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中文近義詞「之前/以前」及「之後/以後」之時間距

離差異研究

Temporal Distance Distinction in Two Pairs of Mandarin
Chinese Near-Synonyms *Zhiqian/Yiqian* and *Zhihou/Yihou*

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摘要

中文近義詞「之前/以前」及「之後/以後」之時間距離差異研究

本篇論文以口語語料庫為本，探討兩組中文時間近義詞「之前」、「以前」以及「之後」與「以後」的時間距離差異，並以認知語法為描述的理论框架。

兩組時間詞皆有「後附」及「單用」的使用形式，如以下例句所示。

(1) 後附

- a. [他打電話來 RP]之前/以前[我在睡覺 TG]。
- b. [他打電話來 RP]之後/以後[我就睡不著了 TG]。

(2) 單用

- a. 他之前/以前[來過 TG]。
- b. 他之後/以後[會來 TG]。

後附使用中，這些時間詞附著於某一前置成分之後，該前置成分通常表達某一可作為「參照點」(reference point, RP)的事件。參照點用以標示與「目標事件」或「目標物」(target, TG)之間在時間上的相對順序，屬「相對時間參照」。單用時，在小句的層次上時間詞並未附著於任何參照點之後，然而有時上文會提及參照點，有時則無，前者亦為「相對時間參照」，後者則以「說話當下」(speech time)為參照時間(reference time)，將目標事件定位於過去或未來，屬「絕對時間參照」。

後附使用中，近義詞之間意義大抵相同，可互換使用，然而單用的「絕對時間參照」用法中，卻有「時間距離」遠近的差異：「之前」指的是離說話當下不久前的過去，「以前」指的是較為遙遠的過去，「之後」標示較近的未來，「以後」則標示較遠的未來。先行研究多半著重這些時間詞「後附」使用時共同的功能，雖有零星研究和辭典指出每組近義詞之間搭配詞的差異，但皆未觸及時間距離的議題。

本研究認為，後附使用時，兩組近義詞內的兩個詞所搭配的目標事件類型並無明顯差異。參照點與目標事件之間的距離由參照點本身的時間位置及目標事件本身的時間位置所決定，不論使用哪一個時間詞來排序這兩個事件，都不影響兩者之間的時間距離。而兩事件之間的時間距離又通常是短的，從客觀的概念內容(conceptual content)來看，相關的事件往往在時間上也是接近的，從主觀的識解(construal)來看，由於以這四個詞排序兩事件時並未側重(profile)其他介於中間的事件，使得兩事件彷彿是接連發生的，因而具有將參照點和目標事件拉近的功能。因此後附使用時，不論是用「之」或是「以」帶出的時間詞描述兩者的順序，兩事件的時間距離都是近的，近義詞間可互換不造成影響。

另一方面，「之」本身有代詞及領屬標記的功能，「之前」和「之後」單用時

絕大部分都回指到前文提及的參照點。在領屬標記「之」所標示的所有關係中，所有者和所有物往往在空間距離上接近，在時間範疇中亦然。在絕對時間參照的用法中，雖然不再有以語言呈現的參照點，但依附於從屬關係的近距性（proximity）依然保留，因此「之前」指離說話當下較近的過去，「之後」則指離說話當下較近的未來。

「以」則標示由某一起點開始往某一方向不斷「延伸」後所包含的所有範圍，終點並未說出但往往可推測而得，如「濁水溪以南」指的是以濁水溪為起點，往南的方向不斷延伸後所涵蓋的範圍，終點未說出，但可推知最遠為臺灣的最南端。後附使用中，參照事件和目標事件距離相近，因此目標事件的發生即為「以前」和「以後」的「延伸」義在範圍較短時就劃下終點。單用中以說話當下為參照時間時，「以」的「延伸」義可浮現，使「以前」和「以後」分別由說話當下往「過去」和「未來」兩個方向不斷延伸。搭配上可持續或重複發生的目標事件時，「以後」意義近於「從此以後」，「以前」則義近「一直以來」。「以前」和「以後」的延伸雖以說話當下為起點出發，但延伸的同時卻也遠離了起點，「延伸」義導致「遠離」義，而「遠離」義又導出「遠距」義，搭配點狀事件或一次性事件時，「以前」和「以後」分別指離說話當下較遠的過去和較遠的未來。

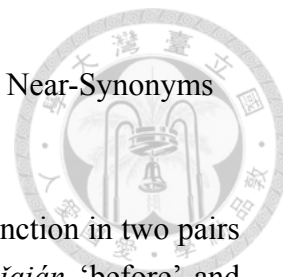
由於距離為相對的概念，同樣的時間長度在不同類型的事件中或不同的說話者心中往往有不同的長短或遠近意義，再加上這些時間詞並不像某些在動詞時態上標記時間距離的語言有較為規範性的限制，因此本文所提的「遠」和「近」指的是一種相對的、原型的（prototype）解讀，所牽涉到的除了相對較為客觀的「概念內容」之外，也包含主觀的「識解」。

關鍵詞：時間詞、近義詞、時間距離差異、之前、以前、之後、以後

Abstract

Temporal Distance Distinction in Two Pairs of Mandarin Chinese Near-Synonyms

Zhiqian/Yiqian and Zhihou/Yihou



This thesis is a corpus-based study on the temporal distance distinction in two pairs of Mandarin Chinese near-synonymous temporal terms *zhīqián/yǐqián* ‘before’ and *zhīhòu/yǐhòu* ‘after’, with Cognitive Grammar as the descriptive framework.

Both pairs are found to occur in the attached form and in the bare form, as shown in the following examples.

(1) Attached form

- a. [tā dǎdiànhuà-lái_{RP}] **zhīqián/yǐqián** [wǒ zài shuǐjiào_{TG}]
3SG call-come BEFORE 1SG DUR sleep
‘I was sleeping before he called.’
- b. [tā dǎdiànhuà-lái_{RP}] **zhīhòu/yǐhòu** [wǒ jiù shuì-bù-zháo-le_{TG}]
3SG call-come AFTER 1SG JIU fall-NEG-asleep-PFV
‘I couldn’t fall asleep after he called.’

(2) Bare form

- a. tā **zhīqián/yǐqián** [lái-guò_{TG}]
3SG ZHIQIAN/YIQIAN come-EXP
‘He came here earlier/ He once came here.’
- b. tā **zhīhòu/yǐhòu** [huì lái_{TG}]
3SG ZHIHOU/YIHOU will come
‘He will come later/ He will come in the future.’

In the attached form use, the four temporal terms are attached to a preceding element, which usually expresses a situation. This situation serves as a reference point (RP) with respect to which another situation, called target (TG), is sequenced in time (relative time reference). In the bare form use, there may or may not be an antecedent RP in the previous context. Without an antecedent RP, the TG is located in the past or in the future with respect to the speech time (absolute time reference).

The two near-synonyms within each pair are basically equivalent and interchangeable in the attached form use. In the bare form use with the speech time as the reference time, however, two near-synonyms display the distinction of temporal distance: *zhīqián* and *yǐqián* respectively locate a TG in the recent past and the distant past, whereas *zhīhòu* and *yǐhòu* respectively do so in the near future and the far future.

Based on the corpus data, we argue that in the attached form use the temporal distance between the RP and the TG is determined by the temporal location of the RP

and the temporal location of the TG, no matter which near-synonym is used to sequence the two situations. Meanwhile, the temporal distance between the two situations is often short. At the level of objective conceptual content, it is a usual concomitant that relevant situations tend to be temporally close. At the level of subjective construal, the RP and TG are the only two situations profiled within the onstage region (i.e., within a conceptualizer's focal attention); with no intervening situations being profiled, the RP and the TG seem to happen in uninterrupted succession and are thus close to each other. These features account for the absence of temporal distance distinction in the attached form use.

The temporal distance distinction in the bare form use is attributed to the respective functions of *zhī* and *yǐ*. In a possessive relation profiled by the possessive marker *zhī*, the possessor and the possessed item tend to be close, especially for inalienable possession such as relational spatial concepts. Spatial proximity is inherited as temporal proximity between the RP and *qián* 'front' and *hòu* 'back'. In the bare form use with the speech time as the reference time, temporal proximity associated with the possessive construction is still inherited despite the lack of a linguistically realized RP. As such, *zhīqián* locates a TG in the recent past and *zhīhòu* does so in the near future, both close to the speech time.

The function of *yǐ* is to mark an extension. It profiles the region covered starting from a certain starting point (i.e., a boundary) and extending towards a certain direction. The endpoint is usually not specified but can be inferred. The extension sense is surprised in the attached form by the short temporal distance between the RP and the TG. In the bare form use where the context does not suggest any RP, the extension sense of *yǐ* is freed. *Yǐqián* and *yǐhòu* respectively profile a temporal region extending from the speech time towards the direction of past and future. With a durative or repetitive TG, *yǐqián* has the sense 'for a long time' whereas *yǐhòu* means 'from now on'. On the other hand, as the extension proceeds it also departs from the speech time. The departure sense provides the basis for the remoteness sense. Thus, with a punctual or one-time TG, *yǐqián* locates this TG in the distant past, whereas *yǐhòu* locates it in the far future.

The concept of distance is a relative one. The same temporal distance may be conceptualized as *short* or *long* in different types of situation for different speakers, reflected in the choice of temporal term. A temporal term profiles a short distance and another profiles a long one in a relative, prototype sense, a combination of objective conceptual content and subjective construal.

Key words: temporal terms, near-synonyms, temporal distance distinction, *zhīqián*, *yǐqián*, *zhīhòu*, *yǐhòu*.

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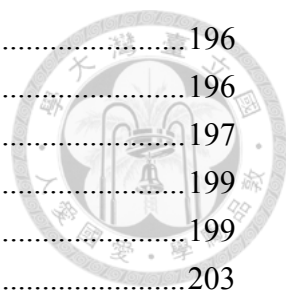


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List of Abbreviations



1PL	first person plural pronoun
1SG	first person singular pronoun
2PL	second person plural pronoun
2SG	second person singular pronoun
3PL	third person plural pronoun
3SG	third person singular pronoun
BA	<i>bǎ</i> (把)
BEI	passive voice marker <i>bèi</i> (被)
CAI	<i>cái</i> (才)
C/F	copula/focus marker <i>shì</i> (是)
CL	classifier
COM	complementizer <i>shuō</i> (說)
CRS	Currently Relevant State <i>le</i> (了)
DUR	durative aspect <i>-zhe</i> (著), <i>zài</i> (在)
EXP	experiential aspect <i>-guò</i> (過)
GEN	genitive <i>de</i> (的)
JIU	<i>jiù</i> (就)
NEG	negative marker
NOM	nominalizer <i>de</i> (的)
NP	noun phrase
ORD	ordinalizer <i>dì-</i> (第)
PFV	perfective aspect <i>-le</i> (了)
PN	proper noun
PT	particle
Q	question marker <i>ma</i> (嗎)
RP	reference point
RT	reference time
TG	target
VP	verb phrase

Transcription Conventions



Units

Intonation unit	{carriage return}
Truncated intonation unit	--
Truncated word	-

Speakers

Speaker identification and turn beginning	:
Speech overlap	[]

Transitional continuity

Final	.
Continuing	,
Appeal	?

Terminal pitch direction

Fall	\
Rise	/
Level	—

Accent and lengthening

Primary accent	^
Lengthening	=

Transcriber's perspective

Researcher's comment	(())
Uncertain hearing	<X X>
Indecipherable syllable	X
Phonetic/phonemic transcription	(/)

Pause

Long (0.7 seconds or longer)	...(N)
Medium (0.3 - 0.6 seconds)	...
Short (about 0.2 seconds or less)	..
Latching	(0)

Vocal noises

Vocal noises	()
Inhalation	(H)
Exhalation	(Hx)
Glottal stop	%
Laughter	@



Quality

Quality type	<Y Y>
Laugh quality	<@ @>
Quotation quality	<Q Q>
Multiple quality features	<Y<Z Z>Y>

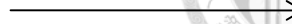
Specialized notation

Code switching	<L2 L2>
Taiwanese	<T T>
English	<E E>

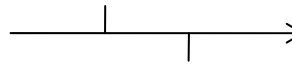
Diagramming Conventions



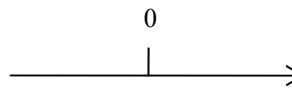
Time line



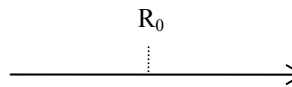
Time points (punctual situations)



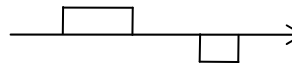
Speech time



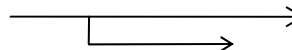
Speech time as the reference time



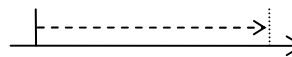
Time stretches (durative situations)



Unbounded time stretch (ongoing situation)



Extension sense



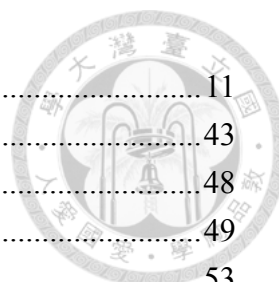
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Chapter 1 Introduction



1.1 Overview

It is known that language has two essential devices of locating situations in time: the grammatical device is tense, and the lexical device is temporal adverbials (Comrie 1985). In tenseless languages, the second device plays a more significant role in marking temporal location than in tensed ones. Mandarin Chinese is such a language without grammatical tense marking on the verb, and the interpretation of temporal location in this language to a great extent relies on the specification of temporal adverbials (cf. Li & Thompson 1981; C. S. Smith and Erbaugh 2001). This thesis is a study on four lexical temporal adverbials in Mandarin Chinese. They are near-synonyms *zhīqián* (之前) and *yǐqián* (以前), both meaning *before* or *earlier*, and their antonymous counterparts *zhīhòu* (之後) and *yǐhòu* (以後), both meaning *after* or *afterwards*.

In Mandarin Chinese, there are several other lexical items that express similar meanings as the *before*-pair or the *after*-pair do. There are two reasons for comparing *zhīqián* to *yǐqián* and *zhīhòu* to *yǐhòu* without referring to other temporal adverbials. First, *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* share similar syntactic complexities, in that all of them can be used as postpositions, sentential conjunctions (both called *attached form use*, see chapter 2), and pure adverbs (called *bare form use*, see chapter 2), whereas other temporal lexical terms have only one of the three uses. Second, related to the first point, there is something puzzling shared by the two synonymous pairs: while two near-synonyms are almost identical and interchangeable in the attached form use, in the pure adverb use there are some subtle distinctions in the degree of remoteness (or temporal distance) that make the two terms not interchangeable. The purpose of this thesis is to account for this issue, with spoken data as the basis of

analysis and Cognitive Grammar as a theoretical framework.



1.2 Research Questions

Before we proceed to the research questions, we will give some examples of how these temporal terms are used. Below are two examples in the attached form, namely attached to another element. In (1-1), substituting *yǐqián* for *zhīqián* is perfectly acceptable, and similarly in (1-2) *zhīhòu* and *yǐhòu* are interchangeable (data from *Academia Sinica Balanced Corpus of Modern Chinese 4.0*). There is no temporal distance distinction.

(1-1) (Academia Sinica Balanced Corpus of Mandarin Chinese)

在	進	大學	之前/以前	大多數	的	人	
<i>zài</i>	<i>jìn</i>	<i>dàxué</i>	<i>zhīqián/yǐqián</i>	<i>dàduōshù</i>	<i>de</i>	<i>rén</i>	
at	enter	university	BEFORE	majority	NOM	person	
並	不	知道	自己	的	興趣	在	哪兒
<i>bìng</i>	<i>bù</i>	<i>zhīdào</i>	<i>zìjǐ</i>	<i>de</i>	<i>xìngqù</i>	<i>zài</i>	<i>nǎér</i>
even	NEG	know	self	GEN	interest	at	where

‘Before entering university, most people don’t know what they are interested in.’

(1-2) (Academia Sinica Balanced Corpus of Mandarin Chinese)

他	跟	房東	講好	房租	之後/以後
<i>tā</i>	<i>gēn</i>	<i>fángdōng</i>	<i>jiǎng-hǎo</i>	<i>fángzū</i>	<i>zhīhòu/yǐhòu</i>
3SG	with	landlord	talk-well	house.rent	AFTER
就	決定	租了			
<i>jiù</i>	<i>juédìng</i>	<i>zū-le</i>			
JIU	decide	rent-PFV			

‘After he made a deal with the landlord on the rent, he decided to take it.’

The two terms in the *before*-pair *zhīqián* and *yǐqián* here can be described as the same, without any noticeable difference. The same situation holds for the *after*-pair *zhīhòu* and *yǐhòu*.

Indeed, most dictionaries and thesauruses do not distinguish between the two

near-synonyms within each pair, and when they do (usually for the bare form use), the explanations are often not complete or accurate (see chapter 2). When being asked if there is any difference between the two terms within each pair, most native speakers of Mandarin Chinese will intuitively reply that they are (almost) the same. Native speakers, however, know how to use these terms differently in an appropriate way even though consciously they are not able to describe the differences pointedly.

Although the current study does not handle second language acquisition, it will be helpful to show some inadequate uses in the bare form made by foreign learners of Mandarin Chinese, because some of them use these terms in a particular way that vividly captures the difference between the two near-synonyms within each pair, namely, the difference in temporal distance. One example is given in (1-3). This use is made by a German learner of Mandarin Chinese. The situation is as follows. A friend opened a locked gate for this German lady, and just as this friend was about to close and relock the gate after she had come in, this German lady made the following request:

(1-3) (personal data)

E:	不要	關	門	
	<i>bùyào</i>	<i>guān</i>	<i>mén</i>	
	NEG.want	close	gate	
→	我	先生	以後	會 進來
	<i>wǒ</i>	<i>xiānshēng</i>	<i>yǐhòu</i>	<i>huì jìnlái</i>
	1SG	husband	YIHO	will come.in

Literal: “Don’t close the gate. My husband will come inside **in the future**.”

Intended: “Don’t close the gate. My husband will come inside **later**.”

A sensitive native speaker will find it somewhat strange to use *yǐhòu* in this context. The appropriate word to use would be *zhīhòu*, which would convey the intended meaning *later* or *afterwards*, among other possible alternatives. Saying *yǐhòu*, as the

case in (1-3), sounds like the husband would come inside much later, not on the same day when these words were uttered. This example shows that while *zhīhòu* and *yǐhòu* can both mean ‘after’ or ‘later’ when used alone, as defined in dictionaries, there are some cases in which only *zhīhòu* means “later,” i.e., not long after the speech time or some other mentioned event, whereas *yǐhòu* is closer to “in the future.” That is to say, the anomaly in (1-3) is a semantic-pragmatic one, not a grammatical or syntactic one.

As for the *before*-pair, there seems to be a similar situation that one term indicates a past time point closer to the speech time, while the other refers to a time point in the distant past. In the following excerpt from a TV program, the host A uses *yǐqián* and *zhīqián* in the way that captures this distinction well.¹

(1-4) (personal data)

- 1 A: 我 曾經 看到 我們_ 以前,_
wǒ céngjīng kàn-dào wǒmen yǐqián
 1SG once see-arrive 1PL YIQIAN
- 2 (0)就 是 我 之前 有 講過 啊,_
jiù shì wǒ zhīqián yǒu jiǎng-guò ā
 JIU C/F 1SG ZHIQIAN have say-EXP PT
- 3 ..當兵 的 同袍,_
dāngbīng de tóngpáo
 serve.in.military NOM comrade
- 4 .. ^一 ^個 ^半 ^禮^拜,\
yī ge bàn lǐbài
 one CL half week
- 5 ...都 沒有 排便,\
dōu méiyǒu páibiàn
 all NEG.have have.a.bowel.movement
- 6 ..神智 都 快 不清了,\
shénzhì dōu kuài bùqīng-le
 mind all soon NEG.clear-PFV

A: “I once saw that our **former** comrade (i.e., from the past), I have said this **before**,

¹ From the TV program *Qing Ni Gen Wo Zheyang Guo* (請你跟我這樣過), episode #395, originally broadcast on December 14, 2012 on Super TV in Taiwan.

during our military service he did not have a bowel movement for one and half a week, almost in a stupor.”

In IU 1 (intonation unit 1, i.e., line 1), speaker A first sets the time in the past with *yǐqián*. Before he goes on finishing the story that he has in mind, he inserts a parenthetical statement in IU 2 to signal that he is aware that he has told the story before, and the “before” is conveyed with *zhīqián*. Since the story about A’s comrade happened during A’s military service presumably in his early twenties, and A is now in his earlier forties, it is reasonable to describe the event as having happened a long time ago in the past. The temporal information of “a long time ago” or “in the past” is carried in *yǐqián*. On the other hand, the previous occasion on which A told this story is much closer to the speech time in (1-4), and this feature is conveyed in *zhīqián*, here indicating “before” or “not long ago.” Note that if we exchange the two temporal terms in this example, it will not arrive at the meaning that the speaker intends to get across. This example shows that although *zhīqián* and *yǐqián* may both mean “before” or “earlier” when used alone, they still differ in terms of the temporal distance.

Based on the examples we have seen, it seems that when used alone, one term indicates a longer temporal distance while the other describes a shorter temporal distance. Our first research question is **why the two near-synonyms within each pair display the distinction of temporal distance**. Obviously, it has something to do with *zhī* and *yǐ* as they are the potential source of difference for these temporal terms. The second research question to put the third question in a reverse way: **why do two near-synonymous temporal terms display temporal distance distinction when used alone in the bare form but not in the attached form**, as in (1-1) and (1-2)? We will use corpus data to observe more uses of the four temporal terms. In particular, we will analyze whether the property of a situation is related to the temporal distance distinction.



1.3 Data Collection

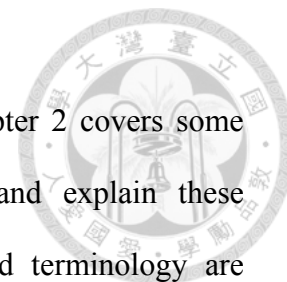
The analyses of *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* in this study are mainly based on the data in the National Taiwan University Corpus of Spoken Mandarin Chinese (hereafter “the NTU Corpus”), a corpus consisting of about 90 separate transcription files of naturally occurring Mandarin Chinese amounting to nearly eleven hours. Most of the files are face-to-face conversations and radio talks. All of the data are transcribed according to the conventions established in Du Bois et al. (1993) into “intonation units” (IUs). Besides the corpus, we also resort to some spoken data collected elsewhere when necessary.

After manually searching for the four target words, we retrieved 50 tokens of *zhīqián*, 118 tokens of *yǐqián*, 79 tokens of *zhīhòu*, and 108 tokens of *yǐhòu*. We classified these temporal terms into “attached form” and “bare form” according to their syntactic form, as done in Gu (2010) (cf. 2.3.1 in this thesis). Instances of repetition or self-repair will be merged and counted as one token. Those involving code-switching into Taiwan Southern Min or song titles will be excluded from further analysis (two examples of *yǐhòu* are thus excluded from the 108 tokens).

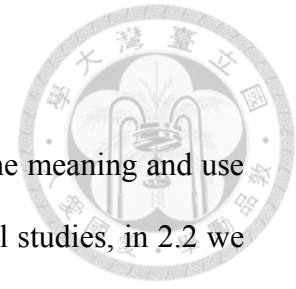
There are two main reasons for analyzing spoken data. One is to distinguish the current study from Gu (2010), whose analysis is based on written data (see 2.3.1). The other is that naturally occurring language is the place where we can observe the functions of these temporal terms when speakers, under the pressure of immediate response, have limited time to organize their speech, and these functions may not be present in written data. The detailed distributions of each term will be given in chapter 4 and chapter 5.

1.4 Organization of the Thesis

The other parts of the thesis are organized as follows. Chapter 2 covers some relevant literature. How dictionaries and thesauruses define and explain these near-synonyms is a main issue. The theoretical framework and terminology are introduced in chapter 3, in which we introduce some notions of temporal location and Cognitive Grammar. Chapter 4 and chapter 5 respectively present the corpus data in the attached form and in the bare form. Special attention is paid to linguistic and non-linguistic evidence for different temporal distances in chapter 5. In chapter 6, we provide explanations for the phenomenon that two near-synonyms within each pair are almost the same in the attached form yet display temporal distance distinction in the bare form. And finally in chapter 7, we give a summary of this study as well as suggestions for future studies.



Chapter 2 Literature Review



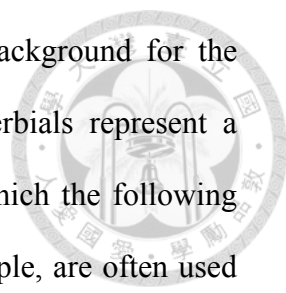
In this chapter we review the previous literature concerning the meaning and use of the four temporal terms. In section 2.1 we review two functional studies, in 2.2 we consult several dictionaries and thesauruses, and in 2.3 we include some studies specifically focused on one or more of the four temporal terms.

2.1 Functional Studies

In this section, we review two functional studies on the four temporal terms. Both make references to other functionalist authors. The first study is Y. Wang (2006), a journal article version of Y. Wang's PhD dissertation on Chinese adverbial clauses (Y. Wang 1996). The other is Yeh (2000), a conference paper following Y. Wang's (1996) theoretical framework. From a global, top-down perspective, the two researchers investigate *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* as temporal adverbials with the function of setting a time frame or interpretive orientation for the associated modified material.

2.1.1 Y. Wang (2006)

In a series of related studies, Y. Wang (1996, 1999, 2002, 2006) investigates adverbial clauses in Mandarin Chinese in terms of their position with respect to the main clause and their discourse functions. The main findings are that temporal, conditional and concessive clauses in Mandarin Chinese tend to occur before the main clause/the modified material in both spoken and written discourse, whereas causal clauses have a higher tendency to occur after the main clause/modified material. Y. Wang supports other functional studies on adverbials (e.g., Chafe 1984, 1988; Ford & Thompson 1986) and argues that the function of initial adverbial clauses is to form



pivotal points in the development of talk and present explicit background for the modified material that comes after. In other words, initial adverbials represent a limitation of focus and signal a path of orientation in terms of which the following information is to be understood. Initial temporal clauses, for example, are often used to establish a **temporal frame** for assertions that follow, and likewise, initial conditional clauses are used to establish an optional situation frame for the upcoming assertions (Y. Wang 2006: 57-58). Y. Wang explains that this is why an initial adverbial clause and the main clause that follows have been viewed as a topic-comment structure in Chinese (e.g., Chao 1968).

Conversely, when adverbial clauses come after the main clause/modified material, they complete a unit of information by adding something to the assertion in the main clause or modifying part of what is said there, without creating discourse-level links or providing a pivotal frame for what follows (Chafe 1988; Ford 1993; cited in Y. Wang 2006). Causal clauses, which are most frequently used as final adverbial clauses, give further elaboration or explanation, especially in spoken discourse.

In short, the sequence between an adverbial clause and its main clause/modified material is correlated with the types of information that the adverbial clause is associated with.

2.1.2 Yeh (2000)

Based on a similar framework in Ford (1993, 1994) and Y. Wang (1996), Yeh (2000) conducts a functional study on temporal and conditional clauses in Chinese spoken discourse with her own corpus. Her main findings and conclusion are in accord with Y. Wang (1996): temporal and conditional clauses in Chinese tend to occur before their modified material, i.e., they occur in the initial/preposed position. Initial temporal clauses are used to introduce or shift time reference (from generic to

specific, for instance), set the time frame for the following material, and/or to offer a contrast for what follows (cf. Ford 1993 and Y. Wang 1996). By contrast, final temporal adverbial clauses are scarce in Yeh's corpus, and when they are made, one function is self-editing while another is for the negotiation of understanding between interlocutors out of communicational needs.

Yeh makes the effort to differentiate adverbial connectors within the same category. Within the temporal clause category, she distinguishes three groups: *when*-clause, *before*-clause and *after*-clause. She points out that *before*-clause adverbial connectors (i.e., *zhīqián* and *yǐqián*) and *after*-clause adverbial connectors (i.e., *zhīhòu* and *yǐhòu*) occur at the end of the adverbial/subordinate clause, unlike in English subordinate clauses, in which *before* and *after* occur at the beginning of the clause. For example, as shown in (2-1), in the *after*-clause the adverbial connector *yǐhòu* occurs at the end of the clause in Mandarin Chinese, whereas in English *after* is used at the beginning of the clause.

(2-1) (constructed data)

我 畢業 以後， 馬上 找到了 工作。
wǒ bìyè yǐhòu mǎshàng zhǎodào-le gōngzuò
1SG graduate YIHOU immediately find-PFV job
'After I graduated, I immediately found a job.'

Yeh also notes that *zhīqián/yǐqián* 'before' and *zhīhòu/yǐhòu* 'after' can occur independently as **pure adverbs**. In such uses, *yǐqián* means 'in the past' and *zhīqián* means 'in the past' or 'before certain event'. The 'certain event' is not spoken superficially, or is simply out of sentence domain but is known/specific to both speakers and hearers through discourse (Yeh 2010: 369). According to Yeh, there are slight differences between *zhīqián* and *yǐqián* as well as between *zhīhòu* and *yǐhòu* when used as pure adverbs, but she does not clarify what these differences are.

One more observation made by Yeh is that in Chinese spoken discourse *zhīhòu* and *yǐhòu* ‘after’ have higher frequencies than *zhīqián* and *yǐqián* ‘before’ (when used as adverbial connectors). She attributes this discrepancy to the iconicity between time flow and information flow. Consider the following figure from Yeh (2010: 375), in which Event A happens first and then Event B happens later:

Time Flow:	Event A	—————▶	Event B
English:	1) before-clause: before B, A / A before B	(A is a main clause)	
	2) after-clause: after A, B / B after A	(B is a main clause)	
Chinese:	1) before-clause: B <i>zhīqian/yiqian</i> , A / ?*A, B <i>zhīqian/yiqian</i>	(A is a main clause)	
	2) after-clause: A <i>zhīhou/yīhou</i> , B / ?*B, A <i>zhīhou/yīhou</i>	(B is a main clause)	

Figure 2.1 Time flow and information flow

In English, whether one uses *before* or *after* to describe the order of Event A and Event B, one has the choice to alternate the order of the adverbial clause and the main clause (though with semantic or pragmatic differences, of course). In Chinese, however, temporal clauses almost always precede the main clause/modifier material, unless a temporal adverbial is added after the main clause for self-editing or clarifying purposes. As a result, *zhīhòu* and *yǐhòu* sequence events according to the time flow, meaning that Event A is mentioned first, whereas *zhīqián* and *yǐqián* sequence events anti-chronologically.² Yeh argues that the iconicity of *zhīhòu* and *yǐhòu* ‘after’ makes the two terms more frequent than *zhīqián* and *yǐqián* ‘before’.

In sum, *zhīhòu* and *yǐhòu* as connectors follow what James H-Y Tai calls the **principle of temporal sequence** (PTS), which states that “the relative order between two syntactic units is determined by the temporal order of the states which they represent in the conceptual world” (1985: 50). The *before*-pair, on the other hand, is an exception to PTS in Chinese.

² Pan (2012:27) also points out this discrepancy and relates it to collocation patterns.



2.2 Dictionaries and Thesauruses

In this section, we consult various dictionaries and thesauruses as well as individual studies for the meaning of the four temporal terms as composite expressions and the meaning of the components. The sources consulted include two official dictionaries, i.e., the *Revised Edition of Mandarin Chinese Dictionary* (RED) and the *Contemporary Chinese Dictionary* (CCD, 5th ed.), one Chinese-English dictionary, the *Oxford Chinese Dictionary* (OCD), the *Chinese WordNet* (CWN), and one online dictionary, *Handian* (HD). In 2.2.1 we review how the four components *qián*, *hòu*, *zhī*, and *yǐ* are defined and explained in these sources and others, and in 2.2.2 we turn to see how the four composite temporal terms are compared and contrasted.

2.2.1 Components

2.2.1.1 *Qian*

According to Zhao et al. (2007), the original meaning of *qián* (前) is ‘to move forward without going on foot’.³ This meaning indicates a movement with a specific direction (i.e., forward) and a restriction on manner (i.e., excluding walking). The use as a verb ‘to move forward’ or ‘to advance’ is not productive in contemporary Chinese, and is mostly observed in set expressions with the loss of manner restriction (CCD; RED; Zhao et al. 2007).⁴ In terms of space, the locative noun *qián* refers to ‘the front side’ or ‘the direction that one faces’. In the sense of sequence, *qián* denotes ‘before

³ Based on the dictionary *Shuowenjiezi* “Explaining and Analyzing Characters” (ca. early 2nd century), Zhao et al. (2007) holds that in ancient times the character of *qián* (前) is written as 𦨭, composed of ‘foot’ (止) above and ‘boat’ (舟) below, denoting a person sitting in a boat and moving forward without walking. The definition of *qián* in Chinese is *bù xíng ér jìn wèi zhī qián* (不行而進謂之前) ‘to advance without walking is called *qián*’.

⁴ Such as *yǒngwǎng zhíqián* (勇往直前) ‘to go straight ahead bravely’ and *tíngzhì bù qián* (停滯不前) ‘to be stagnant’ (lit. to stop and not to move forward) (CCD; RED; Zhao et al. 2007).

other things in a series' or 'earlier in sequence'. In the domain of time, *qián* means 'earlier', 'past', 'pertaining to history', or 'a certain time in the past' (CCD; RED; Zhao et al. 2007).⁵ In the temporal sense, English counterparts of *qián* may include 'former(ly)', 'previous(ly)', and 'pre-', all indicating a combination of 'earlier in sequence' and 'earlier in time', since the two concepts are highly related. *Qián* can also be used alone or in *zhīqián* and *yǐqián* following an expression of an event, in which case *-qián*, *zhīqián* and *yǐqián* denote the relational meaning 'before' something or a certain event (CWN and Lü 1999).

2.2.1.2 Hou

We adopt F. Wu's argument that, as the character of *hòu* (後) contains the radical *chì* (辵) 'to walk', the original meaning of *hòu* should have something related to walking (2007:504, fn. 4). F. Wu considers 'to walk behind (someone)' as the original meaning of *hòu*, from which the spatial concept 'rear' or 'back' is presumed to have derived, since walking behind someone entails being physically after this person.⁶ Whether this is indeed the historical development of *hòu*, in contemporary Chinese the lexeme *hòu*, like its antonym *qián*, has spatial, sequential and temporal senses. As a locative term marking a spatial concept, *hòu* denotes 'rear', 'back', 'behind' or 'at or

⁵ Paradoxically, in Chinese the same lexeme *qián* can also refer to 'future' as in the compounds *qiántú* (前途), literally 'front road', *qiánjǐng* (前景), literally 'front scenery', and *qiánchéng*, literally 'front journey', all meaning 'prospects' or 'the future'. However, as pointed out in CDC, the 'future' sense of *qián* is used for talking about 'the prospects' at the individual level. In other words, the 'future' sense of *qián* is limited to a particular semantic field associated with the future. The past/earlier sense is not only more productive, in lexical items or elsewhere, but also related to the sequence sense 'before other things in a series'. The expression *qiánqī* (前妻), literally 'front wife', means 'ex-wife' or 'the previous wife', not 'the future wife', and *qián jǐ tiān* (前幾天), literally 'front several days', means 'a few days ago', rather than 'in a few days'. In this study we take the 'past/earlier' sense of *qián* as the basis of analysis, and we will not go further to discuss the 'future' sense.

⁶ F. Wu (2007) points out that scholars have not yet reached an agreement on the original meaning of *hòu*. While in *Shuowenjiezi* "Explaining and Analyzing Characters" *hòu* is defined as 'late' (後, 遲也) (cf. F. Wu 2007 and Zhao et al. 2007), which already pertains to the temporal domain, F. Wu (2007) doubts that it is the original meaning of *hòu* and considers *xíng ér zǒu zài rén hòu* (行而走在人後) 'to walk behind someone' as the original meaning.

towards the back of something’. Sequentially speaking, *hòu* means ‘towards the end in a series’ or ‘later in sequence’. In its temporal sense, *hòu* refers to ‘(of or related to the) future’ or ‘later in time’, as opposed to *xiān* (先) ‘first’ or *qián* (前) ‘earlier’ (CCD; RED; Zhao et al. 2007). Other senses include ‘offspring’, which is an extension from the temporal sense ‘later’. And finally, paralleling the case of *qián*, *hòu* can also be used alone or in *zhīhòu* and *yǐhòu* following an expression of an event, in which case *-hòu*, *zhīhòu* and *yǐhòu* all mean ‘after’ something or a certain event (CWN and Lü 1999).

2.2.1.3 *Zhī*

Chinese *zhī* (之) is a polysemous lexeme. According to the sources consulted, *zhī* is originally a verb meaning ‘to go (to)’ or ‘to arrive’ (CCD; Cao 2000; Zhao et al. 2007). Later uses include adposition ‘at, as to’, connector ‘and’, pronoun and genitive marker ‘of’, among other functions (Cao 2000). As a pronoun, *zhī* may be a demonstrative pronoun meaning ‘this, that’ (HD; Zhao et al. 2007), or a third person pronominal pronoun referring to people or things without gender or number distinctions (‘it, they’), and typically occurring as the object of a verb (CCD; HD; OCD; Cao 2007; Zhao et al. 2007). As a genitive marker, *zhī* is used to connect the attributive modifier and the head (i.e., the modified word) and mark relations such as possession and modification (CCD; HD; OCD; Cao 2007; Zhao et al. 2007). In this function, *zhī* is a literary equivalent of a more colloquial genitive marker *de* (的) (Cao 2007; M. Wang 2009). In contemporary Chinese, *zhī* is used in written Chinese or certain set expressions (D. Li 2005).

Regarding the current study, it appears that the most relevant senses involved in two of the four composite temporal terms are the pronoun and the genitive marker. Since our concern is not the polysemy of *zhī*, we will not linger on the issues as to

how its various senses come into existence or how they are related to each other. Here it suffices to know that according to Cao (2000), the demonstrative pronoun use ‘this, that’ stems from the word-formation process called *jiajie* (假借) ‘rebus’, in which the character originally used for writing ‘go’ is borrowed to write a near-homophonous morpheme whose function is demonstrative pronoun ‘this, that’.

Several researchers argue that the genitive marker (or attributive marker) *zhī* derives from the pronoun *zhī*, (e.g., L. Wang 1980; M. Zhang 2003; J. Wang 2008). L. Wang (1980), for example, shows that *zhī*, used between two nouns was originally a pronoun and was reanalyzed as a genitive marker later on.

(2-2) (L. Wang 1980: 335)

- (a) 麟 之 趾
lín zhī zhǐ
 animal.name 3SG toe
 ‘lin’s toe’ (literally ‘lin it toe’ (麟它趾))
- (b) 公侯 之 事
gōnghóu zhī shì
 prince 3PL thing
 ‘princes’ affairs/business’ (literally ‘princes they affairs’ (公侯他們事))

L. Wang provides two facts in support for this analysis. First, *zhī* is not found to occur after another pronominal pronoun in ancient Chinese in the Pre-Qin period.⁷

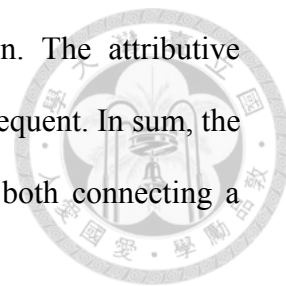
(2-3) (L. Wang 1980:335)

- ? 余 之 / 吾 之 / 汝 之
yú zhī / wú zhī / rǔ zhī
 1SG 3SG / 1SG 3SG / 2SG 3SG
 Intended: ‘my/ my/ your’

Secondly, in the data from the Pre-Qin period, the attributive modifier (i.e., the element before *zhī*) is predominantly a noun, suggesting that *zhī* as a genitive marker

⁷ The period in Chinese history before the Qin Dynasty was established in B.C. 221.

was first used to link two nouns to mark a possessive relation. The attributive modifier could be an adjective or a verb, but these uses were less frequent. In sum, the pronoun *zhī* and the genitive marker *zhī* are historically related, both connecting a noun to another.



In terms of the composite expressions *zhīqián* and *zhīhòu*, the literal spatial meaning of “NP *zhī qián*” and “NP *zhī hòu*” is, respectively, ‘the front of NP’ and ‘the back/rear of NP’. In each case *zhī* connects the first NP, which is the modifier, to the second NP *qián* or *hòu*. Consider the following examples from the Pre-Qin period, (examples cited in M. Wang 2009, glossing and translation mine). In (2-4) it is possible to interpret *zhī* and the locative term separately or as a compound postposition.

(2-4)

(a) 君 之 病， 在 耳 之 前， 目 之 下。

jūn zhī bìng zài ěr zhī qián mù zhī xià
king GEN illness at ear GEN front eye GEN down

‘The king’s illness lies in front of (i.e., before) the ear and below the eye.’

(*Zhan Guo Ce* (戰國策) “Strategies of Warring States”)

(b) 子 姓 兄 弟 立 於 主 人 之 後。

zǐxìng xiōngdì lì yú zhǔrén zhī hòu
descendant brothers stand at host GEN rear

‘Descendants and brothers stand at the rear of the host (i.e., behind the host).’

(*Yi Li* (儀禮) “Etiquette and Ceremonial”)

Since *qián* ‘front’ and *hòu* ‘rear, back’ also have temporal meanings, “NP *zhī qián*” and “NP *zhī hòu*” also denote ‘a time earlier than NP’ and ‘a time later than NP’, respectively. At some point *zhī* and *qián* are fused into a disyllabic postposition as a unit, meaning ‘before’, whereas the fused form *zhīhòu* means ‘after’. The development from “genitive marker + a locative noun” into an adposition is a common path across languages (D. Liu 2003. cf. chapter 6 in this thesis).

It is not certain whether the metaphorical extension from space to time preceded the fusion of *zhī* and *qián* and the fusion of *zhī* and *hòu*, or it was the other way around. Wu (2007) points out that as early as in the Pre-Qin period (i.e., before B.C. 221) the temporal sense of *hòu* was already far more frequent than the spatial sense,⁸ and the combination *zhīhòu* was more frequently used than *hòu* used alone. M. Wang (2009) also notes that *zhīhòu* was rarely used for its spatial sense in this period. In any case, it seems evident that as early as in the Pre-Qin period, the fusion and the extension from space to time were both completed and matured, at least for the case of *zhīhòu*. Below is an example of *zhīhòu* used as a postposition for the temporal sense ‘after’ in the Pre-Qin period (example cited in Wu 2007, glossing and translation mine).

(2-5)

八	世	之後，	莫	之	與	京。
<i>bā</i>	<i>shì</i>	<i>zhīhòu</i>	<i>mò</i>	<i>zhī</i>	<i>yǔ</i>	<i>jīng</i>
eight	generation	ZHIHOU	nothing	3SG	with big	

‘After eight generations, nothing will be as big as it is (i.e., nothing can be an equal of this family).’

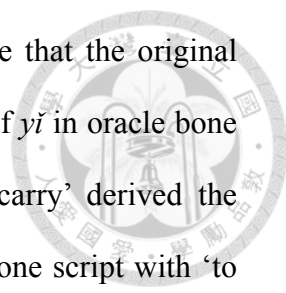
(*Zuo Zhuan* (左傳) “Chronicle of Zuo”)

In contemporary Mandarin Chinese, it is certain that *zhīqián* and *zhīhòu* are both highly fixed compound expressions and that the temporal senses ‘before’ and ‘after’ are prevalent, although the spatial sense still persists (cf. 2.2.2).

2.2.1.4 Yǐ

Chinese *yǐ* (以) is also a polysemous lexeme. Based on the data of oracle bone script from the late Shang Dynasty (ca. 17th - 11th century B.C.), contemporary

⁸ Which might have been a genre effect, as the linguistic data from that period in a large part consist of historical records. It is possible that a word’s temporal meaning is more likely to be used than its spatial one in discussing events.



scholars such as Guo (1998) and Djamouri (2009) basically agree that the original lexical meaning of *yǐ* was ‘to carry (something)’, as the character of *yǐ* in oracle bone script depicts a person carrying something in hand.⁹ From ‘to carry’ derived the metaphoric sense ‘to lead (someone)’, which coexisted in oracle bone script with ‘to carry’. Guo (1998) further points out the path of grammaticalization of *yǐ* as follows. When the object of *yǐ* was extended to things that could not be physically carried or led, the meaning of ‘to use’ emerged. When *yǐ* and an object that could not be carried or led occurred with another verb, this environment provided the motivation for the grammaticalization from the verb ‘to use’ to the adposition ‘with’.

It is not surprising that the ‘to carry/lead’ sense developed into ‘to use’, since the concept of accompaniment and the concept of instrument are cross-linguistically correlated and often expressed in the same way in language, whether as a verb or an adposition. The grammaticalization from the verb ‘to use’ to the adposition ‘with’ is also motivated. As an adposition, *yǐ* can be viewed as a marker of a broad range of concepts under the category of **instrumental**. Guo (1998) and Djamouri (2009) point out that the concepts that the adposition *yǐ* could introduce include instrument, cause, participant (beneficiary), manner, time, or location, basically almost anything involved in an event or action. This is understandable, because the cause or the reason for doing something can be viewed as an abstract instrument, and a beneficiary participant can be a type of cause. Manner can also be viewed as an abstract instrument (cf. English *with ease* and *with caution*).

Although the development of *yǐ* did not stop here, we will not elaborate on the complete semantic change of *yǐ*. Among the various uses of *yǐ*, one is particularly

⁹ According to the famous dictionary *Shouwenjiezi* (說文解字) “Explaining and Analyzing Characters” from the Han Dynasty (ca. early 2nd century), the original meaning of *yǐ* is ‘to use’ (HD; Zhao et al. 2007). We follow Guo (1998) and Djamouri (2009) and accept that the original meaning is ‘to carry’, because the author of *Shouwenjiezi* did not have access to oracle bone script (甲骨文) and therefore did not have the opportunity to observe the ‘to carry’ sense of *yǐ*.

relevant to the contemporary composite expressions *yǐqián* and *yǐhòu*. In almost all the sources that we consulted, one meaning of *yǐ* identified in the environment where *yǐ* is used with a monosyllabic spatial term, such as *shàng* (上) ‘up’, *xià* (下) ‘down’, *qián* (前) ‘front’, *hòu* (後) ‘back’, *wài* (外) ‘out’, *nèi* (內) ‘in’, *nán* (南) ‘south’, *běi* (北) ‘north’, etc. In almost all the dictionaries and sources, it is said that *yǐ* and the spatial term form a compound marking a **boundary** in space, time, quantity, or quality (CCD; HD; OCD; Guo 1998; Cao 2000; Zhao et al. 2007). According to Guo (1998), the earliest use of this meaning was found in the Bronze script from the Western Zhou period.¹⁰

Before we proceed, let us see some examples of the so-called “boundary marker” use of *yǐ*. Examples (2-6a) and (2-6b) are historical data cited in Cao (2000). Examples (2-6c), (2-6d) and (2-6e) are contemporary uses taken and modified from CCD.

