BEI-PASSIVE CONSTRUCTIONS IN MANDARIN

by

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Dedication

This dissertation is dedicated to my daughter Ezrie, who has been both my primary distraction and motivator the past two years and change. While it is still a great many years before you ever read this (that is, if you even do), know that from now until then and beyond, I love you.

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Abstract

For many decades now, the analysis of Mandarin *bei*-passives has been at the heart of much scholarly debate. One line of analysis argues that long *bei*-passives, which have an overt initiator, are syntactically distinct from short *bei*-passives, which have an implicit initiator. In particular, such an approach analyses the long passive as involving A'-movement of a null operator and the short passive as involving A-movement of PRO (Feng 1997/2012; Huang 1999; 2013; 2014; Huang et al. 2009; Lin 2009; 2015; Liu 2012; 2016; Liu & Huang 2013; 2016; Tang 2001; Ting 1998, among others). Such analyses typically cite the presence of A'-effects exhibited by long passives as motivation for proposing A'-movement, and conversely also argue that the lack of A'-effects in short passives necessitates an A-movement analysis instead.

In this dissertation, I propose a novel unified analysis for both long and short passives that involves the A'-movement of a null operator. Such an approach predicts that A'-effects should be detected in both the long and short passives, and I present evidence showing that both passives do indeed exhibit a variety of A'-effects, including the presence of parasitic gaps, the presence of resumptive pronouns, island repair via resumption and long-distance dependencies. In doing so, I demonstrate that the claims made by the abovementioned non-unified approaches are falsified and that my approach has wider empirical coverage.

Two natural consequences of my unified approach for the long and short passives are that 1) the only putative difference between the long and short passive should be the presence of the initiator, which I claim is the object of a null preposition a PP adjunct; and 2) there is external argument suppression even in the long passive since the oblique initiator does not saturate the external argument position (Legate 2014). Relatedly, I show that the initiator does not induce blocking effects (Biggs 2014; Cole et al. 1990; Cole & Wang 1996; Hu 2019;

Tang 1989), which is expected only if the initiator is indeed in an adjunct position. I also present evidence from preposition stranding in long *bei*-passives (Pan 2016) to argue that the initiator is the object of a null preposition and thus is in a PP adjunct.

To account for the short passives in which A'-effects are reportedly not detected, I also propose a linear ordering constraint that can be satisfied by appropriate intervening elements, which include adverbial phrases and prepositional phrases. Thus, I argue that there are extra-syntactic phenomena that block A'-effects in short passives, and consequently my unified A'-movement account for both *bei*-passives can be maintained.

Chapter 1 – Introduction: characterising the *bei*-passive in Mandarin

1.1 Overview

This dissertation will attempt to provide a unified formal syntactic and semantic analysis of the Mandarin *bei*-passive, which has been argued to come in two types (Feng 1997/2012; Huang 1999; 2013; 2014; Huang et al. 2009; Lin 2009; 2015; Liu 2012; 2016; Liu & Huang 2013; 2016; Tang 2001; Ting 1998, among others), as we see in examples (1) and (2):

(1) Long *bei*-passive

didi bei mama fa-zhan-le

younger.brother BEI mother punish-stand-PERF

Lit: 'Younger brother was punished-stood by mother.'

'Younger brother was made to stand as a punishment by mother.'

(2) Short *bei*-passive

didi bei fa-zhan-le

younger.brother BEI punish-stand-PERF

Lit: 'Younger brother was punished-stood.'

'Younger brother was made to stand as a punishment.'

Contra much of the existing literature on *bei*-passives, which assumes that example (1) involves A'-movement while example (2) involves A-movement, I argue that it is possible, and indeed desirable, to assume that both long and short *bei*-passives involve A'-movement.

It is therefore important to note that, under my analysis, the only putative syntactic or semantic difference between examples (1) and (2) is that the initiator[1] argument is present in (1) and absent in (2).

This dissertation draws from novel data involving the interaction of islands and *bei*-passives introduced in my previous work (Ngui 2019; 2020; 2022), and also describes novel data involving the interaction of parasitic gaps and *bei*-passives, which to my knowledge has not been discussed in the literature, to provide more support for my A'-movement analysis. Additionally, this dissertation attempts to fill in some theoretical and empirical gaps I had previously noted as well as extend my analysis to account for QR facts and ditransitive structures.

Since I argue that a unified account has better empirical coverage, I have to take on the challenge of considering a relatively large amount of literature on *bei*-passives and show that my approach is superior as compared to such previous accounts that have assumed that long and short passives have distinct syntactic structures (see subsection 1.1.2 for a brief introduction and Chapter 2 for more details).

1.1.1 Theoretical assumptions

I adopt the general framework of the minimalist programme, though I assume only Internal and External Merge (Chomsky 2001a) is involved in the derivation of *bei*-passives. Additionally, I assume that syntactic selection is restricted by features (Adger 2003). I only make use of outer aspect (viewpoint aspect) in my analysis, and I do not consider inner aspect (lexical aspect) (Carnie 2005; Jelinek & Carnie 2003; Martin et al. 2021; Travis 2000; 2010;

[1] I choose the term 'initiator' (following Ramchand (2008)) rather than 'agent' as it covers a broader set of thematic relations.

Vendler 1957) at this time. I also implicitly assume the Uniformity of Theta Assignment Hypothesis (UTAH) (Baker 1988). As for semantic computation, I only need a standard compositional formal semantics in the style of Heim and Kratzer (1998) with function application, predicate modification and lambda abstraction (λ-abstraction).

