopting Belletti's (1988) partitive-Case assignment of ergative verbs for *yauh*, the fact that the Case Filter is not violated in periphrastic *yauh*-sentences containing indefinite NPs which are followed by individual-level predicates, and in ontological *yauh*-sentences containing indefinite NPs is accounted for.

7: Conclusion

This thesis has shown that the Cantonese nominal suffix *-muhn* is a definite plural marker. The fact that *-muhn* is necessary to pluralize pronouns, and that *-muhn* NPs are obligatorily interpreted as plurals suggest that *-muhn* is a marker of plurality. However, the fact that *-muhn* forces definite/presuppositional readings to NPs it is applied to, and the fact that *-muhn* NPs are not allowed to occur in both types of existential *yauh*-sentences, except when they are followed by stage-level predicates in periphrastic *yauh*-sentences are not expected, if *-muhn* is solely a marker of plurality. Additionally, the fact that *-muhn* NPs can readily fill the topic position of sentences is best accounted for, if the definite plural marker analysis of *-muhn* is adopted.

The fact that *-muhn* is a definite plural marker predicts that Definiteness Effects (DEs) will arise whenever *-muhn* NPs occur in the postverbal position of existential *yauh*-sentences. However, DEs do not arise in existential *yauh*-sentences, when *-muhn* NPs and other definite NPs followed by stage-level predicates occur in the postverbal position of existential *yauh*-sentences. This exception is not explained if all existential *yauh*-sentences are identical in structure. Instead, the distribution of DEs in existential *yauh*-sentences can be accurately captured if two types of existential *yauh*-sentences, ontological and periphrastic *yauh*-sentences, are assumed as proposed in this thesis. The two types of existential *yauh*-

sentences also differ in: 1) whether secondary predicates are involved, and 2) the meaning expressed. Again, these differences cannot be explained, if only one type of existential *yauh*-sentence is assumed to exist. Furthermore, *yauh* has been shown to function as an auxiliary, displaying properties of an ergative verb in the sense of Burzio (1981).

Chapter 3 has shown that *yauh* conforms to the properties of a typical ergative verb in that it does not assign a theta-role to its subject nor accusative Case to its postverbal NP. Belletti's (1988) partitive-Case assignment is adopted to account for the fact that *yauh* assigns partitive Case to its postverbal NP which is indefinite, whereas definite NPs are not assigned partitive Case. Hence, it explains why in cases in which when a Tense-chain (T-chain) is not formed, the postverbal indefinite NP of *yauh* is still Case-licensed. The partitive-Case assignment of ergative verbs is evident in Finnish ergative verbs, which assign partitive Case to an indefinite NP, but not to a definite NP. It follows that definite NPs including *-muhn* NPs fail to be assigned partitive Case by *yauh*, as the result of the incompatible semantic nature between the partitive-Case assignment and the definiteness of these NPs. Hence, DEs arise without exception whenever definite NPs are not Case-licensed by the T-chain.

In periphrastic *yauh*-sentences, the Case assignment of the postverbal NP is achieved by means of a T-chain. An extended T-chain consists of a Tense-operator (TO), an auxiliary and a small clause (SC) predicate which has an event-role (e-role). A T-chain can only be formed if it contains a TO and an e-role. Since an auxiliary does not have an e-role, and a predicate needs to be linked to a TO in order to be made referential, the auxiliary Tense-marks the predicate, thereby allowing the predicate to supply it with an e-role. Hence, the predicate is linked to the TO through the intermediate auxiliary link, and a T-chain forms

when the auxiliary is provided with an e-role by the predicate. The predicate not only supplies the auxiliary with an e-role, it also licenses the feature of the accusative Case in Agreement Phrase (AGRP) through the extended T-chain. With the formation of a T-chain, the SC subject is provided with a Case-licensing domain by the Tense of the matrix clause. Hence, the postverbal NP is Case-licensed under the Spec-Head relationship inside the AGRP. Chapter 6 has shown that since stage-level predicates have e-roles, whereas individual-level predicates lack e-roles, T-chains can only be formed in the former case and not in the latter. This assumption predicts correctly that in periphrastic *yauh*-sentences, both postverbal definite/indefinite NPs are assigned accusative Case if they are followed by stage-level predicates. The presence of stage-level predicates with an e-roles indicates that a T-chain can always be formed, and the postverbal NP is assigned accusative Case. In contrast, the presence of individual-level predicates without e-roles in periphrastic *yauh*-sentences precludes the formation of a T-chain. It follows that postverbal definite NPs followed by individual-level predicates are not Case-licensed, violating the Case Filter (CF) and give rise to the DE. On the other hand, in periphrastic *yauh*-sentences, postverbal indefinite NPs followed by individual-level predicates are Case-licensed. In cases such as this, the Case assignment of postverbal indefinite NPs is achieved, through the partitive-Case assignment of *yauh* to the indefinite NP. Analyses presented in this thesis show that the rise of DEs in existential *yauh*-sentences containing definite NPs is the result of the failure of the definite NPs to acquire Case, violating the CF.

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