(2-6)

(a) 時 天下 承平 日 久，
shí tiānxià chéngpíng rì jiǔ
 time world peace day long
 自 王侯 以下 莫 不 逾 侈。
zì wánghóu yǐxià mò bù yú chǐ
 from duke YI.down no NEG excess extravagant
 ‘By that time the world had been at peace for a long time. From the rank of duke on down, no one was not excessively extravagant.’

(5th century, *Hou Han Shu* (後漢書) “Book of the Later Han”)

(b) 歲 戊申， 江 以南 大 水。
suì wùshēn jiāng yǐnán dà shuǐ
 year wushen Yangtze.River YI.south big water
 ‘In the year of Wushen, there was a flood towards the south of the Yangtze River.’

(16th century, *Gan Shu Shu Xu* (甘藷疏序) “Prologue to Sweet Potatoes”)

¹⁰ Ca. 11th century B.C. - 771 B.C.

- (c) 三 天 以後
sān tiān yǐhòu
 three day after (*yǐ* + ‘back’)
 ‘after three days; in three days; three days later’
- (d) 二十 歲 以下
èrshí suì yǐxià
 twenty year under (*yǐ* + ‘down’)
 ‘under the age of twenty’
- (e) 五千 以內
wǔqiān yǐnèi
 five.thousand within (*yǐ* + ‘in’)
 ‘within five thousand’



In this “boundary marker” use, *yǐ* and the spatial term form a postposition, being a lexical unit as a whole.¹¹ Note that only (2-6b) pertains to a boundary in space, whereas all the other examples are about non-spatial dimensions. One problem about the “boundary marker” explanation is that, as the boundary is in fact expressed by the element before *yǐ*, the expression “marking a boundary” does not explain the meaning or function of the monosyllabic spatial term that comes after *yǐ*.

Here we propose another explanation for this use of *yǐ*. When occurring with a monosyllabic spatial term, *yǐ* marks a region that **extends** from a starting point (the “boundary”) towards the **direction** or **dimension** indicated by the spatial term. Thus, in (2-6b) the covered region starts from the Yangtze River and extends towards the south. The endpoint is not mentioned, but can be inferred as the southernmost point in China, or at least not beyond this point. Likewise, in (2-6a), the starting point of the extension is *duke*, a specific rank in the aristocratic hierarchy in Chinese history, the direction towards which the extension takes is *down*, and the region that the whole expression covers is all the aristocratic people in this aristocratic system under the rank of duke, with the duke being included. The endpoint is not specified, but we can

¹¹ For the time being we disregard the issue as to when and how *yǐ* and the spatial term fused together.

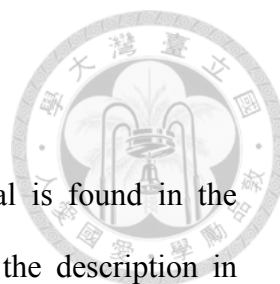
gather that it should be the lowest rank in the hierarchy.¹²

The same analysis applies to *yǐqián* and *yǐhòu*. According to M. Wang (2009), in the Pre-Qin period *yǐqián* and *yǐhòu* were mostly used for their temporal meaning and rarely used for the spatial meaning. The expression “X *yǐqián*” refers to all the time points covered extending from X towards the direction of past, or simply ‘before X’, whereas “X *yǐhòu*” covers all the time points covered extending from X towards the direction of future, i.e., ‘after X’ or ‘since X’. In chapter 6 we will return to discuss the effect of the **extension sense** of *yǐ* and how the extension sense is developed from the instrument marker *yǐ* (cf. 6.1.2).

2.2.2 Composite Expressions

The four temporal terms *zhīqián*, *yǐqián* (the *before*-pair), *zhīhòu* and *yǐhòu* (the *after*-pair) are composite expressions that are highly fixed, each being a lexical unit as a whole. Although within each pair the two terms are synonyms and exhibit considerable similarities, they must differ in some way or another, assuming that no two forms in one language are truly identical. In this section we give examples of how these temporal terms are defined and analyzed in dictionaries and thesauruses. As will be noted shortly, within each pair the two terms are often treated as interchangeable or even mutually explanatory. While some differences are pointed out, they do not pertain to the issue of temporal distance distinction or remoteness that has been mentioned in chapter 1.

¹² M. Wang (2009) implicitly points out the extension sense and calls it *tuī* (推) ‘expand’ (literally ‘to push’). M. Wang claims that the element “X” (i.e., the starting point) in “X + *yǐ* + spatial term” is not included in the scope expressed by “X + *yǐ* + spatial term.” We argue that whether the starting point is included depends on its property. In (2-6a), *duke* is likely to be included in those excessively extravagant aristocrats. In (2-6b), the Yangtze River is not included in the region suffering from flooding, because it does not make sense to say that there is a flooding in or on a river. In (2-6c), *three days* is not a point but a period, and whether the first day is included is unimportant. In (2-6d) and (2-6e), it is not clear whether *twenty years old* or *five thousand* is included, and in contemporary written language there is often an additional expression *hán* (含) ‘included’ or *bù hán* (不含) ‘not included’ to resolve the ambiguity.



2.2.2.1 The *Before-Pair*

One extreme case that treats *zhīqián* and *yǐqián* as identical is found in the *Revised Edition of Mandarin Chinese Dictionary* (RED), where the description in *zhīqián*'s definition contains the word *yǐqián*, while the definition of *yǐqián* is '*zhīqián*'. Here we quote the original definitions in Chinese and give our English translation to show the phenomenon of being mutually explanatory.

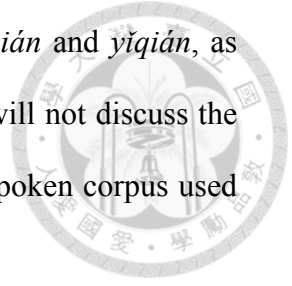
Table 2.1 The *before-pair* in RED

<i>Zhīqián</i> (之前)	<i>Yǐqián</i> (以前)
表示某個時間以前的連詞。 'a connector marking before (<i>yǐqián</i>) a certain time'	之前、從前。 ' before (<i>zhīqián</i>); in the past (<i>cóngqián</i>)'

This is not to say that the definitions in these two entries are incorrect. The definition in the entry of *zhīqián* is adequate in the sense that it is general enough to cover different kinds of uses of *zhīqián*, in which 'a certain time' can be linguistically mentioned or assumed as the speech time. And indeed, *yǐqián* has the two senses enumerated here, i.e., 'before' and 'in the past'. There are, however, other subtleties that are not covered.

Although most dictionaries and thesauruses provide more detailed or longer definitions and explanations, the two terms *zhīqián* and *yǐqián* are still treated as almost equivalent. The main differences reported between the two terms pertain to the **spatial meaning** and **genre**. All the sources consulted that touch upon both *zhīqián* and *yǐqián* point out that *zhīqián* has the spatial meaning 'in front of something', whereas *yǐqián* can only be used temporally (e.g., CCD, CWN, and Lü 1999). In Lü (1999), *zhīqián* is said to be used in written language. Despite that these generalizations contribute to a better understanding of how to use these two terms, in

the current study we will focus on the temporal meanings of *zhīqián* and *yǐqián*, as *yǐqián* does not have a spatial use to be compared to *zhīqián*. We will not discuss the effect of genre, because both *zhīqián* and *yǐqián* are found in the spoken corpus used for this study.



Let us now turn to the other sources. In the *Chinese WordNet* (CWN), the descriptions in the respective entries of *zhīqián* and *yǐqián* are exactly identical (except that *zhīqián* has the spatial meaning). The first sense listed in each entry is ‘earlier than a certain temporal reference point or event’, and the second is ‘the time stretch before a certain temporal reference point’.¹³ For each sense, examples are given. In the first sense, *zhīqián* and *yǐqián* are attached to another element, which is the reference point, whereas in the second sense *zhīqián* and *yǐqián* are used alone.

In the *Contemporary Chinese Dictionary* (CCD), the descriptions of *zhīqián* and *yǐqián* are not identical word by word, but still they are phrased almost the same. In *zhīqián*, the definition is ‘in front of a certain time or location’, whereas in *yǐqián* the definition is ‘a time prior to now or a certain mentioned time’.¹⁴ On the surface it seems that only the reference point in the use of *yǐqián* can be the speech time or the present moment, as indicated by the expression *now*, yet in the description of *zhīqián*, *a certain time* may as well be the speech time, since the expression *a certain time* does not necessarily preclude the speech time.

In Lü’s *Eight Hundred Words in Modern Chinese*, we find the description ‘a time earlier than now or a certain time’ in the entry of *yǐqián* (1999). According to this book, in actual uses *yǐqián* may be used as a noun itself, or follow another element,

¹³ The original Chinese texts of the two senses are *zǎo yú tèdìng shíjiān cānkāodiǎn huò shíjiàn* (早於特定時間參考點或事件) and *zài shíjiān cānkāodiǎn zhīqián de shíduàn* (在時間參考點之前的時段), respectively. Note that the description of the second sense contains the term *zhīqián* itself.

¹⁴ The original Chinese texts of the two definitions are *biāoshì zài mǒu gè shíjiān huò chùsuǒ de qiánmiàn* (表示在某个时间或处所的前面) and *xiànzài huò suǒ shuō mǒu shí zhīqián de shíqī* (现在或所说某时之前的时期), respectively. The description of *yǐqián* contains the word *zhīqián*.

which may be a noun, a verb, or a clause, to refer to the time earlier than the time indicated by this element. *Yǐqián* also follows expressions such as *hěn jiǔ* (很久) and *hěn zǎo* (很早), meaning ‘very long’ and ‘very early’, to refer to a remote time in the past. As for *zhīqián*, Lü says it is the same as *yǐqián* when following another element (1999: 617).

In Lu’s *Comparative Illustration of Common Chinese Words and Expressions* (2000), *yǐqián* is contrasted with another near-synonym *cóngqián* (從前) ‘in the past’. *Yǐqián* is labeled as a noun. In the original English translation provided in this thesaurus, it is said that “*yǐ* has the function of delimitation. *Yǐqián* refers to the time before [the] present or before a certain time” (2000: 580). The function of delimitation is what has been termed the extension sense in the previous section, where we introduce the function of *yǐ*. Here the delimitation refers to the extension’s starting point, which is the present moment or a certain time other than the present moment. Corresponding to these two cases, *yǐqián* may indicate “[a] time **long** ago, or **just before** [an] act” (2000: 580). Lu also explains that *yǐqián* “can express a past time, or a future time,” and that *yǐqián* can be used as a “sentence component independently” or “to follow other words to form phrases” (2000:581). These generalizations seem adequate; only they are made separately without respect to each other. *Yǐqián* can express “a future time” only when it immediately follows another element, as in (2-7). When *yǐqián* is used alone as “a sentence component independently,” to quote the term used in this book, it refers to a time in the past.

(2-7) (Lu 2000: 580)

晚飯 以前， 你 到 我 這兒 來 一下。
wǎnfàn yǐqián nǐ dào wǒ zhèer lái yíxià
dinner YIQIAN 2SG arrive 1SG here come a.while
‘Before dinner, stop by my place for a while.’

In sum, these sources fundamentally treat *zhīqián* and *yǐqián* as almost identical in terms of meaning, at least in the temporal domain. They all point out that *zhīqián* and *yǐqián* both have absolute time reference (with the speech time as the reference time) and relative time reference (with a certain time or event as the reference point). Although these sources implicitly mention different forms, whether just in examples or in descriptions, there is little integration between form and semantic function. Most importantly, temporal distance distinction is not touched upon at all. The only thing related to temporal distance is that *yǐqián* occurs in set expressions *hěn jiǔ yǐqián* (很久以前) ‘a long time ago’, which describes a time in the past far from the present moment. However, the information of a long temporal distance is conveyed by *hěn jiǔ* ‘very long’, not by *yǐqián*.

2.2.2.2 The *After-Pair*

The definitions and explanations of the *after-pair* parallel the ones of the *before-pair* in the sense that the *after-pair* is treated as almost identical in the same way as the *before-pair* is in each individual source. In RED, the description in *zhīhòu*’s definition contains the word *yǐhòu*, whereas one of the two defining words of *yǐhòu* is ‘*zhīhòu*’. We list the original Chinese definitions here, which is a mirror image of the *before-pair* in the same dictionary, together with our English translation.

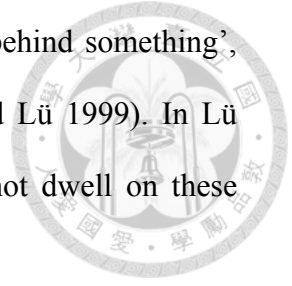
Table 2.2 The *after-pair* in RED

<i>Zhīhòu</i> (之後)	<i>Yǐhòu</i> (以後)
表示某個時間以後的連詞。 ‘a connector marking after (<i>yǐhòu</i>) a certain time’	之後、此後。 ‘ after (<i>zhīhòu</i>); afterwards (<i>cǐhòu</i>)’

Once again, the definitions are mutually explanatory.

As in the case of the *before-pair*, all the sources consulted that touch upon both

zhīhòu and *yǐhòu* point out that *zhīhòu* has the spatial meaning ‘behind something’, whereas *yǐhòu* can only be used temporally (cf. CWN, CCD and Lü 1999). In Lü (1999), *zhīhòu* is said to be used in written language. We will not dwell on these issues, since they are not the major concern in this study.



In the CWN, the descriptions in the respective entries of *zhīhòu* and *yǐhòu* are exactly identical (except that *zhīhòu* has the spatial meaning). The first sense listed in each entry is ‘later than a certain temporal reference point or event’, and the second is ‘the time stretch later than a certain temporal reference point’.¹⁵ For each sense, examples are given. In the examples for the first sense, *zhīhòu* and *yǐhòu* are attached to another element, which is the reference point, whereas in those for the second sense *zhīhòu* and *yǐhòu* are used independently.

In CCD, the descriptions of *zhīhòu* and *yǐhòu* are not identical word by word, but they are still similar to the extent that the meanings of the two terms are almost the same. In *zhīhòu*, the definition is ‘after/behind a certain time or location’, whereas in *yǐhòu* the definition is ‘a time after now or a certain mentioned time’.¹⁶ One additional definition listed in the entry of *zhīhòu* is ‘used independently at the beginning of a sentence to mark being after something mentioned in previous context’.¹⁷ This additional definition includes consideration of the form (*zhīhòu* appears in bare form independent from any other element) and of the context (*zhīhòu* stands in a transitional position to link the sentence it introduces backward to something in prior discourse).

¹⁵ The original Chinese texts of the two senses are *wǎn yú tèdìng shíjiān cānkāodiǎn huò shíjiàn* (晚於特定時間參考點或事件) and *wǎn yú xiànzài huò qiánshù shíjiàn de shíduàn* (晚於現在或前述事件的時段), respectively.

¹⁶ The original Chinese texts of the two definitions are *biǎoshì zài mǒu gè shíjiān huò chùsuǒ de hòumiàn* (表示在某個時間或處所的後面) and *xiànzài huò suǒ shuō mǒu shí zhīhòu de shíqī* (現在或所說某時之後的時期), respectively. The description of *yǐhòu* contains the term *zhīhòu*.

¹⁷ The original Chinese text is *dāndú yòng zài jùzi tóushàng, biǎoshì zài shàngwén suǒ shuō de shìqíng yǐhòu* (單獨用在句子頭上，表示在上文所說的事情以後).

Lü explains *yǐhòu* as ‘a time later than now or a certain time’ (1999: 614).¹⁸ According to Lü, in actual uses *yǐhòu* may be used as a noun, namely independently, or follow another element, which may be a noun, a verb, or a clause, to refer to the time later than the time indicated by this element. *Yǐhòu* also collocates with the *hěn jiǔ* (很久) in the set expression *hěn jiǔ yǐhòu* ‘a time much later than now or a certain time’, or simply ‘in a long time’ or ‘in the far future’.¹⁹ As for *zhīhòu*, Lü regards it as the same as *yǐhòu* when used following another element.

In *The Commercial Press Guide to Chinese Synonyms* (Zhao et al. 2007), the three synonyms *hòulái* (後來), *yǐhòu* and *zhīhòu* are compared and contrasted. In this entry it is said that when *yǐhòu* is used independently (i.e., not following another element) as an adverb or an adjective itself, the time that *yǐhòu* refers to may be in the past, at present or in the future, whereas the time that *zhīhòu* refers to must be in the past and not at the present or in the future. We argue that this analysis is not accurate. On the contrary, based on our corpus data it seems that when *yǐhòu* and *zhī* are used independently, the time that *yǐhòu* refers to is predominantly in the future, whereas the time that *zhīhòu* designates may be in the past, at present or in the future (cf. 5.2 in this thesis)

Chen (1997) compares *yǐhòu* with *yǐlái* (以來). It is pointed out that *yǐhòu* refers to a period after *now* or after a certain mentioned time.²⁰ In the first sense ‘a period after now’ the time lies in the future. In the all examples given *yǐhòu* is used independently. It is further pointed out that in the second sense, the ‘period after a certain mentioned time’ may start from this certain mentioned time (apparently in the

¹⁸ The original Chinese text is *bǐ xiànzài huò mǒu yī shíjiān wǎn de shíjiān* (比現在或某一時間晚的時間).

¹⁹ The original Chinese text is *zhǐ bǐ xiànzài huò mǒu yī shíjiān wǎn dé duō de shíjiān* (指比現在或某一時間晚得多的時間).

²⁰ The original Chinese text is *xiànzài huò suǒ shuō mǒu shí zhīhòu de shíqī* (現在或所說某時之後的時期).

past) and last up to *now*, or simply refer to a stretch of time **concluded in the past**, and in all the examples given *yǐhòu* is used following another element. This subtle nuance is significant when *yǐhòu* is compared to *yǐlái*, since *yǐlái* only refers to the period of time starting from a certain mentioned time **up to now**. Chen also lists the fixed expressions *cóng jīn yǐhòu* (從今以後) and *cóng cǐ yǐhòu* (從此以後), meaning ‘starting from today, from now on’ and ‘from this moment on’, respectively.

Lu (2000) contrasts *yǐhòu* with another synonym *hòulái* (後來) ‘later’ (in the past). As in the case of *yǐqián*, in the original English translation it is said that “*yǐ* in *yǐhòu* has the meaning of delimitation” (2000: 576). *Yǐhòu* refers to a period after an act or a state. When used alone, *yǐhòu* delimits time from the present. It is also said that “*yǐhòu* indicates the time after a certain act or state, so what it describes is not limited to the past, present or future” (2000: 577). These statements are correct, but the examples given do not illustrate them well. The author fails to emphasize that the examples of *yǐhòu* used alone all refer to future situations. However, she does point out that *yǐhòu* alone has the meaning ‘from now on’, namely, from the present moment to the future. Actually all examples of *yǐhòu* used alone have the meaning ‘from now on’ in Lu (2000), in addition to just ‘in the future’, such as the one in (2-8).

(2-8) (Lu 2000: 576)

以前	讓	你	在	這兒	吃了	不	少	苦頭，
<i>yǐqián</i>	<i>ràng</i>	<i>nǐ</i>	<i>zài</i>	<i>zhèér</i>	<i>chī-le</i>	<i>bù</i>	<i>shǎo</i>	<i>kǔtóu</i>
YIQIAN	let	2SG	at	here	eat-PFV	NEG	little	hardship
以後	不會	再	讓	你	吃	苦頭	了。	
<i>yǐhòu</i>	<i>bùhuì</i>	<i>zài</i>	<i>ràng</i>	<i>nǐ</i>	<i>chī</i>	<i>kǔtóu</i>	<i>le</i>	
YIHOU	NEG.will	again	let	2SG	eat	hardship	CRS	

‘You suffered a lot here in the past. I won’t let you bear any hardships from now on.’
(original translation in Lu (2000), glossing mine)

These sources fundamentally treat *zhīhòu* and *yǐhòu* as almost identical.

Although some differences are implicitly pointed out, the integration between form and semantic function is weak. More importantly, the distinction of temporal distance (or remoteness) is not touched upon at all, except in the set expression *hěn jiǔ yǐhòu* (很久以後) ‘in a long time’. However, the long temporal distance is conveyed by *hěn jiǔ* ‘very long’, not by *yǐhòu*. On the other hand, *yǐhòu* alone also means ‘from now on’, which describes a long period of time starting from the present moment.

2.3 Lexical Studies

2.3.1 Gu (2010) and C. Liu (2007)

In a master thesis titled *The Study of the Position Words “Qian,” “Hou” and Their Related Words*, Gu (2010) investigates eight compound words containing *qián* and seven containing *hòu* based on a corpus consisting of eight contemporary Chinese novels (10,475,225 Chinese characters in total).²¹ Among the various compound words, Gu compares *zhīqián* with *yǐqián* (‘before’) and *zhīhòu* with *yǐhòu* (‘after’), considering the syntactic similarities within each pair. In particular, Gu describes these temporal terms as occurring in the **attached form** when they are attached to a **preceding element**, be it a noun, verb, clause, or other fixed expressions, and in the **bare form** when there is no such a preceding element to which these terms are attached.²² The four temporal compound terms are used as adverbs in the bare form, and in the attached form these temporal terms together with their preceding element are predominantly used as temporal adverbials in the clause they occur, suggesting that regardless of the syntactic form, the primary function of these temporal terms is to modify a clause. Using the cover term *attached form*, Gu considers the grammatical

²¹ The English title is Gu’s original translation. Although Gu also points out that *zhīqián* and *zhīhòu* have spatial meanings whereas *yǐqián* and *yǐhòu* do not, we will simply present the analysis that is directly relevant to their temporal senses, since spatial senses are not our main concern in this study.

²² The original Chinese terms corresponding to *attached form* and *bare form* in Gu (2010) are *hòufù* (後附, literally ‘back-attached’) and *dānyòng* (單用, literally ‘single-use’), respectively.

function of these temporal terms and their preceding element as a whole, rather than directly calling these terms *postpositions* or *conjunctions*.

For the *before*-pair, Gu examines two other parameters, both regarding the **reference point**, namely, the concept denoted by the element immediately preceding *zhīqián* and *yǐqián* when they occur in the attached form. The first parameter is the distinction between **punctual** (or “point-like”) reference points and **durative** (or “stretch-like”) reference points. Consider Gu’s classification (glossing and translation mine):

(2-9) Punctual reference point (Gu 2010: 23)

(a) Temporal noun of punctuality

九 點 以 前
jiǔ diǎn yǐqián
nine o’clock YIQIAN
‘before nine o’clock’

(b) Verb or phrase denoting punctuality

最 後 一 次 離 開 英 國 之 前
zuìhòu yī cì líkāi yīngguó zhīqián
the.last one time leave Britain ZHIQIAN
‘before (I) left Britain for the last time’

(2-10) Durative reference point (Gu 2010: 23)

(a) Temporal noun of duration

(i) 幾 個 月 以 前
jǐ ge yuè yǐqián
several CL month YIQIAN
‘several months ago’

(ii) 在 一 段 連 續 假 日 之 前
zài yī duàn liánxù jiàrì zhīqián
at one CL consecutive holiday ZHIQIAN
‘before a period of consecutive holidays’

(b) Verb or phrase denoting duration

No example given in Gu (2010)

Gu discovers that the reference points associated with *yǐqián* are equally likely to be punctual or durative (50% vs. 50%), while those associated with *zhīqián* tend to be punctual rather than durative (84.2% vs. 15.8%). There is no explanation given or intended regarding this difference between *zhīqián* and *yǐqián*. X. Li points out that temporal expressions of duration cannot be reference points (1997: 44); instead, in the first example in (2-12a), the real reference point is the speech time or *now*.

The other parameter that Gu examines for the *before*-pair concerns the reference point when *zhīqián* and *yǐqián* are used in the bare form. Based on the corpus data, Gu argues that the reference point of *yǐqián* in the bare form may be *now* or some other time mentioned in previous context, but the reference point of *zhīqián* has only the second kind. In other words, Gu is suggesting that *zhīqián* in the bare form has only relative time reference use (cf. 3.2 in this thesis). This conclusion accords with the explanation of *zhīqián* in the CCD and is observed in other studies. For instance, C. Liu (2007) claims that the reference point associated with bare-form *zhīqián* (termed *zhīqián*₂ by Liu) is found in the previous clause or in the previous discourse, indirectly rejecting the possibility that bare-form *zhīqián* may also take the speech time or *now* as the reference point. However, some of the examples given by C. Liu are ambiguous as to what the reference point should be identified with. Consider the following sentence uttered by a guest on a TV show, which is spoken data (example from C. Liu (2007), boldface added, glossing and translation mine):

(2-11) (C. Liu 2007: 32)

学到了	一些	自己	之前	不	太	了解	的
<i>xué-dào-le</i>	<i>yīxiē</i>	<i>zìjǐ</i>	<i>zhīqián</i>	<i>bù</i>	<i>tài</i>	<i>liǎojiě</i>	<i>de</i>
learn-arrive-PFV	some	self	ZHIQIAN	NEG	too	understand	NOM
知识							
<i>zhīshì</i>							
knowledge							

‘I learned some knowledge that I did not understand very well before.’

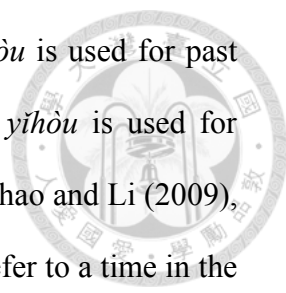
Since C. Liu does not provide the prior context, judging from this sentence alone it is equally adequate to say that the reference point of *zhīqián* here is the speech time, as indicated by the English translation *before* in the sense of “before now” instead of “before something else.” We disagree with CCD, C. Liu (2007) and Gu (2010) and argue that *zhīqián* in the bare form may also take the speech time or the present moment as the reference point (or the reference time, cf. 3.2.2 in this thesis).

In terms of *yǐhòu* and *zhīhòu*, Gu (2010) points out three important differences. First, *yǐhòu* is more likely to occur in the bare form than *zhīhòu* (37% vs. 7%). Second, *yǐhòu* in the bare form tends to modify **future** situations (73.4%) and collocate with **conditional connectors** (e.g., *rúguǒ* ‘if’), expressions marking **epistemic modality** (e.g., *kěnéng* ‘maybe’ and *hǎoxiàng* ‘seemingly’), or with **speech act verbs** (e.g., verbs expressing expectation, advice, request, promise, etc.).²³ In contrast, *zhīhòu* in the bare form tends to modify **past** situations. Finally, as many as 70% of *yǐhòu* used in the bare form are found in dialogues, whereas *zhīhòu* is almost always used in “written genre” whether in the attached form or bare form. The last observation concurs with many dictionary explanations (e.g., CWN and Lü 1999), although we should bear in mind that the so-called “dialogues” in Gu’s corpus are dialogues in novels, not dialogues in spontaneous speech.

2.3.2 Zhao and Li (2009) and Yang (2009)

Regarding the future-past distinction between *zhīhòu* and *yǐhòu* in the bare form, or put differently, whether *zhīhòu* and *yǐhòu* in the bare form pinpoint a time in the

²³ Gu did not use the term *epistemic modality* or the term but simply enumerated the expressions and verbs without any labeling or integration. Dr. Chiarung Lu suggested the term and concept of *speech act verbs* to subsume the collocating verbs with *yǐhòu* that Gu listed.



past or in the future, Gu simply says there is a tendency that *zhīhòu* is used for past situations (percentage not reported) and there is a tendency that *yǐhòu* is used for future situations (73.4%). Other studies make a stronger claim. In Zhao and Li (2009), it is said that when used alone (i.e., in the bare form) *zhīhòu* must refer to a time in the past (i.e., it is a “must” instead of a “tendency”), whereas *yǐhòu* may refer to a time in the past, at present, or in the future (i.e., randomly without any tendency). Yang (2009) argues that when used alone,²⁴ *zhīhòu* locates an event prior to the speech time (i.e., in the past), with speakers’ high certainty about the occurrence of the event, whereas *yǐhòu* describes an event later than the speech time (i.e., in the future), and as this event has not happened yet, the occurrence of the event is unknown or uncertain. For Yang too, the past-future distinction is a clear-cut feature of *zhīhòu* and *yǐhòu*, rather than a mere tendency. To summarize their opinions, Gu (2010), Zhao and Li (2009) and Yang (2009) all agree that *zhīhòu* in the bare form tends to or must locate a time in the past. On the other hand, Gu (2010) and Yang (2009) agree that *yǐhòu* in the bare form tends to or must locate a time in the future, whereas Zhao and Li (2009) suggest that *yǐhòu* is free to collocate with past, present or future situations.

Let us focus on *zhīhòu* first. In the *Academia Sinica Balanced Corpus of Modern Chinese*, the same corpus that Yang (2009) uses, there is an instance of *zhīhòu* in the bare form that modifies a future situation. In (2-14), after introducing the date and the topic of an upcoming lecture by a Canadian architect called Arthur Erickson, the speaker/writer continues that there will be a Q&A session at the end of the lecture (data from the *Academia Sinica Balanced Corpus of Modern Chinese*, boldface added).

²⁴ Yang’s (2009) original wording is “in clause-initial positions,” but in discussing the issue of past and future situations, “being alone” is the appropriate condition to be considered, regardless of the position of the temporal terms.

(2-12) (Academia Sinica Balanced Corpus of Modern Chinese)

- 1 我們 會 預留 時間 回答 問題，
wǒmen huì yùliú shíjiān huídá wèntí
IPL will reserve time answer question
- 2 之後 也 歡迎 您 與 Arthur Erickson 做 面對面
zhīhòu yě huānyíng nín yǔ Arthur Erickson zuò miànduìmiàn
ZHIHOU also welcome 2SG and PN do face-to-face
接觸，
jiēchù
contact



(one sentence omitted)

- 3 誠摯地 希望 您的 蒞臨。
chéngzhì-de xīwàng nín de lìlín。
sincerely hope 2SG GEN participation

‘We will reserve time for answering questions. We also encourage you to have personal interaction with Arthur Erickson **afterwards** ... We sincerely welcome your participation.’

Since the lecture is to take place in the future, the time for the intended audience to consult the architect also lies in the future, namely, after the speech time of the utterance in (2-12). In this case, *zhīhòu* in the bare form locates the event of consulting the architect in the future, specifically, after the Q&A session of the lecture. This example challenges the analysis of *zhīhòu* in Yang (2009) and Zhao and Li (2009).

As for *yǐhòu*, one example cited in Yang (2009) is adequate to challenge Yang’s own claim that *yǐhòu* in the bare form must describe a situation later than the speech time, i.e., in the future, as shown in example (2-13) (data partially cited in Yang (2009) from the *Academia Sinica Balanced Corpus of Modern Chinese*, boldface added, translation mine).²⁵

²⁵ The reason why Yang (2009) thinks that bare-form *yǐhòu* locates an event later than the speech time is probably that Yang did not read or cite the whole passage until the end but instead stopped at the clause “the people in that area climb the mountain,” and therefore was not aware that all the events mentioned in this example pertain to the past.



(2-13) (Academia Sinica Balanced Corpus of Modern Chinese)

- 1 他們 登山 避難 的 那 一 天，
tāmen dēngshān bìnnàn de nà yī tiān
 3PL climb.mountain take.refuge NOM that one day
- 2 正 是 陰曆 九 月 九 日。
zhèng shì yīnlì jiǔ yuè jiǔ rì
 right C/F lunar.calendar nine month nine day
- 3 以後 每逢 這 一 天，
yǐhòu měiféng zhè yī tiān
 YIHOU whenever this one day
- 4 那 一 帶 的 人 都 去 登 山。
nà yī dài de rén dōu qù dēngshān
 that one area NOM person all go climb.mountain
- 5 後來， 其他 各 地 的 人 也 都 這 樣 做，
hòulái qítā gè dì de rén yě dōu zhèyàng zuò
 later other each place NOM person also all like.this do
- 6 重九 登 高 逐 漸 成 為
chóngjiǔ dēnggāo zhújiàn chéngwéi
 Double.Ninth.Festival mountain.climbing gradually become
 一 種 全 國 性 習 俗。
yī zhǒng quánguóxìng xísú
 one kind nationwide custom

‘The day they [the protagonist and his family] climbed the mountain to take refuge was the ninth day of the ninth month in the lunar calendar. **After that/since then**, whenever it was the same date, people in that area would climb the mountain. Later on, people in other places did the same as well. Mountain-climbing on the Double Ninth Festival gradually became a nationwide custom.’²⁶

As this passage explains the origin of the mountain-climbing custom, the events mentioned here should all be understood to lie in the past. The first event (also the reference point) “they climbed the mountain” and the second event “the people in that area climbed the mountain” both lie in the past. This example challenges the claim

²⁶ This example is taken from a story about the origin of the custom of mountain-climbing on the Double Ninth Festival, a Chinese traditional holiday that falls on the ninth day of the ninth month in the lunar calendar every year.

that *yǐhòu* in the bare form must be used to mark a future time.

But it is not as simple as what Zhao and Li (2009) think that *yǐhòu* in the bare form can be used freely without any tendency or constrain. In the following example, where the entire scenario lies in the past, *yǐhòu* cannot substitute for *zhīhòu* (data from Yang (2009), boldface added, translation mine).

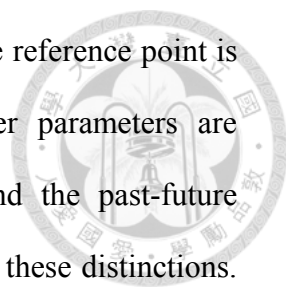
(2-14) (Yang 2009: 143)

我們 買了 果汁， 之後 我 就 回家了。
wǒmen mǎi-le guǒzhī **zhīhòu** wǒ jiù huíjiā-le
1PL buy-PFV juice ZHIHOU 1SG JIU go.home-PFV
'We bought some juice. **After that/and then** I went home.'

The first event (also the reference point) “we bought some juice” and the second event “I went home” have both happened. In this case *zhīhòu* is preferred to *yǐhòu*.

At this point it seems that bare-form *yǐhòu* can be used to locate a time in the past only when *yǐhòu* also has the ‘since then’ sense, which, of course, is partially derived from the context. In (2-13), the author of the story does not mean that after the protagonist and his family climbed the mountain, the people in that area climbed the mountain only once, but rather, that **ever since** the protagonist and his family did so, the people in that area did the same repeatedly **whenever** it was the ninth day of the ninth month. The situation being described is **repetitive**. Note that in (2-13) *zhīhòu* can substitute for *yǐhòu*, as there does not seem to be any restriction for *zhīhòu* in the bare form to describe past situations. By contrast, in (2-14) the second event “I went home” happened **only once** following the first event. In this case the meaning of *zhīhòu* here is more like ‘and then’, and *yǐhòu* cannot be used here.

In this section of literature review, we have shown that Gu (2010), Yang (2009) and Zhao and Li (2009) all point out the attached-bare form distinction. In Gu (2010) some further parameters are examined only for the *before*-pair, such as the

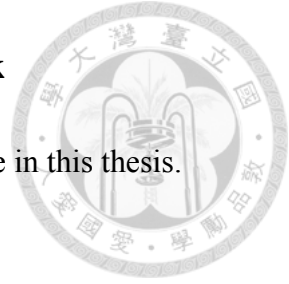


punctual-durative distinction of the reference point and whether the reference point is *now* or something mentioned earlier in the context, and other parameters are examined only for the *after*-pair, such as genre differences and the past-future distinction of situations. No explanation is provided to account for these distinctions. While Yang (2009) and Zhao and Li (2009) regard the past-future distinction of the *after*-pair as obligatory, it seems more appropriate to consider it a tendency as Gu (2010) does. Also, the difference between *zhīhòu* and *yǐhòu* does not seem to lie in the past-future distinction, but in the property of the situation (i.e., repetitive or only once).

2.4 Chapter Summary

In this chapter, we review how the four temporal terms *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* have been analyzed in previous literature. We first introduced two functional studies that touch upon the position of these terms. When the four temporal terms are used as sentential connectors (i.e., in the attached form), they tend to occur before the main clause/modified material. From a functional perspective, the initial temporal clauses is to set the time frame within which the following information is to be understood. In dictionaries and thesauruses, although some distinctions are made between the two near-synonyms within each pair (e.g., genre differences and the domain of space), there is no integrated analysis or explanation for these distinctions. In the lexical studies that focus on these temporal terms, some further distinctions are made (e.g., punctual-durative and past-future), but some claims are not accurate. Above all, the temporal distance distinction seems to be neglected in previous literature. In the later chapters in this thesis, we will try to provide a comprehensive account for the distinctions between these terms.

Chapter 3 Terminology and Framework



In this chapter we clarify the terms and notions that we will use in this thesis.

3.1 Describing the Four Temporal Terms

3.1.1 Lexical and Syntactic Compounds

Klein (1994) divides temporal adverbials (abbreviated as TADVs) into three categories based on their formal properties. They are simple, morphologically compound, and syntactically compound TADVs. Take English as an example:

1. Simple TADVs: *soon, already, now, then, only, first.*
2. Morphologically compound TADVs: *recently, meanwhile, thereafter, rapidly, yesterday, tonight.*
3. Syntactically compound TADVs:
 - (a) Bare PP: *after dawn; during the Big Bang; at Christmas; just before the autopsy; five weeks ago.*
 - (b) Bare NP: *last spring; next week.*
 - (c) Subordinate clauses: *before Mary could have closed her eyes, as soon as he had paid, while I was sitting in the bathtub.*
 - (d) Non-finite clauses: *sitting in my wheelchair; having closed the window, etc.*

(Klein 1994: 147-148)

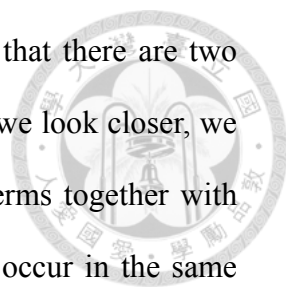
The crucial distinction lies between lexical TADVs (i.e., the first two categories) and syntactically composite expressions (the third category). Regarding the four temporal terms *zhīqián*, *yǐqián*, *zhīhòu*, and *yǐhòu*, each is a lexically compound expression when used alone in the bare form. When preceded by another element in the attached form, these temporal terms and the **preceding element** form syntactically compound TADVs. The syntactically compound TADVs may be a prepositional phrase or a subordinate clause, depending on the grammatical category of the preceding element.

3.1.2 Postpositions and Conjunctions

Some studies have discussed the grammatical category of *zhīqián*, *yǐqián*, *zhīhòu*, and *yǐhòu* when they are used immediately after a preceding element. D. Liu (2003) and Y. Li (2008) both propose the view that whether these temporal terms are adpositions or conjunctions is related to the grammatical category of the preceding element, the complement of these temporal terms. When the preceding element is a noun phrase (NP), the temporal terms are adpositions, or postpositions, to be exact; when the preceding element is a verb phrase (VP) or a full-fledged clause with a subject and a verb, the temporal terms resemble what are traditionally called conjunctions or sentential connectors.

The fact that these temporal terms may be postpositions or conjunctions is a common phenomenon across languages. Cross-linguistically, it has been found that conjunctions often develop from adpositions (cf. Dik 1997. See also D. Liu 2003: 145-148 for relevant phenomena in Mandarin Chinese). Dik (1997: 398; 406) subsumes adpositions and conjunctions, among other grammatical categories, under the same category of **relator**, and predicts that there is a harmonic order relationship between adpositions and conjunctions within the same language (cited in D. Liu 2003: 69 and in Y. Li 2008: 53). Indeed, the four temporal terms *zhīqián*, *yǐqián*, *zhīhòu*, and *yǐhòu* display a harmonic order relationship in that these terms follow their complement whether as adpositions or conjunctions. This is why these terms are called **postpositions** when the complement is an NP. When the complement is a VP or a clause, Li and Thompson (1981: 633) call these terms “linking element[s] in clause-**final** position,” whereas D. Liu (2003: 146; 148) and Y. Li (2008: 48) refer to these terms as “**post**-positioned sentential connectives.”

The close connection between postpositions and conjunctions is reflected not only in the internal order but also in the order with respect to the rest of a sentence.



The term “conjunctions” or “sentential connectives” may suggest that there are two clauses or sentences connected by these temporal terms. Yet when we look closer, we find that whether as postpositions or conjunctions, the temporal terms together with the **preceding element** as a whole temporal adverbial expression occur in the same positions, namely, either after the subject and before the verb, or at the beginning of the sentence. That means, even when these temporal terms take a clause/sentence as the complement, the whole expression can still occur within a higher-level sentence between the subject and the verb. This feature is also shared by a group of adverbs in Mandarin Chinese that are termed movable adverbs (Li & Thompson 1985. See 4.4.1 in this thesis).

Despite that we can classify these temporal terms into postpositions and conjunctions based on the grammatical category of the preceding element (or the complement), we will still approach these temporal terms from an overarching perspective and describe them according to whether they are in the attached form or in the bare form. The reason is that regardless of the grammatical category of the preceding element, the preceding element and these temporal terms together form an adverbial unit as a whole and display similarities in their syntactic position and functions.

3.2 Describing Temporal Location

In this section, we will review and clarify a few notions concerning temporal location for our analysis of the four temporal terms. Since temporal location can be expressed via tense and temporal adverbials, these notions are shared by the two linguistic devices, although most have been developed and discussed for tense (and/or aspect). In this section we will introduce these notions manifested in both tense and temporal adverbials for a better understating. We will first specify the type of

adverbial that marks temporal location in 3.2.1. And then we proceed to the notion of **reference time** in 3.2.2, the distinction between **absolute time reference** and **relative time reference** in 3.2.3, and the concept of **degree of remoteness** (i.e., temporal distance distinction) in 3.2.4. In 3.2.5 we the diagram that we use to represent situations in time.

3.2.1 Positional Temporal Adverbials

Comrie (1985) defines tense as “the grammaticalisation of location in time.” This two-folded definition means that first, tense is a grammatical category, and second, that tense is about temporal location. Besides the grammatical device of tense, another strategy to mark temporal location is via temporal adverbials. In Klein (1994), temporal adverbials that serve the function of marking temporal location are called **positional temporal adverbials**, as they “position” a thing or a situation in time. In comparison, **temporal adverbials of frequency** and **temporal adverbials of duration** denote two other properties of them. Below are the definitions and some examples from English of the three categories of temporal adverbials.²⁷

1. Positional temporal adverbials: They specify time spans in relation to other time spans, which are supposed to be given in context. Examples are *yesterday*, *before the autopsy*, *much later*, *at five o'clock*, *in the night*, etc.
2. Temporal adverbials of frequency: They indicate the frequency of temporal entities, like time spans or possibly situations which obtain at these time spans. Examples are *often*, *once in a while*, *rarely*, *always*, *no more than three or four times a year*, etc.
3. Temporal adverbials of duration: They specify the duration of temporal entities, like time spans and/or perhaps situations obtaining at these time spans. Examples are *briefly*, *for a while*, *within one hour*, *during the autopsy*, etc.

²⁷ Other functions listed in Klein (1994) include temporal adverbials that describe the inherent properties of a situation (e.g., *quickly*, *gradually*, *slowly*), those that express the sequence of situations in a series (e.g., *to begin with*, *firstly*, *at last*, *eventually*, *formerly*), and those that do not fit any of these categories (e.g., *still*, *already*, *again*).

The four temporal terms *zhīqián*, *yǐqián*, *zhīhòu*, and *yǐhòu* belong to the category of positional temporal adverbials in that they mark the temporal location of a thing or a situation, whether with respect to a deictic center like *now* or relative to another situation (cf. 3.2.3 on the distinction between absolute and relative time reference). For the sake of simplicity, in this thesis when we have to mention *zhīqián*, *yǐqián*, *zhīhòu*, and *yǐhòu* together, we still call them “the four temporal terms” instead of “the four positional temporal adverbials.”

3.2.2 Speech Time, Event time, and Reference Time

One of the best-known proposals of the notion of “reference time” is made by the philosopher of science Hans Reichenbach in his *Elements and Symbolic Logic* (1947: §51). Reichenbach makes a three-way distinction of time points to account for tense in English and other languages. Although the proposal was originally made for tense, it applies to positional temporal adverbials as well. The three time points are the point of speech, the point of the event, and the point of reference. The **point of speech** (S) is the time point of the act of speech, namely, when a token is uttered (or written). The **point of the event** (E) is the time point when the discussed event happens or holds. The innovation of Reichenbach is the introduction of the **point of reference** (R) as the third parameter, the time point from which an event is viewed. The three time points are also called speech time, event time, and reference time in later literature.

To understand the essence of this proposal, we first give the examples of tense in Reichenbach before applying the three time points to temporal adverbials. Reichenbach states that tense is the relation between the point of event and the point of reference, rather than between the point of event and the point of speech. Consider

Reichenbach's diagrams of English tenses (replicated in Mani et al. 2005: 72):

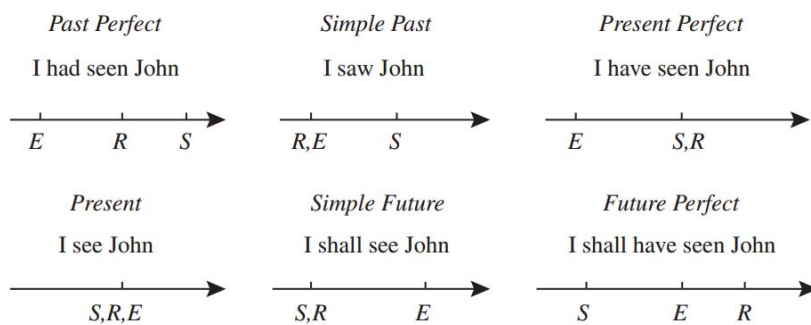
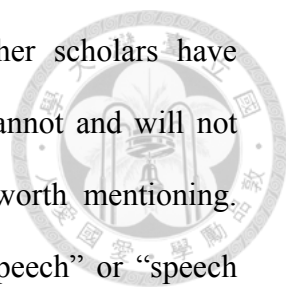


Figure 3.1 Point of reference in different tenses in English

Take the first row for example. In English the past perfect, the simple past and the present perfect all involve a time point of the event (E) prior to the point of speech (S). The crucial distinction lies in the point of reference (R), i.e., the perspective from which the event is viewed. In the past perfect, the event is described relative to an R that also lies in the past between E and S. In a single sentence like *I had seen John*, it is not clear which time point is the point of reference, but the context usually gives this point. For instance, in *I had mailed the letter when John told me the news*, the point of reference is the time point of John's telling the news, before which the event of the speaker's mailing the letter happened. In the other two tenses, two of the three time points coincide. In the simple past, E and R coincide, both prior to S. In the present perfect, the event is viewed from an R that coincides with S. The three different types of ordering are reflected in the grammatical form of the verb. Note that although Figure 3.1 portrays an event as a point, when the event takes a certain stretch of time, will be represented as a stretch instead of a point.