In this dissertation, I do not assume that the *bei* morpheme is the passive morpheme *per se*, but I will propose that there is a suppressed external argument in both the long and short passives, which is a defining characteristic of passive constructions (Bruening & Tran 2015), and thus both constructions will be treated as passive constructions. Furthermore, it will be apparent throughout this dissertation that the grammatical subject of a *bei*-passive is always understood to be the logical object, in line with what one would expect in a standard passive construction. Because my analysis assumes that both *bei*-passives are indeed passive constructions, I include a $\text{Voice}_{\text{Pass}}$P abstract functional head in my proposed syntactic structure to be consistent with analyses for passives (such as those of Bruening (2013), Bruening & Tran (2015) or Legate (2012;2014)).

One of the key arguments in this dissertation is that there is A'-movement of a null operator (NOP) in both the long and short Mandarin *bei*-passive. I follow Chomsky (1993; 1995) in assuming that such A'-movement leaves behind a copy. Because I also account for the semantic computation of the *bei*-passive, I will follow the standard assumption that λ-abstraction over the copy left behind (Heim & Kratzer 1998) is a semantic reflex of A'-movement that leaves a copy in the syntax. Further, I follow the standard assumption that the initiator argument is added via event identification (Kratzer 1996), and specifically I assume that it is the $\text{Voice}_{\text{Pass}}$ head that composes with vP via event identification (Kratzer 1996) in the *bei*-passive. Relevantly, to represent how the external argument is uniformly suppressed in the syntax in *bei*-passives, I assume existential closure (Kratzer 1996) is involved in the

passive (Bruening 2013; Legate 2014), and that it occurs at AspP, as is standardly assumed (Diesing 1992; Heim 1982; Martin et al. 2021; Travis 2000; 2010).

Unless otherwise stated, the grammaticality judgements for the Mandarin sentences in this dissertation are based on my and my consultant Yiyun Zhao's intuitions as native speakers. I am a speaker of Singaporean Mandarin while my consultant is a speaker of a southern dialect of Mainland Mandarin. It should be noted that while there is a lot of speaker variation in Mandarin depending on the particular dialect of Mandarin spoken (see also chapter 4 for more discussion on speaker variation), at least the empirical data and observations made in Ngui (2019; 2020; 2022) that support my unified A'-movement analysis have made the rounds in conferences without much objection, which I take to indicate that the grammaticality of the data indicated is in the right direction. In addition, my consultant has been internally consistent with the judgements provided throughout the years. As such, while I acknowledge that it would most certainly be worthwhile to formally survey a larger group of Mandarin speakers regarding the grammaticality of the sentences proposed as supporting empirical evidence here, I argue that the judgements presented in this dissertation are adequately representative of the larger picture.

1.1.2 What the bei-*passive isn't*

To begin, note that the *by*-NP phrase in English, where present, is a prepositional phrase, and it serves to remove the logical subject from the subject argument position:

(3) Initiator in *by*-phrase

Mary was promoted by Betsy.

(4) Implicit initiator

Mary was promoted.

We see that in example (3), the initiator is in a prepositional phrase headed by the preposition *by*. The result then is that the logical subject is no longer in an argument position in the passivised sentence, or that the external argument, Betsy in this case, has been demoted (Baker et al. 1989; Collins 2005; Jaeggli 1986; Perlmutter 1978; Perlmutter & Postal 1984, among many others). As for example (4), the logical subject is also no longer in an argument position, and in fact there is no overt initiator at all, though the sentence is still understood to have an implicit initiator. In both the long and short passive, we see that the initiator (or the external argument) is suppressed because it is no longer in an argument position. There is thus good reason to assume that in both the long and short Mandarin *bei*-passives in examples (1) and (2) respectively, the external argument is also suppressed, since the logical subject is similarly no longer in the argument position.

However, is the *bei*-NP phrase also a prepositional phrase, similar to what has been argued for in English? There have been many works that have proposed that in Mandarin *bei*-passives, *bei* is a prepositional head and the initiator is therefore in a prepositional phrase in the long passive and is implicit in the short passive, though *bei*, unlike *by*, is still overtly present in the structure (Cheng 1986; Hu ms.; Huang 1982; Li 1985; 1990; Li & Thompson 1981; Shi 1997; 2005; 2008, Shi & Hu 2005; Wuyun & Pan 2014a; 2014b). Cheng et al. (1993), Huang (1999), Huang et al. (2009) and Ting (1993; 1995; 1998), among many others, have presented many convincing arguments against the proposal that *bei* is a preposition, and my analysis accordingly also does not treat *bei* as a preposition. Therefore, the first key point of note is that while there is indeed external argument suppression in the long and short *bei*-

passive (see chapter 2 for more details), the *bei*-NP is not a prepositional phrase, and *bei* is not a prepositional element (see chapter 2 for a brief summary of Huang (1999) and Ting's (1998) arguments). What, then, is the category of *bei*? I assume along with Cheng et al. (1993), Feng (1997/ 2012), Huang (1999), Huang et al. (2009), Ting (1993; 1995; 1998) and many others that it is verbal in nature and is thus a predicate. In fact, throughout this dissertation and especially in chapter 2, I argue that *bei* is a primary predicate that takes a secondary predicate as its complement.[2]

The second point of note in this subsection pertains to the *bei* morpheme and theta roles. Huang (1999) and Huang et al. (2009) argue that the grammatical subject, or the logical object, of a *bei*-passive bears an experiencer theta role. However, as Bruening & Tran (2015) rightfully point out, this claim is easily falsified even by reviewing one of Huang's (1999) examples:

(5) The grammatical subject *cannot* bear the experiencer theta role

nei-feng	xin	bei	wo	jiao	lisi
that-CL	letter	BEI	1SG	tell	Lisi

qing	wangwu	tuo	ta	meimei	ji-zou	le
ask	Wangwu	request	3SG	younger.sister	mail-go	INCH

Lit: 'That letter was already told-Lisi-to-ask-Wangwu-to-request-his-sister-to-mail-out by me.'

(Huang 1999; 15, with modifications)

[2] See also Bruening & Tran (2015) and Huang (1999) for a similar approach, thought it is important to note that Huang (1999) especially, such an approach applies only to the long *bei*-passive.

Since *nei-feng xin* ('that letter') is inanimate, it cannot bear the experiencer theta role and should only be able to bear the theme theta role, contrary to Huang's (1999) and Huang et al.'s (2009) claims. So, the second key point is that the grammatical subject does not necessarily bear the experiencer theta role.

The third point, which is the focus of this dissertation, is that via syntactic movement,[3] both *bei*-passives effect a change in word order such that the logical object (such as *didi* ('younger brother') in examples (1) and (2)) is now the grammatical subject, and a gap is left behind in the post-verbal position, or the object argument position.[4] Scholars such as Feng (1997/2012), Huang (1999; 2013), Huang et al. (2009), Lin (2009; 2015), Liu (2012; 2016), Liu and Huang (2013; 2016), Tang (2001) and Ting (1993; 1995; 1998), among many others, have either assumed or argued that long and short *bei*-passives in Mandarin have distinct syntactic structures and have consequently derived the gap in long and short passives via different types of movement in the respective constructions.

For them, one crucial syntactic distinction is that while long *bei*-passives involve A'-movement of a null operator (NOP), as in example (6), short *bei*-passives involve A-movement of PRO,[5] as in example (7):

[3] Example (7) below supports my claim that movement is involved since A'-movement has been argued to licence parasitic gaps (Culicover 2001; Engdahl 1983; Lin 2005; Ting & Huang 2008, among others). Relatedly, example (8) below shows that a movement account is necessary because island violations (Ross 1969) arise in the absence of resumptive pronouns. That is, if there were no movement (also described as extraction) involved in *bei*-passives, we should also expect that there are no island violations, but this is not the case. In particular, I agree (in part) with Huang (1999) and argue later on in this dissertation that it is the NOP that has been moved and thus the aforementioned 'gap' is a copy of the NOP at the foot of the relevant A'-chain.

[4] Mandarin is typically a SVO language. Readers interested in the overall grammar system of Mandarin can refer to Chan (1980), LaPolla (1990) or Li & Thompson (1981), for instance.

[5] This A-movement is described in more detail in Cheng et al. (1993) or Huang (1999). Though not clearly explicated (as far as I can tell), such movement is presumably motivated by Case. Additionally, Liu (2012) suggests that such A-movement occurs because PRO cannot occupy a governed position.

(6) A'-movement of NOP analysis (with *t* representing the gap)

[$_{IP}$ didi$_i$ [$_{VP}$ bei [$_{IP}$ Op$_i$ [$_{IP}$ mama fa-zhan-le t_i]]]

younger.brother BEI mother punish-stand-PERF

Lit: 'Younger brother was punished-stood by mother.'

'Younger brother was made to stand as a punishment by mother.'

(7) A-movement of PRO analysis (with *t* representing the gap)

[$_{IP}$ didi$_i$ [$_{VP}$ bei [$_{VP}$ PRO$_i$ fa-zhan-le t_i]]]

younger.brother BEI punish-stand-PERF

Lit: 'Younger brother was punished-stood.'

'Younger brother was made to stand as a punishment.'

Consequently, such approaches argue, only the long passive should exhibit A'-movement effects. In particular, the A'-effects this dissertation focuses on are the licencing of parasitic gaps in both long and short *bei*-passives, as in example (8), the presence of resumptive pronouns in both long and short passives, as in example (9), the obligatory presence of resumptive pronouns where the gaps should be when extracting from islands, as in example (10), and the grammaticality of long-distance dependencies in *bei*-passives, as in example (11):

(8) Licencing of parasitic gaps in both long and short *bei*-passives

[na-ge	xiaotou]$_i$	bei	(jingcha)		
that-CL	thief	BEI	police		
[$_{\text{adjunct island}}$	toutou	genzong	**__$_{PGi}$**	hou]	daibu-le
	secretly	tail		after	arrest-PERF

Lit: '[That thief]$_i$ was arrested (by the police) [$_{\text{adjunct island}}$ after secretly tailing **__$_{PGi}$**].'

'[That thief]$_i$ was arrested (by [the police]$_k$) after they$_k$ secretly tailed him$_i$.'

(9) Presence of resumptive pronoun *ta* in both long and short passives

zhangsan$_i$	bei	qiang-zou-le	(**ta$_{i/*j}$**)	zui	xihuan	de	wanju
Zhangsan	BEI	snatch-away-PERF	3SG.POSS	most	like	DE	toy

Lit: 'Zhangsan$_i$ was snatched-away-(**his$_{i/*j}$**)-favourite toy.'