Above is a rather simplistic illustration of the notion of reference time or point of reference. Strictly speaking, Reichenbach discusses not only tense but tense and aspect morphology, but what is important is the notion of reference time, which can



be expressed by tense and aspect combination in English. Other scholars have modified the concept of reference time and its application. We cannot and will not exhaust all the studies. However, some terminology choice is worth mentioning. Comrie (1985) uses “the present moment” instead of “point of speech” or “speech time,” and “reference point” instead of “point of reference” or “reference time.” In Klein (1994), the corresponding terms for speech time, event time, and reference time are, respectively, “utterance time,” “situation time,” and “topic time.” C. S. Smith (e.g., 2004) also prefers the term “situation time” over “event time,” as the term “situation” subsumes events, processes and states. In this thesis, we will use speech time, situation time, and reference time when referring to the three time points. To apply the three time points to the four temporal adverbials *zhīqián*, *yǐqián*, *zhīhòu*, and *yǐhòu*, we have to discuss the distinction between two types of time references, which is covered in the next section.

3.2.3 Absolute vs. Relative Time Reference

One way to classify time reference is to see whether the reference time coincides with the speech time or is some other time mentioned in the context. The former is **absolute time reference**, while the latter is **relative time reference**. Taking tense as an example, these two categories are traditionally called “absolute tense” and “relative tense,” respectively. Comrie specifies **absolute tense** as a tense in which “the reference point for the location of a situation in time is the present moment [i.e., the speech time],” and **relative tense** as “one which is interpreted relative to a reference point provided by the context” (1985: 56; 58). Thus, instead of stating that there is the speech time, the reference time, and the event/situation time, and that in some tenses two or three of them coincide, Comrie distinguishes only two important time points, namely, the speech time (the present moment) and the situation time. In his analysis,

an absolute tense is one in which the speech time *is* the reference point, not in which the speech time and the reference time *coincide*. A relative tense is one in which the reference point is some other time point in the context other than the speech time.²⁸

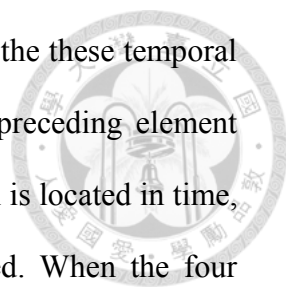
The absolute-relative distinction is also observed in temporal adverbials (or, in Klein's terminology, positional temporal adverbials). Some temporal adverbials locate a situation relative to the speech time, such as *today*, *yesterday*, and *tomorrow*. These temporal adverbials and absolute tense are both instances of absolute time reference, because both relate a situation with respect to the speech time. Put differently, in both cases the speech time is the reference time. Some temporal adverbials, on the other hand, locate a situation with respect to some other reference point given in the context, such as *on the same day*, *on the day before*, and *on the next day*. These temporal adverbials and relative tense are under the category of **relative time reference**, since both involve some other time in the context as the reference point.

Klein (1994) also observes that tense and adverbials are the “linguistic devices which allow the speaker to express temporal reference” in similar ways (1994: 16). He uses the term **deictic time reference**, in which the reference point (called *relatum*) is given by the utterance time (i.e., speech time), and the term **anaphoric time reference**, in which the reference point is introduced in preceding context. A contrastive example of adverbials given by Klein is deictic *three days ago* as opposed to anaphoric *three days before* (1994: 16; 151).²⁹

In this study we adopt Comrie's terminology of absolute time reference and relative time reference. The four temporal terms *zhīqián*, *yǐqián*, *zhīhòu*, and *yǐhòu* have both absolute time reference and relative time reference uses. At this point it is

²⁸ In Comrie's analysis, therefore, the simple past, the simple present and the simple future in English are all absolute tenses. The past perfect and the future perfect are absolute-relative tenses, absolute in the sense that a situation is located in the past and in the future with respect to the present moment, relative in the sense that the situation is prior to and later than some other reference point. The present perfect is different from the simple past in that the former has “current relevance.”

²⁹ Klein (1994) also mentions other types of temporal reference, such as calendric time reference.



sufficient to state that when there is a **preceding element** to which the these temporal terms are attached, it is usually relative time reference use: the preceding element usually expresses a reference point with respect to which a situation is located in time, whereas the temporal location of the speech time is not involved. When the four temporal terms are used alone in the bare form, the context may provide some other reference point, in which case it will be relative time reference. When the context does not suggest any other reference point, the speech time is viewed as the reference time, in which case it will be absolute time reference (cf. 3.4.1 for the distinction between reference point and reference time). It is in the absolute time reference use where the two near-synonyms within each pair display different temporal distance, or different degrees of remoteness.

3.2.4 Degree of Remoteness

Using lexical expressions such as temporal adverbials is a common way to distinguish between recent past and remote past or between immediate future and far future. For instance, the positional temporal adverbials in “John arrived *five minutes ago*” and in “this star went nova *five million years ago*” display different temporal distances between an event and the speech time (Comrie 1985: 83). For some languages, the distinction of **temporal distance**, or **remoteness**, is manifested in grammatical categories.³⁰ A much discussed example is Bamileke-Dschang, a Bantu language which distinguishes five pasts and five futures in its tense system. To name just the past tenses, the tenses labeled as P1, P2, P3, P4 and P5 in literature for Bamileke-Dschang’s past tenses are respectively used to locate a situation that happened a few minutes or an hour ago, sometime this morning, yesterday, the day

³⁰ Comrie notes that for most language with remoteness distinctions in tense, it seems that the present moment is taken as the reference point, although relative time reference is also attested (1985: 85-86).

before yesterday or a few days earlier, and a year or more ago (Comrie 1985: 86-87). Apparently, there are temporal gaps between each of the two neighboring tenses. Comrie explains that the degree of remoteness encoded in the tense system is to be understood in the sense of **prototype** definitions.

The most prototypical value of P4 is indeed ‘day before yesterday or more ago (or a few days earlier)’, while the prototypical value of P5 is indeed ‘a year or more ago’; but the intervening period can be referred to by either of these tenses, in non-prototypical use, depending on the subjective remoteness that the speaker wants to assign to the situation referred to.

Comrie (1985: 23)

It appears that showing remoteness distinctions in tense is more special than through lexical composite expressions like *five minutes ago*, *yesterday*, *three months ago*, *in several weeks* or *ten years from now*. Expressions like *in the near future* and *in the distant future* convey different degrees of remoteness in a more general and less technical way. Even expressions of relative time reference such as *three days earlier* and *shortly after I arrived* can denote the temporal distance between a situation and a reference point. It thus seems self-evident that using different lexical expressions of varying temporal units and scales, one can always specify the temporal distance to an extent that one desires, with much more details than one can do with tense.

However, it is misleading to think that expressing remoteness distinctions via lexical expressions is easier or less mysterious than via tense. The varying degrees of remoteness are transparent in most of the temporal adverbials that have been exemplified because these temporal adverbials contain a number and a temporal unit (e.g., *five minutes ago*). As we will see in later parts of this thesis, the *before*-pair *zhīqián* and *yǐqián* and the *after*-pair *zhīhòu* and *yǐhòu* display different degrees of remoteness in the absolute time reference use. We argue that the remoteness

distinction is not due temporal unit words like *two weeks* or *twenty years* in *two weeks ago* vs. *twenty years ago*, which are compositionally transparent, but because of the semantic differences between *zhī* and *yǐ*. We will give examples in chapter 5 and discuss the semantic differences between *zhī* and *yǐ* in chapter 6. Note that we will use the terms “temporal distance” and “remoteness” interchangeably in this thesis.

3.2.5 Diagramming Situations

The term “**situation**” will be used in a technical sense in which it subsumes various situation types, including event, processes, states, etc. When adequate, we will still refer to a particular situation as an event, process, or state. We use diagrams when necessary to facilitate our analysis. In drawing diagrams, we follow the common strategy of representing time as a straight line, such as the following one in Figure 3.2 (Comrie 1985: 5). On the time line, the present moment/speech time is represented by a point labeled 0. In Figure 3.2 Comrie does not mark the right end of the time line as an arrowhead to signal the direction of the time flow, probably because it has become a convention to understand the “right” as the “future” and the “left” as the “past” on the time line. If a situation is punctual or viewed as punctual, it is represented as a point on the time line (i.e., the point where the time line is intersected by a short vertical line). If a situation is durative, occupying a stretch of time, or conceived as such, it is represented as a stretch.

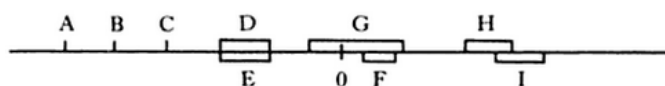


Figure 3.2 Comrie’s representation of situations on the time line

In such a pictorial representation, it is easy to see various temporal relationships: Situation A precedes Situation B, Situations D and E overlap, Situations A, B, C, D, E

are in the past, Situation G is ongoing, and Situations H and I partially overlap, etc. Although situations are marked above and below the time line, they should be understood to be located on the time line.

There are three things to be noted that Comrie does not mention explicitly. First, the advantage of marking situations above or below the time line is that we can easily show the relationship of **overlapping** situations. If a situation is marked on the time line, then it will be difficult to mark another situation which overlaps with it on the same time line. Second, strictly speaking, a point and a stretch represent a temporal point or temporal stretch, respectively, not a punctual situation and a durative situation. The situation itself is labeled as the letter “A,” for instance. So, the letter “A” refers to a situation that is called Situation A, and the corresponding point on the time line is the temporal location of Situation A. Thirdly, in Figure 3.2 all the situations are represented as **bounded**, meaning that they have an endpoint. To depict a durative situation without an endpoint, we will mark the right end of a stretch as an arrowhead, suggesting that it continues for an indefinite span of time.

Below is one example of the figure that we use in this thesis which can show the elements that we add. The most important modification is that the time line is represented as an arrowed line pointing to the right to signal the direction of time flow.

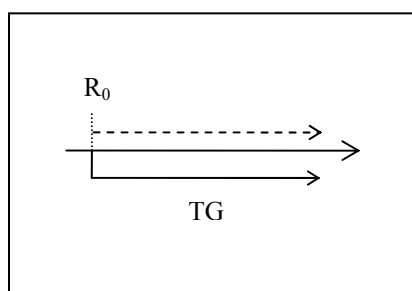


Figure 3.3 An example of the modified diagram

When we have to depict an ongoing situation, we use a stretch like the one here

labeled as TG (target) whose right end is left open as an arrow head pointing to the direction of future. The dashed arrow line stands for what we call the extension sense (cf. 4.3.3 in this thesis). When the speech time is the reference time, we use a short vertical dashed line that intersects with the time line, and the time point is labeled as R_0 .

3.3 Cognitive Grammar

This thesis adopts some of the notions in Cognitive Grammar established by Langacker, especially the distinctions between content and construal and related issues. In Cognitive Grammar, a meaning is said to consist of both conceptual **content** and a particular **construal** of that content. To some extent conceptual content may be neutral at the conceptual level, but once it is encoded in language, a certain construal is selected and imposed on it (Langacker 2008: 43). There are at least four dimensions of construal: specificity, focusing, prominence, and perspective.³¹ In this section, we summarize some of the notions in Cognitive Grammar and briefly relate them to the current study. All English examples are cited from Langacker (2008).

3.3.1 Specificity

Specificity is the level of precision and detail that an expression gives about a conceived situation. For instance, *the glass with water in it* is more specific than *the container with liquid in it* (Langacker 2008: 43). The four temporal terms studied in this thesis display the level of specificity in the following ways. Taking Consider the uses of *zhīhòu* in the attached form in (3-1):

³¹ Cognitive Grammar uses diagrams and visual metaphor for expository purposes, not to claim that all meanings are based on space or visual perception (Langacker 2008: 55).



(3-1) (constructed data)

- (a) 我 結婚 之後 就 辭職了
wǒ jiéhūn zhīhòu jiù cízhí-le
1SG get.married ZHIHOU JIU quit-PFV
'I quit my job after I got married.'
- (b) 我 結婚 兩 個 月 之後 就 辭職了
wǒ jiéhūn liǎng ge yuè zhīhòu jiù cízhí-le
1SG get.married two CL month ZHIHOU JIU quit-PFV
'I quit my job two months after I got married.'

The preceding element in (3-1a) consists of the clause 'I got married', whereas the preceding element in (3-1b) consists of the same clause plus a temporal adverbial 'two months'. We say that the expression in (3-1b) has a higher level of specificity than the expression in (3-1a), because (3-1b) not only marks the sequence between two events (i.e., getting married and quitting the job) but also specifies the temporal distance between the two events (i.e., two months).

3.3.2 Focusing: Onstage Region

Focusing refers to which portions, called **scopes**, are selected from the vast of our conceptual content as the conceptual **base** for a particular linguistic expression's meaning.³² A scope is always **bounded**, meaning it has limited expanse. In some cases, we need to distinguish between the immediate scope and the maximal scope. For example, the expression *elbow* evokes an arm as well as a human body as the base for its meaning. The conception of an arm and the conceptual of a human body are both the scopes of the expression *elbow*. The conception of an arm is most directly relevant to the conception of an elbow, and therefore an arm functions as the **immediate scope**, i.e., the portion selected and put in the **onstage region** on which our general attention is focused when we use the expression *elbow*. The conception of

³² Another aspect of focusing is the arrangement of foreground and background, which we will not address here.

a human body, on the other hand, functions as the **maximal scope**, i.e., the full extent of *elbow's* coverage. We do not need a spatial scope that subsumes the whole universe to support the conceptualizing of an elbow; a bounded scope such as a human body is extensive enough. A scope's boundary is not always explicitly mentioned; it may only be implicit.

In describing the temporal location of a situation, which is the function of the four temporal terms, we only evoke a temporal scope long enough to encompass the occurrence of the situation time and the reference time, not a temporal scope that includes all of eternity. For instance, the temporal term *zhīhòu* in (3-1) locates the event of quitting the job with respect to the event of getting married. There are only two events within the onstage region. We may say that the immediate temporal scope for the expressions in (3-1) is the stretch of time encompassing the event of getting married and the event of quitting the job. This scope is of course bounded. Out of context, it is not clear what the maximal temporal scope is. If the expression in (3-1a) is part of a story, then the maximal temporal scope can be identified as the stretch of time encompassing the first event and the last event in this story. In any case, the maximal scope does not exceed the life time of the speaker and is thus bounded.

3.3.3 Prominence: Profiling

The dimension of **prominence** is manifested in profiling and trajector/landmark alignment. In this section we focus on profiling alone. Within an onstage region (i.e., the immediate scope), attention is directed to a particular substructure, called a **profile**, i.e., the **referent** that the expression refers to within the content evoked. For example, though with the same conceptual content, *the glass with water in it* profiles the container, whereas *the water in the glass* profiles the liquid. The two expressions evoke the same conceptual content and the same elements in focus within the onstage

regions, but differ in the profile that they refer to.

Expressions may profile a thing or a relationship. A lexical example is *come* vs. *arrive*, as shown in Figure 3.4 (Langacker 2005: 69). Both verbs evoke the same conception of a mover (represented as a circle labeled as *tr* “trajector”) moving along a path (arrow) to a location (LOC). The difference depicted (with heavy lines) is that *come* profiles the whole motion event, whereas *arrive* profiles only the final portion in which the mover reaches the location.

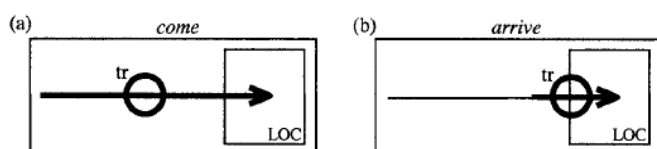


Figure 3.4 The profile of *come* and the profile of *arrive*

Langacker states that **polysemy** (or metonymy in general) is characterized as a shift in profile. For instance, in (3-2a) *come* profiles the whole motion event, whereas in (3-2b) *come* profiles the final stage of reaching the goal, comparable to the profile of *arrive* in Figure 3.4. The two senses of *come* profile different substructures within a shared conceptual base.

(3-2) (Langacker 2008:70)

(a) They came all the way from Los Angeles.

(b) He came at precisely 7:45 PM.

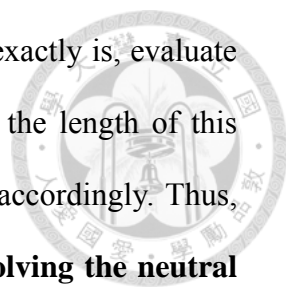
What Langacker does point out is that the shift in profile does not result solely from the verb, but rather contributed by the rest of the sentence in which the verb is used. That is, the *come* in (3-2a) and the *come* in (3-2b) are the same, and it is the adverbials *all the way from Los Angeles* and *at precisely 7:45 PM* that make the shift in profile.

The four temporal terms *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* profile temporal-sequential relations. In the attached form with a reference point expressed

by the preceding element, the four terms profile the **internal sequence** between two situations. In (3-1a), for instance, the temporal term *zhīhòu* profiles the sequence between *getting married* and *quitting the job* in the chronological order. The whole expression in (3-1a) profiles the two situations and the internal sequence between them within the onstage region, meaning that our attention is directed to the two situations and their sequence when we use or hear the total expression in (3-1a). In the bare form, when there is no other reference point in the preceding context, the four temporal terms profile the location of a situation in relation to the speech time, namely, *before* or *after* the speech time. In such absolute time reference use, there is only one situation profiled and located with respect to the speech time within the onstage region.

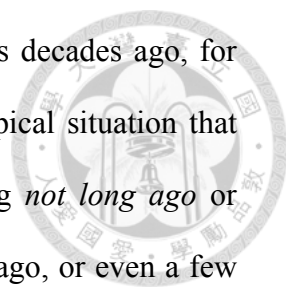
From the perspective of polysemy, all of the four temporal terms are polysemous expressions in that they all have relative time reference use and absolute time reference use. For example, the term *yǐqián* in the attached form means ‘before’ a certain situation or time, but when used alone in the bare form it means ‘in the past’ (i.e., before the speech time). Like the example of *come*, such modulated senses (or slight polysemy) is manifested by means of co-occurring elements. Whether it is relative or absolute time reference is determined by the existence of a reference time mentioned in the linguistic context. Also, in absolute time reference, there may be further sense distinctions within one single term (e.g., *yǐhòu* may denote ‘in the future’ or ‘from now on’), and the distinction is the result of the interaction between the temporal terms and the type of situation co-occurring with the temporal terms (see 5.2.2.2).

Our argument is that in absolute time reference use, *yǐqián* and *yǐhòu* profile a longer temporal distance from the speech time, whereas *zhīqián* and *zhīhòu* profile a shorter one. However, a temporal distance or a certain amount of time can only be



judged and described as *long* or *short* when we know how long it exactly is, evaluate it against a real situation, and make a subjective judgment about the length of this temporal distance. We then choose a certain linguistic expression accordingly. Thus, **the use between two near-synonyms is a complicated issue involving the neutral conceptual content (e.g., a certain temporal distance), a situation within the onstage region (e.g., a particular event), and a certain construal that can reflect a conceptualizer's subjective evaluation on this distance in relation to the onstage situation.** For example, the temporal distance *ten years* is usually evaluated as a long time within the life span of an individual. Therefore, if an event happened ten years ago to an individual, a linguistic expression profiling a long temporal distance, such as *yǐqián*, may be used to locate this event in time. The use of *yǐqián* profiles a long temporal distance without the actual temporal distance of ten years being specified. If the same temporal distance *ten years* is the temporal distance between the speech time and a historic event of a country, then this event probably will not be judged as occurring a long time ago, considering the scale of history, though to some people it may still feel like a long time ago. Thus, when we argue that *yǐqián* in the absolute time reference use profiles a long temporal distance between the speech time and the temporal location of a certain situation, we mean that as a combination of conceptual content (i.e., an actual temporal distance) and construal (i.e., subjective evaluation).

On the other hand, *long* and *short* are **gradable antonyms**, in which the positive of one does not necessarily imply the negative of the other. When we argue that a temporal term profiles a long temporal distance and the other profiles a short one, we do not intend that there is no grey area or any in-between case. Instead, such an argument is to be understood in the sense of **prototype definitions** (cf. Comrie's (1985) discussion on a similar issue pertaining to degrees of remoteness coded as tense). The most prototypical situation that will be profiled and described by the



linguistic expression denoting *a long time ago* is one that happens decades ago, for instance, within the life span of human beings. The most prototypical situation that will be profiled and described by a linguistic expression meaning *not long ago* or *recently* is perhaps one that happens a few days ago, a few weeks ago, or even a few months ago. For less prototypical situations that are between these two poles (which are themselves subjective and fluid enough), the speaker may use either expression to construe and describe the temporal distance. In short, how the speaker construes a certain temporal distance is a complex matter dependent on a combination of factors including the actual amount of time, what type of situation is involved, the speakers' ability to modify the level of **scale** on which they observe the situation, as well as the speaker's subjective evaluation. This complexity exemplifies the acknowledgement that “the distinction between content and construal is not all a sharp one” (Langacker 2008: 43).

3.3.4 Perspective: Mental Scanning

There are several aspects under the rubric dimension of **perspective**. Here we focus on the temporal dynamicity, in particular, the effect of **linear order** of linguistic expressions. Time viewed as an object of conception is called **conceived time**. On the other hand, conceptualization unfolds as we mentally accessing a conceived content through **processing time**. The process of mentally accessing a conceived content is also termed as **mental scanning**. The direction of mental scanning is often observed in the liner order of expressions. An example contrasting conceived time and processing time is given in (3-3).

(3-3) (Langacker 2008: 79-80)

- (a) I quit my job (E₁), got married (E₂), and had a baby (E₃).
- (b) I had a baby (E₃), got married (E₂), and quit my job (E₁)—in reverse order, of

course.³³

The three events occur in a particular order through conceived time ($E_1 > E_2 > E_3$). In (3-3a), the order in which the three events are mentally accessed and expressed through processing time dovetails with the order in which the three events occur through conceived time. In (3-3b), however, the three events are mentally accessed and expressed in the opposite order $E_3 > E_2 > E_1$ through processing time. The contrast does not lie in the objective order in which the three events occur through conceived time, but in the direction of mental scanning, and the direction of mental scanning is reflected in the linear order of expressions.

In addition to the factor of linear order, the direction of mental scanning may also be derived from lexical distinction, as shown in (3-4).

(3-4) (Langacker 2008: 82)

- (a) The hill gently rises from the bank of the river.
- (b) The hill gently falls to the bank of the river.

In this example, the conceived content within the onstage region is a static scene without an actual mover. Yet through the use of motion verbs *rise from* and *fall to*, an **offstage conceptualizer** mentally scans and traces a mental path in this static scene through processing time.³⁴ The different directions of mental scanning in (3-4a) and (3-4b) do not reside in a different word order, but in the meanings of the word *rise* and the word *fall*. The concept of mental scanning will be touched upon when we discuss the meaning of *yǐ* in 6.1.2.

Recall that Yeh (2000) observes that *zhīhòu* and *yǐhòu* as sentential connectors (i.e., in the attached form) sequence situations according to the time flow, whereas

³³ Sentence (b) may be a possible response to the question *What are the most important things that happened to you last year* (Langacker 2008: 80).

³⁴ Sentence (a) may be said by a conceptualizer standing at the bottom of the hill and looking up, whereas sentence (b) may be said by a conceptualizer on top of the hill and looking down at the river.

zhīqián and *yǐqián* sequence situations anti-chronologically (cf. 2.1.2 in this thesis). This means that in relative time reference the *after*-pair sequences situations through processing time in the same order in which situations occur through conceived time, whereas the *before*-pair sequences situations in the reverse order through processing time. The difference in mental scanning direction between the two pairs resides not only in the choice of temporal terms (lexical items) but also the respective orders in which each pair presents two situations.

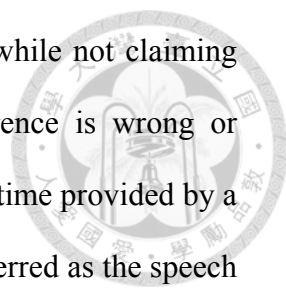
3.4 Integration

3.4.1 Reference Time, Reference Point, and Target

In section 3.2.2 we do not clarify whether “reference time” and “reference point” are the same or not. In this thesis we use the term “**reference point**” (**RP**) to refer to a situation (or less often, a thing) that is linguistically expressed in the context for locating another situation (or thing) in time. The situation (or thing) being located is called “**target**” (**TG**).³⁵ We define “reference time” as the time with respect to which the target is located. Thus, in relative time reference, the reference time is the temporal location of the situation (or thing) that is selected as the reference point for locating the target. In absolute time reference, the reference time is the speech time, with respect to which a target situation is located. The temporal location of the target, on the other hand, is referred to simply as “the temporal location of the target.” Alternatively, it is also called “the situation time of the target,” if the target is a situation, or simply “the situation time” when it does not cause any confusion.

The term “reference point” is also used by some scholars (e.g., Comrie) to refer to the speech time in absolute time reference. We prefer to preserve the term

³⁵ The terms “reference point” and “target” are inspired by and taken from Langacker’s “reference-point model” (1991: 170; 2008: 83-84). In this study we simply borrow the terms without using this model for any explanatory purpose.



“reference point” for a linguistically expressed situation or thing while not claiming that using it to refer to the speech time in absolute time reference is wrong or inappropriate. We simply intend to distinguish between a reference time provided by a linguistically expressed situation (or thing) and a reference time inferred as the speech time. In absolute time reference, where the reference time is the speech time, the reference time is very often not specified by any linguistic expressions such as *the speech time* or *the present moment* or *now* (though there exists such a possibility), but simply inferred or understood as the speech time, as there is no other reference point mentioned in the context.

Reference time is also distinct from the situation time of the target. In *I saw her yesterday*, the target situation of seeing this woman occurs on the day before *today* (the day within which this statement is made), i.e., *yesterday*, and therefore *yesterday* is the situation time of the target, not the reference time. The implicit reference time is the speech time, which is included in the span of *today*. In *I had seen her by yesterday*, the target situation of seeing this woman is located at a temporal location prior to *yesterday*, so in this case *yesterday* is the reference time, whereas the situation time of the target is not provided. Note that an expression of a time point (e.g., *yesterday*, *ten o'clock*, *2012*) denotes the reference time per se, i.e., a time point, not a reference point (RP). A reference point is a situation (or a thing) in our terminology.

3.4.2 The Four Temporal Terms and the Two Time References

One way of locating a situation in time is to **sequence** it relative to another situation (Comrie 1985). In this study, the relation we are interested in is a temporal-sequential relation profiled by a temporal adverbial and its modified material. In relative time reference, a temporal adverbial provides the RP for locating the modified material where the TG is expressed. In attached form use, the temporal

adverbial consists of the preceding element and one of the four temporal terms. The preceding element usually profiles the RP, whereas the temporal terms *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* profile the internal sequence between the reference point and the TG (i.e., *before* or *after* the reference point). When the speaker chooses to use one of the four temporal terms in the attached form, it intrinsically projects the naming a TG. The initial choice of using a temporal term in the attached form already profiles two situations (or things).

When the temporal terms are used in the bare form with an RP mentioned in the preceding context (called antecedent RP), this RP and the temporal terms no longer form an adverbial. There may even be other elements in the linear order between the naming of the reference point and the use of the temporal terms (see chapter 5). In absolute time reference use (usually in the bare form), in which the reference time is the speech time, there is no linguistically realized RP at all. The TG is located by one of the four temporal terms with respect to the speech time.

Chapter 4 Attached Form



4.1 Overview

In this chapter we analyze the corpus data of *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* in the attached form, wherein the afore-mentioned temporal terms are attached to a preceding element and the resultant combination form an adverbial unit as a whole. The overall frequency distribution is given in Table 4.1. As can be observed, the percentage of the attached form use varies from term to term.

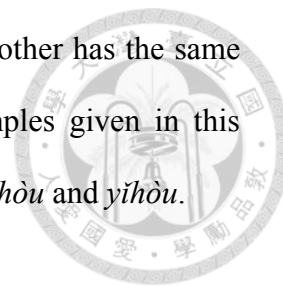
Table 4.1 Distribution of the temporal terms in the NTU Corpus

	<i>Before-pair</i>		<i>After-pair</i>		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
Attached	22 (44%)	24 (20.3%)	68 (86.1%)	62 (58.5%)	176 (49.9%)
Bare	28 (56%)	94 (79.7%)	11 (13.9%)	44 (41.5%)	177 (50.1%)
Total	50 (100%)	118 (100%)	79 (100%)	106 (100%)	353 (100%)

The subsequent sections of this chapter are arranged as follows. Section 4.2 and section 4.3 are, respectively, dedicated to the preceding element and the target (TG). In analyzing these two pivotal parts in the attached form use, we focus on the grammatical category and the punctual-durative distinction, two basic dimensions that need to be covered for a preliminary understanding of the attached form use. In section 4.4 we turn to examine the temporal adverbial as a whole and the function of relative time reference of the attached form use. The critical section 4.5 is set out to explain the neutralization of temporal distance in the attached form between the two near-synonymous temporal terms within each pair. Section 4.6 is a summary of this chapter.

Before proceeding further, we would like to point out that the two terms within each pair are similar in the attached form. Therefore, for the sake of simplicity, it is

often sufficient to give the example of one term and state that the other has the same kind of example in the NTU Corpus. In almost all of the examples given in this chapter, *zhīqián* and *yǐqián* can substitute each other, and so can *zhīhòu* and *yǐhòu*.



4.2 Preceding Element: Reference Point and Others

The preceding element standing before the four temporal terms in the attached form often provides a reference point (RP) for locating a target (TG), but not always. Depending on its grammatical category and punctuality, the preceding element may express an RP (typically a situation), pinpoint a reference time (RT), or specify the temporal distance between a reference time and the situation time of the TG.

Here we adopt a binary system that distinguishes between noun phrases (NP) and verb phrases/clauses (VP/clause). This classification is made for two reasons. First, NPs prototypically profile **things**, whereas VPs and clauses profile **situations**, a cover term subsuming processes, events, states, etc. (cf. the same approach in Comrie 1985. See also Langacker 2008: 106; 112). Second, the distinction between a pure VP and a full-fledged clause is not always clear-cut, since a clause in Mandarin Chinese is allowed to be subjectless, thus resembling a pure VP.³⁶ We will discuss verbal/clausal preceding elements in 4.2.1 and nominal ones in 4.2.2.

In addition to the two major categories of NP and VP/clauses, the preceding element and the temporal term may also form a set expression, as noted by Lü (1999) and Gu (2010). We follow Gu's analysis and separate set expressions as a single category, which will be addressed in 4.2.3. Table 4.2 below presents the frequency distribution of the preceding element in terms of grammatical category.

³⁶ If one defines a full-fledge clause as having an overt subject and a verb, then the distinction between a clause and a pure VP simply lies in whether the subject is linguistically realized or not.

Table 4.2 Grammatical category of the preceding element

Preceding element	Before-pair		After-pair		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
VP/clause	15 (68.2%)	5 (20.8%)	61 (89.7%)	53 (85.5%)	134 (76.1%)
NP	7 (31.8%)	10 (41.7%)	7 (10.3%)	7 (11.3%)	31 (17.6%)
Set expression	0 (0%)	9 (37.5%)	0 (0%)	2 (3.2%)	11 (6.3%)
Total	22 (100%)	24 (100%)	68 (100%)	62 (100%)	176 (100%)

Gu (2010) reports that the preceding elements (called “reference points” by Gu) associated with *zhīqián* tend to be punctual rather than durative (84.2% vs. 15.8%), whereas the ones associated with *yǐqián* are equally likely to be punctual or durative (cf. §2.3.1 in this thesis). Four problems are not solved. First, the punctual-durative distinction is examined for the *before*-pair only. Second, this distinction is examined mixing verbal/clausal and nominal preceding elements together. Third, in Gu’s original text, no example of a verbal/clausal preceding element that denotes a durative concept is given, so we do not know how Gu classifies situations into punctual and durative. Finally, the punctual-durative distinction is examined only for the preceding element, not for the TG, i.e., the modified material. We will handle the first three issues in this section and the fourth one in 4.3.2.

4.2.1 Verbal/Clausal

4.2.1.1 General Description

In the NTU Corpus, most of the preceding elements belong to the VP/clause category, whether calculated together (76.1%, $n = 134/176$) or separately for each of the four temporal terms (each at least above 65%, except for *yǐqián*).³⁷ Also, as we will see in 4.3.1, most of the TGs belong to the VP/clause category as well (92%, $n =$

³⁷ From Table 4.2 it appears that *yǐqián* has a higher tendency to occur with a nominal preceding element. We do not make such a claim here because firstly, the raw number of *yǐqián* in the attached form is too small, and secondly, it turns out that seven out of the ten nominal preceding elements are said by the same speaker in one single transcription.

162/176).³⁸ In particular, the uses in which both the preceding element and the TG are verbal/clausal at the same time occupy most of the instances in the attached form (65.9%, n = 116/176). These statistics suggest that first, the four temporal terms in the attached form are mostly used to locate a TG that is a situation rather than a thing, and second, that the four temporal terms locate a TG situation via **sequencing** the situation with respect to a reference time encoded in another situation. This other situation, expressed with a VP/clause in the preceding element, serves as the reference point.

4.2.1.2 Punctual-Durative Distinction

When the preceding element is a VP/clause, which denotes a situation, this situation serves as the RP, and the TG is sequenced with respect to the RP. Although the sequence sense does not entail or restrict the property of the RP, it turns out that almost all the RPs are punctual, or can be understood as such. In the discussion of situations, we follow the situation types established in Vendler (1967) and augmented in C. S. Smith (1991). These situation types are states, activities, accomplishments, achievements, and semelfactives. We also distinguish between **inherently** punctual situations and situations that can be **conceived** as punctual for a certain purpose.

All situations take some extent of time to happen, however short it is. As J. Saeed explains the punctual-durative distinction in verbs, “**durative** is applied to verbs which describe a situation or process which lasts for a period of time, while **punctual** describes an event that seems so instantaneous that it involves virtually no time” (1997: 111). Punctual situations are, therefore, not situations that do not occupy any stretch of time, but those that occupy a very short amount of time as if they did not

³⁸ In all the 176 instances of the attached form use, four do not have associated modified material, namely, no TG.

take any time. According to this interpretation, only **achievements** (e.g., *die* and *reach the top*) and semelfactives (e.g., *cough* and *knock*) are inherently punctual situations (cf. C. S. Smith 1991: 28-30; 1997: 30). When the preceding element involves a verb that intrinsically describes an achievement or a semelfactive, the RP is without question a punctual situation. In the following two examples, the RPs are expressed with verbs that usually denote achievements. The first one is indicated by the verb *bìyè* ‘to graduate’ and the second one is *jiéhūn* ‘get married’. In (4-1) *zhīqián* can be changed into *yǐqián*, and in (4-2) *yǐhòu* can be changed into *zhīhòu*.

(4-1) (CO5APPLI)

- 192 A: ..就是 在 她 畢業 之前, _
jiùshì zài tā bìyè zhīqián
 namely at 3SG graduate ZHIQIAN
- 193 ..如果 還 有 人, _
rúguǒ hái yǒu rén
 if still have person
- 194 ..公司 還 有 還 有, \
gōngsī hái yǒu hái yǒu
 company still have still have
- 195 ..就是 還 有 人 去 應徵, \
jiùshì hái yǒu rén qù yìngzhēng
 namely still have person go apply.for

A: “Before she graduates, if there are other people applying for the same position ...”

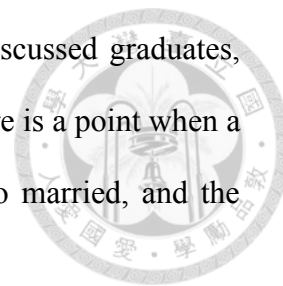
(4-2) (MOTEL)

- 317 B: ...可是 結婚 以後, _
kěshì jiéhūn yǐhòu
 but get.married YIHOU
- 318 ..就 覺得 不 是 那個 樣子.\
jiù juéde bù shì nàge yàngzi
 JU feel NEG C/F that pattern

B: “But after you get married, you feel it’s not like that.”

Achievements are instantaneous changes of states with an outcome state (Smith 1991:

28; 1997: 30). In (4-1) there is a point when this person being discussed graduates, with an outcome state of not being a student anymore. In (4-2), there is a point when a person officially gets married and changes from being single into married, and the outcome state is being married, or being in a marriage.



From here on we turn to RPs that are expressed with verbs that usually denote intrinsically durative situations, but can be conceived as punctual, especially in juxtaposition with a TG. **Processes** are dynamic and durative situations, as opposed to **events**, which are dynamic punctual situations (including achievements). One dimension in analyzing a process is see whether the focus is on the beginning, the end, or the entirety of the process. Some languages have corresponding grammatical markings for this distinction (e.g., Navajo, cf. C. S. Smith 1997), and others do not (e.g., Mandarin Chinese). In the second type of languages, this distinction is arrived at as interpretation in contexts.

Inchoatives are processes in which the attention is directed to the beginning of a new state, or to a change of state (Saeed 1997: 110).³⁹ In the following example, the RP situation is fixing one’s makeup, which normally involves multiple phases and is thus durative.

(4-3) (MAKEUP)

→36 B: ...你 要 補妝 以前, _
nǐ yào bǔzhuāng yǐqián
 2SG want fix.makeup YIQIAN

37 ..你 先 把 臉上 的 油份 吸乾. _
nǐ xiān bǎ liǎn-shàng de yóufèn xī-gān
 2SG first BA face-on NOM grease absorb-dry

B: “Before you fix your makeup, you first dry up the grease on your face.”

³⁹ According to C. S. Smith, the term “inchoative” refers to the coming about of a state, whereas “inceptive” refers to the beginning of an event (1997: 49). We follow Saeed’s (1997) terminology in treating processes.

While fixing makeup is durative, the attention is directed to the beginning of this durative activity. The utterance in IU 36 can be interpreted alternatively as “before you **start** fixing your makeup.” Since it is the beginning of this activity that is profiled and sequenced with the TG, we focus on the starting point of the activity and, accordingly, the RP may be conceived as punctual, i.e., represented by the starting point.

Some processes are **resultatives**, in which the attention is directed to the endpoint (Saeed 1997: 111). The RP in the following example is *xiūxi* ‘rest’, which is usually a durative activity. In this particular example, it is the endpoint of the activity of resting that is focused on and sequenced with the TG.

(4-4) (CHINA AIRLINE)

→189 A: ..休息 之後 呢,_
xiūxi zhīhòu ne
 rest ZHIHOU PT
 190 ..第二 天 也 是 一樣.\
dì-èr tiān yě shì yīyàng
 ORD-two day also C/F the.same

A: “After they rest, the second day is the same (as the previous day).”

The focus here is not the durativity or the internal phases of the resting, but what happens following the termination of the resting. The RP may be conceived as punctual, i.e., represented by the endpoint of the resting. It seems that when expressed with the preceding element before the four temporal terms, a durative activity is often rendered inchoative or resultative, and accordingly the starting point or the endpoint is the point with respect to which the TG is sequenced.

Some situations have a stronger reason to be interpreted as resultatives. **Accomplishments**, which are dynamic durative telic situations with a natural endpoint of completion, intrinsically directs our attention the endpoint or the final

stage. Some situations are accomplishments because of the property of the direct object. For instance, in *John baked a cake*, the direct object “a cake” renders this situation into an accomplishment in that there is a final point when a cake is finished. If the baking is interrupted halfway and the cake is never finished, the situation cannot be described as having baked a cake. In Mandarin Chinese, the result state or final point of an accomplishment is often indicated by a **resultative verb compound**, or **RVC** (C. S. Smith 1997: 288). An RVC is a two-element verb compound in which the second element signals some result of the action or process expressed by the first (Li & Thompson 1981: 54-55). RVCs express various kinds of results, some even used in a metaphorical sense.

For instance, the second element of an RVC often indicates a literal direction, but in some RVCs the direction is to be understood as a metaphorical direction, as in (4-5).

(4-5) (DORM)

- 165 A: ...(3.3)教官 這個..制度,_
jiàoguān zhège zhìdù
 drillmaster this system
- 166 ..因為,_
yīnwèi
 because
- 167 ..要 走入 歷史 之前
yào zǒu-rù lìshǐ zhīqián
 want walk-enter history ZHIQIAN
- 168 總 要 有 一 個_
zǒng yào yǒu yī ge
 after.all need have one CL
- 169 [@@@]

A: “Because, before the system of drillmaster enters history (i.e., no longer in operation), there should be a [laughter] ...”

In the RVC *zǒu-rù* ‘walk-enter’, the second verb *rù* ‘enter’ literally describes the final

position of the system of drillmaster as being inside “history,” as the result of the action of “walking.” Metaphorically, *walk-enter history* means becoming history, i.e., no longer in operation. In this case, it is the endpoint of the accomplishment that is highlighted, and the RP situation may be conceived as punctual, with the final point in focus.

Another category of RVC signals phase, or the degree to which an action is carried out. For instance, *-wán* ‘finish’ indicates the completion of an action or a process (Li & Thompson 1981: 65).

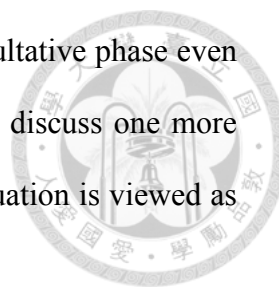
(4-6) (REPORTER)

- 514 C: ..跟 那個 主任 很 迅速地 聊完.\
gēn nàge zhǔrèn hěn xùnsù-de liáo-wán
 with that director very quickly talk-finish
 →515 ..聊完 之後,
liáo-wán zhīhòu
 talk-finish ZHIHOU
 516 ..馬上 劍拔弩張,
mǎshàng jiànbánǔzhāng
 right.away ready.to.fight

C: “I finished talking with the director quickly. After I finished talking (with the director), being ready to fight right away ...”

The *-wán* ‘finish’ in IU 515 marks the completion phase of the durative activity *liáo* ‘talk’. The focus is the endpoint, which renders the RP punctual.

So far, we have discussed a few cases in which it is possible to conceive the RP as punctual. Some verbs express situations that are intrinsically punctual, such as achievement verbs. Some verbs describe situations that are intrinsically durative and atelic (without a natural final point of completion), but when the context is adequate, either the starting point or the endpoint is singled out in focus in juxtaposition with the TG. Some verbs express situations that are durative and telic (with a natural



endpoint), like accomplishments, and direct our attention to the resultative phase even when the situation is not sequenced with the TG. Here we turn to discuss one more condition in which a situation can be viewed as a point: when a situation is viewed as a single, unanalyzable whole.

A situation can be viewed as a whole without any overt marking. For instance, earlier and we have said that *fixing your makeup* in (4-3) is inchoative whereas *resting* in (4-4) is resultative. We may as well view each situation as a whole and conceive it as a point. On the other hand, a situation may be conceived as a whole with some grammatical marking. When a language has some special verbal form to express the viewing of a situation as a single, unanalyzable whole, this form expresses **perfective** aspect (Li & Thompson 1981: 184-185). Because the situation in perfective form is viewed as an unanalyzable whole, it may be conceived as a point.⁴⁰

In Mandarin Chinese, the perfective aspect form is *-le*. Note that perfective is a form, not a situation type. A situation expressed with a VP/clause in the perfective form may be an achievement or an accomplishment. The verb may originally denote a general or habitual state (a stative verb or predicative adjective), but when taking *-le*, the whole VP indicates that the state is new or newly noticed (Li & Thompson 1981: 224-225). In this case, the VP means ‘become’ or ‘turn into’ the state.

(4-7) (FACTORY)

→685 F: ...你 錢 多了 以後,\
 nǐ qián duō-le yǐhòu
 2SG money plenty-PFV YIHOU
 686 ..應該 是=會= 有 一--
 yīnggāi shì huì yǒu yī
 should C/F will have one

F: “After your money becomes plenty, there should be a ...”

⁴⁰ As Comrie notes, “since a perfective verb form, by definition, encodes an event globally, it is representable as a point” (1985: 28).



In (4-7), the predicative adjective *duō* ‘plenty’ with the perfective *-le* denotes a change of state. In other words, *-le* renders a state of being plenty into an achievement of becoming plenty.⁴¹

Table 4.3 below presents the RP situations that may be conceived as punctual in different ways. “Achievements” indicate RPs expressed with verbs that intrinsically denote a punctual telic situation, with or without the perfective *-le*. “Accomplishments” are RPs expressed with verbs that denote durative situations with an inherent endpoint, including RVCs, with or without the perfective *-le*. “Others” are the remaining RPs expressed in perfective form. “Inchoatives” and “Resultatives” refer to RPs that, while without the perfective *-le*, may, respectively, have the inchoative reading and the resultative reading.⁴²

Table 4.3 RPs conceived as punctual

RP	Before-pair		After-pair		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
Achievements	9 (60%)	0 (0%)	17 (29.8%)	18 (34.6%)	44 (34.1%)
Accomplishments	3 (20%)	1 (20%)	31 (54.4%)	26 (50%)	61 (47.3%)
Others w/ <i>-le</i>	0 (0%)	0 (0%)	4 (7.0%)	4 (7.7%)	8 (6.2%)
Inchoatives w/o <i>-le</i>	3 (20%)	4 (80%)	3 (5.3%)	1 (1.9%)	11 (8.5%)
Resultatives w/o <i>-le</i>	0 (0%)	0 (0%)	2 (3.5%)	3 (5.8%)	5 (3.9%)
Total	15/15 (100%)	5/5 (100%)	57/61 (93.4%)	52/53 (98.1%)	129/134 (96.3%)

(w/: with; w/o: without)

Although the raw number of verbal/clausal preceding elements of *yǐqián* in the NTU

⁴¹ We may as well analyze *-le* here as a combination of the perfective *-le* and the CRS (Currently Relevant State) *le* (cf. Li & Thompson 1981: §7.1.3). A CRS *le* typical occurs at clause-final position, unlike in (4-7) where the clause-final position is taken by *yǐhòu*.