'Zhangsan had his favourite toy snatched away from him.'

(Huang 1999; fn. 18, pp. 24, with modifications)

(10) Resumptive pronoun *ta* is obligatory in *both* long and short passives in island extraction

kongzi$_i$	bei	(baojun)	[andili	zhao	cike	
Confucius	BEI	tyrant	in.secret	find	assassin	
[mousha-le	[$_{CNPI}$	suoyou	zhichi	***(ta$_i$)**	de	chenzi]]]
murder-PERF		all	support	RP	DE	officials

Lit: 'Confucius$_i$ was found-assassins-to-murder in secret [$_{CNPI}$ all the officials who supported **him$_i$**] (by a tyrant).'

'Assassins were found in secret (by a tyrant) to murder all the officials who supported Confucius.'

(11) Long-distance dependencies are grammatical in *both bei*-passives

tongdao$_i$	dou	yijing	bei	(jiangjun)	[pai	bing	[bashou	x_i]]
passage	all	already	BEI	general	send	troop	guard	

Lit: 'All passages have been "sent-troops-to-guard" (by the general).'

'(Someone/the general) has sent troops to guard all passages.'

(Her 2009; 431, with modifications)

While the abovementioned non-unified analyses would predict that only the long passive versions should be acceptable,[6] what we see in examples (8-11) is that this is empirically false. Her (2009) discusses examples such as (9)[7] and (11), while in my own work (Ngui 2019; 2020; 2022) I have investigated cases such as examples (10). As for example (8), as far as I know, it is a novel datapoint that I introduce in this dissertation. To sum up, I will present in this dissertation four well-established diagnostics for A'-movement, and show that contrary to much of the existing literature, both long and short passives involve A'-movement and we can apply a unified analysis. Thus, the third key point, which I will argue for extensively in this dissertation, is that the long and short *bei*-passives should not have distinct syntactic structures and should both involve A'-movement rather than A-movement.

1.1.3 What the bei-*passive is*

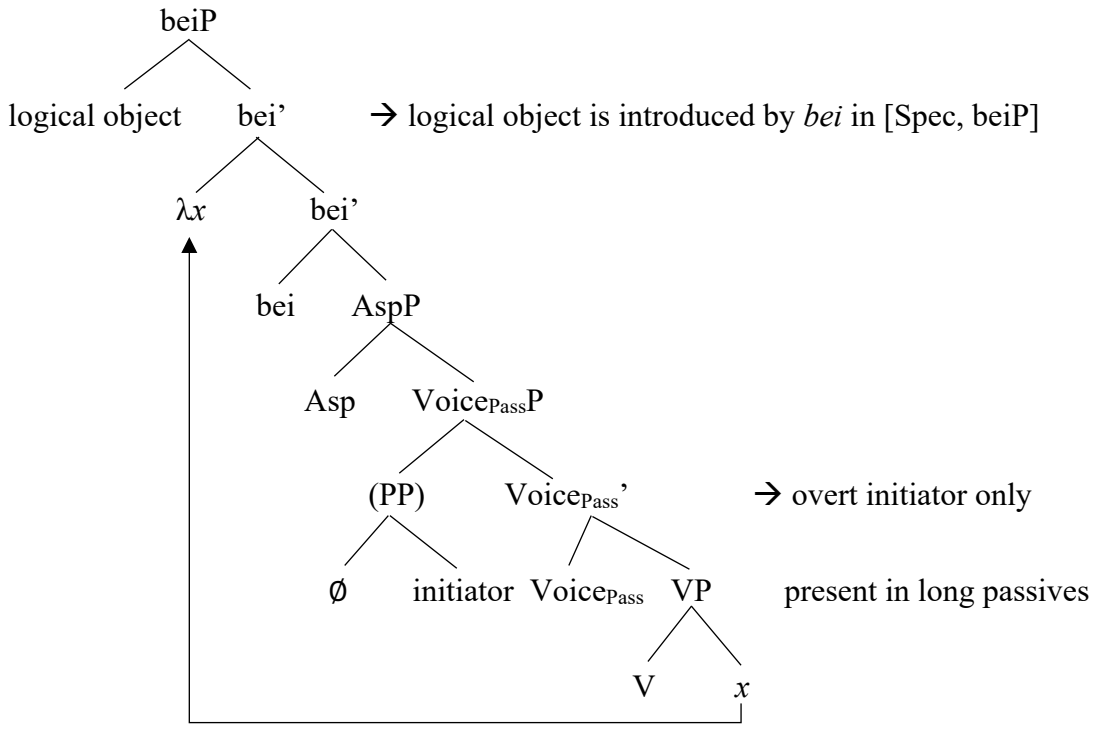
Recall that i) I assume *bei* to be a predicate; ii) and that *bei* introduces the grammatical subject, or the logical object; and iii) I argue in this dissertation that both long and short *bei*-passives uniformly involve A'-movement. Relatedly, I also argue in this dissertation that the only putative difference syntactically and semantically between the long and short passive is that the former has an overt initiator while the latter does not. I propose

[6] Ting (1998) and Huang (1999) also use the acceptability of the morpheme *suo* in long passives and not in short passives to argue for the two having distinct syntactic structures, but Her (2009), Pan & Hu (2021) and Shi (2008) show quite convincingly that this particular claim can be falsified as well. I do not make use of *suo* in my analysis, but see Ting (1995; 1998) and Huang (1999) for the licencing of *suo* through A'-movement.

[7] To be clear, Huang (1999) and Ting (1998) both propose that in the long passive, the resumptive pronoun also requires the presence of a licencing adverb. Her (2009) talks about examples like (8) in a slightly different way – the phenomenon is not described as a resumptive pronoun being licenced by an adverb but rather as being indicative of the possibility for a resumptive pronoun regardless of whether we are dealing with long or short passives. Hence, for Her, it is not important why the resumptive pronoun requires the presence of the adverb in the long passive and in fact nothing in his analysis hinges on what licences the presence of the resumptive pronouns – as long as there are cases where the resumptive pronoun is found in the short passive, it is considered as exhibiting the same phenomena as the long passive. In chapter 3, I go into more detail regarding resumptive pronouns and show that Her's data indeed involves resumptive pronouns and thus provides strong support for my A'-movement proposal.

that we can capture all of the above characteristics in a unified analysis exemplified by the abstract syntactic tree in (12):

(12) Abstract structure of the *bei*-passive



A'-movement/unbounded movement of null operator (NOP) represented as λ-abstraction

As a concrete example, the tree (13b) illustrates how *didi* 'younger brother' in example (13a) is the logical object that is introduced by the secondary predicate *bei*, and the logical subject *mama* 'mother' can either be overtly present or not:[8]

[8] The reader will note that while the Asp node is indeed in the complement of *bei*, we do not seem to derive the surface word order directly given my analysis. How the surface order might be derived is beyond the scope of this paper, although nothing in my analysis should hinge on this.

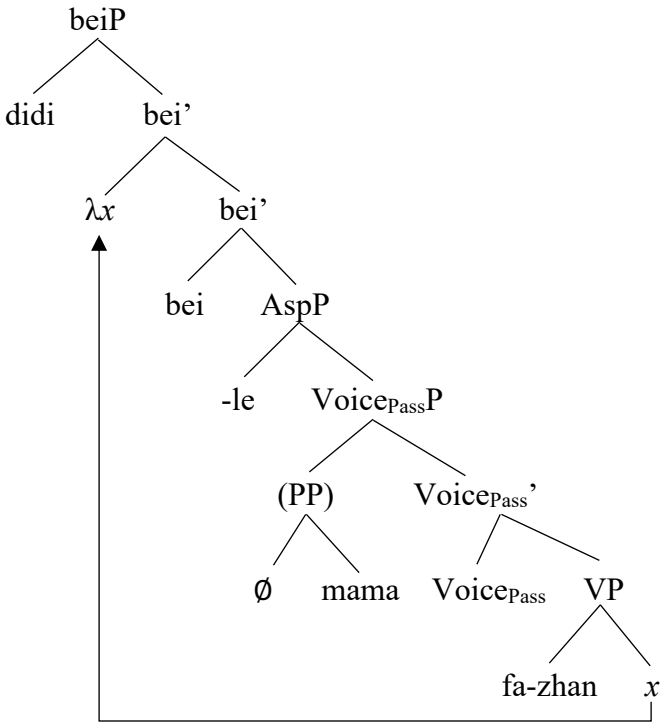
(13a) didi bei (mama) fa-zhan-le

younger.brother BEI mother punish-stand-PERF

Lit: ‘Younger brother was punished-stood (by mother).’

‘Younger brother was made to stand as a punishment (by mother).’

(13b)



In Chapter 2, I provide justification for the syntactic structure proposed in (12) and (13) and also demonstrate that my structure can semantically compose successfully.

1.2 Goals of this dissertation

This dissertation aims to make both empirical and theoretical contributions to the existing works pertaining to Mandarin syntax and semantics. In making the novel argument that both long and short *bei*-passives should uniformly involve A’-movement of a null operator with the accompanying syntactic and semantic analyses, all of which are based on

the empirical data at hand, I hope to make a meaningful addition to the existing pool of evidence in the literature. In particular, I submit that i) the novel data involving syntactic islands and parasitic gaps respectively will be fruitful avenues for future research, especially if they prove to be reliable diagnostics for A'-movement or are strongly indicative of A'-effects; and ii) that this dissertation presents strong evidence for the novel claims that the overt initiator is in a PP adjunct and that said PP adjunct is headed by a null preposition.

Regarding the existing theoretical analyses for *bei*-passives, the vast majority of works have adopted the assumption that long and short passives involve different syntactic structures, with Biggs (2014), Her (2009) and Ting (1993) being the few authors that I know of who have argued for a unified approach (see chapter 4 for more details and a comparison to my unified analysis). By proposing a unified analysis, I hope to show that it is certainly possible to apply a more streamlined set of constraints while still successfully capturing the facts in future analyses of *bei*-passives and potentially in other potentially comparable passive constructions cross-linguistically, such as Vietnamese, Cantonese, Southern Min or Thai (see chapter 6 for a brief cross-linguistic comparison).

As this dissertation focuses on the long and short *bei*-passives, phenomena and observations pertaining to other passive constructions, such as the *gei*-, *jiao*- and *rang*--passive will unfortunately be excluded. I briefly consider the 'gapless' *bei*-passive (see chapter 6), though again it is not the focus in this work.

Lastly, although this dissertation aims to flesh out the semantic composition of *bei*-passives, I will only show that the semantic contribution of *bei* is not straightforward due to space constraints (see chapter 6).