⁴² Inchoatives and resultatives in Mandarin Chinese are interpretations of situations in contexts, and both may be found in contexts with the perfective *-le*. We specify “Inchoatives” and “Resultatives” in Table 4.3 as without the perfective *-le* for the purpose of distinguishing them from the situations expressed with the perfective *-le*.

Corpus is too small to have a meaningful comparison with those of *zhīqián*, all of the verbal/clausal preceding elements of the *before*-pair express a situation that can be conceived as punctual. As for the *after*-pair, 57 out of all the 61 RPs of *zhīhòu* may be conceived as punctual (93.4%), while 52 out of all the 53 RPs of *yǐhòu* may be conceived as such (98.1%).

We may say that almost all the RPs may be understood as punctual in some way, which happens to accord with the term “reference point.” The only “exceptions” that cannot be conceived as punctual are found when there is an expression marking the continuation or duration of the RP situation. One such expressions is the preposition *jīng(guò)* ‘through’, which introduces a process. Other expressions include adverbials marking continuation, such as *bùduàn-de* ‘continuously’ in (4-8).

(4-8) (RS008)

→92 B: (0)她 經過 不斷地 談 之後, _
tā jīngguò bùduàn-de tán zhīhòu
 3SG through continuously talk ZHIHOU

93 ..她 還是, _
tā hái shì
 3SG still

94 ..eh=..讓 自己 的 情緒 很 <L2 down L2>.\
ràng zìjǐ de qíngxù hěn down
 let self GEN emotion very down

B: “After she talks about it again and again, she still feels down.”

A situation is understood as durative when modified by an NP denoting duration as an adverbial.

(4-9) (TE3LOVE)

→279 B: ..寫信 半年 以後,\
xiě-xìn bàn-nián yǐhòu
 write-letter half-year YIYOU

280 A: (0) (H)

281 B: ..好像 變成 男女朋友 關係.\

hǎoxiàng biàncéng nánǚpéngyǒu guānxi

seem become boyfriend.and.girlfriend relationship



B: “After they corresponded for six months, it seems that they have become boyfriend and girlfriend.”

In our corpus, RPs that must be conceived as durative occupy a small amount of data (5 in total, all with the *after*-pair). Whether punctual or durative, a situation expressed with a VP/clause before the four temporal terms is conceptualized or “packaged” as a whole for serving as an RP with respect to which the TG is located in time.⁴³ The punctual-durative distinction in the RP does not seem to be meaningful.

4.2.2 Nominal

4.2.2.1 General Description

Taking up only a small proportion in the NTU Corpus, most of the nominal preceding elements denote time-related concepts. These preceding elements include NPs denoting a temporal point and NPs denoting duration (67.7%, n = 21/31). Other types of NP include determiners used alone as demonstrative pronouns or combined with other time-related nouns. Historic events and nominalized action are also found in the preceding element slot.⁴⁴ Examples are enumerated in Table 4.3.

Table 4.4 Classification of nominal preceding elements

Type	Examples in the NTU Corpus
(1) Temporal point	(a) time of day, e.g., <i>liù diǎn</i> ‘six o’clock’ (b) date/day, e.g., <i>liùyuè shíwǔhào</i> ‘June 15’, <i>shēngri</i> ‘birthday’ and <i>guònián</i> ‘Lunar New Year’ (c) month name, e.g., <i>shíyīyuè</i> ‘November’

⁴³ Also, the RP is almost always bounded.

⁴⁴ In a pilot study using a corpus mostly composed of written data, the RP may also be expressed with an NP denoting a person (usually famous in history), a particular literary genre, or a scientific theory, etc. Although this use is scarce, it still holds that it is the temporal/historical location of the person, the genre, and the theory that is taken as the reference time for locating the TG.

Type	Examples in the NTU Corpus
	(d) period name, e.g., <i>shǔjià</i> ‘summer vacation’ (e) age, e.g., <i>èrshí suì</i> ‘(the age of) twenty’
(2) Duration	<i>sān gè yuè</i> ‘three months’ and <i>jǐ nián</i> ‘several years’
(3) Demonstrative pronoun or determiner + NP	<i>zhè</i> ‘this’ and <i>nàge shíjiān</i> ‘that time’
(4) Historical event	<i>jiěyán</i> ‘the Lifting of Martial Law’
(5) Nominalized action	<i>tā de xíngwéi</i> ‘her behavior’

Table 4.4 below shows the distribution of nominal preceding elements in the NTU Corpus.

Table 4.5 Distribution of nominal preceding elements in the NTU Corpus

Nominal preceding element	<i>Before-pair</i>		<i>After-pair</i>		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
(1) Temporal point	4	2	1	5	12
(2) Duration	0	7	2	0	9
(3) Demonstrative/determiner + NP	2	1	0	1	4
(4) Historical event	0	0	2	1	3
(5) Nominalized action	1	0	2	0	3
Total	7	10	7	7	31

Table 4.3 and Table 4.4 are mainly to show that the nominal preceding element can be of various types. Because the raw number of each type is small, no comparison or contrast is intended to be made between the *before-pair* and the *after-pair*, or between the two near-synonyms within each pair. One thing worth mentioning is that the seven nouns of duration occurring with *yǐqián* are said by the same speaker in one single transcription. For this reason, we avoid making claims such as “*yǐqián* is more likely to occur with nouns denoting duration than *zhīqián* does.”

4.2.2.2 Punctual-Durative Distinction

If we classify the nominal preceding elements based on the punctual-durative distinction, then the duration type is durative, specifying an amount of time, whereas all the other types belong to punctual. Some NPs refer to an event or an action with respect to which the TG is sequenced. In this sense they are functionally similar to verbal/clausal preceding elements. Other NPs denote a particular temporal point, whether as specific as *liù diǎn* ‘six o’clock’ or as vague as *nàge shíjiān* ‘that time’.

Hereafter we focus on nouns that denote duration or a particular temporal point. Recall that Gu (2010) also classifies nominal reference points into punctual and durative, but what is the real point of making the punctual-durative distinction for nominal preceding elements? How is a temporal noun denoting a temporal point different from one denoting a period or duration, apart from the obvious difference in temporal length?

When the preceding element is an NP denoting a temporal point, the temporal location of this temporal point is the temporal point itself. In other words, the temporal point is not only the reference point but also the reference time per se. Consider (4-10):

(4-10) (CON1CHI)

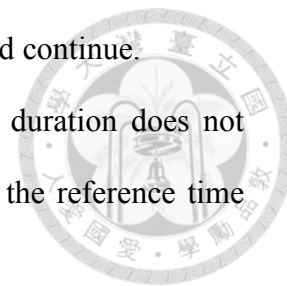
- 10 A: ..她 就 跟 我 說\
tā jiù gēn wǒ shuō
3SG JIU with 1SG say
- 11 ..她 六 點 以後 就 會 在 寢室 等 我\
tā liù diǎn yǐhòu jiù huì zài qǐnshì děng wǒ
3SG six o'clock YIHOU JIU will at dorm.room wait 1SG

A: “She told me that she would be waiting for me at her dorm room after (i.e., since) six o’clock.”

The NP *liù diǎn* ‘six o’clock’ is not only the RP but also the reference time after

which the situation of “waiting for me” is expected to take place and continue.

As for a temporal noun denoting a period or duration, this duration does not profile the RP but rather specifies the temporal distance between the reference time and the situation time of the TG. Consider the example below:



(4-11) (HUS-WIFE)

- 39 F: ... (1.5) 兩 年 以前, _
liǎng nián yǐqián
two year YIQIAN
- 40 ..我 講 這個 主題 的 時候, _
wǒ jiǎng zhège zhǔtí de shíhòu
1SG talk this topic NOM time
- 41 ...需要 更正, \\
xūyào gēng-zhèng
need change-correct
- 42 ..這個 統計 資料, \\
zhège tǒngjì zīliào
this statistics data

F: “Two years ago when I talked about this topic, I had to update the statistics.”

In (4-11), the temporal noun *liǎng nián* ‘two years’ specifies that the temporal distance is two years between the speech time and the time when the speaker updated the statistics. The temporal term *yǐqián* indicates that the speaker’s updating the statistics is prior to the speech time, namely, in the past. This meaning of a noun denoting duration is also pointed out in X. Li (1997).

In the above case the reference time is the speech time, which is absolute time reference. In the next example, the reference time is not the speech time but some other time associated with a situation. Note that there are totally two uses of *zhīhòu* in this excerpt. The first one in IU 81 is attached to a VP, whereas the second one in IU 89 is attached to a temporal noun denoting duration.



(4-12) (RS008)

- 81 B: ..其實 失戀 之後 呢,_
qíshí shīliàn zhīhòu ne
 in.fact break.up ZHIHOU PT
- 82 ..也 必然 有 一些 憂鬱,_
yě bìrán yǒu yīxiē yōuyù
 also inevitably have some depressive
- 83 ..或者.. 有 一些 感傷 的 情緒,_
huòzhě yǒu yīxiē gǎnshāng de qíngxù
 or have some sad NOM emotion
- 84 A: ..unh..[沒錯].\
méicuò
 right
- 85 B: [可是 如果 說],_
kěshì rúguǒ shuō
 but if COM
- 86 ...eh/..它 持續了 很 久,_
tā chíchù-le hěn jiǔ
 3SG last-PFV very long
- 87 ..[像 說],_
xiàng shuō
 like COM
- 88 A: [unh].\
 →89 B: ..eh-三 個 月 之後,_
sān ge yuè zhīhòu
 three CL month ZHIHOU
- 90 ..她 還 沒有 恢復.\
tā hái méiyǒu huīfù
 3SG still NEG.have recover

B: “In fact, after breaking up, one must have some depressive or sad emotions. But if it lasts very long, for example, after three months she has not recovered yet ...” (Speaker A’s reactive tokens omitted)

The NP *sān ge yuè* ‘three months’ specifies the temporal distance between the RP (the event of breaking up mentioned in IU 81) and the TG (“she is still feeling down).

In the NTU Corpus there are three instances in which the preceding element contains a VP plus a temporal noun denoting duration, such as the example in (4-6),

here replicated as (4-13).



(4-13) (TE3LOVE)

→279 B: ..寫信 半年 以後,\
 xiě-xìn *bàn-nián yǐhòu*
 write-letter half-year YIHOU

280 A: (0) (H)

281 B: ..好像 變成 男女朋友 關係,\
 hǎoxiàng *biànchéng* *nánnǚpéngyǒu* *guānxi*
 seem become boyfriend.and.girlfriend relationship

B: “After they corresponded for six months, it seems that they have become boyfriend and girlfriend.”

In this case, the RP is the activity of writing letters, which lasts for six months. The TG is becoming a couple, which follows the letter writing. This type of example demonstrates a higher degree of **specificity** of construal in that it not only profiles the sequential relation between the letter writing and the becoming a couple, but also specifies how much time has elapsed between the onset of the letter writing and the TG.

4.2.3 Set Expressions

Two set expressions enumerated in Gu (2010) are also observed in the NTU Corpus and are separated as a category from NP. A recurring pattern of the *before*-pair is the adjective *jiǔ* (久) ‘long (in the temporal sense)’ combined with a degree adverb, as in *hěn jiǔ yǐqián*, *xǔ jiǔ yǐqián*, or *fēicháng jiǔ yǐqián*, all meaning ‘long ago’ or ‘a (very) long time ago’. Another variation is occurring with a negation or question marker, as in *bù jiǔ yǐqián* ‘not long ago’ and *duō jiǔ yǐqián* ‘how long ago’. Example (4-14) shows this type of set expression.

(4-14) (CALL-IN2)

- 61 D: ...我 記得 很 久 以前,\
wǒ jìdé hěn jiǔ yǐqián
1SG remember very long YIQIAN
- 62 ...妳 和 李泰祥,\
nǐ hàn lǐtàixiáng
2SG and PN
- 63 ..唐曉詩,\
tángxiǎoshī
PN
- 64 ..錢懷琪,\
qiánhuaiqí
PN
- 65 ...妳 還 記得 嗎?\
nǐ hái jìdé ma
2SG still remember Q



D: “I remember that a long time ago that you, Li Tai-xiang, Tang Xiao-shi, and Qian Huai-qi ... Do you still remember?”

In the NTU Corpus only *yǐqián* is found to have the set expression, confirming Lü (1999). This is not to say that *zhīqián* can never occur in this pattern, but that it may simply be less common to say so. In the set expression and its variations, the reference time is the speech time. The adjective *jiǔ* ‘long’ specifies that the temporal distance between the speech time and the situation time of the TG is long. In terms of the punctual-durative distinction, this set expression denotes duration.

The set expression found with the *after*-pair is *cóng cǐ yǐhòu* ‘from this (moment) on; from now on; henceforward’, as well as its variations. Consider the use in the next example. Speaker A is recounting a story of an aboriginal tribe in Taiwan who offended a mythical “dwarf people” by destroying the bridge that the dwarf people took every day, and thus making them all fall into a deep valley and die. Only a dwarf couple escaped and survived, and cursed this aboriginal tribe with the following content, here narrated by speaker A.



(4-15) (RS011)

→316 A: ..從 此 以後,
cóng cǐ yǐhòu
from this YIHOU

317 ...山豬 會..^踐蹋 你們 的 農作物,
shānzhū huì jiàntà nǐmen de nóngzuòwù
boar will tread 2PL GEN crop

318 ..百步蛇 會 ^咬 你們,
bǎibùshé huì yǎo nǐmen
hundred-pace.snake will bite 2PL

..你們 的 五穀 會.. ^不 豐收
nǐmen de wǔgǔ huì bù fēngshōu
2PL GEN grains will NEG abundant.harvest

A: “From now on, boars will tread your crops, hundred-pace snakes will bite you and you will not have a bumper harvest of grains and crops.”

The demonstrative pronoun *cǐ* ‘this’ in *cóng cǐ yǐhòu* may refer to ‘this moment’ or to some other event (e.g., the disaster of falling into a valley in this story). Together with the preposition *cóng* ‘from’, the whole expression means ‘from now on’ or ‘henceforward’. There are only two such set expressions in the NTU Corpus, both are *cóng cǐ yǐhòu*. In Gu’s (2010) corpus there are 180 (6%) uses of this expression of *yǐhòu* and 8 (0.31%) of *zhīhòu*, suggesting that *zhīhòu* can still occur in the set expression, although it is less common. In terms of the punctual-durative distinction, *cǐ* ‘this’ may be conceived as punctual.

4.3 Modified Material: Target

The modified material associated with the four temporal terms always expresses the TG. As mentioned earlier, the TG is predominantly in the form of a VP/clause, or even beyond the level of one single sentence (together 92%, n = 162/176), suggesting that the TG sequenced with respect to the four temporal terms in the attached form is

almost always a situation. Table 4.6 below presents the grammatical category of the modified material/TG.



Table 4.6 Grammatical category of the modified material/TG

TG	Before-pair		After-pair		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
NP	3 (13.6%)	4 (16.7%)	2 (2.9%)	1 (1.6%)	10 (5.7%)
VP/clause	17 (77.3%)	12 (50.0%)	55 (80.9%)	54 (87.1%)	140 (79.5%)
+Clause	2 (9%)	7 (29.1%)	10 (14.7%)	5 (8.1%)	22 (12.5%)
Na.	0 (0%)	1 (4.2%)	1 (1.5%)	2 (3.2%)	4 (2.3%)
Total	22 (100%)	24 (100%)	68 (100%)	62 (100%)	176 (100%)

(+Clause: beyond one single clause. Na.: no modified material expressed.)

Much attention has already been paid to the use where the TG is a VP/clause (e.g., Y. Wang 1996; Yeh 2000; Y. Li 2008; Gu 2010). In 4.3.1 we will focus on the data in which TGs are nominal, as a supplement to previous literature. In 4.3.2 we then proceed to verbal/clausal TGs. In 4.3.4 we discuss the “extension sense” associated with durative or repetitive TGs.

4.3.1 Nominal

In this part we present the cases where the TGs are nominal, usually in the form of a temporal noun, a pronoun, or an abstract noun. In the first example, the preceding element in front of *zhīqián* ‘before’ is a specific date, and the whole temporal expression composed of the preceding element and *zhīqián* functions as an attributive adjective to modify the NP that follows, i.e., the TG *the week*, also a temporal noun. The modifying relation is marked by the nominalizer *de*.

(4-16) (CO4SUE)

87 A: ..[他們 本]來 是 六月=,\
tāmen běnlái shì liùyuè

	3PL	originally	C/F	June		
88	..好像,\					
	<i>hǎoxiàng</i>					
	seem					
→89	..六月	十五號	之前	的	那個	禮拜
	<i>liùyuè</i>	<i>shíwǔ-hào</i>	<i>zhīqián</i>	<i>de</i>	<i>nàge</i>	<i>lǐbài</i>
	June	fifteenth	ZHIQIAN	NOM	that	week
	就	要	考	啊._		
	<i>jiù</i>	<i>yào</i>	<i>kǎo</i>	<i>ā</i>		
	JIU	need	take.exame	PT		



A: “They were supposed to (take the exam in) June, I think, to take the exam in the week before June 15.”

The preceding element and the temporal term may also function as a predicative adjective together, in which case it is after the copula *shì* and before the nominalizer *de*. The subject, which stands in sentence-initial position, is the TG. In the following example, the TG is expressed with a nominalized form. The preceding element and *yǐqián* form the set expression *hěn jiǔ yǐqián* ‘a long time ago’. The whole temporal expression follows the TG, as the predication follows the subject in Mandarin Chinese.

(4-17) (G&M)

146 G:	..反正	我,-				
	<i>fǎnzhèng</i>	<i>wǒ</i>				
	anyway	1SG				
→147	..我	去	的	是	很	久
	<i>wǒ</i>	<i>qù</i>	<i>de</i>	<i>shì</i>	<i>hěn</i>	<i>jiǔ</i>
	1SG	go	NOM	C/F	very long	YIQIAN
						NOM
						PT

G: “Anyway I, the time when I went there was a long time ago.”

Among the 10 nominal TGs in the attached form use of the four temporal terms, two patterns can be distinguished. The first one is like the example in (4-16), where the temporal adverbial composed of the preceding element and one of the four

temporal terms function as an attributive adjective, followed by the nominal TG. The second pattern is like (4-17), where the nominal TG is the subject of a sentence, whereas the temporal adverbial composed of the preceding element and one of the temporal terms functions as a predicative adjective, or as an adverbial. Table 4.7 provides the distribution.

Table 4.7 Pattern of nominal TGs in the attached form use

Nominal TG	Before-pair		After-pair		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
Temporal adverbial + <i>de</i> + TG [Attributive adj. + NP]	2	2	1	0	5
TG + VP + temporal adverbial [NP + VP + predicative adj./adv.]	1	2	1	1	5
Total	3	4	2	1	10

(Adj.: adjective; adv.: adverbial)

The main difference between the two patterns lies in the information sequence. In the first pattern the TG is expressed after the temporal adverbial, which is the same as when the TG is a VP/clause. In the second pattern, the TG is expressed first. As a final remark on nominal TGs, it appears that all of them can be conceived as punctual.

4.3.2 Verbal/Clausal

4.3.2.1 Beyond Clausal Level

In this part we present a particular type of TG. Besides NP and VP/clause, a TG may also be linguistically expressed with a complex sentence composed of multiple clauses, or even in the subsequent discourse that is beyond the level of a single clause or sentence. We have seen such examples when we analyze the preceding element. In (4-11) the modified material consists of two pairs of clauses connected by *de shíhòu* ‘when’. In the story of the dwarf people’s curse in (4-15), the TG consists of three

sentences, each occupying one intonation unit and each corresponding to a sub-situation. All the three sub-situations are located subsequent to *cǐ* ‘this (moment)’.

A more exaggerative example is like (4-18), where speaker F is complaining about the encyclopedia of art that she has purchased earlier.

(4-18) (SALESMAN)

- 262 F: ...自從 買 那 套 之後[1 喔 1],\
zìcóng mǎi nà tào zhīhòu o
 since buy that series ZHIHOU PT
- 263 S: [1 對 1],\
duì
 right
- 264 F: ..我 平常 在 坊間 這樣 走 啊,-
wǒ píngcháng zài fāngjiān zhèyàng zǒu ā
 1SG every.day at bookstores like.this walk PT
- 265 S: ..對\
duì
 right
- 266 F: ..我 會 特別 去 觀察 一下 啊,-
wǒ huì tèbié qù guānchá yīxià ā
 1SG will especially go observe a.while PT
- 267 ..藝術 方面 的 書,-
yìshù fāngmiàn de shū
 art area NOM book
- 268 S: ..[1 就 對 了 1],\
jiù duì le
 JIU right CRS
- 269 F: [1 對 啊 1].-
duì ā
 right PT
- 270 S: ..m.\
- 271 F: ..然後\
ránhòu
 and.then
- 272 ..就 覺得,-
jiù juéde



- JIU feel
 →273 ...被 騙 了=-
bèi piàn le
 BEI deceive PFV/CRS
 →274 ...書 那麼 貴\
shū nàme guì
 book so expensive
 →275 ...然後\
ránhòu
 and.then
 276 S: ...(1.02)[1 會嗎 1]\
huì ma
 will Q
 →277 F: [1 我 不 覺 1]得 它 印刷 特別 精美\
wǒ bù juéde tā yìnshuā tèbié jīngměi
 1SG NEG feel 3SG printing especially exquisite
 →278 ..或[2 怎麼樣 2] 啊-
huò zěnmeyàng ā
 or up.to.much PT

F: “After (i.e., ever since) I bought that series (of encyclopedia), whenever I go around at bookstores, I will pay special attention to books about art, and I feel deceived. The books (that I bought) are so expensive, and I don’t think the printing is especially exquisite or the books are up to much.” (Speaker S’s response omitted)

The RP is speaker F’s buying the encyclopedia, mentioned in IU 262, whereas the TG is the situation expressed from IU 264 to 278 by speaker F. In this example, the RP and the temporal term *zhīhòu* sets the time frame for locating a complex TG situation in subsequent discourse that is beyond the scope of a single sentence.

4.3.3 Punctual-Durative Distinction

4.3.3.1 Durative TGs and the Extension Sense

Recall that the punctual-durative distinction of the RP does not appear to play any significant role, because almost all the RPs may be conceived as punctual, and there are few RPs that must be conceived as durative. By contrast, in the NTU Corpus,

there are both punctual TGs and durative TGs occurring with all of the four temporal terms in the attached form, although punctual TGs outnumber durative ones. We determine a TG situation as punctual in the same approach in 4.2.1.2, where we analyze verbal/clausal preceding elements. In the remaining part of this section, we will focus on durative TGs and discuss how the duration or continuation of the TG is relevant to what we call the **extension sense**, in addition to the sequence sense of the four temporal terms.

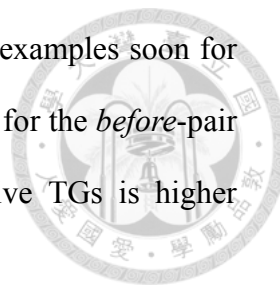
A durative TG expressed with a VP/clause may be of different types. **States** and **activities** are inherently durative situations. **Repetitive** situations are also durative in the sense that multiple occurrences last for a span of time. For the *after*-pair, the three types of durative TGs display the extension sense in that all of them start from a starting point and extend into the direction of future, with or without an endpoint. For the *before*-pair, the extension proceeds in the opposite direction, from the RP towards the starting point of the TG. Table 4.8 below represents the distribution of verbal/clausal TGs in terms of punctual and durative.

Table 4.8 Verbal/clausal TGs in the attached form use

Verbal/clausal TGs	<i>Before</i> -pair		<i>After</i> -pair		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
Punctual situations	9 (47.4%)	16 (84.2%)	56 (86.2%)	31 (52.5%)	112 (69.1%)
Durative situations	10 (52.6%)	3 (15.8%)	9 (13.8%)	28 (47.5%)	50 (30.9%)
States	4	0	4	14	22
Activities	1	0	1	3	5
Repetitive situations	1	0	4	8	13
Uncertain location	4	3	0	3	10
Total	19 (100%)	19 (100%)	65 (100%)	59 (100%)	162 (100%)

For both the *before*-pair and the *after*-pair, when the temporal location of a punctual TG is uncertain, it is the possibility of the occurrence of the TG that extends from a

certain starting point towards the direction of future. We will give examples soon for each type of durative TG. The raw number of durative TGs is small for the *before*-pair and for *zhīhòu*. For *zhīqián* and *yǐhòu*, the percentage of durative TGs is higher compared with their respective near-synonyms.



The sequence sense of the four temporal terms profiles two situations as one **prior to** another or one **after** another. When both the RP and the TG are punctual, there is an intrinsic interval between the RP and the TG, though it is usually short when not specified. We represent the sequence sense in Figure 1. The horizontal arrowed line is the time line, the right end pointing to the direction of future. Figure 4.1 (a) and Figure 4.1 (b) respectively illustrate the internal sequence between the RP and the TG profiled by the *before*-pair and the *after*-pair. The RP and the TG are depicted as two points (the points where the time line is intersected by two short vertical lines).

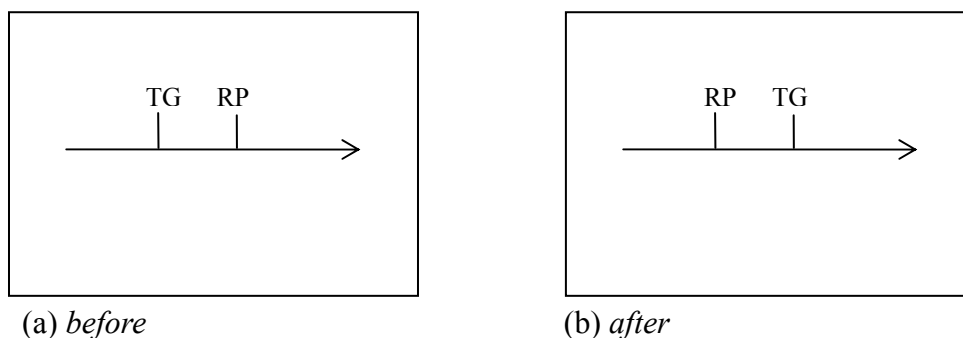


Figure 4.1 The relative sequence between the RP and the TG

For the *after*-pair, if the RP must be interpreted as durative, then the endpoint of the RP coincides with the TG's temporal location, as in (4-19), which we have seen earlier in (4-9) and (4-13).

(4-19) (TE3LOVE)

→279 B: ..寫信 半年 以後,\
xiě-xìn *bàn-nián* *yǐhòu*

write-letter	half-year	YIHOU	
280 A: (0) (H)			
281 B: ..好像	變成	男女朋友	關係.\
<i>hǎoxiàng</i>	<i>biànchéng</i>	<i>nánnǚpéngyǒu</i>	<i>guānxi</i>
seem	become	boyfriend.and.girlfriend	relationship



B: “After they corresponded for six months, it seems that they have become boyfriend and girlfriend.”

Figure 4.2 below illustrates this type of example. The durative RP is depicted as a stretch, while the TG is represented as a point coinciding with the RP’s endpoint. We also specify the duration of the RP, which is six months in this example.

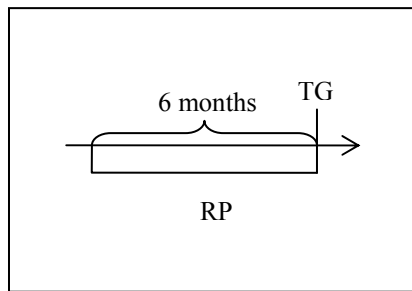


Figure 4.2 The *after*-pair with a durative RP

For the *before*-pair, there is no durative RP expressed with a VP/clause in the NTU Corpus. Another possibility in which the RP and the TG coincide is when the TG is durative, and we will discuss this in the following passages.

4.3.3.2 RP and TG Coincide

For the *before*-pair, a durative TG starts at a certain point, though not clear when, and ends at the point when the RP occurs. In other words, the durative TG is bounded. Here we give an example of a TG that is a state.

(4-20) (GAMBLE)

208 H: ..我	相信	在	結婚	之前,-
<i>wǒ</i>	<i>xiàngxìn</i>	<i>zài</i>	<i>jiéhūn</i>	<i>zhīqián</i>
1SG	belive	at	get.married	ZHIQIAN

→209 ..一定是非常甜蜜的\
 yīdìng shì fēicháng tiánmì de
 must C/F very sweet NOM



H: “I believe that before you got married, you must have been very much in love.”

The TG here is the state of being very much in love, and this state is construed to end when the RP occurs, i.e., when the addressee in this dialogue got married. We represent this example in Figure 4.3 below. The dashed arrow line pointing to the left stands for the extension sense.

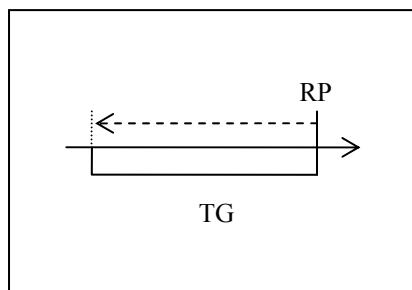


Figure 4.3 The *before*-pair with a durative TG

Since the *before*-pair arranges two situations anti-chronologically, we have to process the TG backwards in time: the state of being very much in love extends from the point when they got married into the direction of past. For the *before*-pair, the endpoint of a durative TG is marked by the occurrence of the RP. The temporal location of the starting point may not be clear, as in this example, but there is always one. The starting point of the TG marks the termination of the extension sense.

For the *after*-pair, the extension sense is most salient when the TG is a presently ongoing situation. Below is such an example of *yǐhòu*. The TG here is also a state.

(4-21) (FACTORY)

202 F: ..臺灣 傢俱業 到 那邊 去 hoN\
 táiwān jiājù yè dào nàbiān qù hon
 Taiwan furniture.industry arrive there go PT

(IUs 203-218 omitted)

219	..到	那邊	以後,\		
	dào	nàbiān	yǐhòu		
	arrive	there	YIHOU		
→220	..它	還是	當	頭	啊.-
	tā	háishì	dāng	tóu	ā
	3SG	still	be	head	PT



F: “After it (i.e., the Taiwanese furniture industry) moves to there, it is still the boss (i.e., plays the leading role).”

In this example, the RP is the Taiwanese furniture industry’s moving or relocating, whereas the TG is the state of being the boss. The RP is linguistically construed as coinciding with the starting point of the TG. The TG starts almost as the RP occurs and extends towards the direction of future. Since the TG here is an ongoing situation that holds true at the speech time and is likely to be so for some time, it does not yet have a definite endpoint.

The extension sense of the *after*-pair with an ongoing durative TG is diagrammed in Figure 4.4. The point labeled as 0 indicates the speech time, which is heuristically depicted in the middle of the time line, though it may be at a random point. The TG is depicted as a stretch. The left end of the stretch, i.e., the starting point, coincides with the RP. The right end is open and represented as an arrow sign pointing to the direction of future to signal that the situation is not bounded and will continue for some time.

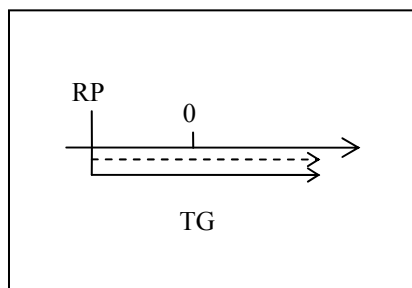


Figure 4.4 The extension sense of the *after*-pair with an ongoing TG

The durative TG extends from the temporal location of the RP towards the direction

of future. The dashed arrow line stands for the extension sense. For the *after*-pair, which arranges two situations according to the time flow, the direction of the extension is the same as the direction of time flow. In pictorial representation, the arrow of the extension line points to the right, the same as the time line and the ongoing TG.

The next example involves a repetitive situation as the TG. Note the preposition *zìcóng* ‘since’ before the preceding element. We have seen the preposition and a repetitive TG earlier in (4-18) about the encyclopedia. In that example and the following one, the TG is a repetitive situation which occurs multiple times whenever a **relevant condition** comes into play.

(4-22) (THEFT)

- 443 J: (0)我 自從 上 次 丟掉 錢 之後,-
wǒ zìcóng shàng cì diū-diào qián zhīhòu
 1SG since last time lose-fall money ZHIHOU
- 444 ..現在 手邊 有 錢,-
xiànzài shǒu-biān yǒu qián
 now hand-side have money
- 445 ..就 趕快 拿去 存.\
jiù gǎnkuài ná-qù cún
 JIU straight.away take-go save
- 446 ...(1.0)<X 免得 X> 一天到晚 在 丟.\
miǎndé yītiāndàowǎn zài diū
 so.as.not.to all.the.time DUR lose

J: “After/Every since I lost money (by accident) last time, now whenever I have cash at hand, I will save it at the bank straightaway, so as to avoid losing money all the time.”

The RP is the money losing event, whereas the TG is saving money at the bank. Although we determine the TG as a durative situation, it does not mean that speaker J has been saving money into her bank account at every second since the money losing event. The continuation of the TG does not indicate the literal duration, but repetition

under a relevant condition: whenever J has cash at hand, she puts it into her bank account. Alternatively, we may think of this new habit as J's permanent property, and properties like states literally last for continuous time. The TG, as an ongoing habit, started when the RP happened and has extended up to the speech time and will very likely continue in the future (until speaker J has some reason to terminate this habit). In (4-18) and in (4-22), the extension sense is compatible with the meaning of the preposition *zìcóng* 'since', and *zìcóng* and *zhīhòu/yǐhòu* 'after' can be said to form something like a circumposition together.

The 'since' sense related to the extension sense does not have to be contributed by the preposition *zìcóng*. In the next example, the 'since' sense is the main point of the story even though without *zìcóng* or *cóng*. In this dialogue between two friends, speaker A narrates an experience of being stood up by her elder sister, who promised to wait for A at the dorm room 'since' (*yǐhòu*) six o'clock. But when speaker A arrived around eight o'clock, the elder sister was not there. Angrily, speaker A left the dorm, and then the two sisters bumped into each other on the street when speaker A scolded her sister in public. In this example, the TG is an activity.

(4-23) (CON1CHI)

- 10 A: ..她 就 跟 我 說,\
tā jiù gēn wǒ shuō
 3SG JIU with 1SG say
- 11 ..她 六 點 以後 就 會 在 寢室 等 我.\
tā liù diǎn yǐhòu jiù huì zài qǐnshì děng wǒ
 3SG six o'clock YIHOU JIU will at dorm.room wait 1SG
- (IUs 12-73 omitted: Speaker A did not find her sister at the dorm at around eight p.m. Later she saw her on the street and scolded her in public.)
- 74 B: ..可是 你 不是 約 六 點 嗎?\
kěshì nǐ bù shì yuē liù diǎn ma
 but 2SG NEG C/F arrange six o'clock Q
- 75 A: ..對 啊,_



- duì ā*
right PT
- 76 ..那 時候 已經 八 點 多 了 耶.\
nà shíhòu yǐjīng bā diǎn duō le ye
that time already eight o'clock more CRS PT
- 77 B: ..啊,\
ā
PT
- 78 ..六 點.\
liù diǎn
six o'clock
- 79 ..啊,\
ā
PT
- 80 ..[八 點].\
bā diǎn
eight o'clock
- 81 A: [她 說] 六 點 以後 就 會 在 寢室
tā shuō liù diǎn yǐhòu jiù huì zài qǐnshì
3SG say six o'clock YIHOU JIU will at dorm.room
等 我 電話.\
děng wǒ diànhuà
wait 1SG phone.call
- 82 B: ..喔=.\
o
PT

A: "She told me that she would be waiting for me at her dorm room since six o'clock."

(IUs 12-73 omitted)

B: "But didn't you agree on six o'clock?"

A: "We did! By that time it was already later than eight o'clock!"

B: "Huh? Six o'clock? Huh? [Eight o'clock]?"

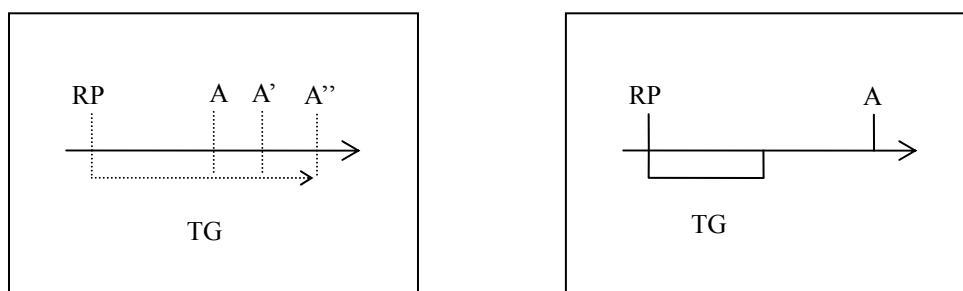
A: "[She said] she would be waiting for my phone call at her dorm room since six o'clock."

B: OK.

There are two uses of *yǐhòu* (IU 11 and IU 81). In both cases, the RP (also the RT)

is the temporal point *six o'clock*, whereas the TG is the sister's waiting for A (to call) at the dorm room. Speaker A understood the appointment in the sense that, as her sister said she would be waiting for her at the dorm room "since" six o'clock, she could come at any time later than six o'clock. Speaker B, for some reason, seems to understand that the two sisters agreed to meet at exactly six o'clock and thus appears a bit confused why speaker A was angry and scolded her sister when they ran into each other on the street. Speaker A then emphasizes the extension sense: the activity of her sister's waiting for her at the dorm room was supposed to have held at any given time point later than six o'clock until the moment when A called; the waiting should have started at six o'clock and extended until A called or arrived. This is why A was angry to find her sister not at the dorm room when she called at around eight o'clock.

For this example, we represent speaker A's expected scenario in Figure 4.5 (a) and the reality in Figure 4.5 (b). In her expectation, the TG (i.e., the sister's waiting) should have extended from the RP (i.e., six o'clock, also the RT) and stopped only when speaker A arrived or called (labeled as the situation "A"). In reality, the TG stopped sometime before speaker A arrived around eight o'clock.



(a) Expected scenario

(b) Reality

Figure 4.5 The expected scenario and the reality in (4-23)

We may say that with a durative TG, the *after*-pair sometimes has the 'since' sense in addition to the 'after' sense. The former displays the extension sense,

whereas the latter displays the sequence sense.



4.3.3.3 TG's Location Uncertain

In the previous part it seems that the extension sense is just compatible with, or even solely contributed by, the durativity or continuation of the TG. Here we will show that it does not have to involve a durative TG. Another scenario whereby the extension sense is observed is when the occurrence of a punctual TG is not certain. In the next example, which is a telephone conversation, speaker C is invited to come over to speaker W's place. Example (4-24) is C's response.

(4-24) (EXAM)

356 C: ..那 我 可能 是 晚上 喔,-
nà wǒ kěnéng shì wǎnshàng o
then 1SG maybe C/F evening PT
→357 ..就是 吃完 晚餐 以後 才 會 過去.\
jiùshì chī-wán wǎncān yǐhòu cái huì guòqù
namely eat-finish diner YIHOU CAI will come.over

C: "Then maybe in the evening. That is, I will come over only after I finish dinner."

The RP is speaker C's finishing dinner and the TG is C's coming over to W's place, which can be conceived as punctual. What C means is not that she will come over right after or shortly after she finishes dinner. Instead, she means that she will come over only when she finishes dinner, which is much later than W's expectation (indicated by *cái*). Furthermore, she will come over at a random time point subsequent to her finishing dinner, within the temporal scope of evening. The extension sense in this example is not the duration of the TG, but the duration of the possible time of C's coming over. The possible time of C's visiting W starts when C finishes dinner and extends towards the direction of future until the end of the night.

The *before*-pair also has this sub-type of extension sense, as in the next example.



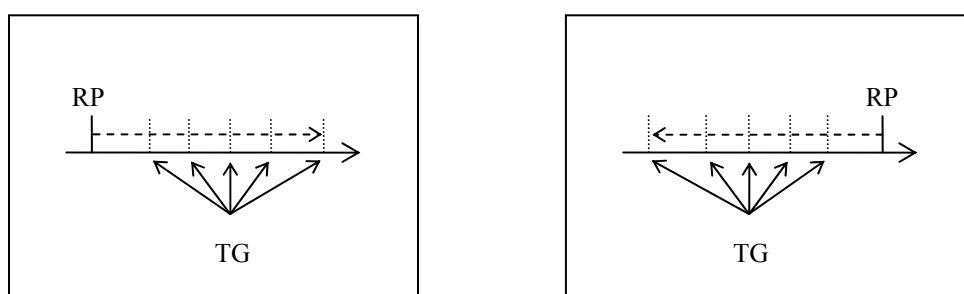
(4-25) (WAR)

206 I: ..最好 這個 戰事 能夠 在 十一月，
zuìhǎo zhège zhànshì nénggòu zài shíyīyuè
 best this war able at November
 →207 ..就是 回教 齋戒月 開始 之前 [結束]
jiùshì huíjiāo zhāijièyuè kāishǐ zhīqián jiéshù
 namely Islam Ramadan start ZHIQIAN end

I: “It’s best that the war ends before November, namely, before the Islamic Ramadan starts.”

Two different concepts with the same RT are mentioned as the RP: the first one is November, a temporal point, and the second is the Ramadan’s starting. The TG is the expected situation of the war’s ending, which can be conceived as punctual. Speaker I does not mean it is best that the war ends right before or one day before the Ramadan starts; rather, he means that it is best that it ends any time prior to the RP. The extension sense, like in the previous example, is not the duration of the TG, but the possible time point for the TG to occur.

The pictorial representation of (4-24) and (4-25) is in Figure 4.4 (a) and (b). The temporal location of the TG is not certain, meaning the TG may happen at any time point after the RP, as in (4-24), or prior to the RP, as in (4-25).



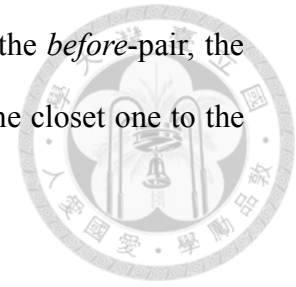
(a) any time after the RP

(b) any time before the RP

Figure 4.6 TG’s location uncertain

The difference between the *after*-pair and the *before*-pair in this type of extension sense is the latest possible time point for the punctual TG to occur. For the *after*-pair,

the TG is possible to occur at a time much later than the RP. For the *before*-pair, the TG must occur before the RP, so the latest time point is actually the closet one to the RP.



4.4 Putting Together

In this section we analyze two dimensions when we view the preceding element, the four temporal terms and the modified material together. In 4.4.1 we discuss the temporal adverbial expression composed of the preceding element and the four temporal terms, particularly about the grammatical category and syntactic position. In 4.4.2 we examine the temporal location of the RP and the TG with respect to the speech time.

4.4.1 The Temporal Adverbial Expression

In this part we examine the grammatical category of the whole temporal adverbial expression composed of the preceding element and these temporal terms, as well as the syntactic position with respect to the modified material.

4.4.1.1 Grammatical Category

Confirming to the findings in Gu (2010), most of the whole adverbial expressions function as a sentential adverbial, regardless of the grammatical category of the preceding element. In 4.3.2, where we discuss nominal TGs, we already touch upon the whole temporal adverbial expression as an attributive adjective or a predicative adjective. Table 4.9 below shows the related statistics.

Table 4.9 Grammatical category of the whole temporal adverbial expression

Grammatical category of the whole	<i>Before-pair</i>		<i>After-pair</i>		Total
	<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
Adverbial	19 (86.4%)	19 (79.2%)	67 (97.1)	61 (98.4%)	166 (94.3%)
Attributive adjective	2	2	1	0	5
Predicative adjective	1	3	0	1	5
Total	22	24	68	62	176

4.4.1.2 Syntactic Position

One way to classify adverbs in Mandarin Chinese is to see whether they are “**movable**” or “**unmovable**.” As introduced in chapter 3, movable adverbs, including adverbs of time and adverbs of attitude, may occur either in sentence-initial position before the subject, or immediately following the subject and before the verb. Unmovable adverbs, being the majority of adverbs in Mandarin Chinese, occur only after the subject and before the verb (Li & Thompson 1981). Although temporal adverbial clauses are said to mostly precede the main clause and are called “initial” temporal clauses (cf. Y. Wang 1996, 2006; Yeh 2000), the whole adverbial expression composed of the preceding element and the four temporal terms are just like other movable adverbs in Mandarin Chinese in terms of syntactic position. When both of the preceding element and the TG are verbal/clausal, they do resemble two clauses, and the four temporal terms behave like sentential conjunctions connecting an adverbial clause to the main clause that follows. However, like movable adverbs, the whole adverbial expression may also occur **within** the main clause rather than before it, i.e., after the subject and before the verb of the main clause. This feature applies whether the grammatical category of the preceding element is NP, VP/clause, or a set expression.

Note that the second possible position for a movable adverb to occur is after the

subject and before the verb. This means that “movability” is relevant only when there is an overt subject. If the main clause is subjectless, then there is only one possible position for the adverb to occur, i.e., the sentence-initial position. In previous sections most of the examples have initial adverbials. An “internal” adverbial is used in (4-23) where the temporal adverbial expression *liù diǎn yǐhòu* ‘since six o’clock’ stands between the subject and the verb. It is also adequate to say *liù diǎn yǐhòu* in sentence-initial position, i.e., before the subject. In (4-11), the initial adverbial expression *liǎng nián yǐqián* ‘two years ago’ may also be relocated after the subject and before the verb in the main clause.

Here we would like to show an “internal” adverbial expression whose preceding element is a VP.

(4-26) (PHILOSEPHY)

→490 A: ..^人.. 在 沒有 結婚 之前,⁴⁵
rén zài méiyǒu jiéhūn zhīqián
 person at NEG.have get.married ZHIQIAN
 491 ..都 有,
dōu yǒu
 all have
 492 ..交 男女朋[友 的 權利],
jiāo nánǚpéngyǒu de quánlì
 make boyfriend.and.girlfriend NOM right

A: “Before getting married, everyone has the right to look for a boyfriend or girlfriend.”