1.3 Roadmap of this dissertation

In Chapter 2, I propose a unified A'-movement analysis for both long and short *bei*-passives. Section 2.1 sketches out the overall analysis. Section 2.2 presents evidence showing that *ziji* ('self') is not necessarily subject-oriented and subsequently argues that *ziji* can indeed be bound by the oblique initiator in the *bei*-passive. Additionally, the section also presents evidence showing that unlike typical subject arguments in Mandarin, the oblique initiator does not induce any blocking effects, a result that is only expected if the initiator is indeed in an adjunct position. Section 2.3 provides more evidence supporting my claim that the initiator is embedded in a PP adjunct before showing how this claim is compatible with Legate's (2012; 2014) proposal for passive constructions. Finally, in section 2.4, I integrate Legate's (2014) analysis into my unified A'-movement account.

Chapter 3 discusses predictions made by my unified A'-movement analysis. First, since A'-movement licences parasitic gaps, I present supporting evidence for both the existence of parasitic gaps in Mandarin as well as their grammaticality in both long and short *bei*-passives in section 3.1. Next, since A'-movement should also licence resumptive pronouns, I briefly introduce Pan's (2016) analysis of resumptive pronouns in Mandarin before discussing their syntactic distribution in *bei*-passives in non-island as well as island contexts in section 3.2. Lastly, since A'-movement also allows for unbounded long-distance dependencies, I present data demonstrating that such long-distance dependencies are indeed found in both long and short *bei*-passives in section 3.3.

Chapter 4 then shows that my approach has superior empirical coverage as compared to previous approaches. Section 4.1 briefly illustrates the haplology proposal and argues against some of the relevant claims of such an approach. Section 4.2 discusses some non-unified approaches in detail and shows why these approaches are empirically inadequate. The

section also discusses data pertaining to idiomatic interpretations and how they ultimately support my unified proposal rather than the non-unified approaches. Section 4.3 shows how my unified approach is empirically superior and has stronger explanatory power as compared to other unified approaches. Section 4.4 shows how my novel proposed structure derives the right binding facts, an issue also discussed in some previous works.

Chapter 5 proposes a linear ordering constraint to account for apparent counterexamples to my claim that the long and short *bei*-passives both uniformly involve A'-movement. Section 5.1 describes the linear ordering constraint. Section 5.2 argues that adverbial phrases in Mandarin can be appropriate intervening elements that satisfy this constraint. Section 5.3 presents data showing that prepositional phrases can also be appropriate intervening elements that satisfy the constraint. Section 5.4 argues that the oblique initiator, being a PP, is also an appropriate intervening element and further argues that the initiator PP adjunct is not only semantically but also syntactically distinct from typical PPs due to restrictions in PP reordering in *bei*-passives.

Chapter 6 is the concluding chapter. Section 6.1 briefly discusses some avenues for further research and section 6.2 concludes this dissertation.

Chapter 2 – The syntax of the *bei*-passive

The goal of this chapter is to propose a unified A'-movement of null operator movement (NOP) analysis for both long and short *bei*-passives, in which the external argument is existentially closed in both and the only putative difference between the two is that in the long passive, an oblique initiator is present and in the short passive, this oblique initiator is absent. This chapter's primary concern is thus showing that the proposed unified structure is tenable. The evidence for the presence of A'-movement of NOP in both the long and short passives is left for chapters 3 and 4.

The rest of this chapter is as follows. Section 2.1 sketches out the overall analysis. Section 2.2 shows that *ziji* can be bound by non-subjects, and thus we should expect that *ziji* can be bound by an oblique initiator in the *bei*-passive. Additionally, the section also presents evidence showing that unlike typical subject arguments in Mandarin, the oblique initiator does not induce any blocking effects, a result that is only expected if the initiator is indeed in an adjunct position. Section 2.3 provides further evidence for my claim that the initiator is embedded in a PP adjunct before showing how this is compatible with Legate's (2012; 2014) proposal for passive constructions. Finally, in section 2.4, I integrate Legate's (2014) analysis into my unified A'-movement account.

2.1 Introducing the unified analysis for long and short passives

Many scholars have argued that the long and short *bei*-passive should be analysed as syntactically distinct, proposing that long passives involve A'-movement of a NOP while short passives involve A-movement of PRO (Feng 1997/2012; Huang 1999; 2013; 2014; Huang et al. 2009; Lin 2009; 2015; Liu 2012; 2016; Liu & Huang 2013; 2016; Tang 2001; Ting 1998, among others). Bruening & Tran (2015), who claim that the crucial defining

characteristic of a passive is the suppression of the external argument, have even argued that the external argument is not suppressed in a long passive and it should be considered an active construction instead. Conversely, the short passive is truly a passive because the implicit nature of the initiator points to the external argument being suppressed (we come back to some counterarguments against these non-unified approaches in detail in chapter 4).