Whether being “initial” or “internal,” the whole temporal adverbial expression as a unit precedes the VP of the TG, and when we think of the VP in the main clause as

⁴⁵ Three issues caught our attention. First, the “internal” adverbial after the subject and before the verb tends to follow a subject that has a topic marker or pause. Second, although it appears that “*méiyǒu VP zhīqián/yǐqián*” and “*VP zhīqián/yǐqián*” are semantically equivalent, some studies have pointed out subtle differences between the two patterns (cf. Long 2006). Third, the preposition *zài* ‘at’ seems obligatory when the temporal adverbial with a verbal/clause preceding element stands between the subject and the verb, but optional when in sentence-initial position or when the preceding element is an NP.

carrying the most important information of the TG, the whole temporal adverbial stands before the TG regardless of the initial-internal distinction.

As for “final” adverbials in the NTU Corpus, they are like what Y. Wang (1996) says in that temporal adverbials that follow the main clause are usually made out of communicational needs, such as clarifying or adding more details to avoid potential misunderstanding. Consider (4-27):

(4-27) (BIRTHDAY)

- 414 F: ...他 之前,-
tā zhīqián
 3SG ZHIQIAN
- 415 ..已經 寫了 一 封 信 給 我.\
yǐjīng xiě-le yī fēng xìn gěi wǒ
 already write-PFV one CL letter give 1SG
- 416 ..在 生日 之前.\
zài shēngrì zhīqián
 at birthday ZHIQIAN

F: “He already wrote a letter to me before. Before my birthday.”

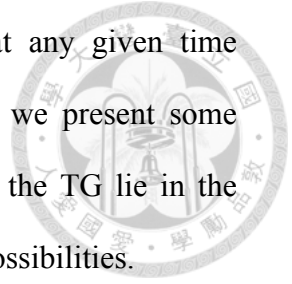
While the bare-form *zhīqián* ‘before’ in IU 414 already sets the time of the guy’s writing the letter in the past, the adverbial expression ‘before my birthday’ in IU 416 further specifies that it was before speaker F’s birthday that this guy wrote the letter.

4.4.2 Relative Time Reference: With Verbal/Clausal RP

The temporal-sequential relation profiled by the four temporal terms holds within the RP and the TG and, accordingly, these two pairs of near-synonyms do not involve the temporal location of the speech time in their core meaning. Rather, the TG is located solely relative to the RP, which is relative time reference.⁴⁶ The RP and the TG may both lie in the past (i.e., both prior to the speech time), both in the future (i.e.,

⁴⁶ When the preceding element is a temporal noun, then it might be more complicated than this. See 4.2.4 on the distinction between punctual and durative temporal nouns.

both subsequent to the speech time), or both may hold true at any given time regardless of the position of the speech time. In section 4.4.2.1 we present some examples of the three types of combination whereby the RP and the TG lie in the same temporal dimension. In 4.4.4.2 we turn to the cases of other possibilities.



4.4.2.1 Simple Combination

All of the four temporal terms are found to sequence two situations that both lie in the past. Here we give an example of *zhīhòu*. The following example is the same one in (4-6). A journalist has told that once he was interviewing the director of a national exam about a cheating event when the director told him about another cheating event that was going on at a different site.

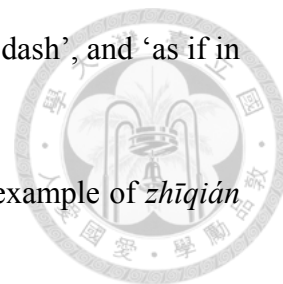
(4-28) (REPORTER)

- 514 C: ..跟 那個 主任 很 迅速地 聊完.\
gēn nàge zhǔrèn hěn xùnsù-de liáo-wán
 with that director very quickly talk-finish
- 515 ..聊完 之後,
liáo-wán zhīhòu
 talk-finish ZHIHOU
- 516 ..馬上 劍拔弩張,
mǎshàng jiànbánǚzhāng
 right.away ready.to.fight
- 517 ..一 個 腳步 就 飛奔到 另外 一 個 現場.\
yī ge jiǎobù jiù fēibēn-dào lìngwài yī ge xiànchǎng
 one CL step JIU dash-arrive another one CL site

C: “I finished talking with the director quickly. After I finished talking (with the director), being ready to fight right away I dashed to another site as if in one stride.”

The RP in this temporal relationship is speaker C’s finishing talking with the director, whereas the TG is his dashing to another site. Since the whole story lies in the past, the RP and the TG are both prior to the speech time. Note that speaker C describes the

RP and the TG as having happened in quick succession ('at once', 'dash', and 'as if in one stride').



The RP and the TG may both lie in the future, as in the next example of *zhīqián* that we have seen earlier in (4-25), here replicated as (4-29).

(4-29) (WAR)

206 I: ..最好 這個 戰事 能夠 在 十一月,
zuihǎo zhège zhànshì nénggòu zài shíyīyuè
 best this war able at November
 →207 ..就是 回教 齋戒月 開始 之前 [結束]
jiùshì huíjiāo zhāijièyuè kāishǐ zhīqián jiéshù
 namely Islam Ramadan start ZHIQIAN end

I: "It's best that the war ends before November, namely, before the Islamic Ramadan starts."

The RP is the Islamic Ramadan's starting, and the TG is the war's ending. The RP and the TG both lie in the future.

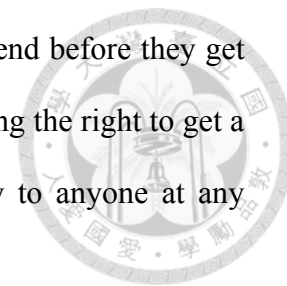
The RP and the TG may pertain to general facts or situations, and not relevant to the temporal location of the speech time. One example that we have seen is (4-26), here (4-30).

(4-30) (PHILOSEPHY)

→490 A: ..^人.. 在 沒有 結婚 之前,
rén zài méiyǒu jiéhūn zhīqián
 person at NEG.have get.married ZHIQIAN
 →491 ..都 有,
dōu yǒu
 all have
 →492 ..交 男女朋[友 的 權利],
jiāo nánǚpéngyǒu de quánlì
 make boyfriend.and.girlfriend NOM right

A: "Before getting married, everyone has the right to look for a boyfriend or girlfriend."

Speaker A says everyone has the right to get a boyfriend or girlfriend before they get married. The RP is getting married, before which is the TG of having the right to get a boyfriend or girlfriend. This general statement is meant to apply to anyone at any time.



4.4.2.2 Complex Combination

In this part we show two complex combinations in which the RP and the TG lie in difference dimensions. In the following example, the radio host A is telling the story about a girl, whose once forgotten crush on her uncle is coming back as she knows that he will return to Taiwan soon.

(4-31) (UNCLE)

- 12 A: ...後來 沒 想到 這 位 三叔 呢,\
hòulái méi xiǎng-dào zhè wèi sānshū ne
 later NEG think-arrive this CL third.uncle PT
- 13 ..出國 去 留學=.\
chūguó qù liúxué
 go.abroad go study
- 14 ...拿到 學位 以後 要 回 國.\
ná-dào xuéwèi yǐhòu yào huí guó
 take-arrive degree YIHOU want return country

A: “Later it turned out that this uncle went to study abroad, after he has obtained his degree he will come back to Taiwan.”

In this temporal relationship profiled by *yǐhòu*, the RP is the uncle’s obtaining his degree, and the TG is his returning to Taiwan.⁴⁷ From the previous context, we know that the uncle has already obtained his degree but has not come back to Taiwan yet. In this case, the RP lies in the past, whereas the TG lies in the future.

Another kind of complex combination is where the RP lies in the past and the TG

⁴⁷ Alternatively, one may also consider the RP to subsume both the going abroad to study and the obtaining the degree, in which case the RP will be expressed in multiple clauses.

is an ongoing situation, such as (4-18) about the encyclopedia and (4-22) about the habit of saving money. Here we replicate (4-22) in (4-32).



(4-32) (THEFT)

- 443 J: (0)我 自從 上 次 丟掉 錢 之後,-
wǒ zìcóng shàng cì diū-diào qián zhīhòu
 1SG since last time lose-fall money ZHIHOU
- 444 ..現在 手邊 有 錢,-
xiànzài shǒu-biān yǒu qián
 now hand-side have money
- 445 ..就 趕快 拿去 存.\
jiù gǎnkuài ná-qù cún
 JIU straight.away take-go save
- 446 ...(1.0)<X 免得 X> 一天到晚 在 丟.\
miǎndé yītiāndàowǎn zài diū
 so.as.not.to all.the.time DUR lose

J: “After/Ever since I lost money (by accident) last time, now whenever I have cash at hand I will save it at the bank straightaway, so as to avoid losing money all the time.”

The RP in this instance is speaker J’s one particular experience of losing money in the past, while the TG is her ensuing habit of saving money at the bank whenever she has some at hand.

4.4.2.3 Summary

The examples in this section are mainly to show the relative sequence between the RP and the TG as relative time reference, and that the location of the speech time is irrelevant in this internal relation between the RP and the TG. We have illustrated this point by showing that the RP and the TG may lie in any position with respect to the speech time. Table 4.10 gives more detailed information on this aspect.

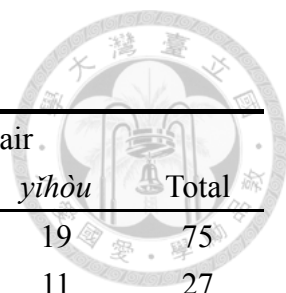


Table 4.10 Temporal location of RP and TG

RP ⁴⁸	TG	<i>Before-pair</i>		<i>After-pair</i>		Total
		<i>zhīqián</i>	<i>yǐqián</i>	<i>zhīhòu</i>	<i>yǐhòu</i>	
Past	Past	8	19	29	19	75
Future	Future	7	1	8	11	27
General	General	7	3	24	24	58
Past	Future	0	0	0	1	1
Past	Ongoing	0	0	6	5	11
/	Na.	0	1	1	2	4
Total		22	24	68	62	176

(Na.: no modified material)

While the irrelevance of the speech time may seem self-evident and thus not worth mentioning, it will be a crucial factor when these four temporal terms are used in the bare form, and some of the notions that we have discussed here apply to the bare form use as well.

4.5 Temporal Distance

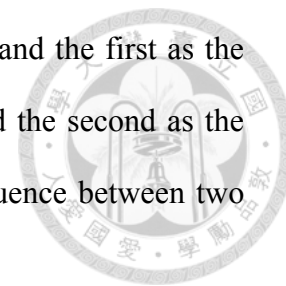
In this section we discuss how the temporal distance between the RP and the TG is determined and explain why in the attached form there is no distinction of remoteness between the two near-synonyms within each pair.

4.5.1 Sequence and Distance

To facilitate the discussion, we first focus on the cases where the preceding element is a VP/clause, which expresses a situation. In the attached form use, the four temporal terms mark the internal sequence between two situations. The difference between the *before-pair* and the *after-pair* resides in the selection of the RP-TG

⁴⁸ Preceding elements that denote duration are classified according to whether they refer to a period in the past, in the future, or as general situations. Set expressions like *hěn jiǔ yǐqián* ‘a long time ago’ all belong to the past – past category, whereas *cóng cǐ yǐhòu* ‘from this moment on’ all pertain to future – future.

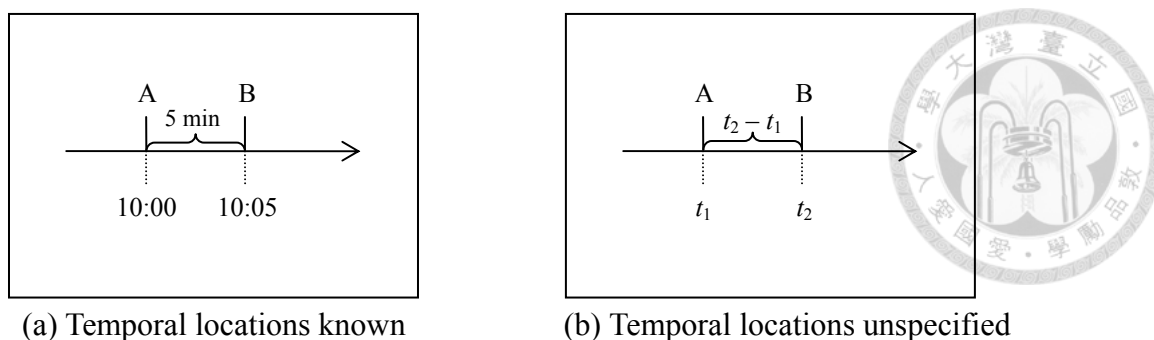
alignment. The *before*-pair selects the second situation as the RP and the first as the TG, whereas the *after*-pair selects the first situation as the RP and the second as the TG. In either case, the four temporal terms mark the internal sequence between two situations without specifying the temporal distance between them.



The temporal distance between the RP and the TG is not determined by their internal sequence. Rather, the temporal distance is determined by the temporal location of the RP and the temporal location of the TG. The choice of temporal term does not affect or determine the distance. This is why in the attached form use, there is no temporal distance distinction between the two near-synonyms, because the two near-synonymous only provide the sequence, which is the same for *zhīqián* and *yǐqián* and for *zhīhòu* and *yǐhòu*. At this point we have already answered one of the research questions, that is, why there is no remoteness distinction in the attached form use. In the rest of this section we will discuss this issue in detail.

4.5.1.1 Between Two Situations

Suppose there are two punctual situations that we intend to sequence with one of the four temporal terms. We call the situation that happens first “A” and call the one that happens later “B.” If Situation A happens at ten o’clock, the temporal location of Situation A is the point “ten o’clock” on the time line (on one particular day). If Situation B happens at five past ten, then temporal location of Situation B is the point “five past ten” on the time line. We diagram the two situations below in Figure 4.7 (a). The temporal distance is five minutes, which is obtained via subtracting “ten o’clock” from “five past ten.” No matter which of the four temporal terms that we choose to sequence Situation A and Situation B, the distance “five minutes” does not change.



(a) Temporal locations known (b) Temporal locations unspecified
 Figure 4.7 The temporal distance between two punctual situations

More often, the exact temporal location of a situation is not clearly spelt out when the four temporal terms are used, because the main function of the four temporal terms is profile sequence, not to mark the exact temporal location. We do know, however, that a punctual situation must occur at a certain time point, even if the time point is not specified. This scenario is depicted in Figure 4.7 (b), in which the temporal location of Situation A is marked as t_1 and the temporal location of Situation B is marked as t_2 . Even though the exact temporal location is not known, the temporal distance between Situation A and Situation B is still determined by t_2 and t_1 . No matter which of the four temporal terms we choose to sequence the two situations, the temporal distance remains t_2 minus t_1 , solely determined by the associated temporal location of Situation A and the associated temporal location of Situation B. For the *after*-pair, Situation A is the RP, t_1 is the RT, Situation B is the TG, and t_2 is the situation time of the TG. For the *before*-pair, Situation B is the RP, t_2 is the RT, Situation A is the TG, and t_1 is the situation time of the TG.

In the NTU Corpus, there is no instance where two situations sequenced with the four temporal terms are both durative. There are cases, though, in which one of the two situations is durative, either the first one or the second one. In such cases, the two situations coincide, as depicted in Figure 4.8 below.

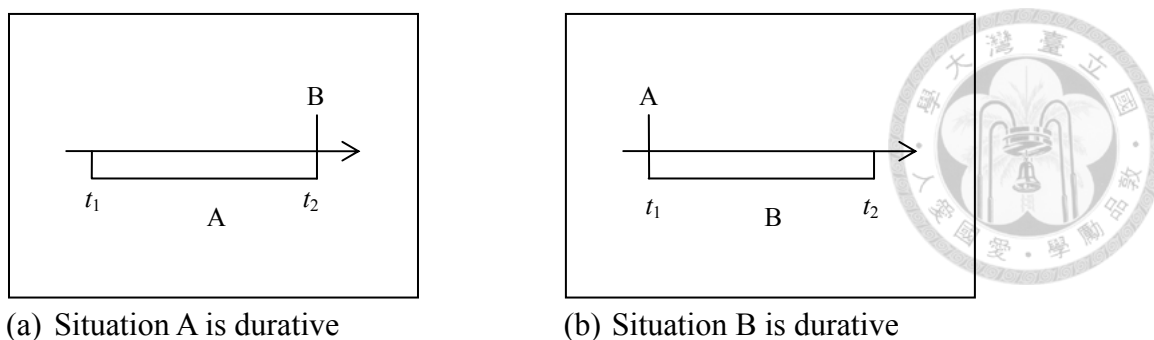


Figure 4.8 When one situation is durative

In Figure 4.8 (a) the endpoint of the first situation coincides with the second situation, whereas in Figure 4.8 (b) the starting point of the second situation coincides with the first situation. In either case, the temporal distance between the two situations equals zero. The lack of distance or interval between the two situations, again, is not determined by the four temporal terms, but by the punctual-durative distinction of the situations. No matter which of the four temporal terms is used, the distance between the two situations remains zero. We may calculate the duration of the durative situation ($t_2 - t_1$), but the resultant number is not the temporal distance between the two situations; rather, it simply specifies the duration of the durative situation, i.e., the temporal distance between the endpoint and the starting point of this durative situation.

4.5.1.2 Nominal Preceding Element

In this part we discuss the cases in which the preceding element is an NP denoting duration or a time point. An NP denoting a period or duration directly specifies the temporal distance between the TG and the RT (associated with the RP or inferred as the speech time), and therefore whichever near-synonym is used, the temporal distance between the RP/RT and the TG is the same, as specified by the NP denoting duration.

An NP denoting a time point denotes the RT per se. There are two possibilities.

The first one is with a durative TG. Example (4-23) is such a case, here partially replicated as (4-33).



(4-33) (CON1CHI)

→81 A: [她 說] 六 點 以後 就 會 在 寢 室
tā shuō liù diǎn yǐhòu jiù huì zài qǐnshì
 3SG say six o'clock YIHOU JIU will at dorm.room
 等 我 電話.\
děng wǒ diànhuà
 wait 1SG phone.call

A: “She said she would be waiting for my phone call at her dorm room since six o’clock.”

The whole story is more complicated, but here we represent the scenario in a simple way in Figure 4.5: the waiting starts at six o’clock and continues for some time. In other words, the starting point of the durative TG coincides with the RT.

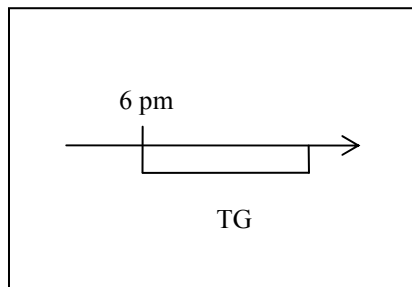


Figure 4.9 A time point with a durative TG

The second possibility is with a punctual TG whose temporal location is uncertain.

(4-34) (CANCER)

425 F: ..星期一 的 下午,\
xīngqíyī de xiàwǔ
 Monday NOM afternoon
 →426 ..一 點 半 以後 打 給 我,\
yī diǎn bàn yǐhòu dǎ gěi wǒ

427 one o'clock half YIHOU call give 1SG
 ..我 會 在 辦公室裡。
 wǒ huì zài bàngōngshì-lǐ
 1SG will at office-in



F: "Monday afternoon, call me after one thirty. I will be in my office."

The RP, also the RT, is the time point one thirty, and the TG is calling speaker F. Like the examples we have given earlier in 4.3.3.3, the TG's location is uncertain. Speaker F does not mean that her addressee can call her only shortly after one thirty, say, from one thirty-one to one fifty. Rather, she means that her addressee is allowed to call her at any random time point starting from one thirty until the end of the afternoon.

With a verbal/clausal preceding element, the uncertainty of a punctual TG's location is dependent on the uncertainty the TG. With an NP denoting a time point, the temporal location of a punctual TG has to be uncertain. One question pops up. When the preceding element is an NP denoting a time point, does the uncertainty of the temporal location arise from the fact that the punctual TG has not happened yet, or is it also related to the choice of the temporal term? As the NTU Corpus has only a few examples of this type (for *zhìhòu* there is none), we are not able to answer this question with enough evidence.

4.5.2 Temporal Proximity

The four temporal terms used in the attached form do not specify the temporal distance between the RP and the TG. The temporal distance is determined by the temporal distance between the temporal location of the RP and the temporal location of the TG, although the exact temporal location is often left unsaid. In theory, there is no reason why the temporal distance should be limited to any specific length. In actual uses, though, the two situations profiled by the four temporal terms tend to be

temporally close. For one thing, a usual concomitant of two situations being relevant to each other is **temporal proximity**. If two situations are relevant, and relevant enough to be sequenced linguistically, they tend to be temporally close.⁴⁹ On the other hand, the four temporal terms in the attached form have the function of bringing the two situations closer at the level of construal, regardless of the exact temporal distance.

The concepts “temporal proximity,” “temporally close” and “a short(er) temporal distance” are the combination of an exact amount of time in a relatively objective **conceptual content** and how this amount of time is subjectively **construed**, including what type of situation is in consideration and on what scale the situation is evaluated. At the level of content, the short temporal distance between the RP and the TG may range from seconds to minutes, from days to weeks (or even months), but not to years or even decades.

At the level of conceptual content, the two situations may coincide with a temporal distance of zero, which is the extreme of temporal proximity. We have discussed this kind of scenario in which one of the two situations is durative. Example (4-35) is of this kind.

(4-35) (HUS-WIFE)

- 147 F: ...我 抓到 那個=,
 wǒ zhuā-dào nàge
 1SG grasp-arrive that
- 148 ..那個 要領 以後,
 nàge yàolǐng yǐhòu
 that gist YIHOU
- 149 ..我 就 很 高興\
 wǒ jiù hěn gāoxìng
 1SG JIU very glad

⁴⁹ When two situations are temporally distant yet still relevant, they may simply be expressed in a way other than with the four temporal terms.

F: “After I grasped the gist, I was glad.”

At one time point the speaker got the gist of playing new chords on the piano, and it is obvious that the ensuing state of being glad follows immediately. The relevance between the RP and the TG is an implicit cause-and-effect, meaning that the RP is the reason that causes the TG to happen. Although the speaker uses *yǐhòu*, it is perfectly acceptable to use *zhīhòu* here.

When both situations are punctual or can be conceived as punctual, the temporal proximity is displayed in varying lengths. In some examples, the two situations are clearly close to each other, one occurring almost right after or right before the other. In (4-36), which we have seen in (4-3), the temporal distance is also short. Although the TG does not occur immediately before the RP, the two situations are still close enough.

(4-36) (MAKEUP)

→36 B: ...你 要 補妝 以前,_
nǐ yào bǔzhuāng yǐqián
2SG want fix.makeup YIQIAN

→37 ..你 先 把 臉上 的 油份 吸乾._
nǐ xiān bǎ liǎn-shàng de yóufèn xī-gān
2SG first BA face-on NOM grease absorb-dry

B: “Before you fix your makeup, you first dry up the grease on your face.”

The relevance between the RP and the TG is purpose: the purpose of drying up the grease on face (TG) is to prepare for fixing the makeup (RP). It is reasonable that the TG precedes the RP only by a few minutes at most. In this case, it is also fine to use *zhīqián*.

The RP is not necessarily the closet situation to the TG. In the next example, the temporal distance between the RP and the TG is longer than in the previous two, though it seems still short. Using *yǐqián* in this example is fine.



(4-37) (SS009)

- 305 B: 因為 我 姐 她 同學 滿 喜歡
yīnwèi wǒ jiě tā tóngxué mǎn xǐhuān
because 1SG elder.sister 3SG classmate very like
吃 甜[食 的].
chī tiánshí de
eat sweets NOM
- 306 A: [unh].
- 307 B: ..然後 就,
ránhòu jiù
and.then JIU
- 308 ..^在.. 我們 要 回來 之前 [喔],
zài wǒmen yào huílái zhīqián o
at 1PL want come.back ZHIQIAN PT
- 309 A: [unh],
- 310 B: ..還--
hái
still
- 311 ..還 特別 去.. 去 找 我們 旅館 附近,
hái tèbié qù qù zhǎo wǒmen lǚguǎn fùjìn
still especially go go look.for 1PL hotel near
- 312 ..有沒有 那 種,
yǒu.méi.yǒu nà zhǒng
have.NEG.have that kind
- 313 ...小小 的 店,
xiǎo-xiǎo de diàn
small-small NOM shop
- 314 ..就是 給 人家 吃 早餐,
jiùshì gěi rénjiā chī zǎocān
namelygive people eat breakfast

B: “Because my sister’s classmate loves sweets, and then, before we came back (from England to Taiwan), we even went looking for a small shop near our hotel, the kind of shop where you have breakfast.”

The relevance between the RP and the TG is that, as one of speaker B’s traveling companions loves sweets, they even made some special effort to look for the kind of

shop where they could have some sweets near the end of their stay there, i.e., before they came back to Taiwan. It is not likely that the temporal distance is only a few seconds or minutes between the RP and the TG. That would mean they literally went looking for a shop near the hotel and then rushed to the airport immediately. It is more likely that there were many other intervening events between their looking for that kind of shop and coming back, and that the temporal distance between the RP and the TG could take up a couple of days. The point is that, only the RP and the TG are profiled, and all the other irrelevant situations in between are not.

At the level of construal, the four temporal terms in the attached form profile only the RP and the TG, and no intervening situations are mentioned. The four temporal terms thus construe the RP and the TG in such a way as if no other situations happened in between, and the RP and the TG happened in uninterrupted succession. Since the two situations happened in uninterrupted succession, the temporal distance is short, and the RP and the TG are close. The next example illustrates the function of bringing two situations closer. It is fine to use *yìhòu* in this case. In earlier parts of this dialogue, speaker F asks why speaker M never asks the girl that he likes out to see a movie. Speaker M then reveals that he did ask her out on a date to see a movie about two years ago, but nothing happened between them afterwards.

(4-38) (ACTOR)

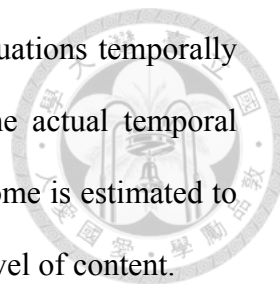
→280 M: ..(1.98)結果 去 看完 之後,\
jiéguǒ qù kàn-wán zhīhòu
 and.then go see-finish ZHIHOU
 281 ..她 就= 她 就 她 就=-,
tā jiù tā jiù tā jiù
 3SG JIU 3SG JIU 3SG JIU
 →282 ..她 就 回家了.\
tā jiù huíjiā-le
 3SG JIU go.home-PFV

M: “And then after we finished seeing the movie, she just, she just, she just, she just went home.”

The RP is finishing seeing the movie and the TG is the girl’s going home. At this point, the reasonable interpretation is that the girl went home right after finishing seeing the movie. The temporal distance between the moment of finishing seeing the movie and the moment when the girl set out going home is short (maybe only ten minutes), as it seems that the TG follows the RP almost immediately. However, later on in the same dialogue speaker M reveals that there were actually some other intervening events in between which are not mentioned here. These intervening events include applying for a library card for the girl’s sister, knowing the sister’s name, and sitting for a while.

The reason why speaker M uses *zhīhòu* to sequence the RP and the TG is that these two situations are mostly relevant and mostly important. Speaker M was probably hoping that after seeing the movie they could do something special together, as they were out on a date. To his dismay, it turned out that nothing special happened afterwards. The intervening events like applying for a card, knowing her sister’s name, sitting for a while, etc., were nothing special in his expectation and thus not worth reporting. Of course he knew that at the end of the date the girl would go home. He sequences the finishing seeing the movie and the girl’s going home together precisely because the intervening events were of no importance. To him, the date began with seeing the movie, the main activity they did together, and the girl’s going home is the only significant event after seeing the movie. The use of *zhīhòu* in the attached form in IUs 280-282 simply imposes speaker M’s subjective evaluation that this temporal distance is too short, as if nothing (important) had happened in between. The stutter in IUs 280-282 somehow reflects that he still feels overwhelmingly disappointed about the outcome of this date two years ago.

We have explained how the temporal terms can bring two situations temporally closer at the level of construal. On the other hand, in (4-38) the actual temporal distance between finishing seeing the movie and the girl's going home is estimated to be a few hours within the same day, which is not very long at the level of content.



4.6 Chapter Summary

In this chapter we have analyzed the corpus data of *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* in the attached form use. The four temporal terms are attached to a preceding element and the resultant combination form an adverbial expression as a whole that can modify some other material. In most of the examples, both the preceding element and the modified material are verbal/clausal, suggesting that the primary function of the four temporal terms in the attached form is to sequence a situation (TG) with respect to another situation (RP), as a VP/clause profiles a situation.

When the preceding element is a VP/clause that denotes a situation, the punctual-durative distinction is not important. For one thing, most of the RP situations can be conceived as punctual in some way; for another, whether punctual or durative, the situation serves the same function as the RP with respect to which the TG is sequenced. When the preceding element is an NP denoting a time point, this time point expresses the reference time (RT), whereas an NP denoting a period or duration gives the specific detail of the temporal distance between the TG and the RT, which may be the speech time or another situation mentioned elsewhere in the discourse.

The TG is predominantly a situation, being expressed with a VP/clause. Although most of the TGs in the NTU Corpus are punctual, the durative TGs display the extension sense in various ways: as a state, an activity, a repetitive situation, or a situation whose temporal location is uncertain. For the *before*-pair, the direction of the extension and the direction of the time flow are opposite. For the *after*-pair, the two

directions are the same. With a durative TG, in some cases the *after*-pair means ‘since’ in addition to ‘after’.

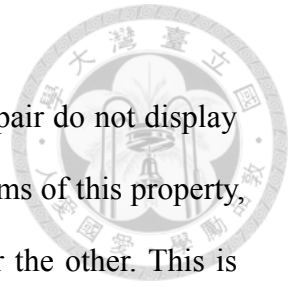
The internal sequence between the RP and the TG does not require the consideration of the speech time, and this feature is demonstrated by the fact that all of the four temporal terms are found to profile an RP and a TG that both lie in the past, both in the future, both as general facts or habitual actions, etc. In the attached form use, the four temporal terms and the RP basically provide relative time reference via sequencing a TG relative to some RT that is not the speech time.

The four temporal terms profile the internal temporal sequence between two situations, not the temporal distance between them. The temporal distance between the RP and the TG is determined by the temporal location of the RP and the one of the TG. Whether this distance is long or short, it is not affected by the four temporal terms. This is why there is no distinction of temporal distance in the attached form use between the two near-synonyms within each pair. In actual usage, the temporal distance between the RP and the TG is short. At the level of objective conceptual content, two situations that are relevant tend to be temporal close, and in some cases they are even overlapped. At the level of construal, the four temporal terms in the attached form have the function of bringing the RP and the TG close, because the RP and the TG are the only two situations profiled, whereas the intervening situations are not.

In chapter 2 we have mentioned that initial adverbials “signal a path or orientation in terms of which the following information is to be understood” (cf. Y. Wang 2006). In some examples, the RP does not literally set a time frame for the following material, but sets something more like a topic frame for the facilitation of the speaker’s thinking and speaking. However, we do not address these examples and their functions in this study, since our concern lies in the temporal distance and

closely related issues.

To conclude this chapter, the two near-synonyms within each pair do not display temporal distance distinction when used in the attached form. In terms of this property, in all of the examples one near-synonym can always substitute for the other. This is not to say that the two near-synonyms in the attached form do not have any distinction at all. As pointed out in 4.5.2, there seems to be some subtle difference when the preceding element is a noun denoting a time point and the TG is a punctual situation whose temporal location is uncertain. In addition, previous literature has touched upon other distinctions such as genre (written vs. spoken data) and the conceptual domain (space vs. time), which are not our focus in this thesis.



Chapter 5 Bare Form



In this chapter we analyze the corpus data of *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu* in the bare form. As in the case of the attached form, the four temporal terms in the bare form predominantly function as adverbials, with occasional uses as attributive adjectives. As movable adverbs, these temporal terms in the bare form may occur after the subject and before the verb, or in clause-initial position. Because these features are not our focus, in the chapter we will not discuss grammatical category and syntactic position.

In the bare form use, there may still be a linguistic element in the previous context that expresses something that can be identified as a reference point (RP). We call a previously mentioned RP “**antecedent RP**.” With an antecedent RP, it is relative time reference. When there is no antecedent RP that can be identified in the context, the speech time is a plausible reference time (RT). In this case, it is absolute time reference. One may argue that even though the context does not suggest any other RP, there may still be something in the shared knowledge between speakers that can serve as an RP. While there is this possibility, we prefer to base our analysis on the evidence in the linguistic context and classify the data in the bare form into “with antecedent RP” and “without antecedent RP,” the latter relying on the speech time as the deictic center. Otherwise, when there is no linguistically realized antecedent RP, it will be difficult to distinguish the case where there is still something in speakers’ shared knowledge that can serve as an RP from the case where there is no such an RP.

The organization of this chapter is as follows. We discuss the *before*-pair in 5.1 and the *after*-pair in 5.2. In each section, we analyze the data of one near-synonym first, and then proceed to the other. The data of each temporal term is divided into “with antecedent RP,” which is relative time reference, and “without antecedent RP,”

which is absolute time reference. We present critical examples from the NTU Corpus that are able to demonstrate the **temporal distance distinction** between the two near-synonyms within each pair. When adequate, we also include examples collected outside the corpus. We will use **substitution** as a test to see in what kind of context the two near-synonyms are or are not interchangeable, and analyze whether it is due to the temporal distance distinction or some other factors.

5.1 Before-Pair

More than half of the bare-form uses of *zhīqián* have an RP mentioned in the previous context, whereas almost all of the bare-form uses of *yǐqián* do not. Table 5.1 provides the detailed distribution.

Table 5.1 The *before*-pair with and without an antecedent RP in the bare form

Bare form	Before-pair	
	<i>zhīqián</i>	<i>yǐqián</i>
With an antecedent RP	18 (64.3%)	8 (8.51%)
Without an antecedent RP	10 (35.7%)	86 (91.49%)
Total	28/50	94/118

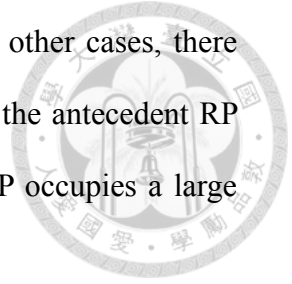
As we will see soon, the few cases where *yǐqián* has an antecedent RP are still better to be interpreted in the absolute time reference sense.

5.1.1 *Zhiqian*

5.1.1.1 With an Antecedent RP

The anaphor of *zhī* in *zhīqián* has the function of referring backward to something in the preceding discourse, thus making *zhīqián* compatible with relative time reference, also called anaphoric temporal reference (Klein 1994: 16). In relative time reference, *zhīqián* means ‘before that’, with ‘that’ referring to an antecedent RP. In some cases, the antecedent RP is mentioned adjacently or very closely to the IU in

which *zhīqián* is used, which resembles the attached form use. In other cases, there may be more IUs or even turn takings between the mentioning of the antecedent RP and the use of *zhīqián*. In extreme cases, the elaboration of the RP occupies a large segment of the prior discourse.



Example (5-1) is a case in which the antecedent RP takes multiple IUs to finish and is separated from the use of *zhīqián* by several IUs. In this dialogue, speaker D is talking about her break-up with her ex-husband, a habitual gambler who would put aside everything to gamble.

(5-1) (GAMBLE)

- 98 D: ...我=-,
 wǒ
 1SG
- 99 ...我 那 時候=-,
 wǒ nà shíhòu
 1SG that time
- 100 ..我 覺得,-
 wǒ juéde
 1SG feel
- 101 ..我 很--
 wǒ hěn
 1SG very
- 102 ...我 很 堅決,-
 wǒ hěn jiānjué
 1SG very determined
- 103 ..我 就 跟 他 講,\
 wǒ jiù gēn tā jiǎng
 1SG JIU with 3SG say
- 104 ..再見.\
 zàijiàn
 good.bye
- 105 H: ...是 他 要 再見,\
 shì tā yào zàijiàn
 C/F 3SG want good.bye



- 106 ..還是 你 要 再見.\
háishì nǐ yào zàijiàn
or 2SG want good.bye
- 107 D: ..我.\
wǒ
1SG
- 108 H: ..是 你 要 再見.\
shì nǐ yào zàijiàn
C/F 2SG want good.bye
- 109 D: ..對.\
duì
right
- 110 H: ...<L2 OK L2>.\
- 111 ..你--
nǐ
2SG
- 112 ..你=,-
nǐ
2SG
- 113 ...你 直接 跟 他 說=,-
nǐ zhíjiē gēn tā shuō
2SG directly with 3SG say
- 114 ..你 要.. 分手.\
nǐ yào fēnshǒu
2SG want split
- 115 D: ...uh=,-
- 116 ..不是.\
bùshì
NEG.C/F
- 117 ..因為 我,-
yīnwèi wǒ
because 1SG
- 118 ..之前 hoN,\
zhīqián hoN
ZHIQIAN PT
- 119 ..我 就 原諒 他 太 多 次 了.\
wǒ jiù yuánliàng tā tài duō cì le
1SG JIU forgive 3SG too many time CRS

D: “At that time, I thought, I was, I was determined. I just said good-bye to him.”

H: “He wanted to say good-bye or you wanted to say good-bye?”

D: “Me.”

H: “You were the one who wanted to say good-bye?”

D: “Yes.”

H: “OK. You, you, you simply told him you wanted to split?”

D: “Uh, no, because I, **before that**, I had forgiven him too many times.”



The RP is the event of D’s splitting from her ex-husband, which is stated by D in IUs 99-104 and mentioned again by H in IU 114. The TG is D’s forgiving him, which occurred multiple times. Note that D does not foresee that she will mention the forgiving when she is still talking about the splitting. She mentions it out of the communicational need to resolve her interlocutor’s confusion. Put differently, the **emergent RP** does not become the RP until D mentions the TG. Still, the RP is mentioned prior to the mentioning of the TG, and *zhīqián* here displays a relative time reference use, i.e., sequencing the forgiving prior to the splitting.

In the attached form use, the preceding element must be within the scope of an NP or a VP/clause. This means that the speaker has to compress the RP into a syntactically complete unit within only a few syllables **before** he/she says the temporal term *zhīqián* and the TG. By contrast, in the bare-form use of *zhīqián* in (5-1) the elaboration of the RP is not only loosely organized (the first four IUs do not convey any complete information) but also occupies several IUs to finish. Also, there are other IUs between the elaboration of the RP and the use of *zhīqián*. These phenomena reveal that **functionally speaking, bare-form *zhīqián* allows for a less organized presentation of the RP and a loose syntactic connection between the RP and *zhīqián*.**⁵⁰ This discourse function, though interesting, is not related to the temporal distance between the RP and the TG.

⁵⁰ I owe the analysis of this discourse function to Chun-Chieh Wang.

In this example it is acceptable to use *yǐqián*, in the absolute time reference sense, of course. The reason is that both the RP and the TG lie in the distant past. According to other parts in the same dialogue, D broke up with her ex-husband ten years ago. The temporal term *yǐqián* in the bare form serves the function of locating a TG at a past time point distant from the speech time. We call the temporal distance of ten years “long” because ten years is considerably long judging from the life span of human beings. Things that happened ten years ago to an individual can be reasonably be conceived and expressed as having happened “a long time ago,” or “in the past.” In addition, the sense of **sequentiality** is not strong in this case, and it is not obvious how much time had elapsed between the RP (the breaking up) and the end of the durative TG (i.e., the last time of forgiving). The substitution still changes the meaning, though. Using *yǐqián* in this case will result in the reading “I was determined to split ... because **in the past** (cf. *before that*) I had forgiven him too many times.”

In the next example *zhīqián* is preferred over *yǐqián*. Speaker B, a film critic, anti-chronically names three recent British films that have received positive feedback worldwide.

(5-2) (RS007)

- 26 B: ..像 去年 大家都知道的,_
xiàng qùnián dàjiā dōu zhīdào de
 like last.year everyone all know NOM
- 27 ..一路到底[脫線舞男= oh]\
yīlùdàodǐ[tuōxiàn wǔnán o
 Full.Monty (film title) PT
- 28 A: [unh...unh].\
 29 B: ..那 像 前年 的 那個,_
nà xiàng qiánnián de nàge
 then like year.before.last NOM that
- 30 ...unh=..猜火車. oh.\



- cāihuǒchē* o
Trainspotting (film title) PT
- 31 ..在 之前 還 有 一 部, _
zài zhīqián hái yǒu yī bù
at ZHIQIAN still have one CL
- 32 ..叫 魔鬼..一族.\
jiào móguǐyīzú
call Shallow.Grave (film title)

B: “Like the one that everyone knows from last year [i.e., 1997], *The Full Monty*. And like *Trainspotting* from the year before last. And **before that** there was another one called *Shallow Grave*.”⁵¹ (Speaker A’s reactive token omitted.)

In this temporal/sequential relation, the RP is the film *Trainspotting*, before which the TG *Shallow Grave* was released. This is also a use of relative time reference. It would be inappropriate to use *yǐqián* in IU 31, however, even if in absolute time reference. For one thing, both films are apparently still “recent” and temporally close to the speech time. Using *yǐqián* to locate *Trainspotting* in the past would give the impression that this film was from a very long time ago, which contradicts with the real situation. On the other hand, there is a strong sense of **sequentiality** between these two films, suggesting that relative time reference is preferred, unlike the previous example where the RP is emergent. Bare-form *yǐqián* is primarily used for absolute time reference, as we will see in 5.1.2. Also, the temporal distance between the RP and TG is short. However, if out of the blue speaker B wanted to refer to a very old British film after he just mentioned *Trainspotting*, *yǐqián* would serve the purpose well.

In the previous two examples the RP lies in the past. The next example contains an ongoing situation as the RP. Below is taken from a telephone conversation between two friends. After a long pause, speaker W drops the original topic on exams and turns to ask about speaker C’s current situation.

⁵¹ Year of the films: *The Full Monty* (1997), *Trainspotting* (1996), *Shallow Grave* (1994).



(5-3) (EXAM)

- 108 W: ...(1.79)你 現在 在 哪裡.\
 nǐ xiànzài zài nǎlǐ
 2SG now at where
- 109 C: ...在 家裡.\
 zài jiā-lǐ
 at home-in
- 110 W: ..在 幹嘛?/
 zài gànma
 DUR do.what
- 111 C: ..m=-,
 m
 PT
- 112 ..在 跟你 講 <@電話@>.\
 zài gēn nǐ jiǎng diànhuà
 DUR with 2SG talk phone
- 113 W: ..之前 呢.\
 zhīqián ne
 ZHĪQIÁN PT
- 114 C: ...之前 啊,\
 zhīqián a
 ZHIQIAN PT
- 115 ..沒有 幹嘛,-
 méiyǒu gànma
 NEG.have do.what
- 116 ..就是 剛 起來.\
 jiùshì gang qǐlái
 namely just get.up

W: “Where are you now?”

C: “At home.”

W: “What are you doing?”

C: “Hmm, I am talking to you on the phone [laughter].”

W: “And how about **before (that)**?”

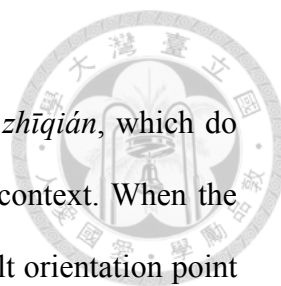
C: “**Before (that)**, nothing special. I just got up.”

In response to W’s question *what are you doing now*, C jokingly answers that she is talking to W on the phone (see the laughter symbol @ in IU 112). Then using *zhīqián*

plus a topic marker *ne*, W redirects the question into *what were you doing before talking on the phone*. C initiates the new answer with *zhīqián* again to set the time frame. The activity of talking on the phone serves as the RP, emergent like in (5-1), and C's prior action of getting up is the TG, the ultimate information that W is interested in. We can consider this instance as a relative time reference use. Using *yǐqián* here in the sense of absolute time reference would be weird; it would appear that W was asking about C's action in the past, rather than prior to the telephone conversation.

On the other hand, since the activity of talking on the phone is an ongoing, current situation, the reference time here can be viewed as the speech time. The rationale is as follows: (1) the reference time is the temporal position of the reference point; (2) the temporal position of the reference point here is, or overlaps with, the present moment; (3) therefore the reference time here is the present moment, which is the speech time. Viewing the speech time as the reference time will be more like absolute time reference, and the corresponding interpretation of *zhīqián* in IU 113 will be *how about earlier (than now)* (cf. *how about before that, that = talking on the phone*). Even in this absolute time reference reading, it would be inappropriate to use *yǐqián*, for the same reason mentioned in the last paragraph.

To conclude this part, most of the bare-form uses of *zhīqián* in the NTU Corpus contain a linguistically realized RP mentioned in the preceding context, whether preplanned or emergent. When the RP is a current situation, it provides a suitable environment for the speech time to be reanalyzed as the reference time. This type of example overlaps with the one that will be discussed in the next part, i.e., when there is clearly no antecedent RP in the context and the speech time serves as the reference time.



5.1.1.2 Without an Antecedent RP

In this part we analyze the remaining examples of bare-form *zhīqián*, which do not have an antecedent RP that can be traced from the preceding context. When the context does not suggest any RP, the speech time is often the default orientation point and serves as the reference time with respect to which a thing or a situation is located. In such absolute time reference, the TG being located by *zhīqián* is a thing or a situation that lies in the recent past. Put differently, *zhīqián* profiles a temporal point (or a stretch, if the TG is durative) that is prior to yet still close to the speech time. Substituting *yǐqián* for *zhīqián* would impose a different construal on the real world situation/content by locating the situation in the distant past.

The first example is from a dialogue between two roommates talking about accommodation fee for the summer vacation. From the previous context we know that this dialogue happens at the beginning of the summer vacation.