I propose instead a unified account that appeals to A'-movement of NOP and later in the chapter I provide empirical evidence showing that both long and short passives exhibit A'-effects. I also propose that we can treat the overt initiator as being in a PP[1] adjunct akin to the *by*-phrase in English passive constructions (Bruening 2013; Legate 2012, 2014), and this is discussed in the rest of this section. The latter is a necessary consequence of my unified approach, in which the only defining syntactic difference between the long and short passive is the presence of the PP adjunct containing the initiator in the former. This also allows us to maintain that long and short *bei*-passives alike involve suppression of the external argument and hence both should be considered passive constructions. Thus, to recapitulate, the major innovations in my analysis are: 1) that we can treat the overt initiator as being the complement of a null P in a PP adjunct rather than as an external argument and 2) that both long and short passives should uniformly involve A'-movement of a NOP. These are illustrated in (1):

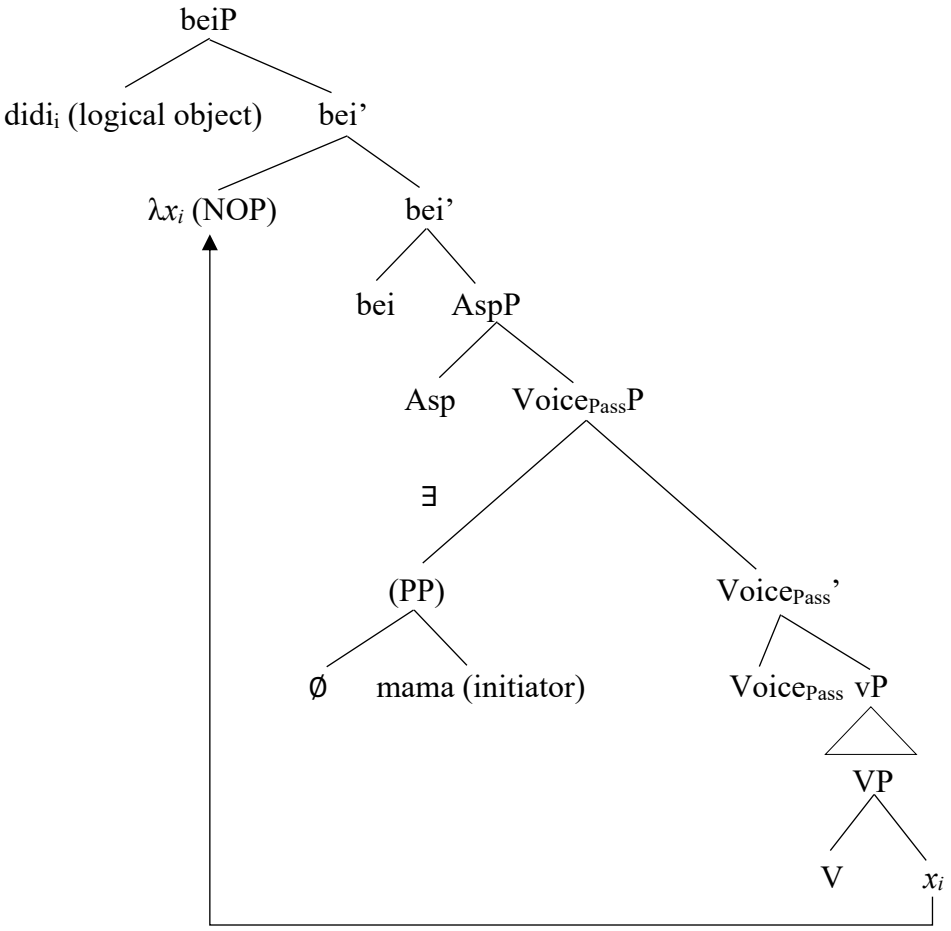
[1] A full discussion of the null P head is beyond the scope of this dissertation (but see section 2.3). However, I do note that because Mandarin has very little overt morphology, it is not unreasonable to claim that there could be a null head. I leave an investigation of the exact nature of this proposed null P head and such PP adjunction to VoiceP to future work, but I note that Legate (2014) points out that having initiators in PP adjuncts in passive constructions is a cross-linguistically robust observation. Relatedly, she even points out that it is possible that there are adpositions (such as Indonesian *oleh* 'by') that co-occur with initiators only in the passive and are not found in other syntactic environments. In fact, *oleh* also seems to be optional in the Indonesian passive construction. It is not out of the question that my proposed null P head in Mandarin could be much the same as *oleh*.

(1) The A'-movement analysis for long and short *bei*-passives (preliminary version)

[$_{beiP}$ didi$_i$ [$_{bei'}$ NOP$_i$ bei (mama) [$_{VP}$ fa-zhan-le t_i]]]

younger.brother BEI mother punish-stand-PERF

'Younger brother was made to stand as a punishment (by mother).'



First, we see in (1) that there is A'-movement of a NOP (represented by the λ-operator *x*; for ease of exposition, I will continue with the term 'NOP' in this chapter) in the internal argument position in the form of λ-abstraction (Heim & Kratzer 1998) over *bei*. Note that it is not the case that we have an operator that operates over a variable *x* – rather, the A'-movement of the NOP that leaves behind its copy is semantically represented as λ-abstraction. Feng (1997/2012) was the first to suggest that the *tough*-construction analysis

(Chomsky 1981), which involves the A'-movement of a null operator rather than a matrix subject base-generated low and then moved syntactically to the matrix subject position, could also be applied to *bei*-passives. Huang (1999) further points out that the A'-movement of NOP allows for a predication relation that allows the overt grammatical subject that is base-generated high to bind the phonologically null copy of the A'-moved NOP, and notably the NOP is base-generated in the position that is understood to be the logical object, where the gap *t* in example (1) is. In this way, we can also account for the surface form of the *bei*-passives. Most relevantly, also pointed out by Huang (1999), such A'-movement in the syntax is represented as λ -abstraction semantically, which then gives us a straightforward way to semantically compose *bei*-constructions such as example (1).