(5-4) (DORM)

43 B: ..eh 我們 到底 要不要 交 那個..
wǒmen dàodǐ yàobùyào jiāo nàge
 1PL after.all want.NEG.want pay that
 暑期 住宿費 啊\
shūqí zhùsù-fèi a
 summer.vacation accommodation.fee PT

44 A: TSK

45 ..他 有 扣 啊,_
tā yǒu kòu ā
 3SG have subtract PT
 46 你 在 學費裡 不 是 有 扣掉\
nǐ zài xuéfèi-lǐ bù shì yǒu kòu-diào
 2SG at tuition-in NEG C/F have subtract-fall

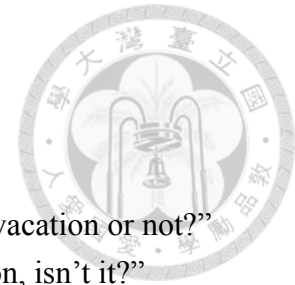
47 B: ...學費 有 是不是\
xuéfèi yǒu shìbùshì
 tuition have C/F.NEG.C/F

48 ..因為 我 一直 很- 很 害怕,_
yīnwèi wǒ yīzhí hěn- hěn hàipà,



- yīnwèi wǒ yīzhí hěn hěn hàipà
because 1SG all.the.time very very afraid
- 49 到時候 沒 交 被 人家 趕出去.\
dàoshíhòu méi jiāo bèi rénjiā gǎn-chūqù
by.the.time NEG pay BEI they expel-go.out
- 50 A: ...(1.8)不會 啦.\
bùhuì la
NEG.will PT
- 51 ..他們 那 種 是,_
tāmen nà zhǒng shì
3PL that kind C/F
- 52 ...有沒有,_
yǒuméiyǒu
have.NEG.have
- 53 ..要 畢業 了.\
yào bìyè le
want graduate CRS
- 54 B: ..hm.\
- 55 ..哦=,_
o
PT
- 56 ..eh 我 這裡 有.\
wǒ zhèlǐ yǒu.
1SG here have
- 57 ..暑期 住宿費.\
shǔqī zhùsù-fèi.
summer.vacation accommodation.fee
- 58 ..<F 兩千 塊 F>.\
liǎngqiān kuài
two.thousand CL
- 59 ...(1.2)<T chiat 貴 T>.\
chiat guì
so expensive
- 60 A: ...放心 了 hoN.\
fàngxīn le hoN
relax CRS PT
- 61 B: ...對 啊.\
duì ā

right PT
 →62 ... (1.8) 害 我 之前.. 驚疑 不定
hài wǒ zhīqián jīngyí bùdìng
 make 1SG ZHIQIAN suspicious unsettled



- B: “Eh, do we have to pay the accommodation fee for the summer vacation or not?”
 A: “It is subtracted, it is subtracted from (i.e., included in) the tuition, isn’t it?”
 B: “It is included in the tuition? Because I have been afraid that I would be kicked out if I did not pay by the time (of summer vacation).”
 A: “You won’t. They are those, you know, that are graduating.”
 B: “Hmm. Oh. Eh I have accommodation fee worth NT\$ 2000 [possibly referring to the receipt of the tuition]. So expensive!”
 A: “Now you can relax.”
 B: “Yeah. This uncertainty made me suspicious and unsettled **earlier**.”

The TG is speaker B’s state of being suspicious and unsettled that she might be kicked out without paying for the accommodation fee. Since the TG is a durative state, it occupies some stretch of time. According to the linguistic expressions in IU 62, the whole state lies in the **recent past**, although in reality speaker B does not stop being suspicious and unsettled until speaker A confirms about the accommodation fee. The starting point of this state is presumably located at some time closely before the summer vacation begins. That is, the temporal distance between the starting point of this state and the speech time is short. It only makes sense if B started being suspicious and unsettled as the summer vacation was approaching, and as we know the dialogue took place at the beginning of the summer vacation, the starting point cannot be far away from the speech time. If we substituted *yǐqián* for *zhīqián* in IU 62, it would give the impression that B had been worried since a long time ago (e.g., years ago), which contradicts the real situation.

In the attached form use, the starting point of a durative TG for the *before*-pair is not important. The importance is that the endpoint of the durative TG coincides with the RP. In the bare form use with the speech time as the reference time, the temporal

location of the starting point becomes crucial. In this example, the endpoint of the state is close to (or almost overlapped) with the speech time. **The temporal distance distinction thus resides in the distance between the location of the starting point and the location of the speech time.** Also, in this example, it is our world knowledge that supports the short temporal distance reading, as we know it is impossible that speaker B started being suspicious and unsettled about the accommodation fee for the summer since a long time ago. Although it is not clear when speaker B started being suspicious and unsettled about the accommodation fee, we know it could not be some time earlier than she paid the tuition at the beginning of the semester.

In the next example the TG is a durative situation that can be conceived as a whole. In this dialogue, speaker A tells her boyfriend how a friend got a job. After a long pause preceding IU 232, she switches to talk about another friend who has been looking for a job recently.

(5-5) (CO5APPLI)

- 232 A: (2.6)我 最近 一直 聽到 我 同學
wǒ zuìjìn yīzhí tīngdào wǒ tóngxué
 1SG recently all.the.time hear 1SG classmate
 在 應徵 工作.\
- zài yìngzhēng gōngzuò*
 DUR apply.for job
- 233 ..像 另外 一 個 系上 的 同學 啊,_
xiàng lìngwài yī ge xì-shàng de tóngxué a
 like another one CL department-on NOM classmate PT
- 234 ...那 她 應徵,_
nà tā yìngzhēng ,
 then 3SG apply.for
- 235 ..她 之前 是 在 一 家,_
tā zhīqián shì zài yī jiā
 3SG ZHIQIAN C/F at one CL
- 236 TSK
- 237 (1.1)一 家--

yī jiā
 one CL
 238 ..瑞典 還是 瑞士 的 公司.\

 ruìdiǎn hái shì ruìshì de gōngsī
 Sweden or Switzerland NOM company



A: “Recently I have been hearing that my classmates are applying for jobs, like a classmate from another department. She applies for ... She was at a, a, Swedish or Swiss company **before**.”

The use of *zhīqián* in IU 235 suggests that this friend, who has been looking for a job recently, had this former job at a Swedish or Swiss company not long ago, namely, at a time close to the speech time. The having worked at a Swedish or Swiss company is the TG, which can be conceived as either punctual or durative. The plausible scenario is that this friend just stopped working for this company recently. The temporal distance between (the end of) being at the former company and the speech time is short. Substituting *yǐqián* for *zhīqián* here would indicate that this friend had this former job a long time ago and not anymore, or that she had worked at this company for a long time until recently.

In the previous two examples, it can only be inferred that the TG lies in the recent past, despite that this inference makes more sense than the other way around. In some cases, the context provides linguistic evidence for the recent past interpretation, as in the next example. In this radio interview, speaker D (the male host) and speaker H (the female host) introduce speaker Y (a listener to this radio program), especially his hobbies, to the audience.

(5-6) (SEATING)

93 D: [楊] 先生,-
 yang xiānshēng
 PN Mr.
 94 平常 喜歡 游泳.\
 píngcháng xǐhuān yóuyǒng



usual like swim

95 H: ...(0.8)[還有 看 電影].\

háiyǒu kàn diànyǐng

and see movie

96 D: [還 有 沒]-,

háiyǒu méi

still have NEG

97 H: ..喜歡 看 什麼 樣 的 電影 呢?/

xǐhuān kàn shénme yàng de diànyǐng ne

like see what kind NOM movie PT

98 Y: ...uN=-,

uN

PT

→99 ..你們 之前 說 的,-

nǐmen zhīqián shuō de

2PL ZHIQIAN say NOM

100 ..綁票通緝令⁵².\

bǎngpiàotōngqīlìng

Ransom (film title)

(IUs 101-112 omitted)

113 H: ..對.\

duì

right

→114 ..小彤⁵³ 也 是 上 禮 拜 才 看.\

xiǎotóng yě shì shàng lǐbài cái kàn

PN also C/F last week CAI see

D: “Mr. Yang likes swimming.”

H: “[And watching movies.]”

D: “[Anything else?]”

H: “What kind of movie do you like to watch?”

Y: “Um, the one that you two mentioned **before**, *Ransom*.”

(IUs 101-112 omitted)

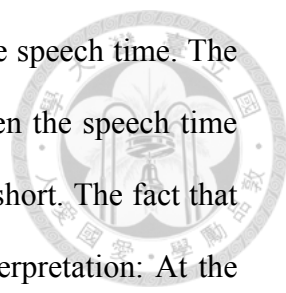
H: “Right. I just watched it **last week**.”

In this example *zhīqián* occurs in a nominalized clause “the one that you mentioned

before.” Within this clause *zhīqián* locates the punctual target event of the two hosts’

⁵² *Ransom* (1996).

⁵³ Xiao-Tong (小彤) is speaker H’s nickname.



mentioning the movie *Ransom* to the audience at a time prior to the speech time. The use of *zhīqián* in IU 99 suggests that the temporal distance between the speech time and the time when the two hosts mentioned this movie on radio is short. The fact that speaker H just watched it last week provides evidence for this interpretation: At the time of this radio conversation, *Ransom* is a recently-released movie, which the two hosts have recommended to their audience not long ago. Substituting *yǐqián* for *zhīqián* here would sound like the hosts recommended this movie a long time ago (e.g., a couple of years ago).

In sum, the examples in this section demonstrate that when there is no antecedent RP and the speech time serves as the reference time, *zhīqián* locates a TG in the recent past and thus profiles a short temporal distance between the speech time and situation time associated with the TG. Using *yǐqián* would otherwise suggest a longer distance, which often results in a construal not compatible with the real world situation, especially when there is contextual evidence for a short temporal distance. In chapter 3.3 and 4.5.2 we have said that to determine a temporal distance as long or short is a complicated issue involving an actual distance (content), the type of situation that is being discussed, and a subjective evaluation of this distance (construal). In the three examples given in 5.1.1.2 here, we describe the temporal distance between the speech time and the TG as short in the sense of content and construal both.

5.1.2 *Yiqian*

In the NTU Corpus most of the uses of *yǐqián* occur in the bare form (81.7%, n = 94/118). In only a small number of the bare-form examples can we find something in the preceding context that can be identified as the RP (n = 8), before which the TG is located. In addition, in these cases the reference time can almost always be the speech time. These two phenomena seem to suggest that bare-form *yǐqián* selects the speech

time as the default reference time, and that the existence of an antecedent RP is simply a contextual contingency.



5.1.2.1 With an Antecedent RP

The first example is from the same dialogue in (5-1). The antecedent/contingent RP and the TG both lie in the distant past.

(5-7) (GAMBLE)

173 H: ..這 件 事情,-
zhè jiàn shìqíng
 this CL thing

174 ..整整 十 年 過後 你=,-
zhěngzhěng shí nián guòhòu nǐ
 entire ten year later 2SG

(IUs 175-180 omitted)

→181 D: ..我 那 時候 分手 的 時候 喔,-
wǒ nà shíhòu fēnshǒu de shíhòu o
 1SG that time split NOM time PT

182 H: ..m.\
m
 PT

→183 D: ..我 燒 那個 情書 啊,-
wǒ shāo nàge qíngshū ā
 1SG burn that love.letter PT

→184 ..我 是 用 那個<L2 燒 金紙 L2> 的
wǒ shì yòng nàge shāo jīnzhǐ de
 1SG C/F use that burn ghost.money NOM
 那個= 桶子 啊,-
nàge = tǒngzi ā
 that bucket PT

185 H: ..uhhunh.-
uhhunh
 PT

→186 D: ..燒了 一 個 下午.\
shāo-le yī ge xiàwǔ



- burn-PFV one CL afternoon
- 187 ..@@@
- 188 H: ..喔,-
o
PT
- 189 ..真=的 啊.-
zhēnde a
really PT
- 190 D: ..對 啊.-
duì ā
right PT
- 191 ..[1 以前-- 1]
yǐqián
YIQIAN
- 192 H: [1 所以 1],\
suǒyǐ
so
- 193 ..在 那個 之前,-
zài nàge zhīqián
at that ZHIQIAN
- 194 ..一定 是= 非常 轟轟烈烈 的\
yīdìng shì fēicháng hōnghōnglièliè de \
definitely C/F very intense NOM
- 195 D: ..對 啊,-
duì ā
right PT
- 196 ..以前 是 一 天 一 封 情書 的\
yǐqián shì yī tiān yī fēng qíngshū de \
YIQIAN C/F one day one CL love.letter NOM

H: “This thing, after all the ten years you ...”

(IUs 175-180 omitted)

D: “When I broke up with him at that time,”

H: “Hmm.”

D: “I used the bucket for burning ghost money to burn down the love letters.”

H: “Uh-huh.”

D: “It took one afternoon.”

H: “Oh, really?”

D: “Yes. [In the past]”

H: “[So], before that, it must have been really intense.”
 D: “Yes, in the past it used to be one love letter per day.”



In this passage, we can simply regard the speech time as the reference time and interpret *yǐqián* in IU 191 and IU 196 as ‘in the past’. *Yǐqián* profiles a long temporal distance and serves the purpose to locate the TG (the state of receiving one love letter per day) in the distant past, which held more than one decade ago. In the absolute time reference reading, it would be weird to use *zhīqián*, which profiles a shorter temporal distance. However, in this particular case it is also fine to have relative time reference reading due to the existence of another event mentioned in the preceding context, namely, the letter burning event. When we conceive the letter burning event described from IUs 181-186 as an antecedent RP, using *zhīqián* in IU 196 will be appropriate in the relative time reference sense. The meaning would become ‘before that’, with ‘that’ referring to the letter burning event.

From this example we observe that a bare-form *yǐqián* profiles a long distance between the speech time and the time of the TG, with evidence from the context (i.e., “ten years”). Meanwhile, since there happens to be an event mentioned earlier that can be viewed as an RP, *zhīqián* can substitute *yǐqián* here, as *zhīqián* has the function of linking backward to something in the preceding context. The absolute time reference reading seems slightly preferred, probably because the RP is emergent.

In the next example, the antecedent RP and the TG both lie in the past, but not so distant from the speech time. Here a woman calls in to a radio program to share her recent experience of clearing up a misunderstanding with her husband using the tips that the program introduced.

(5-8) (COUNSEL2)

→227 D: ..然後 後來 解釋完了 之後,_
 ránhòu *hòulái* *jiěshì-wán-le* *zhīhòu*

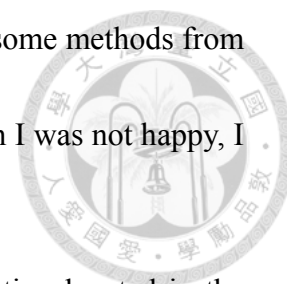


- and.then later explain-finish-PFV ZHIHOU
- 228 ..我 覺得, _
wǒ juéde
1SG feel
- 229 ..oh 真的 心裡 是 比較 舒服 一[些 這樣]子
oh zhēnde xīn-lǐ shì bǐjiào shūfú yīxiē zhèyàngzi
PT really heart-in C/F more comfortable some like.this
- 230 A:
[是=].\
shì
right
- 231 ..謝謝 妳 告訴 我們 一 個 例子, _
xièxie nǐ gàosù wǒmen yī ge lìzi
thank 2SG tell 1PL one CL example
- 232 就是 妳 確實, _
jiùshì nǐ quèshí
namely 2SG indeed
- 233 ...從 我們 節目 裡面 聽到 一些 方法.\
cóng wǒmen jiēmù lǐmiàn tīng-dào yīxiē fāngfǎ
from 1PL program inside hear-arrive some method
- 234 ..然後 運用 在 妳 的 生活 裡面 [喔].\
ránhòu yùnyòng zài nǐ de shēnghuó lǐmiàn o
and.then apply at 2SG GEN life inside PT
- 235 D:
[對]對.\
duìduì
right.right
- 236 因為=, _
yīnwèi
because
- 237 ..因為 以前 就 是 一直 心裡 不 快樂 喔.\
yīnwèi yǐqián jiù shì yīzhí xīn-lǐ bù kuàilè o
because YIQIAN JIU C/F always heart-in NEG happy PT
- 238 ..不 高興, _
bù gāoxìng
NEG glad
- 239 ..就 這樣 一直 憋著.\
jiù zhèyàng yīzhí biē-zhe
JIU like.this always suppress-DUR

D: “And then later after we cleared things up, I felt really better inside.”

A: “Yes. Thank you for telling us an example. You indeed learned some methods from our program and applied them to your own life.”

D: “Yes, because, because **in the past** I was always unhappy. When I was not happy, I just suppressed it like this.”



The TG is speaker D’s being unhappy, which is a repetitive situation located in the past by *yǐqián* in absolute time reference sense. Like in the previous example, D’s clearing things up with her husband, mentioned in the preceding context, may serve as an RP. In the relative time reference sense, the meaning of IU 237 would become “before that I was always been unhappy,” with “that” referring to the event of clearing things up. Using *zhīqián* is acceptable in this regard, though it somehow gives the connotation that the state of being unhappy is a temporary state, rather than a long-term repetitive situation. In this example, speaker D is implying that in the past **whenever** she had a misunderstanding with her husband (relevant condition), she would just suppress her emotion and do nothing and thus be unhappy (TG). Using *yǐqián* gives the impression that the state of being unhappy started since a long time and extended until this time when she chose to communicate with her husband. Because the TG is a repetitive situation, *yǐqián* here has the meaning of ‘for a long time’.

In the next example, the antecedent RP is a currently relevant situation.

(5-9) (COLLOGE)

205 A: ...(12’91) 啊,-

a

PT

206 ..來 臺北 一 年.-

lái táiběi yī nián .-

come Taipei one year

207 ...哼.-

hēng

PT



208 B: ...(1'52)什麼 一年\
shénme yī nián
 what one year

209 A: ...沒有,-
méiyǒu
 NEG.have

210 ..說 我 來 臺北 一年.-
shuō wǒ lái táiběi yī nián
 say 1SG come Taipei one year

→211 B: ...你 以前 有 來 臺北 唸 嗎\
nǐ yǐqián yǒu lái táiběi niàn ma
 2SG YIQIAN have come Taipei study Q

A: “Ah, it’s been one year since I came to Taipei (to study). Hum.”

B: “What about one year?”

A: “Nothing. I said it’s been one year since I came to Taipei.”

B: “Have you ever come to Taipei to study **before**?”

The TG is speaker A’s coming to Taipei to study, which is expressed in the form of a question by speaker B in IU 211. In absolute time reference, *yǐqián* locates the TG in the past and thus this question can be translated as “have you ever come to Taipei to study before (now)?” Alternatively, speaker A’s coming to Taipei one year ago can be viewed as an antecedent RP, and in such a relative time reference use the question becomes more like “did you come to Taipei to study before you came one year ago?” Substituting *zhīqián* for *yǐqián* is acceptable due to the existence of a previously mentioned event as the RP. The difference seems to be that with *zhīqián*, the question concerns only the time closely before A’s coming to Taipei one year ago, whether in absolute or relative time reference sense, whereas with *yǐqián* speaker B is asking about A’s studying **experience** at any possible given time point in the general past. Since A is still studying in Taipei at the speech time, her coming to Taipei one year ago is a currently relevant situation at the present moment, and consequently locating the TG prior to this situation roughly equals to locating the TG prior to the speech

time, which is still absolute time reference.

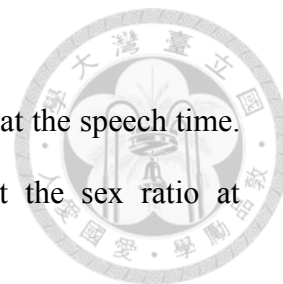
In sum, in our corpus all the uses of *yǐqián* in the bare form is interchangeable with *zhīqián* as long as there is something that can be identified as the RP in the preceding context, though the RP is contingent and the speech time is still a preferred reference time. This suggests that bare-form *zhīqián* is strongly compatible with relative time reference use, in which it links anaphorically to an RP. Also, the TG situation tends to be a durative or repetitive situation that lasts some extent of time in the past, as in (5-7), or occurs when a relevant condition holds, as in (5-8), or the temporal location of the TG is not certain but is possible to be at any time point prior to the reference time, as in (5-9). This feature of TG resembles the cases that display the **extension sense** as discussed in 4.3.3. Note that in the last two examples, substituting *zhīqián* for *yǐqián* would somehow weaken the extension sense and result in a shorter duration of the TG. This does not have to be at the content level but the construal level, though.

5.1.2.2 Without an Antecedent RP

In most of the uses of bare-form *yǐqián* in the NTU Corpus, it is more obvious that the speech time serves as the reference time, as there is no previously mentioned event in the preceding context that can be identified as an RP. As said earlier, even in the examples where an RP can be identified, the speech time can still be the reference time with respect to which the TG situation is located. When the TG is a punctual situation or a durative one that is already concluded in the past, the TG is located by *yǐqián* in the past far from the speech time. When the TG is a durative or repetitive situation that continues up to the speech time, using *yǐqián* indicates that the starting point of this TG lies in the distant past, meaning that this TG lasts for a long time. In either case, *yǐqián* profiles a long temporal distance between the speech time and the

TG.

We first present an example where a durative TG ends almost at the speech time. The following dialogue is between two freshmen talking about the sex ratio at universities in Taiwan.



(5-10) (COLLEGE)

- 55 A: ...然後 中山=... 中正 都是=... 各一半.\
- ránhòu zhōngshān zhōngzhèng dōu shì gè yī bàn*
- and.then SYSU CCU all C/F each one half
- 56 ...然後 輔大 也是女生多.\
- ránhòu fūdà yě shì nǚshēng duō*
- and.then FJU also C/F girl plenty
- 57 B: ...(1.04)好奇怪 喔.\
- hǎo qíguài o*
- so strange PT
- 58 A: ...對 啊.-
- duì ā*
- right PT
- 59 B: ...以-
- yǐ*
- YI
- 60 ..以前 我不知道 輔大 女生 比較 多.\
- yǐqián wǒ bù zhīdào fūdà nǚshēng bǐjiào duō*
- YIQIAN 1SG NEG know FJU girl more plenty

A: "And SYSU and CCU are half-half. And FJU has more girls."

B: "So strange."

A: "Yeah."

B: "I **didn't** know that FJU has more girls."

The TG situation is speaker B's not knowing that FJU has more girls, and this state of not knowing is ended roughly at the speech time thanks to speaker A's sharing this information. By using *yǐqián*, B suggests that there has been a considerable amount of time during which the state of not knowing held. In this case, since the TG is a durative situation, *yǐqián* has the meaning of 'for a long time'. Using *zhīqián* here will

not have this meaning.

This example is similar to the one in (5-4) in that in both cases one speaker's speech act of sharing information causes the immediate change of the mental state in another. In (5-4), a girl's mental state changes from being suspicious and unsettled into not being worried because of what her roommate tells her about accommodation fee. Here in (5-10), speaker B changes from not knowing into knowing about something due to speaker A's information. The difference between these two examples lies in the duration of the former state, or the starting point of this state. In (5-4), the girl's being worried starts at a time close to the speech time, hence the use of *zhīqián*. By contrast, here speaker B's state of not knowing about FJU's sex ratio is likely to have started since she first knew about the existence of FJU and the system of higher education in Taiwan in general. Although the starting point is not specified, it can be inferred to lie at a longer distance from the speech time, compared with the accommodation fee example in (5-4), in which being suspicious and unsettled is a temporary state of emotion rather than a personal trait.

When the TG is a durative situation whose endpoint coincides with the speech time, the use of *yǐqián* suggests that the starting point of the TG lies at a longer distant from the speech time. However, using *zhīqián* in (5-10) is acceptable because it does not contradict with the real world situation at the level of content. As illustrated in Figure 5.1, a durative situation lasting from a recent time point (t_2) to the speech time is included in the temporal stretch that lasts from a distant time point (t_1) to the speech time. The time point “ R_0 ” stands for the speech time as the reference time.

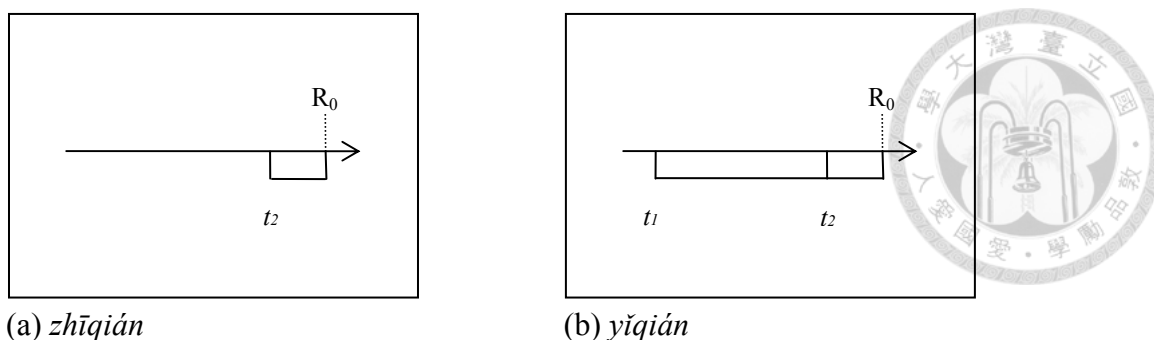


Figure 5.1 The *before-pair* with a durative TG that lasts up to the speech time

That the state holds at t_2 does not contradict with that the state already holds at t_1 . Also, using *zhīqián* in (5-10) may simply reveal that the speaker considers the duration of the TG to be short at the level of construal. On the other hand, when it is clear that a TG starts at a recent time point close to the speech time, such as in (5-4), using *yǐqián* would be strange, as explained earlier.

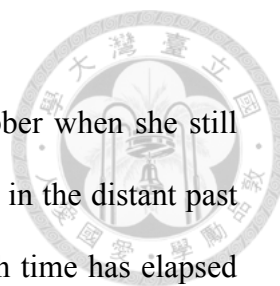
In the next example, the TG can be conceived as a point in that past and thus does not overlap with the speech time. This is from a dialogue of a radio program between the host and a listener who calls in from abroad.

(5-11) (MUSICAL)

- 49 H: ..你 應該 會 滿 喜歡 安德烈 韋柏 的 東西 [喔].\
nǐ yīnggāi huì mǎn xǐhuān āndéliè wēibó de dōngxī o
 2SG should will very like Andrew Webber GEN thing PT
- 50 L: [(H)]
- 51 ...(0.79)unh.\
unh
 PT
- 52 ...其實 他 的 東西,-
qíshí tā de dōngxī
 in.fact 3SG GEN thing
- 53 ..以前 在 臺灣 就 聽過 錄音帶.\
yǐqián zài táiwān jiù tīng-guò lùyīndài .
 YIQIAN at Taiwan JIU hear-EXP tape

H: “You probably would like Andrew Lloyd Webber’s works very much.”

L: “Hmm, if fact, **when I was** in Taiwan I had listened to the tapes of his works.”



The TG situation is speaker L's listening to the tapes of Webber when she still lived in Taiwan, a repetitive action located prior to the speech time in the distant past by the use of *yǐqián*. From the context, we do not know how much time has elapsed between L's listening to the tapes in Taiwan and the speech time when she is having this dialogue with the host from abroad. Using *yǐqián* here gives the impression that it has been a considerable while since she listened to the tapes last time in Taiwan, or at least to L's subjective evaluation it has been relatively long. Using *zhīqián* would seem to suggest that L has been abroad for a shorter period of time, and that the temporal distance between the listening to the tapes in Taiwan and the speech time is short. In this example, without enough contextual information of the real world content (i.e., how long exactly), either *yǐqián* or *zhīqián* can fit in IU 53 without any weirdness, even though the construal would change accordingly. In addition, using *zhīqián* would somehow entail that there is something else in the preceding context that can serve as the RP, because of the anaphoricity of *zhī*.

It has been repeated that bare-form *yǐqián* profiles a longer temporal distance, but a distance can be called long or short only when we know what kind of situations are being discussed (i.e., construal) and how long the distance exactly is (i.e., content). In (5-1) and (5-7), the context provides the information that the TG situation lies ten years ago (content), and accordingly we judge this temporal distance as being long against the life span of human beings (construal). Thus, something that happened ten years ago can be conceptualized and described as having happened in the distant past. In other transcriptions, though, there may not be any contextual evidence supporting the long distance interpretation. In these cases, only the speaker knows how long the temporal distance is. To researchers, when little or no evidence can be traced from the context that suggests a long temporal distance in real life situation, it is generally

acceptable to substitute *zhīqián* for *yǐqián* without any semantic oddity or inappropriateness, **precisely because we do not know the distance for sure**. The consequence is simply that, using *zhīqián* gives the impression that the TG pertains to recent past, or the speaker considers it so, whereas using *yǐqián* suggests a distant past, or the speaker considers it so.

In the NTU Corpus, more than half of the uses of *yǐqián* in the bare form are like the musical example in (5-11), in which *yǐqián* could be changed into *zhīqián* for the lack of information on the exact temporal distance between the speech time and the TG, or because the temporal distance is not important. On the other hand, about 40% uses of the bare-form *yǐqián* that do not have an antecedent RP occur with some contextual or real world information about a long temporal distance. In these cases, substituting *zhīqián* for *yǐqián* is changes the meaning. We have seen such an example in (5-7). Below we give another one.

In the following dialogue between two friends, speaker A is referring to a classmate from high school

(5-12) (CHINA AIRLINE)

- 220A: ..楊婉琳,_
yángwǎnlín
 PN
- 221 ..妳 不 認識\
nǐ bù rènshì
 2SG NEG know
- 222 ..我 跟 小萍 講 小萍 就 知道,_
wǒ gēn xiǎopíng jiǎng xiǎopíng jiù zhīdào
 1SG with PN say PN JIU know
- 223 ..以前 我們,_
yǐqián wǒmen
 YIQIAN 1PL
- 224 ..高中 的,_
gāozhōng de

	high.school	NOM		
225	..前	任 的	班長.\	
	<i>qián</i>	<i>rèn de</i>	<i>bānzhǎng</i>	
	previous	CL NOM	class.leader	

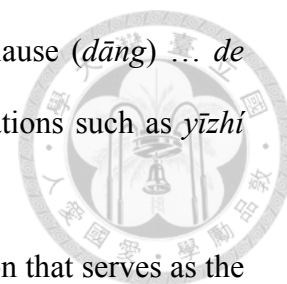


A: “Wan-Lin Yang [fake name], you don’t know her. If I tell Xiao-Ping [fake name] it will ring a bell to her. She [i.e., Wan-Lin] **used to** be our class leader in high school.”

The TG here is a person, the girl called Wan-Lin. Speaker A first sets the time frame in the past with *yǐqián* in IU 223 and then provides further information of “high school” in IU 224. At the beginning of the original transcription, the transcriber noted down speaker A’s age as 27 at the time of recording. This information from the external context together with the linguistic context “high school” indicates that it is about ten years ago when Wan-Lin was speaker A’s high school classmate. Speaker A conceives this temporal distance of ten years to be long as reflected in her use of *yǐqián*, a term that marks a time point distant from the speech time. In addition, it is clear that A and Wan-Lin are not classmates anymore. If A used *zhīqián* here, then it would suggest a much shorter distance between A’s high school years and the current dialogue (e.g., speaker A is a freshman having finished high school not long ago).

The bare-form *yǐqián* in IU 223 is semantically redundant in the sense that “high school” alone in IU 224 is sufficient to locate the TG at a past time. From a functional perspective, *yǐqián* in IU 223 first sets the time frame in the general past while A is trying to organize her speech content, and then in IU 224 she shifts from a **generic** to a **specific** time frame as she specifies a more precise period of time in the past, at the same time giving the detail that Wan-Lin used to be the class leader during that period. In the NTU Corpus, there are other instances of bare-form *yǐqián* that include such expressions providing the information about a more specific temporal location of the TG. These expressions usually indicate a particular stage or period in a person’s life, such as *xiǎo (de) shíhòu* ‘when I was a child; in my childhood’, *xuéshēng shídài*

‘ schooldays’, or a specific time frame introduced by the *when*-clause (*dāng*) ... *de shìhòu*. When the TG is a durative or repetitive situation, collocations such as *yīzhí* ‘always’ also provide the evidence for a long period of time.



In the next example, it is another kind of contextual information that serves as the evidence that *yǐqián* locates a TG in the distant past from the speech time. Here two friends are talking about the major of a mutual friend.

(5-13) (TE3LOVE)

→147 A: ..她 以前 跟 我 講 說 什麼 想
tā yǐqián gēn wǒ jiǎng shuō shénme xiǎng
 3SG YIQIAN with 1SG say COM what want
 轉 公衛 還 什麼 的.\
zhuǎn gōngwèi hái shénme de
 change Public.Health or what NOM

→148 B: ..多 久 以前?\
duō jiǔ yǐqián
 how.much long YIQIAN

→149 A: ..好 久 以前.\
hǎo jiǔ yǐqián
 so long YIQIAN

→150 ..[非常 久 以前].\
fēicháng jiǔ yǐqián
 very long YIQIAN

151 B: [應該 沒有 了 啦].\
yīnggāi méiyǒu le la
 should NEG.have CRS PT

A: “She **once told** me before that she wanted to change her major into Public Health or something.”

B: “How long **ago**?”

A: “A long time **ago**. [Very long **ago**].”

B: “[Not anymore, I think].”

The TG is the friend’s telling speaker A about her intention to change major, which is located in the distant past by speaker A’s use of *yǐqián* instead of *zhīqián*. The long

distance between this telling event and the speech time is confirmed by what speaker A says later in IUs 149-150: it happened *very long ago*. We do not know how long is very long to A, but the point is that at least he considers the temporal distance very long, and this subjective construal is reflected by his use of *yǐqián* in IU 147 before speaker B asks him to specify the temporal distance. The utterance in IUs 149-150 is one kind of contextual evidence for the long temporal distance interpretation of *yǐqián* in IU 147.

5.1.2.3 Implications

It seems that a long temporal distance and a long duration of a durative/repetitive situation are both manifestations of the extension sense. Some implications in the actual use of *yǐqián* related to the extension sense can be found, including contrasting two time points, asking about experience and describing personal properties.

In the example in (5-13), there is an implicit contrast between the past and the present: this friend being discussed has changed from the state of wanting to change her major into not wanting to do that anymore. Although *change* is not part of the primary meaning of *yǐqián*, **the change of a situation or a contrast between the past and now** is a recurring pattern found the context of *yǐqián* in the bare form in the NTU Corpus (45%, n = 42/94). Some examples even explicitly mention the word *xiànzài* ‘now; nowadays’ in the surrounding context.

As pointed out in the analysis of (5-9), *yǐqián* is preferred to *zhīqián* for asking about **experience** at any possible given time point prior to the speech time, i.e., in the general past, rather than at a specific or recent time point. Using *zhīqián* would seem to ask about the occurrence of a particular event at one particular time in the recent past, rather than about experience in the general past. In the NTU Corpus, there are two such uses of *yǐqián*. Example (5-14) is the other one. Note that the verb *tūjiàn*

‘recommend’ in IU 12 takes the experiential aspect marker *-guò*.



(5-14) (SALESMAN)

- 1 S: 會不會 很 排斥 看 英文 方面 的 書籍。
huìbùhuì hěn páichì kàn yīngwén fāngmiàn de shūjí.
 will.NEG.will very refuse read English area NOMbook
- 2 F: ...(1.02)英文 方面。
yīngwén fāngmiàn
 English area
- 3 [1 是 1] 不會。
shì bùhuì
 C/F NEG.will

(IUs 4-11 omitted)

- 12 S: ...以前 有沒有 很 多 人 跟 你
yǐqián yǒuméiyǒu hěn duō rén gēn nǐ
 YIQIAN have.NEG.have very many person with 2SG
 推薦過 英文 書 呢=。
tuījiàn-guò yīngwén shū ne
 recommend-EXP English book PT

S: “Would you refuse to read English books?”

F: “English, no.”

(IUs 4-11 omitted)

S: “**Have** a lot of people recommended English books to you?”

Two uses of bare-form *yǐqián* in the NTU Corpus have the additional sense of “**originally**” or “**by nature**,” as in the following example. Here two friends are talking about a girl whose boyfriend asks her to imitate the way that the famous African movie actor N!xau speaks.

(5-15) (RELATION2)

- 63 A: ...為什麼 她 要 學 歷蘇?_
wèishénme tā yào xué lìsū
 why 3SG want imitate PN
- 64 B: ...就是--
jiùshì



because
 65 ...[她 男朋友] 要 她 學.\
tā nán péngyǒu yào tā xué
 3SG boyfriend want 3SG imitate

(IUs 66-72 omitted)

→73 A: ...[搞不好] 她 以前 就 是 這 樣 子.\
gǎobùhǎo tā yǐqián jiù shì zhèyàngzi
 maybe 3SG YIQIAN JIU C/F like.this

A: “Why does she have to imitate N!xau [i.e., the way N!xau speaks]?”

B: “Because her boyfriend asks her to.”

(IUs 66-72 omitted)

A: “Maybe she is just like that herself.”

In IU 73 speaker A is saying that perhaps this is just the way that this girl always speaks, whether her boyfriend asks her to imitate N!xau or not. Using *zhīqián* instead would weaken the emphasis on the personal speaking habit and make it sound like a temporary property. A personal habit usually lasts for a long time and thus is compatible with the profile of *yǐqián*.

5.2 After-Pair

In the NTU Corpus, there are only 11 tokens of *zhīhòu* in the bare form (13.9% of the total 79 tokens of *zhīhòu*). Ten of them occur with an antecedent RP. In most of the uses of *yǐhòu* in the bare form, there is no antecedent RP in the context. Table 5.2 gives the distribution.

Table 5.2 The *after*-pair with and without an antecedent RP in the bare form

Bare form	After-pair	
	<i>zhīhòu</i>	<i>yǐhòu</i>
With an antecedent RP	10 (90.91%)	5 (11.36%)
Without an antecedent RP	1 (9.09%)	39 (88.64%)
Total	11/79	44/106



In the bare form, *zhīhòu* means ‘after that’, ‘later’ or ‘and then’, whereas *yǐhòu* expresses ‘since then’ or ‘in the future’.

5.2.1 *Zihou*

Ten of the 11 instances of *zhīhòu* in the bare form occur with an antecedent RP, displaying the relative time reference use as well as the anaphoric property of *zhī*. The other *zhīhòu* takes the speech time as the reference time, locating the TG in the near or upcoming future. We will see the examples with an antecedent RP first and then the example with the speech time as the RT, together with an example of this kind outside the corpus.

5.2.1.1 With an Antecedent RP

In most of the uses of *zhīhòu* in the bare form, an antecedent RP can be easily identified in the preceding context. Also, the mentioning of the RP is usually close to the use of *zhīhòu*, typically in the previous or second previous IU (within the same speaker).⁵⁴ In these cases *zhī* anaphorically links to the RP that is mentioned previously. Sequence is still the basic sense, in that *zhīhòu* profiles the sequential relationship between two situations or entities. The sequential relationship holds between the RP and the TG and is in theory irrelevant to the speech time. In actual uses of bare-form *zhīhòu*, we have found that the RP and the TG tend to lie in the past (n = 5), but also found to be general situations (n = 3) and future situations (n = 2).

The first example we will see consists of an RP and a TG that both lie in the past. A journalist shares that once he overslept in the morning and missed the chance to interview the Minister of Education.

⁵⁴ Unlike in the relative time reference uses of *zhīqián*, where the antecedent RP tends to be emergent or an afterthought.



(5-16) (REPORTER)

- 460 C: 十二 點 的 時候,_
shìèr diǎn de shíhòu
twelve o'clock NOM time
- 461 ..我 就 打開 電視,_
wǒ jiù dǎkāi diànshì
1SG JIU turn.on television
- 462 ..我 就 看了 一下 電視 新聞,_
wǒ jiù kàn-le yīxià diànshì xīnwén
1SG JIU see-PFV a.while television news
- 463 ..就 大概 知道 吳京 今天 早上 到底
jiù dàgài zhīdào wújīng jīntiān zǎoshàng dàodǐ
JIU roughly know PN today morning after.all
講了 什麼.\ *jiǎng-le shénme*
say-PFV what
- 464 R: XX 人家 採訪 的 新聞.\ *rénjiā cǎifǎng de xīnwén*
other.people interview NOM news
- 465 C: 可是 之後,_
kěshì zhīhòu
but ZHIHOU
- 466 ..還是 有 深深 的 罪惡感,_
háishì yǒu shēnshēn de zuìè-gǎn
still have deep.deep NOM guilt-sense
- 467 ..讓 我 不 敢 待 在 家裡.\ *ràng wǒ bù gǎn dāi zài jiā-lǐ*
let 1SG NEG dare stay at home-in
- 468 ..於是 呢,_
yúshì ne
so PT
- 469 ..我 就 穿好 衣服,_
wǒ jiù chuān-hǎo yīfú
1SG JIU put.on-well clothes
- 470 ..就 出門了.\ *jiù chūmén-le .*
JIU go.out-PFV

C: “At 12 o’clock I turned on the TV, and I watched the news for a while, and I knew roughly what Wu Jing [then Minister of Education] had said.”

R: “The news that other journalists had covered.”

C: “But **after that**, I still had a strong sense of guilt, which did not allow me to stay at home. So I got dressed, and then I went out (for work).”



Here speaker C mentions a series of related events in the chronological order. In this sequential relationship profiled by *zhīhòu*, the RP is not only the immediately antecedent event of C’s knowing what the Minister had said, but also the other two preceding events, namely his turning on the TV and watching TV news for a while. Likewise, the TG that is mentioned immediately after *zhīhòu* is the state of having a strong sense of guilt followed the action of getting dressed and going to work.

There are two points worth noting in this example. The first one the discourse function that we have seen in *zhīqián* in 5.1.1.1. The use of *zhīhòu* in the bare form helps to organize a scenario that involves more than just two situations in the RP. In the attached form use, *zhīhòu* tends to take only one situation as the RP in the preceding element. To use *zhīhòu* in the attached form, speakers have to plan ahead all the things that they intend to say; they have to have a clear idea about the RP and the TG they intend to put in the sequential relationship. By contrast, the bare form allows speakers more flexibility. Speakers can develop the background that they need to set up in a freer manner, such as mentioning more details in a less rigid way. In this case, the RP is longer and involves more than just one event. The TG introduced by *zhīhòu* is later added to mark the following situation in the whole scenario. We may translate *zhīhòu* as ‘after that’, ‘after which’ or ‘afterwards’ to show the anaphoric linking between *zhī* and the previously mentioned events.

Second, although in Mandarin Chinese describing situations in a chronological order already suffices to reflect their relative sequence, and thus the use of *zhīhòu* here seems redundant, the bare-form *zhīhòu* is not only to profile the sequence but

also to mark an important **transitional point** in the story. The fact that the bare-form *zhīhòu* occurs after the contrast maker *kěshì* ‘but’ instead of any other position in the recount of the story indicates that *zhīhòu* can be used to signal the importance of the TG that is about to be mentioned, in addition to arranging a sequential relationship neutrally. In the NTU Corpus almost all the uses of *zhīhòu* in the bare form are found to be transitionally relevant in some way, such as occurring after the summarizing marker *suǒyǐ* ‘so’, taking a topic marker *ne*, or receiving phonological emphasis.⁵⁵

Recall that Zhao and Li (2009) and Yang (2009) both contend that *zhīhòu* in the bare form must refer to a time in the past, namely, to modify a TG that lies in the past (cf. 2.3.2 in this thesis). This claim is challenged by the next example, in which both the antecedent RP and the TG lie in the future (or as general situations).

(5-17) (COSMETIC)

- 220 K: ..那 你 用 蜂膠 再生霜, _
nà nǐ yòng fēngjiāo zàishēng-shuāng
 then 2SG use propolis rejuvenating-cream
- 221 ..先 把 青春痘 的 問題, _
xiān bǎ qīngchūndòu de wèntí
 first BA pimple NOM problem
- 222 ..先 做 一 個 處理.\
xiān zuò yī ge chǔlǐ
 first do one CL handle
- 223 C1: ...(0.5)mhm.\
mhm
 PT
- 224 K: (0)hoN, _
hoN
 PT
- 225 ..那=, _
nà
 then

⁵⁵ Transcribed with *marcato* as in <MRC *zhīhòu* MRC>, which means that each syllable is distinct and emphasized.



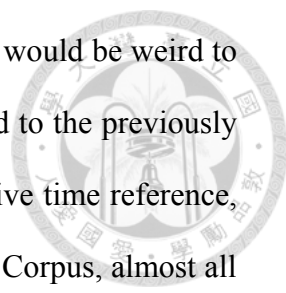
- 226 ...之後 呢?/
zhīhòu ne
ZHIHOU PT
- 227 ..你-,_
nǐ
2SG
- 228 ...你 的 女兒,_
nǐ de nǚér
2SG GEN daughter
- 229 ..可以 再 用 核酸 的 東西,_
kěyǐ zài yòng hésuān de dōngxī
can then use nucleic.acid NOM thing
- 230 ..去 加強 臉部,_
qù jiāqiáng liǎn-bù
to strengthen face-part
- 231 ..這個 細胞 的,_
zhège xìbāo de
this cell NOM
- 232 ..一 個 強化 它.\
yī ge qiánghuà tā
one CL strengthen 3SG

K: “So you use propolis cream to handle the problem of pimples (for your daughter) first.”

C1: “Hmm.”

K: “Um, **after that/and then**, your daughter can use skin care products with nucleic acid to strengthen the cells on the face.”

Speaker K gives two pieces of advice in total. The first *using propolis cream* is the RP. Before giving the second advice, she continues with *nà* ‘then’, a marker to signal transition, followed by *zhīhòu* with the topic marker *ne*. The second advice is the TG. In this example, *zhīhòu* occurs at a transitional point. The sequence sense of *zhīhòu* is conspicuous, partially contributed by the uses of *xiān* ‘first’ in the RP in IUs 221 and 222 and the use of *zài* ‘and then’ in the TG in IU 229. However, the sequence sense between the two steps of skin care procedure still holds even if we remove *xiān* and *zài*.



In the use of *zhīhòu* in the bare form with an antecedent RP, it would be weird to use *yǐhòu* instead. The anaphoric property of *zhīhòu* links backward to the previously mentioned RP and thus making *zhīhòu* more compatible with relative time reference, especially when both the RP and the TG lie in the past. In the NTU Corpus, almost all the uses of *yǐhòu* in the bare form do not have an antecedent RP, and the speech time serves as the reference time. It seems that *yǐhòu* in the bare form must locate a TG in the future, i.e., after the speech time. Thus, using *yǐhòu* in (5-16) is inappropriate, because the TG lies in the past.

However, if we think of the example of skin care in (5-17) from the perspective of absolute time reference, using *yǐhòu* is still somewhat strange: the TG would be located in the far future, whereas the skin problem of the daughter is better to be handled soon, i.e., in the near future. In 5.2.2 we will show that when there is an antecedent RP, which is rarely the case for *yǐhòu* in the bare form, *yǐhòu* can be used only when the TG will take place once the RP is fulfilled, as a prerequisite condition, or when a repetitive TG lies in the past subsequent to an RP that also lies in the past.

5.2.1.2 Without an Antecedent RP

Without an antecedent RP in the previous context, the speech time provides the reference time. *Zhīhòu* locates the TG after the speech time in the near future, with the meaning of ‘later (than now)’ or ‘soon’. In the NTU Corpus, there is one such example. It is from the same radio conversation in (5-8), in which Speaker D talks about how her husband criticized her behavior in front of his relatives. Here she is describing what she was thinking at that moment.

(5-18) (COUNSEL2)

135 D: ...我 覺得 我--
wǒ juéde wǒ



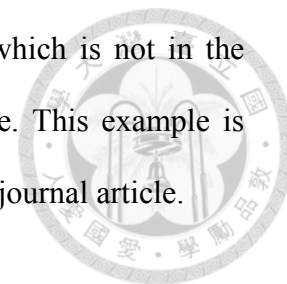
- 136 1SG feel 1SG
 ..你 是 我 先生,_
nǐ shì wǒ xiānshēng
 2SG C/F 1SG husband
- 137 ..應該--
yīnggāi
 should
- 138 ..應該要--
yīnggāiyào
 should
- 139 ..就是 說 你[可以 小聲一點]地 講 啊.\
jiùshì shuō nǐ kěyǐ xiǎoshēngyīdiǎn-de jiǎng ā
 namely COM2SG can in.a.low.voice say PT
- 140 A: [@ @ @]
- 141 D: ..或者 說,_
huòzhě shuō
 or COM
- 142 ..之後 你 再 跟 我 說,_
zhīhòu nǐ zài gēn wǒ shuō
 ZHIHOU 2SG then with 1SG say

D: “I feel that, you are my husband, you should tell me (that you don’t like the way I do it) at a lower voice, or tell me **later** (in private instead of in front of the relatives).”

This example may be viewed from either relative or absolute time reference perspective. Here we choose the latter to show that *zhīhòu* has absolute time reference use. In this example, speaker D quotes her own inner speech at the moment after her husband criticized and embarrassed her in front of his relatives. In this **inner speech**, which is addressed to her husband, the TG situation is her husband’s telling her that he did not like her way of doing things in private. Since her husband already criticized her in front of the relatives, this TG situation is simply a **counterfactual wish** than actually referring to a future situation. Nevertheless, D uses *zhīhòu* to locate this wishful situation later than the speech time when she had this inner speech.

Example (5-18) is not a representative example of *zhīhòu* in the bare form with

the speech time as the reference time. The following example, which is not in the NTU Corpus, can illustrate better the absolute time reference use. This example is said by a graduate student at the beginning of his presentation on a journal article.

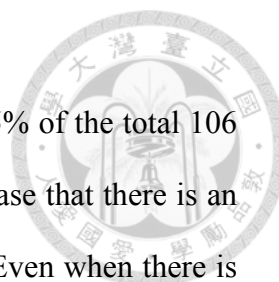


(5-19) (personal data)

A: 這	篇	的	觀點	很	新穎
<i>zhè</i>	<i>piān</i>	<i>de</i>	<i>guāndiǎn</i>	<i>hěn</i>	<i>xīnyǐng</i>
this	CL	NOM	opinion	very	novel
有些	有	點	問題		
<i>yǒuxiē</i>	<i>yǒu</i>	<i>diǎn</i>	<i>wèntí</i>		
some	have	a.bit	problem		
→ 我們	之後	可以	慢慢	探討	
<i>wǒmen</i>	<i>zhīhòu</i>	<i>kěyǐ</i>	<i>mànmàn</i>	<i>tàntǎo</i>	
1PL	ZHIHOU	can	slow.slow	discuss	

A: “This article’s opinions are novel. Some are problematic. We can take time discussing them **later**.”

In (5-19), the TG is speaker A and the audience’s discussing the problematic opinions in the article. The reference time is the speech time, meaning that *zhīhòu* locates the TG shortly after the speech time, in the sense of ‘later’. If we substitute *yǐhòu* for *zhīhòu*, it will not result in any oddity. The consequence is simply that the temporal distance between the reference time and the TG becomes longer. In (5-19), it makes more sense that the discussing is expected to take place during or shortly after the presentation, namely, in the imminent future close to the speech time. By contrast, using *yǐhòu* in this case will give the impression that the speaker expects the discussion to take place at an even later time, at least not on the same day when the presentation is given. If we view the TG as a repetitive situation, then *yǐhòu* is preferred. In this case, it will mean that the discussing does not take place just once after the speech time, but multiple times (see 5.2.2.2).



5.2.2 *Yihou*

In our corpus there are 44 uses of *yǐhòu* in the bare form (41.5% of the total 106 uses of *yǐhòu*). As in the case of bare-form *yǐqián*, it is rarely the case that there is an antecedent RP in previous context in the uses of bare-form *yǐhòu*. Even when there is one, the speech time can almost always serve as the alternative reference time, suggesting that absolute time reference is the predominant use of bare-form *yǐhòu*. In only five examples of bare-form *yǐhòu* in the corpus can we find an RP mentioned in previous context (11.4 % of the 44 bare-form tokens), while in the majority of bare-form *yǐhòu* uses the speech time serves as the reference time with respect to which the TG is located. In this section we will first examine the examples that involve an RP mentioned prior to the use of bare-form *yǐhòu*, and then proceed to the examples in which only the speech time can be viewed as the reference time in the temporal relation profiled by *yǐhòu*.

5.2.2.1 With an Antecedent RP

In the NTU Corpus, when there is an antecedent RP in the use of *yǐhòu* in the bare form, both the RP and the TG lie in the future, as in the following example. Here speaker B (male) is advising that his addressee (i.e., speaker A, female) create a BBS account so that she can send and receive messages with her own account instead using speaker B's.

(5-20) (CO2BBS)

113 B:	..你	可以	開	一	個	站,\
	<i>nǐ</i>	<i>kěyǐ</i>	<i>kāi</i>	<i>yī</i>	<i>ge</i>	<i>zhàn</i>
	2SG	can	open	one	CL	account
→114	..以後	你	就	可以	都,\	
	<i>yǐhòu</i>	<i>nǐ</i>	<i>jiù</i>	<i>kěyǐ</i>	<i>dōu</i>	
	YIHOU	2SG	JIU	can	all	

- 115 ..自己 寄.\
 zìjǐ jì
 self send
- 116 ..然後 她--
 ránhòu tā
 and.then 3SG
- 117 ..你 也 可以 收 她 的 信.\
 nǐ yě kěyǐ shōu tā de xìn .
 2SG also can receive 3SG GEN letter



B: “You can create an account of your own, so that you can send messages yourself, and you can also receive hers.”

The RP in this temporal relationship is speaker A’s creating an account, and following this advice is the TG, the outcome state of speaker A’s being able to send and receive messages with her own account. Both the RP and the TG lie in the future, as advice can only be given on future affairs. In this example using *zhīhòu* is fine, because *zhīhòu* can sequence two situations, whether in the future or in the past, via linking backward to the first situation and introducing the second.

This type of example has a **conditional** reading that goes beyond a neutral sequence of two situations. As Gu (2010) points out, bare-form *yǐhòu* tends to collocate with conditional markers such as *rúguǒ* ‘if’ and *yàoshi* ‘if’ in the first clause; even without the collocation, *yǐhòu* alone is often sufficient to denote a conditional meaning. We agree with Gu and argue that the futurity and the temporal sequence invite the inference of the conditional reading (cf. the Invited Inferencing Theory in Traugott and Dasher 2002). When both the RP and the TG lie in the future, the second situation can only take place after the first situation is carried out or fulfilled. The first situation then is inferred as the condition, and the second situation occurs as the outcome of this condition.

We have discussed earlier that even when there is something in the context that can be viewed as an antecedent RP, the speech time can still be viewed as the

reference time. One way to arrive at this viewing is to locate the TG in the future, without relating it to the RP, as in most uses of *yǐhòu* in the bare form (see 5.2.2.2). Alternatively, the conditional reading provides the possibility of viewing the speech time as the reference time. We may paraphrase speaker B's words in (5-20) as “if you create an account **now**, you can send messages yourself **in future**.”⁵⁶ The RP's temporal location is then aligned with the present moment, i.e., the speech time.

Note that in this type of example, the TG is not a punctual but a durative and **repetitive** situation that displays the **extension sense**. Speaker B does not mean that after speaker A creates an account she can send a message only once. Rather, speaker B means that as long as speaker A creates an account, she will be able to send messages whenever she wants to. The extension sense is strengthened by the adverb *dōu* ‘all’ in IU 114, meaning that speaker A can send messages on all occasions. Without *dōu*, the extension sense still holds. On the other hand, using *zhīhòu* but without *dōu* somehow shifts the profile from a repetitive TG as a whole into the inchoative part of the TG; that is, the very first time of speaker A's sending a message is profiled in focus.

As we have pointed out, in the majority uses of *yǐhòu* in the bare form, there is no antecedent RP and the speech time is the reference time. In the NTU Corpus, the examples of *yǐhòu* in the bare form with an antecedent RP all pertain to future situations, and in these cases the speech time can still provide an alternative reference time. No example of *yǐhòu* in the bare form is found which sequences two **past** situations. Also, recall that in the use of *zhīhòu* in the bare form which sequences two past situations, it is always weird to substitute *yǐhòu* for *zhīhòu* (cf. Example (5-16) in 5.2.1.1). At this point, we may argue that the primary function of bare-form *yǐhòu* is to

⁵⁶ British English distinguishes between *in the future* and *in future* in that the first refers to ‘after the present’, whereas the latter means ‘from now on’.

locate a TG after the speech time. The few relative time reference uses with a conditional reading, as in (5-20), is just a variant scenario, because in those cases the speech time can still be viewed as the reference time.

We have found examples outside the NTU Corpus in which *yǐhòu* in the bare form sequences an RP and a TG that both lie in the past in the relative time reference use. One such example is the Double Ninth Festival example cited in chapter 2. Therefore, it is not what Yang (2009) claims that *yǐhòu* in the bare form must locate a situation in the future. However, it is not as simple as what Zhao and Li (2009) claim that *yǐhòu* in the bare form can freely locate a TG in the past, at present, or in the future without any restriction. Here we propose that if *yǐhòu* in the bare form is used to sequence a past TG situation relative to another past situation, the TG situation tends to involve the extension sense ‘since’, meaning that the TG is a repetitive or even a permanent situation, as in the Double Ninth Festival example. If the past TG is a punctual or temporary situation, then *yǐhòu* in the bare form fails to sequence the past TG with respect to a past RP, as in the case of (5-16), in which *zhīhòu* is preferred. *Zhīhòu* in the bare form can sequence two situations regardless of the punctual-durative or temporary-repetitive distinction, or the temporal location of the two situations.

Below we give a spoken example in which a past TG is sequenced by *yǐhòu* in the bare form after a past RP. Here speaker Y, an adult, is sharing that in her childhood her father once beat her up after she told him the truth.⁵⁷

(5-21) (personal data)

Y: ..我 就 被
wǒ jiù bèi
1SG JIU BEI

⁵⁷ From the TV program *Ba Ma Jong Hen Da* (爸媽冏很大), originally broadcast in Taiwan on Taiwan Public Television on May 7, 2013.



..狠打了 一下
hěndǎ-le yīxià
 cruel.beat-PFV a.while

(a few lines omitted)

→L: ..所以= 以後 開始 都,
suǒyǐ = yǐhòu kāishǐ dōu
 so YIHOU start all

..一直 說謊.\
yīzhí shuōhuǎng
 all.the.time tell.lie

→Y: ..之後 就 是 會 避重就輕地 講
zhīhòu jiù shì huì bìzhòngjiùqīng-de jiǎng
 ZHIHOU JIU C/F will dodge.heavy.dwell.on.light-ly say

一些 事情.\
yīxiē shìqíng
 some thing

[就是]
jiùshì
 namely

→L: [以後] 就 人生 就 沒有 再 說過 實話 了.\
yǐhòu jiù rénshēng jiù méiyǒu zài shuō-guò shíhuà le
 YIHOU JIU life JIU NEG.have again say-EXP ruth CRS

Y: “I got beaten up (by my father).”

(a few lines omitted)

L: “So **after that/since then** you started lying to your father all the time?”

Y: “**After that** I would just dodge the important and dwell on the trivial when talking to my father.”

L: “**After that/since then** you never told the truth again to your father in your life?”

The antecedent RP is the beating event, which lies in the past. The TG is speaker Y’s never telling her father the (important) truth anymore whenever she has to talk to him, which is a repetitive situation starting in the past following the beating event and continuing up to the speech time. In this example, *yǐhòu* can be translated as ‘from then on’ or ‘since then’, both denoting the extension of the TG from a starting point (i.e., the RP) towards the speech time or the future. Note that speaker L uses *yǐhòu* to

sequence the TG after the RP, whereas speaker Y uses *zhīhòu*. In this example, either term can be used. *Yīhòu* is used because of the extension sense of the repetitive TG, and *zhīhòu* is used because it serves the function to link anaphorically to the antecedent RP, regardless of the TG's property. To some speakers, though, *zhīhòu* is still preferred here, because anaphoricity is compatible with relative time reference use.

How about using *yīhòu* in the bare form when both the RP and the TG lie in the future? Examples like (5-20) are such cases where the RP and the TG lie in the future. However, this type of use is special in that first, the TG is a repetitive situation displaying the extension sense, and second, there is a conditional relation between the RP and the TG. Can *yīhòu* in the bare form be used to sequence a non-repetitive future TG with respect to a future RP? It seems doubtful. Below we show an example of *yīhòu* in the bare form made by a German learner of Mandarin Chinese as a second language. In this example, both the RP and the TG lie in the future, namely, after the speech time, and the TG is a punctual situation.

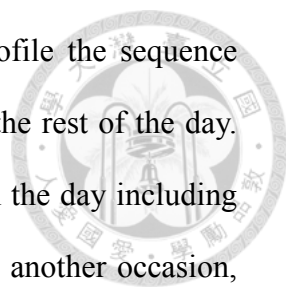
(5-22) (personal data)

D: 我們 去 吃飯
wǒmen qù chīfàn
1PL go have.a.meal
→ 以後 去 看 電影
yīhòu qù kàn diànyǐng
YIHOU go see movie

Literal: 'We go have a meal first, and go to see the movie **in the future/next time.**'

Intended: 'We go have a meal first, and go to see the movie **afterwards/later.**'

The RP is the first event of going to have a meal, and the TG is the second event of going to see the movie. There is no conditional reading, because going to see a movie is not dependent on going to have a meal. The TG is a punctual event, not a repetitive

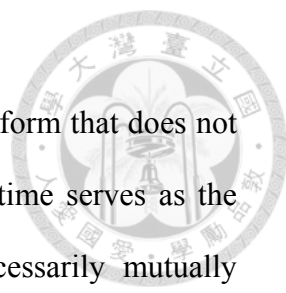


situation. The intended meaning of the utterance is simply to profile the sequence between two events that the speaker and the addressee will do in the rest of the day. The literal meaning, however, is that they will have a meal first on the day including the speech time, and then go to see a movie in the future (e.g., on another occasion, another day, another time, etc.), rather than directly following the eating event. In other words, even though there seems to be an antecedent RP in the preceding context, the event of going to see a movie is still located by *yǐhòu* in the far future in the absolute time reference sense. With *yǐqián*, the temporal distance between the speech time and the second event seems so long that the two events will not occur on the same day, which is not the intended meaning. To express the intended sequential meaning between the two events, *zhīhòu* is one possible term to use.⁵⁸ If we must view this example from the perspective of relative time reference, then the TG must be a repetitive or durative situation starting at the time point of the RP and extending into the future.

In this sub-section the three examples of *yǐhòu* in the bare form with an antecedent RP illustrate three points. First, when the antecedent RP and the TG both lie in the future, the speech time can still be or must be analyzed as the reference time ((5-20) and (5-22)). Second, if the TG must be sequenced with respect to the antecedent RP, not with the speech time, the TG tends to be a repetitive situation displaying the extension sense, especially when the RP and the TG are past situations ((5-20) and (5-21)). Third, combining the first two points, a punctual/non-repetitive future TG is located by *yǐhòu* in the (far) future, with or without an antecedent RP (like in (5-22)).

⁵⁸ Alternatively, it could also be *ranhou* (然後) ‘and then’ or *děngyíxià* (等一下) ‘later’, but the main point is that *yǐhòu* is not the proper expression to use in this particular situation.

5.2.2.2 Without an Antecedent RP



In this part we will analyze the examples of *yǐhòu* in the bare form that does not have an antecedent RP in the preceding context, and the speech time serves as the reference time. There are two groups of data, though not necessarily mutually exclusive. In the first group of data, the TG is a punctual or non-repetitive situation. There is an apparent interval of time between the speech time and the situation time of the TG. The punctual/non-repetitive TG is located by *yǐhòu* in the far, distant, or remote future, or at least not following the speech time very soon. In these cases, substituting *zhīhòu* for *yǐhòu* will move the TG to a future time closer to the speech time at the level of construal. In the second group of data, the TG is a durative situation that has not ended yet, or a repetitive situation that happens whenever a relevant condition comes into play. The TG starts at or right after the speech time and extends for an indefinite span of time into the direction of future. In these cases, *yǐhòu* means something more like ‘from now on’ or ‘henceforth’. The **extension sense** is contributed both by the property of the TG and by *yǐhòu*. Using *zhīhòu* instead will not lead to any oddity, but the consequence will be that the sense of extension will be lost. Because of the scarcity of *zhīhòu* in the NTU Corpus, we have to rely on substitution as a test to see how using *zhīhòu* is different from using *yǐhòu* in terms of temporal distance distinction.

We will see the first group of examples in which a situation is located at a much later time than the speech time. As in the case of the *before*-pair, the temporal distance between the speech time and the situation time of the target can be described as long or short only when we know how long it exactly is. When the linguistic context does not provide such information, only speakers know the distance themselves. Here we just give examples in which there are some contextual clues indicating a long temporal distance. In the following example, speaker A recalls what her father told her

when she had to decide between two universities.



(5-23) (SS015)

- 172 A: ..我.. 我 問 我 爸=\
- wǒ wǒ wèn wǒ bà
- 1SG 1SG ask 1SG dad
- 173 ..我 說=, _
- wǒ shuō
- 1SG say
- 174 ...我 東吳, _
- wǒ dōngwú
- 1SG SCU
- 175 ..跟 銘傳=, _
- gēn míngchuán
- and MCU
- 176 ..你 會 比較 傾向 哪 一 個?\
- nǐ huì bǐjiào qīngxiàng nǎ yī ge
- 2SG will more incline which one CL
- 177 (0)他 說 那 當然 唸 銘傳.\
- tā shuō nà dāngrán niàn míngchuán
- 3SG say then of.course go.to MCU
- 178 ...因為 你 以後 出去, _
- yīnwèi nǐ yǐhòu chūqù
- because 2SG YIHOU go.to.work
- 179 ..你 會 發現, _
- nǐ huì fāxiàn
- 2SG will discover
- 180 ..很 多 人 可以 幫 你.\
- hěnduō rén kěyǐ bāng nǐ
- very many person can help 2SG

A: “I asked my dad. I said, ‘SCU and MCU, which one would you prefer?’ He said, ‘MCU, of course, because **in the future** when you go to work, you will discover that there are many people who can help you.’”⁵⁹

⁵⁹ There are two senses of the concept of “future.” In the broad sense, any time later than the speech time is included in the scope of “future,” including three minutes from now and ten years from now. In the narrow sense, only a time that is far enough away from the speech time is. The expression “in the future” sometimes indicates the narrow sense “in the far future.”

The TG situation being located is speaker A's going to work after graduating from university. At the time when the father said so, speaker A had not entered any university yet, so the time of going to work lies in the far future (at least four years away) with respect to the speech time. Using *zhīhòu* at the clausal level is appropriate, only it would sound like speaker A is graduating soon, which is not the case.

Here we would like to point out that there are two senses of the concept of “future.” In the **broad** sense, any time later than the speech time is included in the scope of “future,” including *three minutes from now* and *ten years from now*. A time that is far enough away from the speech time is the **narrow** sense of future. The expression *in the future* sometimes already indicates the narrow sense ‘in the far future’ when the situation being discussed is punctual or conceived as a whole. In the broad sense, the expression *in the future* covers all the time points later than the speech time, and is similar to the meaning of ‘from now on’.

In the next example, *yǐhòu* also locates a target situation in the far future. Here speaker B says that a friend wants to have a job related to what she is studying now.

(5-24) (11SOPHIA)

310 B: 她 是 說 她 希望 說 自己 以後 也
tā shì shuō tā xīwàng shuō zìjǐ yǐhòu yě
 3SG C/F say 3SG hope COM self YIHOU also
 做 那 一 行,
zuò nà yī háng
 do that one CL

B: “She says that she hopes to do something in that field (that she is studying) **in the future.**”

The TG situation is doing something in that field, which is located in the far future. From the preceding context we know that this friend just entered the graduate school, so indeed there will be a considerable period of time (e.g., two years) before she

graduates and does any job. Using *zhīhòu* here may imply that this temporal distance is shorter between the speech time and the TG (e.g., this girl is graduating soon in one month), or that the speaker conceives this distance as short enough. The TG in (5-23) is a punctual situation located in the far future. In (5-24) the TG is a durative situation, and this durative situation as a whole is located in the far future.⁶⁰

The next example of the ‘in the far future’ sense of *yǐhòu* in the bare form can illustrate the long temporal distance more vividly. This use is made by another German learner of Mandarin Chinese, which we have seen in chapter 1.

(5-25) (personal data)

E: 不要 關 門
bùyào guān mén
 NEG.want close gate
 → 我 先生 以後 會 進來
wǒ xiānshēng yǐhòu huì jìnlái
 1SG husband YIHOU will come.in

Literal: “Don’t close the gate. My husband will come inside **in the future**.”

Intended: “Don’t close the gate. My husband will come inside **later**.”

The TG is the husband’s coming inside, which is a punctual situation. One possible temporal term for conveying the intended meaning is *zhīhòu*, but definitely not *yǐhòu*.⁶¹ The choice of *yǐhòu* here gives the impression that the husband will come at a much later time (e.g., in several months or years). In reality, though, this speaker intends to say that her husband, who is parking the car in the yard, will enter the building soon (e.g., in five minutes). The temporal distance between the speech time and the estimated temporal location of the husband’s coming inside is close enough that the use of *yǐhòu* here sounds quite strange. Suppose that this German lady

⁶⁰ The starting point of the TG (i.e., the inchoative phase) is located with respect to the speech time.

⁶¹ Apart from *zhīhòu* it is also fine to use *děngyīxià* (等一下) ‘later’ or other adverbials that can profile a short transition between events.

intended to mean that her husband would arrive and come inside at a later time, such as in a few hours or days, rather than in just a few minutes, it should make more sense to request the addressee to close the gate and not to wait for the husband.

In the remainder of this section we will give examples of *yǐhòu* in which there is an **extension sense** that renders *yǐhòu* to mean something like ‘from now on’ in addition to ‘in the future’. In these examples, a repetitive TG seems to be expected or planned to start at or right after the speech time and continues to hold for a period of time. As explained in 4.3.3.1, a repetitive TG is neither expected to occur at every second after the present moment nor to happen just once, but to happen or hold true multiple times whenever a **relevant condition** is concerned. It is the continuation of the relation between the relevant condition and the TG that starts right after the present moment and extends for an indefinite span of time.

The first example of this kind specifies the relevant condition under which the TG is expected to happen. In (5-26) speaker B quotes what her father said when they applied for a secondary credit card for her under her father’s name.

(5-26) (CARD)

42 B: ...那 時候 要 辦 卡 的 時候 我 爸 還 說=
nà shíhòu yào bàn kǎ de shíhòu wǒ bà hái shuō
 that time want apply card NOM time 1SG dad also say

43 ..我 媽 wo-
wǒ mā wo
 1SG mom PT

44 ..我 爸 還 說 什麼,_
wǒ bà hái shuō shénme
 1SG dad also say what

45 ..<Q 以後 要 刷卡 要 先 講 啊 Q>,_
yǐhòu yào shuākǎ yào xiān jiǎng ā
 YIHOU want use.card need first say PT

B: “At the time when we applied for the card, my dad said something like ‘**in the future/from now on** you have to tell me in advance whenever you pay with credit

card.’”

The TG situation is A’ telling her father in advance, which is expected by the father to start from the moment when he made this rule. This is not to say that the daughter is expected to be doing the informing every single second since the moment when the father made this rule. Rather, the father expects that whenever the relevant condition *paying with credit card* happens, the daughter should inform her father in advance. Thus it is the relation between the relevant condition and the TG that is expected to start “from now on” and extend for an indefinitely span of time, so long as the daughter has the secondary card. Suppose they applied for the secondary card and got it right away. If the daughter immediately wanted to go shopping and pay with this card, then according to her father’s expectation she should inform him in advance starting from this time. This is not the same as the examples we have seen in the previous part in 5.2.2.1 where a punctual TG is located by *yǐhòu* in the far future.

What if we substitute *zhīhòu* for *yǐhòu* in this case? At the sentential level there will not be any problem, but at contextual and pragmatic levels there is still some distinction. Due to the anaphora *zhī*, there is a strong tendency that *zhīhòu* links backward to something else mentioned in the previous context. For instance, we can imagine that someone uses the credit card without informing the person that they should inform. Then this person may say something like “this time it’s OK, but you should tell me in advance when you use the card next time.” In this case, the use of *zhīhòu* links backward to ‘this time’ and also profiles the sequence between the current situation and a future situation. Perhaps due to the anaphora *zhī*, the sequentiality of *zhīhòu* is so salient that using *zhīhòu* will somehow imply that there is something in the previous context with respect to which the TG is located. The extension sense ‘from now on’ will not be that prominent when *zhīhòu* is used, but

since ‘next time’ is included in the time stretch ‘from now on’, the difference is more about the construal than about the content.

In the next example, the relevant condition under which the TG situation is expected to hold is not said, but can be inferred. Also, the anaphoricity of *zhīhòu* is even more conspicuous so that substituting *zhīhòu* for *yīhòu* requires another scenario. In this dialogue between two roommates, speaker A initiates a completely new topic after a mutual silence of more than one minute.

(5-27) (CON7FLY)

- 119 A: ...('14"10'")喔,\
 o
 PT
 →120 ..以後 還是 不要 逛 唱片行,\
 yīhòu *háishì* *bùyào* *guàng* *chàngpiàn-háng*
 YIHOU still NEG.want roam record.store
 121 ..我 覺得 進去 就 會 陷 在 那裡.\
 wǒ *juéde* *jìnqù* *jiù* *huì* *xiàn* *zài* *nàlǐ*
 1SG feel enter JIU will sink at there
 122 B: ..今天 又 [買 什麼 啊]?_
 jīntiān *yòu* *mǎi shénme ā*
 today again buy what PT
 123 A: [跑 不 出來].\
 pǎo bù chūlai
 run NEG come.out

A: “Oh, **from now on** it’s better not to go shopping at a record store. I think that I will lose myself in there once I enter a record store, [and I will not be able to leave].”

B: “[What did you buy] today?”

The TG situation is a negated state that it is better not to go shopping at a record store. Speaker A does not mean something like “it is OK to go shopping at a record store tonight, but it is better not to do so in the (far) future.” What she means instead is that “from now on, (whenever I feel like going shopping) it is better not to go shopping at a record store at all.” Thus, she will supposedly stop (or at least try to stop) herself if

she is in the mood for shopping or listening to music again one hour after this speech.

In this particular case, the TG is a repetitive situation that is expected to extend from the speech time for an indefinite period of time whenever the relevant condition comes into play. This extension sense associated with a repetitive situation is contributed both by speaker A's speech act as self-expectation and by the use of *yǐhòu*. The expression *háishì bù yào guàng chāngpiànháng* 'better not to go shopping at a record store' alone does not describe a repetitive situation. Removing *yǐhòu* from IU 120 or substituting *zhīhòu* for *yǐhòu* will weaken the extension sense 'from now on' and make the TG a temporary situation rather than a repetitive one. Also, the anaphoricity of *zhīhòu* is so salient that there must be something else in the previous context as an antecedent RP.

In one example of *yǐhòu* in the bare form where it means 'from now on', the TG literally takes place immediately after *yǐhòu* and the TG are said. In the following conversation among three guys, speaker Z explains to speaker N how a guy that they know acquired a feminine nickname. After the explanation (IUs 358-374), speaker W suggests that they call this call by the diminutive form of this feminine nickname.

(5-28) (BASKETBALL)

356 N: ... (1.1) 美倩 是 誰.

měiqiàn shì shéi

PN C/F who

357 Z: ... (0.9) 莊○○.

zhuāng

PN

(IUs 358-374 omitted)

→375 W: ... 以後 叫 他 小倩.

yǐhòu jiào tā xiǎoqiàn

YIHOU call 3SG PN

376 N: ..<MRC 小倩倩 MRC>.

xiǎoqiànqiàn



PN
377 W: ..小倩.
xiǎoqiàn
PN
378 N: 小倩倩.. 嘿嘿..
xiǎoqiànqiàn hēihēi
PN PT

N: “Who is Mei-Qian?”

Z: “Zhuang.”

(IUs 358-374 omitted)

W: “**From now on** let’s call him Xiao-Qian.”

N: “Xiao-Qianqian.”

W: “Xiao-Qian.”

N: “Xiao-Qianqian. Hey.”⁶²

In IU 375 speaker W says the TG situation: addressing or referring to this guy by the diminutive form Xiao-Qian. He is not suggesting that they call this guy Xiao-Qian at some later time or in the far future, or just call him Xiao-Qian once. Rather, he means that “from now on, whenever we have to address or refer to this guy (i.e., the relevant condition), let’s call or refer to him as Xiao-Qian.” In IU 376 speaker N immediately says the diminutive form. After that, both speaker W and speaker N jokingly say the nickname again.

The TG is a future repetitive situation that is expected to extend from the speech time into the direction of future. The repetitive reading is contributed by not only the speech act of a suggestion but also by the use of *yǐhòu*. At the sentential level, removing *yǐhòu* from IU 375 and the remaining expression is simply an imperative form which does not necessarily describe a repetitive situation that is expected to occur multiple times. If we substitute *zhīhòu* for *yǐhòu* in IU 375, there will be a few effects. The TG will be located at a time later than the speech time, though not very

⁶² In the nickname *Mei-Qian*, both characters mean ‘beauty’ and are usually found in women’s names. The diminutive form of the nickname may be *Xiao-Qian* (literally ‘little Qian’) or reduplicating the last character to form *Qianqian*.

late, reflecting the ‘later’ or ‘in the upcoming future’ sense of *zhīhòu* in the bare form. That is, there will be a short interval between the speech time and the time when they begin to call this guy Xiao-Qian. In addition, due to the anaphoricity of *zhīhòu*, it strongly suggests another diminutive nickname in previous context that one of the speakers proposes to use first. We can also infer that the time during which they call him Xiao-Qian will not last long, that it is a temporary state rather than a repetitive situation. The extension sense ‘from now on’ will be lost to some degree.

5.3 Chapter Summary

In the attached form, the two near-synonyms within each pair do not display temporal distance distinction and show a high degree of interchangeability, as explained in chapter 4. The sequential relationship holds internally between the RP and the TG, and in such relative time reference uses, the RP and the TG may both lie in the past, in the future, or in a general or habitual situation. In some cases, particularly for the *after*-pair, there is an additional extension sense, but it is mostly because the TG is a durative or repetitive situation, especially those that are still ongoing or unbounded.

In the bare form, the picture is more complicated. Most of the examples of *zhīqián* and of *zhīhòu* have an antecedent RP mentioned in the previous context, which is relative time reference. For *zhīqián* and *zhīhòu*, the difference between the attached form and the bare form with an antecedent RP is that the latter allows more flexibility in organizing the antecedent RP. When there is no antecedent RP in the previous context, the speech time serves as the reference time. In such absolute time reference uses, *zhīqián* means ‘earlier’, ‘not long ago’, or ‘recently’, and locates a TG in the recent past, whereas *zhīhòu* means ‘later’ and locates a TG in the near, imminent, or upcoming future. There is a short temporal distance between the speech

time and the situation time of the TG, and this is not affected by the punctual-durative distinction of the TG.

By contrast, few examples of *yǐqián* and *yǐhòu* in the bare form contain an antecedent RP. Even when there is one, the context is usually restricted. For *yǐqián*, the RP and the TG must both lie in the distant past, or the TG is a long durative/repetitive situation. For *yǐhòu*, it seems that the TG must be a durative/repetitive situation, whether located with respect to a past RP or a future RP. With a future RP, there is often a conditional reading. Most of the examples of *yǐqián* and *yǐhòu* in the bare form depend on the speech time for the reference time, suggesting that the primary function of *yǐqián* and *yǐhòu* is to provide absolute time reference with respect to the speech time. With a TG that is to be interpreted as long durative or repetitive, *yǐqián* means ‘before now’, whereas *yǐhòu* means ‘from now on’. With a punctual TG or one that can be viewed as a whole, *yǐqián* locates the TG in the distant past, whereas *yǐhòu* locates the TG in the far future.

As the two near-synonyms within each pair exhibit different properties in the bare form, the degree of interchangeability is much lower in the bare form. Due to the anaphora *zhī*, *zhīqián* and *zhīhòu* seem to be more compatible with an antecedent RP than without. Without an antecedent RP, changing one term into another works when the context does not provide the information about a more precise distance between the speech time and the situation time of the TG. The consequence of substitution is simply a different construal, i.e., a difference evaluation of a certain temporal distance that only speakers know. When there is a contextual or pragmatic clues to a more precise distance, often one term is preferred to another because of the temporal distance distinction between the two terms. The temporal distance distinction is manifested in two folds. With a TG that is punctual or can be conceived as such, *zhīqián* and *zhīhòu* locate the TG close to the speech time, whereas *yǐqián* and *yǐhòu*

locate it at a time point far from the speech time. With a TG that is long durative or is to be understood as repetitive, *yǐqián* locates it at a time stretch starting from a time point distant from the speech time and extending up to the speech time, with the meaning ‘for a long time’; *yǐhòu* locates a repetitive TG at a time stretch starting from the speech time and extending into the direction of future, with the meaning ‘from now on’. *Zhīqián* does not have the ‘for a long time’ meaning to modify a long durative or repetitive TG, and *zhīhòu* does not have the ‘from now on’ meaning to modify a repetitive TG.

In the following tables we summarize the different meanings of the four temporal terms in the bare form with respect to the property of the TG situation. “Punctual” includes punctual situations and durative situations that are bounded or conceived as a whole. “Repetitive” stands for multiple occurrences of the Target situation. The number in brackets indicate the number of tokens in the NTU Corpus. The number ‘zero’ means that there is no such a token found in the NTU Corpus, but the use is possible, as attested with substitution test or with data out of the NTU Corpus. The short dashed line indicates that there is no such a use.

Table 5.3 The *before*-pair in the bare form

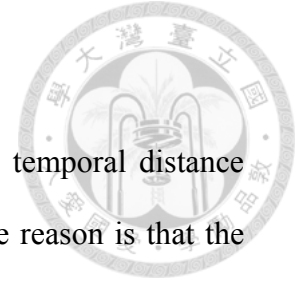
	TG situation	Punctual	Long durative/repetitive
With RP	<i>zhīqián</i>	‘before that’ [13]	‘before that’ [5]
	<i>yǐqián</i>	--	‘in the past; for a long time’ [8] (contingent)
Without RP	<i>zhīqián</i>	‘not long ago; in the recent past; recently’ [10]	--
	<i>yǐqián</i>	‘a long time ago; in the (distant) past’ [76]	‘in the past; for a long time’ [10]

Table 5.4 The *after*-pair in the bare form

	TG situation	Punctual/temporary	Long durative/repetitive
With RP	<i>zhīhòu</i>	‘after that; afterwards; and then’ [10]	‘after that; afterwards; and then’ [0]
	<i>yǐhòu</i>	--	With past TG: ‘since then; from then on’ [0] With future TG: ‘from now on; in the future’ [5]
Without RP	<i>zhīhòu</i>	‘later; in the near future’ [1]	--
	<i>yǐhòu</i>	‘in the (far) future’ [17]	‘from now on’ (extension sense) [22]

In chapter 6 we will try to provide some explanations for the temporal distance distinction.

Chapter 6 Discussion



At the end of chapter 4 we have explained why there is no temporal distance distinction in the two pairs of synonyms in the attached form. The reason is that the temporal distance is determined by the temporal location of the reference point (RP) and the temporal location of the target (TG), not by the four temporal terms. On the other hand, this temporal distance tends to be short both at the level of content and the level of construal. In this chapter, we try to provide some explanations for the existence of temporal distance distinction in the bare form when there is no antecedent RP with respect to which the TG is located. Although the four temporal terms are lexicalized items each used as a whole, the components *zhī* and *yǐ* still figure in the composite expressions and contribute to the temporal distance distinction in the bare form. In 6.1 we discuss the proximity associated with the possessive marker *zhī* and its inheritance in the short temporal distance profiled by *zhīqián* and *zhīhòu*. In 6.2 we elaborate the extension sense of *yǐ* and its influence on the long temporal distance associated with *yǐqián* and *yǐhòu*. We will use diagrams to illustrate the four temporal terms both in the attached form and the bare form. Section 6.3 is a summary of this chapter.

6.1 *Zhiqian* and *Zhihou*

In chapter 2 we have said that among the various functions of the polysemous lexeme *zhī*, two of them are historically related and are relevant to *zhīqián* and *zhīhòu*. As a genitive/possessive marker, *zhī* marks the relation of possession, whether in a concrete or abstract sense; as a pronominal or an anaphora, *zhī* refers to something mentioned in the previous context. In this part we discuss how the genitive/possessive marker *zhī* and the pronominal *zhī* interact with *zhīqián* and *zhīhòu* in terms of

temporal distance, or temporal proximity, to be exact.



6.1.1 Genitive/Possessive Marker and the Attached Form

Cross-linguistically, adpositions often develop from a (spatial) noun modified by a genitive marker. In some languages, adpositions still keep the trace of the genitive construction. For example, in Ge'ez (i.e., Classical Ethiopic), all of the prepositions end with the genitive marker *a*. The preposition *mal'eta* 'above' is composed of the spatial noun *mal'et* 'high, up' and the genitive marker *a*. (Weninger 1993: 12; 32-33, cited in D. Liu 2007). Similarly, many prepositions in Swahili consist of a noun followed by the genitive marker *ya*, such as *mbele ya* 'before, in front of', in which *mbele* is a noun meaning 'front' (Zhang 1990: 215-216, cited in D. Liu 2007). In Mandarin Chinese, a number of postpositions also consist of the genitive marker *zhī* combined with a spatial noun, including the two disyllabic postpositions *zhīqián* 'before, in front of' (*zhī* + 'front') and *zhīhòu* 'after, behind' (*zhī* + 'back'). The difference is that in Chinese the genitive marker precedes the locative noun, rather than follows it.

Although *zhīqián* and *zhīhòu* are postpositions (and sentential conjunctions, cf. chapter 3) and are viewed as disyllabic compound words, to account for the issue of temporal distance, we need to decompose these *zhīqián* from 'before' as a whole into “*zhī* + front,” and 'after' from 'after' into “*zhī* + 'back'”. Before *zhī* and *qián* are fused into a disyllabic compound, “X *zhī qián*” literally denotes 'X's front'. Likewise, “X *zhī hòu*” literally means 'X's back'. Both refer to a **relational spatial concept**.

In Heine (1997) it is said that relational spatial concepts are cross-linguistically more likely to be categorized as **inalienable** possession, in which the possessed item

is not separable from the possessor/owner.⁶³ For relational spatial concepts, it means that the space indicated by the possessive construction is in the vicinity of, or even an internal part of, the possessor. The possessive construction “X *zhī qián*” ‘X’s front’ refers to the space closely in front of X, and “X *zhī hòu*” ‘X’s back’ refers to the space closely behind X.⁶⁴ It is less often to use the attributive possessive constructions ‘X’s front’ and ‘X’s back’ to profile a location too far from X. In short, a possessive relation usually entails **spatial proximity** within the viewing attention of an observer.

In the spatial domain, the space indicated by a possessive construction is in close proximity to the thing or object coded as the possessor. In the temporal domain, the temporal location indicated by a possessive construction is in **temporal proximity** to the thing or situation expressed as the possessor. Proximity associated with possessive construction is kept when the genitive marker and the possessed have fused into a postposition. The temporal location profiled by “X *zhīqián*” ‘before X’ is prior to and temporally close to X, whereas the temporal location profiled by “X *zhīhòu*” ‘after X’ is temporally later than and close to X. See Figure 6.1 for the illustration. The **dashed arch** marks the region that each expression subsumes on the time line.

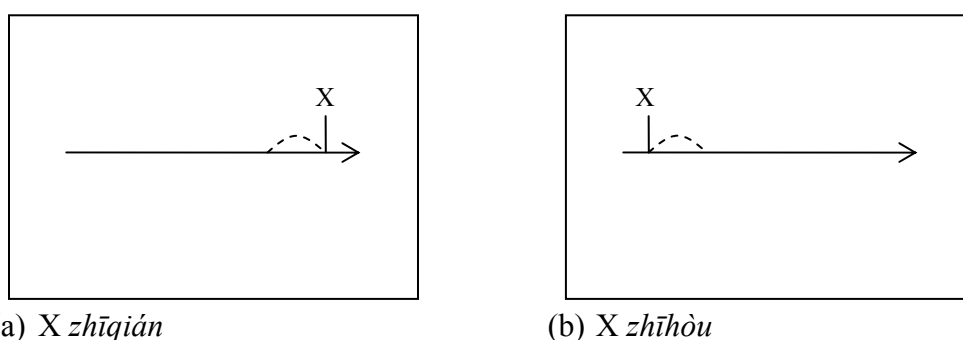


Figure 6.1 The temporal region profiled by the possessive construction

⁶³ Cross-linguistic properties associated with inalienable possession include that it is confined to attributive possession (instead of predicative possession), it involves a tighter structural bond between possessor and possessed, and that possessive markers on inalienable possession are more likely to be archaic compared with alienable possession (Heine 1997). *Zhīqián* and *zhīhòu* have these properties.

⁶⁴ Note that in English *front* and *back* may refer to either an internal part of X or the space near X, whereas *qián* ‘front’ and *hòu* ‘back’ refer to the space only.

The preceding element “X” before *zhīqián* and *zhīhòu* that we are discussing here is a situation or a specific time point, i.e., the reference point (RP).⁶⁵ In the attached form use of *zhīqián* and *zhīhòu*, the temporal region profiled by “RP *zhīqián*” and “RP *zhīhòu*” is close to the RP. The target (TG) situation is then located within this region and therefore it is close to the RP, as shown in Figure 6.2.

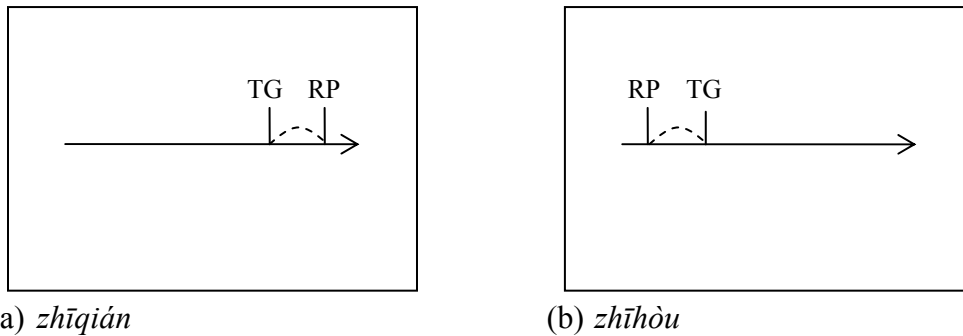


Figure 6.2 *Zhiqian* and *zihou* in the attached form with a punctual TG

If one of the two situations is durative, then the two situations coincide. In this case, the TG is still close to the RP in the sense that part of it is close to the RP. Usually, it is the TG that is durative.

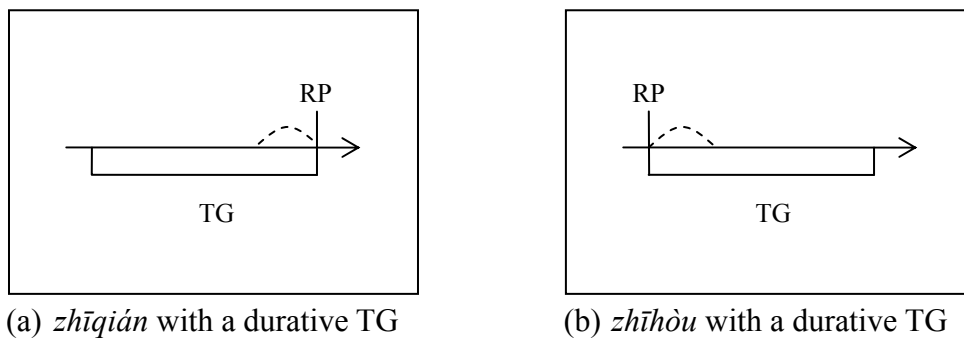
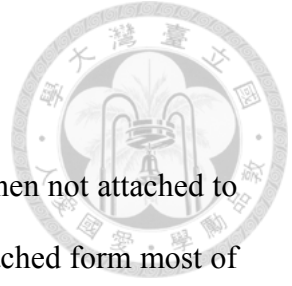


Figure 6.3 *Zhiqian* and *zihou* in the attached form with a durative TG

⁶⁵ When the preceding element is a temporal noun denoting a period or duration, then this noun expresses an actual length, not the RP.



6.1.2 Pronominal and the Bare Form

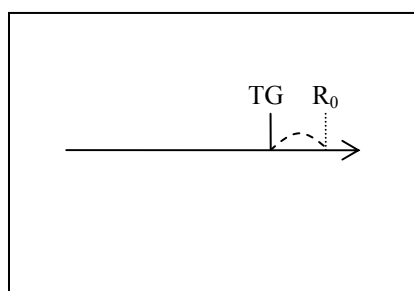
6.1.2.1 Relative Time Reference

When *zhīqián* and *zhīhòu* are used in the bare form, namely when not attached to a preceding element, it may be relative time reference, as in the attached form most of the cases, or absolute time reference. In relative time reference, there is an antecedent RP mentioned in the preceding context. In this case, *zhīqián* and *zhīhòu* on the one hand introduce the TG, and on the other hand link backward to the antecedent RP. The pronominal/anaphoric function of *zhī* is evoked in the bare form as *zhīqián* and *zhīhòu* connect the antecedent RP to the target. To some extent, *zhī* in *zhīqián* and *zhīhòu* profiles (i.e., refers to) the RP mentioned in the previous context.

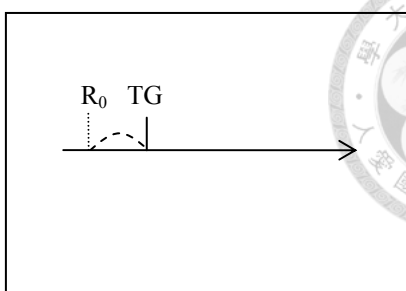
With an antecedent RP, *zhīqián* and *zhīhòu* in the bare form resemble the use in the attached form. On the one hand, the pronominal *zhī* links backward to the antecedent RP; on the other hand, the possessive marker function of *zhī* profiles the internal relation between the antecedent RP and the TG. The TG is still temporally close to the RP, as in the attached form use (cf. Figure 6.2 and Figure 6.3).

6.1.2.2 Absolute Time Reference

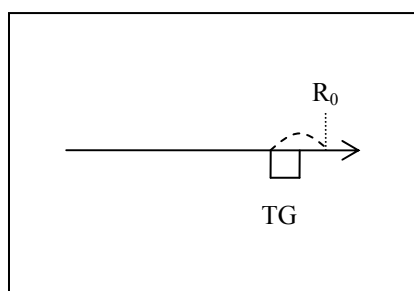
In absolute time reference uses, the speech time is the reference time. The temporal proximity associated with the possessive marker *zhī* is inherited even though there is no overtly expressed possessor (i.e., no situation serving as the RP). Thus, *zhīqián* profiles a time in the past that is close to the speech time and locates the TG in the recent past, whereas *zhīhòu* profiles a time in the future that is close to the speech time and locates the TG in the near future. Whether the TG is punctual or durative, it lies in the vicinity of the speech time, depicted as R_0 in Figure 6.4.



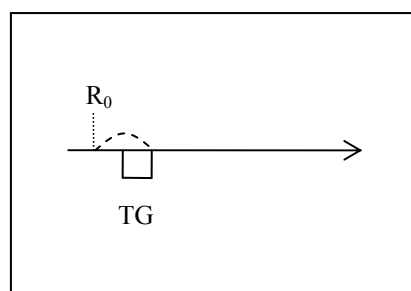
(a) *zhīqián* with a punctual TG



(b) *zhīhòu* with a punctual TG



(c) *zhīqián* with a durative TG



(d) *zhīhòu* with a durative TG

Figure 6.4 *Zhiqian* and *zihou* in absolute time reference

On the other hand, temporal proximity in absolute time reference may also stem from the relative time reference use when the antecedent RP is a current situation. As said in chapter 5, when the temporal location of the RP is the present moment, the reference time can be viewed as the speech time. Locating a TG with respect to an antecedent RP that is a current situation is basically the same as locating the TG with respect to the present moment, namely, with the speech time. As discussed in the previous part, the TG is temporally close to the antecedent RP when *zhīqián* and *zhīhòu* are used in the bare form. As *zhīqián* and *zhīhòu* absorb the temporal proximity from this environment, when there is no current situation mentioned as the antecedent RP, *zhīqián* and *zhīhòu* still maintain the temporal proximity. Thus, in the absolute time reference use, temporal proximity between the speech time and the TG is inherited from the temporal proximity between an RP that is a current situation and the TG when *zhīqián* and *zhīhòu* are used in the bare form. This can be attested in the

data where the TG located by *zhīqián* and *zhīhòu* in absolute time reference tend to have some sort of current relevance.

In sum, proximity associated with the possessive marker is inherited from the spatial domain to the temporal domain. We summarize the process in Table 6.1.

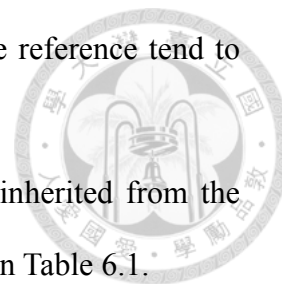


Table 6.1 The inheritance of proximity

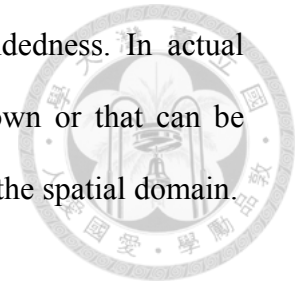
Lexical form	Use	Relation	Type of proximity
Two lexemes	Possessive marker <i>zhī</i> and spatial noun	Possessor and possessed	[+ spatial proximity]
Disyllabic compound	Attached form (postposition/conjunction)	RP and TG	[+ temporal proximity]
Disyllabic compound	Bare form (connector)	Antecedent RP and TG	[+ temporal proximity]
Disyllabic compound	Bare form (pure adverb)	Speech time and TG	[+ temporal proximity]

6.2 *Yiqian* and *Yihou*

6.2.1 Extension Sense and the Attached Form

As explained in previous literature, one function of *yǐ* is to mark a boundary in time, space, quantity, etc., when followed by a monosyllabic spatial term. In chapter 2 we have pointed out that this explanation with the expression “marking a boundary” is not complete enough, because it gives the impression that the boundary is marked by the spatial term behind *yǐ*. We propose a more precise explanation for this particular function of *yǐ*, which we call the **extension sense** of *yǐ*. We argue that when combined with a monosyllabic spatial term, *yǐ* profiles the entire region that extends continuously from a **starting point** towards a certain **direction** or **dimension**. The starting point of the extension is the so-called “boundary” in literature, while the spatial term specifies the direction or dimension towards which the extension proceeds. The endpoint of the extension (i.e., the boundary of the region on the other

side) is usually left unsaid, which creates the image of unboundedness. In actual language usage, however, the endpoint is usually something known or that can be inferred based on world knowledge. We give one more example in the spatial domain.



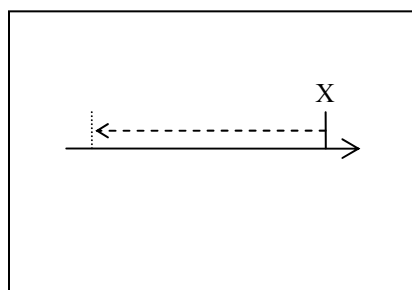
(6-1) (constructed data)

濁水溪	以南	冬季	少	雨
<i>zhuóshuǐxī</i>	<i>yǐnán</i>	<i>dōngjì</i>	<i>shǎo</i>	<i>yǔ</i>
Zhuoshui.river	YI.south	winter	little	rain

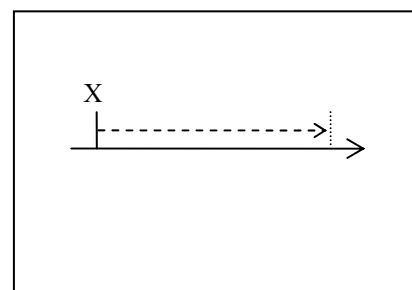
‘There is little rain in winter (in the region) to the south of Zhuoshui River.’

‘To the south of Zhuoshui River’ refers to the region covered starting from the Zhuoshui River, the longest river in Taiwan, and extending towards the south. The conceptual base for the expression *Zhuoshui River* is *Taiwan Island*. Within this bounded scope, the endpoint can be inferred as the southernmost point in Taiwan.

In the attached form use, as in “X *yǐqián*” and “X *yǐhòu*,” the element X is the starting point of the extension, whereas *qián* ‘front’ and *hòu* ‘back’ specify the direction towards which the extension proceeds. In the temporal domain, “X *yǐqián*” profiles the temporal region covered starting from X and extending towards the direction of *past*. Likewise, “X *yǐhòu*” profiles the temporal region covered starting from X and extending towards the direction of *future*. A vertical dashed line is put at the end of the extension to mark that the extension is bounded, though not specified.



(a) X *yǐqián*



(b) X *yǐhòu*

Figure 6.5 Extension sense in the attached form

The “X” in the attached form use of “X *yǐqián*” and “X *yǐhòu*” is the preceding element, which usually expresses a situation that serves as the RP. The expressions “RP *yǐqián*” and “RP *yǐhòu*” alone do not specify the exact endpoint of the extension. It is the occurrence of a punctual, bounded or one-time TG that sets the endpoint of this extended temporal region. In 4.5 we have discussed that in the attached form use the TG is temporally close to the RP, both at the level of content and the level of construal. At the level of content, two relevant situations tend to be temporally close; at the level of construal, the RP and the TG are the only two situations profiled within the onstage region, and thus it seems that they happen in uninterrupted succession without any intervening situations. A punctual TG lies temporally close to the RP, and the occurrence of the TG sets the endpoint of the extension at a temporal location close to the RP.

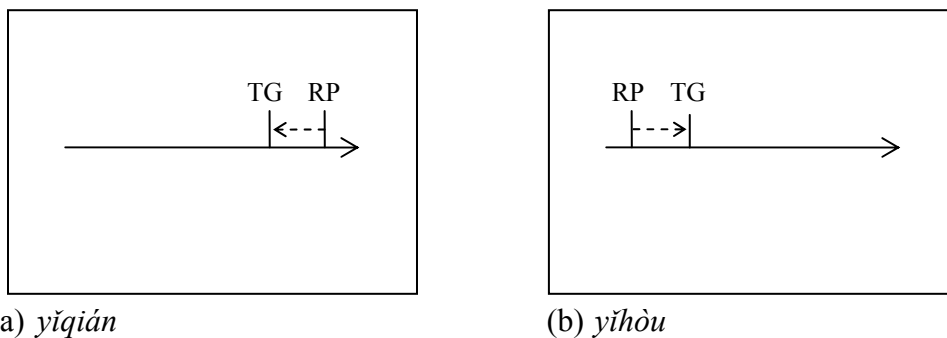
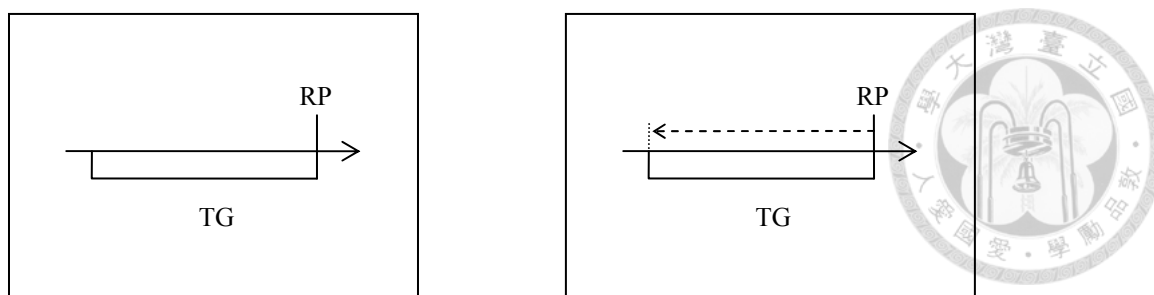


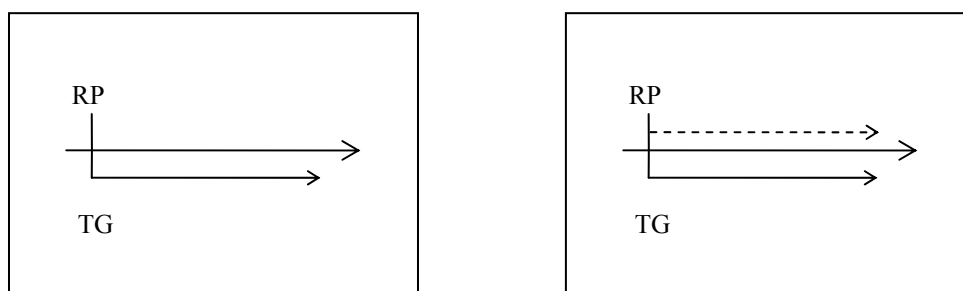
Figure 6.6 *Yiqian* and *yihou* in the attached form with a punctual TG

When the TG is durative, the endpoint of the extension sense of *yǐqián* is the starting point of the TG as illustrated in Figure 6.7(b). The extension sense of *yǐqián* is compatible with a durative TG, and the endpoint of the extension is allowed to proceed further than with a punctual TG. As for *zhǐqián*, the continuation of the TG is solely contributed by the TG itself.



(a) *zhīqián* with a durative TG (b) *yǐqián* with a durative TG
 Figure 6.7 The *before-pair* with a durative TG in the attached form

When the TG is an unbounded situation without an endpoint (e.g., an ongoing situation), the extension sense of *yǐhòu* is compatible with the extension sense of the ongoing TG, as depicted in Figure 6.8(b). By contrast, for *zhīhòu* the extension sense is solely contributed by the continuation of the TG.



(a) *zhīhòu* (b) *yǐhòu*
 Figure 6.8 The *after-pair* with an unbounded TG in the attached form

6.2.2 Extension Sense and the Bare Form

6.2.2.1 Relative Time Reference

In bare form uses of *yǐqián* and *yǐhòu*, it turns out that in most cases the reference time is the speech time and there is no other reference point mentioned in the context. It is not clear why in contemporary Mandarin Chinese *yǐqián* and *yǐhòu* are rarely used for relative time reference in the bare form, at least in the spoken language. It appears that the default use of *yǐqián* and *yǐhòu* in the bare form is absolute time reference. That is, *yǐqián* almost always locates a TG in the past, whereas *yǐhòu*

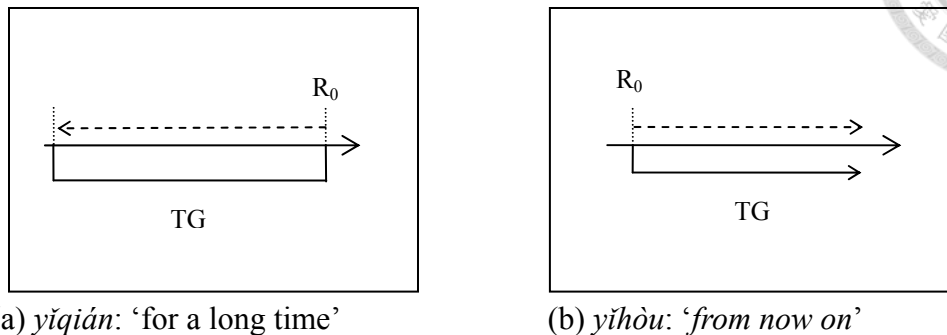
almost always locates a TG in the future. After all, *yǐ* is not a pronominal or an anaphora, and cannot refer to something else mentioned in the previous context like *zhī* does.

The scarcity of relative time reference uses suggests that for *yǐqián* and *yǐhòu* relative time reference is a defective function in the bare form. Nonetheless, in the few examples where *yǐhòu* is used to sequence two situations, it seems that as long as the TG is a repetitive situation, it is still possible to use *yǐhòu* to sequence this repetitive TG with respect to an antecedent RP, especially when the TG lies in the past (cf. 5.2.2.1). This coincidence leads to a reasonable conjecture that **the extension sense of *yǐ*, which is suppressed in the attached form use by the temporal proximity between the RP and the TG, surfaces when *yǐhòu* is used in the bare form. Consequently *yǐhòu* prefers to occur with a TG situation compatible with the extension sense of *yǐ*, i.e., a repetitive situation.** When there is an antecedent RP and the TG is a punctual or one-time situation, bare-form *zhīhòu* is preferred for profiling the TG relative to the RP. Using *yǐhòu* will locate the punctual or one-time TG situation far away from the RP.

6.2.2.2 Absolute Time Reference

Without an antecedent RP, a TG is located in the past or in the future directly with respect to the speech time, which is absolute time reference. We have repeated that in the attached form use, the two profiled situations are temporally close both at the level of content and the level of construal (cf. 4.5.2). Without an RP, the temporal proximity associated with the attached form use is lost and no longer imposes a construal of short temporal distance. The extension sense of *yǐ* is freed and prompts *yǐqián* and *yǐhòu* to profile a continuous extension from the speech time towards the direction of *past* and *future*, respectively. Therefore, when locating a repetitive or

continuous TG situation, *yǐqián* means ‘up to now’ or ‘for a long time’, whereas *yǐhòu* means ‘from now on’.



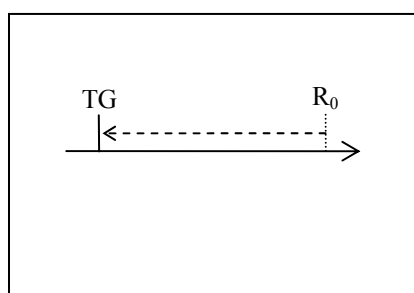
(a) *yǐqián*: ‘for a long time’

(b) *yǐhòu*: ‘from now on’

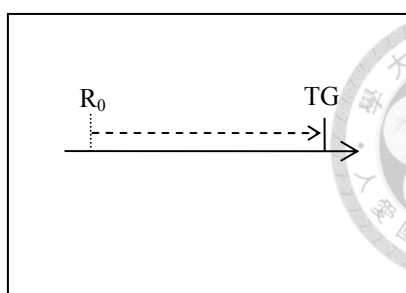
Figure 6.9 *Yiqian* and *yihou* with a durative or repetitive TG

Although the extension starts from the speech time, which is the starting point of the extension (and the reference time for locating the TG), **the extension is carried out as it proceeds towards the direction away from the speech time.** This **departure sense**, derived from the extension sense, gives rise to the emergence of the **remoteness sense** of *yǐqián* and *yǐhòu* in the bare form. That is to say, although the extension does not go on forever (i.e., it is bounded), the endpoint of the extension is allowed to be set at a point far away from the starting point so that the image of extension can be most salient. If the extension stops at a point close to the starting point, then the extension sense is only minimal.

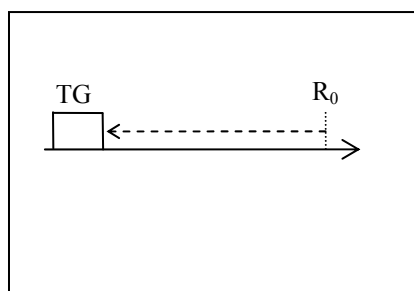
When *yǐqián* and *yǐhòu* occur with a punctual or one-time TG situation, the occurrence of this TG sets the extension’s endpoint at a temporal location far away from the starting point, i.e., far away from the speech time. Thus, in absolute time reference, *yǐqián* locates a punctual or one-time TG at a time in the past that is distant from the speech time, whereas *yǐhòu* locates a punctual or one-time TG at a time in the future that is distant from the speech time, as depicted in Figure 6.10.



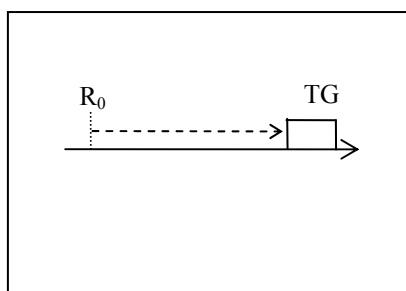
(a) *yīqián* with a punctual TG



(b) *yīhòu* with a punctual TG



(c) *yīqián* with a durative TG



(d) *yīhòu* with a durative TG

Figure 6.10 *Yiqian* and *yihou* with a punctual or one-time TG

In sum, when the speech time is the reference time, a repetitive target situation matches the extension sense of *yīqián* and *yīhòu*, whereas a punctual or one-time situation is located at a distance far from the speech time. Just as temporal proximity is a matter of objective content and a subjective construal, temporal remoteness is also about an actual temporal distance between the speech time and the TG and a subjective evaluation of this distance with respect to the type of situation. We say “distant,” “far” and “remote” in a prototype sense (cf. 3.3.3). After all, situations should not be divided into only two rigid categories of “near” and “distant from” the speech time. In-between cases naturally exist in a classification that makes only two distinctions.

6.2.3 From an Instrumental Marker to the Extension Sense

In this part we try to explain how the extension sense of *yī* came into existence. We might not be the first one to think of the following analysis, and this analysis is

only a working hypothesis. In 2.2.1.4 we have discussed that the instrumental marker *yǐ* can introduce a variety of concepts, including location. Examples (2-6b) and (6-1) belong to this type. In (2-6b), the event of flooding occurs in the region extending from the Yangtze River towards the direction of south. In (6-1), the situation of little rain occurs in the region to the south of the Zhuoshui River in the winter. In non-spatial domains, the region is not a physical one but an abstract one (cf. the other examples in (2-6)).

There are two things that remain puzzling. First, if the instrumental marker *yǐ* introduces a spatial term, this spatial term should express the **location** in which an event or situation happens, not a **direction**. *Nán* ‘south’ and *xià* ‘down’ denote directions, not locations. If one argues that region is a type of location, then still the region is marked by the combination of *yǐ* and the spatial term together, not the spatial term alone. Second, since the location of an event or action should be the concept expressed, why and how one **boundary** of this location/region comes into play?

These questions are not addressed in any of the sources that we have access to. However, there is one example particularly illustrative of the “extension sense.” One of the earliest uses of *yǐ* with this function, which is cited by several scholars, is found in the inscription on the famous bronze vessel *San Pan* (散盤) “San Family Plate” from the late Western Zhou period (1046-771 B.C.). In (6-2) we cite this use following the transcription and punctuation given in Guo (1998) and the background information and glossing in Ma (1988) (original glossing in Chinese, translation mine).

(6-2) San Family Plate

自	灃	涉，	以南，	至	于	大沽，	一	封。
<i>zì</i>	<i>xiàn</i>	<i>shè</i>	<i>yǐnán</i>	<i>zhì</i>	<i>yú</i>	<i>dàgū</i>	<i>yī</i>	<i>fēng</i>
from	river.name	wade	YI.south	arrive	at	lake.name	one	mound

‘Wade from the Xian River towards the direction of south, arrive at the Dagu Lake, heap up earth into a mound here as the first boundary wall (between the San state and the Tse state).’

(1046-771 B.C., *San Pan* (散盤) “San Family Plate”)

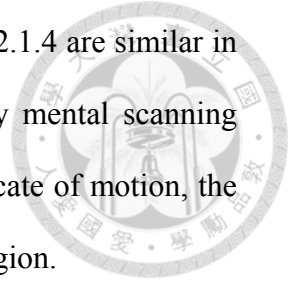
From this example, it is clear that the starting point of the wading action is the Xian River, and the endpoint is the Dagu River. The spatial term *nán* ‘south’ is the direction towards which the wading proceeds. The reason why *nán* ‘south’ marks a direction is that the wading action in (6-2) is a translational motion event involving moving from one point to another (note the prepositions *zì* ‘from’ and *yú* ‘to’, and *zhì* ‘arrive’).

The **direction** towards which a motion proceeds can be viewed as a type of **manner**, in the sense that the moving is carried out in the manner of facing towards this direction. Note that *yǐnán* in (6-2) does not profile a region, but only a direction.⁶⁶ “Region” is derived later from the direction sense in that **as a motion proceeds it traces over a region until stopping at the endpoint**. The region **extends** from the starting point and ends at the endpoint. On the other hand, although (6-2) might refer to a particular physical motion event in history, when readers process this example they also mentally scan from a point to another. This **mental scanning** covers the region starting from the starting point and extending until the endpoint (cf. 3.3.4 in this thesis for the concept of mental scanning).

In (6-2), the starting point is not syntactically attached to “*yǐ* + spatial term.” At some stage when the co-occurrence of *yǐ* and a spatial term is entrenched enough, the mental scanning and the extension sense are kept even without a motion being described. In the example of (6-1) about the Zhuoshui River in Taiwan, the conceived scene is static, and the mover is an off-stage observer tracing from the Zhuoshui River

⁶⁶ In explaining the same data in (6-2), Z. Wu also notes that introducing a region is different from introducing a location, but still classifies *region* as a sub-type of *location* (2010: 143-144). However, in the example of (6-2), it is not a region but a direction that is profiled.

towards the south of Taiwan. All the other uses given in (2-6) in 2.2.1.4 are similar in that for abstract dimensions there is no actual motion but simply mental scanning from one point towards a certain direction. When there is no predicate of motion, the starting point becomes more important to support the profile of a region.



This analysis of the origin of the extension sense is a working hypothesis for the explanatory purpose in this thesis. We summarize the concepts involved and their possible development path as follows.

(6-3) Concepts introduced by adposition *yǐ*

Instrument > manner > direction in a motion event [+starting point] > region traced over in a motion event [+starting point] > region (extension sense) in mental scanning without physical motion [+starting point]

6.3 Chapter Summary

In this chapter we explain why the two near-synonyms within each pair display the temporal distance distinction in the bare form. For *zhīqián* and *zhīhòu*, the temporal proximity associated with the possessive marker *zhī* is inherited from the spatial domain to the temporal domain. With an RP, the TG is located in close proximity to the RP. Without an RP, the temporal proximity is manifested in the short temporal distance between the speech time and the TG, even though there is no linguistically expressed RP in the context. For *yǐqián* and *yǐhòu*, in the bare form the extension sense of *yǐ* makes *yǐqián* and *yǐhòu* compatible with a long durative or repetitive TG situation. The extension sense gives rise to the remoteness sense, which makes it possible to use *yǐqián* and *yǐhòu* to locate a punctual or one-time TG at a temporal distance far from the speech time. We also try to explain that the extension sense of *yǐ* derives from the instrumental marker *yǐ*.

Chapter 7 Conclusion



In the concluding chapter we first summarize the current study in 7.1 and then point out some possible directions for future studies in 7.2.

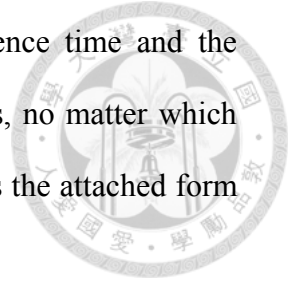
7.1 Recapitulation

7.1.1 Short Temporal Distance in the Attached Form

This thesis investigates two pairs of near-synonymous temporal terms in Mandarin Chinese: the *before*-pair *zhīqián* and *yǐqián* ‘before’ and the *after*-pair *zhīhòu* and *yǐhòu* ‘after’. We have examined the data from a spoken corpus as well as other naturally occurring data collected elsewhere. It is found that when these temporal terms are attached to a preceding element to form a temporal adverbial expression as a whole, the two terms within each pair do not display the distinction of temporal distance and are basically interchangeable. The reason is as follows. The preceding element is mostly a VP/clause, which expresses a situation. This situation serves as the reference point (RP) with respect to which a target (TG) situation is sequenced. The temporal distance between the RP and the TG is determined by the temporal location of the RP and the temporal location of the TG, not by the temporal term. Therefore, no matter which near-synonym is used to sequence the RP and the TG, the temporal distance is the same.

When the preceding element is an NP (or a set expression) denoting a period or duration, this NP specifies the temporal distance between the TG and the reference time, which may be the speech time or some other time associated with a situation mentioned in the context. In this case, the temporal distance is determined by this NP, not by the four temporal terms. When the preceding element is an NP denoting a time point, this time point is the reference time per se. The temporal distance between the

reference time and the TG situation is determined by the reference time and the temporal location of the TG, not by the four temporal terms. Thus, no matter which near-synonym is chosen, there is no temporal distance distinction in the attached form use.



Although the temporal distance between the RP and the TG is determined by the respective temporal locations of the two situations, which may be short or long, it turns out that the two situations sequenced by the four temporal terms in the attached form are temporally close. If two situations are punctual, this means the interval between them is small; if one of the two situations is durative, then they are partially overlapped. At the level of objective conceptual content, two relevant situations tend to be temporally close. At the level of subjective construal, because the RP and the TG are the only two situations profiled within the onstage region (i.e., within the conceptualizer's focal attention), they seem to happen in uninterrupted succession without any intervening events. The attached form use thus has the construal of bringing the two situations temporally closer, regardless of the real temporal distance between the two situations, which is itself not too long at the level of conceptual content.

7.1.2 Temporal Distance Distinction in the Bare Form

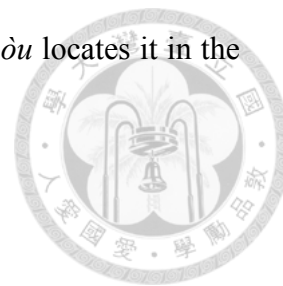
The two near-synonyms often fail to substitute each other in the bare form use. For one thing, the anaphora *zhī* in *zhīqián* and *zhīhòu* makes the two terms compatible with relative time reference via linking backward to an antecedent RP mentioned in the preceding context. In this aspect, *yǐqián* and *yǐhòu* are rarely used for relative time reference in the bare form. For another, when the context does not suggest any RP and the speech time serves as the reference time, *zhīqián* and *zhīhòu* profile a short distance between the speech time and the TG, and thus locate the TG in the recent past

and in the near future, respectively. *Yǐqián* and *yǐhòu* profile a long temporal distance, and respectively locate a punctual or one-time TG in the distant past and the far future. The long temporal distance is also observed with a durative or repetitive TG, in which case *yǐqián* means ‘for a long time’ whereas *yǐhòu* means ‘from now on’.

The distinction of temporal distance in the bare form is attributed to the function of *zhī* and the function of *yǐ*. In the spatial domain, a possessive relation profiled by the possessive marker *zhī* entails spatial proximity between the possessor and the possessed item. In the temporal domain, spatial proximity is inherited as temporal proximity between the RP and the TG when *zhīqián* and *zhīhòu* are used in the attached form, or in the bare form with an antecedent RP. When the reference time is the speech time, temporal proximity is maintained in the short distance between the speech time and the TG.

The boundary marker *yǐ* with *yǐqián* and *yǐhòu* profiles a temporal region extending from a starting point towards the direction of past and future. In the attached form use, the starting point of the extension corresponds to the RP whereas the endpoint corresponds to the TG, with a short temporal distance between the two. In the bare form use, the reference time is usually identified with the speech time, not an otherwise mentioned RP. The extension sense is no longer suppressed by the short temporal distance between the RP and the TG and is allowed to surface with the speech time as the starting point of the extension. The extension sense of *yǐ* is compatible with a durative or repetitive TG, thus giving *yǐqián* the ‘for a long time’ sense and *yǐhòu* the ‘from now on’ sense. Because the extension is carried out as it departs from the starting point (i.e., the speech time), the extension is allowed to proceed further and ended at a time point far away from the speech time. With a punctual TG or one that can be conceived as such, the occurrence of the TG sets the endpoint of the extension at a time point far away from the speech time. Thus, with a

punctual TG, *yǐqián* locates this TG in the distant past, whereas *yǐhòu* locates it in the far future.



7.1.3 Conclusion

This study has three major conclusions. First, we have pointed out that one difference between the two terms in each synonymous pair lies in the temporal distance that they profile in the absolute time reference use, which is not included in dictionaries and thesauruses. Second, although the four temporal terms are composite expressions, the temporal distance distinction has to be accounted for with the component meaning of *zhī* and *yǐ* in the environment of bare form, in which the component meaning surfaces. Third, the neutralization found in the attached form use is due to the fact that two situations being sequenced with the four temporal terms tend to be temporally close, both at the content level and the construal level.

Since there is no clear-cut boundary between *short* and *long*, the distinction of temporal distance between two near-synonyms in the bare form use is to be understood in terms of prototype definitions, namely, the subjective time scale that speakers impose on the things and situations being discussed. Some situations are without question better to be modified with one of the two near-synonyms than the other, while in-between cases may be described by either terms.

7.2 Suggestions for Future Studies

For future studies, one obvious approach will be to supplement the current research with a larger corpus to investigate whether the parameters examined in this thesis are also observable with a larger amount of data. Other related issues include more sophisticated calculations for collocation patterns as well as the types of RP and of TG that co-occur with each of these temporal terms. For instance, one can try to see

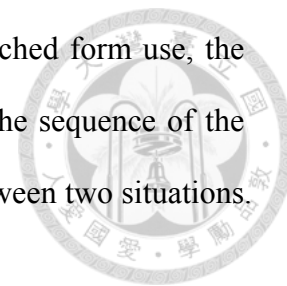
whether verbs of “discovery” (e.g., *fāxiàn* ‘to find’) tend to be used in the RP position.

Another approach will be to conduct a historical study to see when and how these temporal terms developed into the contemporary uses. Our prediction is that these temporal terms were originally postpositions, taking an NP as the complement. Later on, when these temporal terms started to take a VP or a clause as the complement, the slot of the preceding element was no longer reserved for NPs only but also for concepts that were more dynamic and complicated in nature. When the RP became longer and more complex, it split from these temporal terms, providing the environment for the bare form use to emerge. The bare form use in turn provided the environment for the distinction between *zhī* and *yǐ* to surface. In addition, the development of *yǐ* from introducing instrument to introducing a direction/extension is only a tentative guess. The exact path of development can only be attested in a diachronic research, as well as in comparison to similar phenomena in other languages.

Grammaticalization is a possible issue. The development of the four temporal terms exemplifies the principle of layering and the principle of persistence in grammaticalization as well as general language change (Hopper 1991). The similarity in the attached form exemplifies the principle of **layering**, in that within the functional domain of sequencing situations, multiple forms (or layers) coexist to share the similar function. In the attached form, *zhīqián* and *yǐqián* (and even *-qián*) have the similar function, and so do *zhīhòu* and *yǐhòu* (and even *-hòu*). On the other hand, the principle of **persistence** is manifested in the bare form use, in which the earlier function of *zhī* and the earlier function of *yǐ* still adhere to the compound temporal terms and constraint their use.

The four temporal terms also display global discourse functions beyond the sentential level. For example, *zhīqián* and *zhīhòu* in the bare form use tend to link

backward to a discourse unit in the preceding context. In the attached form use, the four temporal terms sometimes serve the function of organizing the sequence of the speaker's thinking, rather than profiling the temporal sequence between two situations. This dimension is also an interesting issue to be explored.



The inspiration for this thesis stems from the uses of these temporal terms by a couple of foreigners learning Mandarin Chinese. Following this track, a language acquisition study is also plausible, for both first and second language. Our prediction is that if there is any indication showing a bias for one term than the other, such as using bare-form *yǐhòu* where *zhīhòu* will be more appropriate or using more *yǐqián* than *zhīqián* in the attached form, the variables involved may include frequency and conceptual complexity for children speaking Mandarin Chinese, whereas for adults learning Mandarin Chinese as a second language it is also likely to be related to teaching methods and dictionary definitions.

It will be interesting to analyze more positional temporal adverbials to arrive at a comprehensive survey of near-synonyms. It has been found that all the four temporal terms in the bare form can be replaced with other temporal terms in Mandarin Chinese. For instance, *zhīqián* in some cases can be changed into *bùjiǔqián* 'not long ago', *jìnlái* 'lately', *zuìjìn* 'recently', *shàngcì* 'last time', *qiányīzhènzǐ* 'a while ago', *xiānqián* 'previously, formerly'. *Zhīhòu* sometimes is interchangeable with *děngyīxià* 'in a moment', *ránhòu* 'and then', *dāihuǐ* 'later', *zuìjìn* 'soon', etc. On the other hand, *yǐqián* is sometimes synonymous with *hěn jiǔ yǐqián* 'a long time ago' and *guòqù* 'in the past', whereas *yǐhòu* is almost the same as *cóng cǐ yǐhòu* 'from this (moment) on' or *wèilái* 'in the future'.

Finally, apart from *zhīqián*, *yǐqián*, *zhīhòu* and *yǐhòu*, it is worth analyzing whether other near-synonymous pairs in Mandarin Chinese that contain the possessive marker *zhī* and the boundary marker *yǐ* also display the kind of difference observed in

these temporal terms. Such pairs are other composite lexical expressions with *zhī* or *yǐ* plus a monosyllabic spatial term, such as *zhīshàng* and *yǐshàng* ‘above’, *zhīxià* and *yǐxià* ‘below, under’, *zhīnèi* and *yǐnèi* ‘within’, *zhīwài* and *yǐwài* and ‘outside, beyond’. It is reasonable to hypothesize that there are usage differences between the two terms within each pair, but a corpus study is required to confirm this hypothesis.



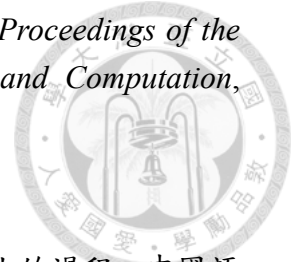
References

English

- Chafe, Wallace. (1984). How people use adverbial clauses. In *The proceedings of the tenth annual meeting of the Berkeley Linguistic Society*.
- Chafe, Wallace. (1988). Linking intonation units in spoken English. In J. Haiman and S. Thompson (eds.) *Clause combining in grammar and discourse*, 1-27. Amsterdam and Philadelphia: John Benjamins.
- Chao, Yuen Ren. (1968). *A grammar of spoken Chinese*. Berkeley: University of California Press.
- Comrie, Bernard. (1985). *Tense*. Cambridge: Cambridge University Press.
- Dik, Simon C. (1997). *The theory of functional grammar. Part 1: The structure of the clause*. Kees Hengeveld (ed.) Second revised version. Berlin & New York: Mouton de Gruyter.
- Du Bois, John W., Stephan Schuetze-Coburn, Susanna Cumming, and Danae Paolino. (1993). An outline of discourse transcription. In Jane A. Edwards and Martin D. Lampert (ed.) *Talking data: Transcription and coding in discourse research*, 45-89. Hillsdale, NJ: Erlbaum.
- Ford, Cecilia. (1993). *Grammar in interaction: Adverbial clauses in American English conversations*. Cambridge: Cambridge University Press.
- Ford, Cecilia. (1994). Dialogic aspects of talk and writing: Because on the interactive-edited continuum. *Text*, 14.4: 531-554.
- Ford, Cecilia and Sandra A. Thompson. (1986). Conditionals in discourse: A text-based study from English. In E. Traugott, C. Ferguson, J. Snitzer Reilly, and A. ter Meulen (eds.) *On conditionals*, 353-372. Cambridge: Cambridge University Press.
- Hopper, Paul. J. (1991). On some principles of grammaticization. In E. C. Traugott and B. Heine (eds.) *Approaches to grammaticalization: Focus on theoretical and methodological issues*, (Vol. 1), 17-35. Amsterdam and Philadelphia: John Benjamins.
- Klein, Wolfgang. (1994). *Time in language*. London & New York: Routledge.
- Langacker, Ronald. W. (1991). *Foundations of cognitive grammar: Descriptive application*, (Vol. 2). Stanford: Stanford University Press.
- Langacker, Ronald. W. (2008). *Cognitive Grammar: A basic introduction*. New York: Oxford University Press.
- Li, Charles. N. and Sandra A. Thompson. (1981). *Mandarin Chinese: A functional reference grammar*. Berkeley: University of California Press.
- Li, Ding. (2005). *Tuttle Learner's Chinese-English Dictionary*. Singapore: Tuttle

- Publishing.
- Li, Ying. (2008). Three sensitive positions and Chinese complex sentences: A comparative perspective. *Journal of Chinese Language and Computing*, 18(2); 47-59.
- Reichenbach, Hans. (1947). Section 51 of *Elements of Symbolic Logic*. London: Macmillan. Reprinted in Inderjeet Mani et al. (eds.) (2005) *The language of time: A reader*, 71-78. Oxford: The University of Oxford Press.
- Saeed, John I. (1997). *Semantics*. Cambridge, MA: Blackwell Publishers.
- Smith, Carlotta S. (1991). *The parameter of aspect*. Dordrecht: Kluwer Academic Publishers.
- Smith, Carlotta S. (1997). *The parameter of aspect*. Second edition. Dordrecht: Kluwer Academic Publishers.
- Smith, Carlotta S. (2004). Reference time without tense. In de Saussure, Louis et al. (2007) (eds.) *Recent advances in the syntax and semantics of tense, aspect and modality*, 229-249. Berlin & New York: Mouton de Gruyter.
- Smith, Carlotta S. and Mary S. Erbaugh. (2001). Temporal information in sentences of Mandarin. In Hanyu Yufa Yanjiu de Xin Tuzhan—21 Shiji Shaojie Xiandai Hanyu Yufa Guoji Yantao Hui [New Views in Chinese Syntactic Research—International Symposium on Chinese Grammar for the New Millennium], K. K. Luke, Shao Jingmin, Shan Zhourao, and Xu Liejiong (eds.), 514–542. Hangzhou: Zhejiang Jiaoyu Chubanshe.
- Tai, James H-Y. (1985). Temporal sequence and word order in Chinese: In John Haiman (ed.) *Iconicity in syntax*, 49-72. Amsterdam: John Benjamins.
- Traugott, Elizabeth C. and Richard B. Dasher. (2002). *Regularity in semantic change*. Cambridge: Cambridge University Press.
- Vendler, Zeno. (1967). *Linguistics in philosophy*. Ithaca, NY: Cornell University Press.
- Wang, Yu-Fang. (1996). *The information sequence of adverbial clauses in Chinese spoken and written discourse*. Unpublished doctoral dissertation, National Taiwan Normal University, Taipei, Taiwan.
- Wang, Yu-Fang. (1999). The information sequences of adverbial clauses in Mandarin Chinese conversation. *Journal of Chinese linguistics*, 27(2), 45-89.
- Wang, Yu-Fang. (2002). The preferred information sequences of adverbial linking in Mandarin Chinese discourse. *Text*, 22(1), 141-72.
- Wang, Yu-Fang. (2006). The information structure of adverbial clauses in Chinese discourse. *Taiwan Journal of Linguistics*, 4.1, 49-88.
- Weninger, Stefan. (1993). *Ge'ez: Classical Ethiopic*. Munich: Lincom Europa.
- Yeh, Hui-chen. (2000). Temporal and conditional clauses in Chinese spoken discourse:

A function-based study. In A. Ikeya & M. Kawamori (eds.) *Proceedings of the 14th Pacific Asia Conference on Language, Information and Computation*, 365-376.



Chinese

- 羅端 (Djamouri, Redouane) (2009) 從甲骨文金文看以字語法化的過程。中國語文, 328, 3-9。
- 谷帥 (Gu, Shuai) (2010)。現代漢語方位詞「前」、「後」及其相關詞用法研究。上海師範大學碩士學位論文。
- 郭錫良 (Guo, Xi-Liang) (1998)。介詞「以」的起源與發展。古漢語研究, 38, 1-5。
- 李向農 (Li, Xiang-non) (1997)。現代漢語時間參照定位的語表形式：X 前/後。語言研究, 32, 42-49。
- 盧福波 (Lu, Fu-po) (2000)。對外漢語常用對比釋例 (Comparative illustration of common Chinese Words and Expressions)。北京：北京語言大學出版社。
- 呂叔湘 (Lü, Shuxiang) (1999)。現代漢語八百詞。北京：商務印書館。
- 劉川平 (Liu, Chuan-ping) (2007)。「之前」單用析。漢語學習, 4, 32-35。
- 劉丹青 (Liu, Danqing) (2003)。語序類型學與介詞理論。北京：商務印書館。
- 龍海平 (Long, Hai-ping) (2006)。「VP 之前」和「沒有 VP 之前」結構分析。上饒師範學院學報, 26.4, 94-96。
- 馬承源等 (Ma, Cheng-yuan et al.) (1998)。商周青銅器銘文選。第三冊。北京：文物出版社。
- 潘韜 (Pan, Tao) (2012)。「以」的虛化：由實詞到虛詞再到詞內成分。華中師範大學碩士學位論文。
- 王俊 (Wang, Jun) (2008)。「之」的語法化。華中師範大學碩士學位論文。
- 王力 (Wang, Li) (1980)。漢語史稿。北京市：中華書局。
- 王明仁 (Wang, Ming-ren) (2009)。從古漢語看「以前」、「以後」的運用。寧夏大學學報, 31.4, 6-13。
- 吳福祥 (Wu, Fu-xiang) (2007)。漢語方所詞語「後」的語義演變。中國語文, 321, 494-506。
- 武振玉 (Wu, Zhen-yü) (2010)。兩周金文虛詞研究。北京：線裝書局。
- 楊清鈺 (Yang, Qing-yü) (2009)。時間先後順序的表述：以個案的方式分析「以後」、「之後」、「然後」的偏誤。企業家天地, 10, 142-143。
- 張敏 (Zhang, Min) (2003)。從類型學看上古漢語定語標記「之」語法化的來源。載於吳福祥、洪波 (主編), 語法化與語法研究 (一) (239-294 頁)。北京：商務印書館。
- 章培智 (Zhang, Peizhi) (1990) 斯瓦希里語語法。北京：外語教學與研究出版社。

趙鋼立等 (Zhao, Gang-Li et al.) (2007)。新編說文解字字典。開封：河南大學出版社。

趙新與李英 (Zhao, Xin & Ying, Li) (2009)。商務館學漢語近義詞詞典。北京：商務印書館。



Dictionaries and online tools

Wu, Jing-rung et al. (2003). *Oxford Chinese dictionary: English-Chinese, Chinese-English*. Oxford & New York: Oxford University Press.

中華民國教育部(1994)。教育部重編國語辭典修訂本(*Revised edition of Mandarin Chinese dictionary*) 。 Retrieved on January 9, 2012 from <http://dict.revised.moe.edu.tw/>

漢典 (Handian) <http://www.zdic.net/>

中央研究院語言學研究所 (Institute of Linguistics, Academia Sinica) (2005)。中文詞彙網路 (Chinese WordNet) 。 Retrieved on January 9, 2012 from <http://cwn.ling.sinica.edu.tw/>

中央研究院語言學研究所 (Institute of Linguistics, Academia Sinica) 現代漢語平衡語料庫 (Academia Sinica Balanced Corpus of Modern Chinese) 。 Retrieved on January 9, 2012 from <http://db1x.sinica.edu.tw/cgi-bin/kiwi/mkiwi/kiwi.sh>

中國社會科學院語言研究所詞典編輯室 (2005)。現代漢語辭典 (Contemporary Chinese Dictionary) 。北京市：商務印書館。