Next, note that as illustrated in (1), in a long passive, the PP adjunct is present, and in a short passive, the PP is absent from the tree.[2] However, in both cases, I claim that there is an existentially closed external argument, represented in (1) above as ∃, thus whether there is an overt initiator or not, we can maintain that there is indeed suppression of the external argument. That is, I follow Legate (2014) in claiming that the overt initiator argument in the PP adjunct should not be thought of as saturating the external argument position, but rather as a complement to the null P head that has been assigned a theta-role by said null P head, and this theta-role is separate from but identical to the one assigned to the implicit argument, hence linking it to the implicit argument. Consequently, the long and short passives have a $\text{Voice}_{\text{Pass}}$ layer, contra Bruening & Tran (2015), and $\text{Voice}_{\text{Pass}}\text{P}$ always contains an existentially bound external argument, contra Bruening (2013).

[2] This has given off the impression that the initiator is overt in the long passive as a (derived) subject, while the initiator is implicit in the short passive. Explaining the presence and absence of the initiator has been a key source of motivation for non-unified accounts.

Lastly, given my proposed syntactic structure in (1), it is important to clarify that while I argue that *bei*-passives have an optional PP adjunct that contains the initiator, I do not treat *bei* as a prepositional element, following Huang (1999) and Ting (1998). Below, I briefly summarise two of their arguments against treating *bei* as a preposition that forms a PP constituent with the overt initiator.

First, Huang (1999) and Ting (1998) pointed out that if *bei* formed a constituent PP with the initiator, then we would expect that it can be fronted like other PPs, but this is not the case:

(2a) zhangsan [$_{PP}$ dui lisi] hen keqi

Zhangsan to Lisi very polite

'Zhangsan is very polite to Lisi.'

(2b) [$_{PP}$ dui lisi] zhangsan hen keqi

to Lisi Zhangsan very polite

Lit: 'To Lisi, Zhangsan is very polite.'

'Zhangsan is very polite to Lisi.'

(Huang 1999; 6, with modifications)

(3a) zhangsan zuotian [bei lisi] da-le

Zhangsan yesterday BEI Lisi hit-PERF

'Zhangsan was hit by Lisi yesterday.'

(3b) *[bei lisi] zhangsan zuotian da-le

BEI Lisi Zhangsan yesterday hit-PERF

Intended: ‘By Lisi, Zhangsan was hit yesterday.’

Observe that the PP *dui Lisi* (‘to Lisi’) in example (2) can be fronted, which Huang (1999) and Ting (1998) argue is a property of PPs in Mandarin. Thus, if *bei* truly was a preposition that formed a PP constituent with the initiator, we would expect that it too can be fronted, but example (3) demonstrates that this is not the case.

Second, note that preposition stranding is banned in Mandarin (see also section 2.3 for more details), as seen in example (4):

(4) zhangsan [$_{PP}$ dui *(lisi)] hen youshan

Zhangsan to Lisi very friendly

‘Zhangsan is very friendly to Lisi.’

(Ting 1998; 333, with modifications)

Example (4) illustrates that prepositions cannot be stranded in Mandarin. In particular, the NP *Lisi* cannot be left out in the PP, which would strand the preposition *dui* ‘to’. If *bei* were a preposition, we should expect that it similarly would ban preposition stranding, but grammatical short passives such as example (5) abound:

(5) zhangsan bei ma-le

Zhangsan BEI scold-PERF

'Zhangsan was scolded.'

Note that in example (5), there is no NP following *bei* and it would thus be considered stranded, yet the sentence is grammatical, in contrast to example (4). If *bei* were indeed a preposition, such an exceptional syntactic distribution would require much explanation.

With the above, I have offered a sketch of the overarching unified A'-movement analysis. The rest of this chapter establishes that Legate's (2014) analysis of the PP adjunct and external argument suppression should apply to *bei*-passives.

2.2 Re-examining the subjecthood of initiators in *bei*-passives

In subsection 2.2.1, I present evidence that the reflexive *ziji* 'self' can be bound by an implicit argument in the short passive and more importantly does not have to be subject-oriented, such that we cannot rule out the possibility that the initiator in a long passive binds *ziji* from within a PP adjunct position.[3] In subsection 2.2.2, I show that the lack of a blocking effect induced by the initiator in a long passive is only accounted for if it is in an adjunct position.

[3] While such a configuration potentially goes against the c-command requirement for binding, we will see in this chapter and especially in chapter 4 that Principle A does not account for the binding distribution of *ziji*, and I set aside the issue of c-command for the rest of this dissertation. In any case, the crucial part is observing that the initiator in the PP adjunct can indeed bind the long-distance reflexive *ziji*.

2.2.1 The reflexive ziji *and non-subject antecedents*

Observe that Xu (1994) demonstrated that it is possible for an implicit argument to bind the reflexive *ziji* 'self' (see his subsection 2.3). We expect that the existentially closed argument in a *bei*-passive should also be able to serve as an antecedent for *ziji*. This is illustrated with the short passive in (6):

(6) zhe zhong chouwen zuihao bei (zhangsan) liu zai ziji (de) jia li

this type scandal best BEI Zhangsan leave at self DE home inside

Lit. short passive version: 'This type of scandal is best left in self's home.'

Short passive version: 'This type of scandal should remain within one's home.'

Long passive version: 'This type of scandal should remain within Zhangsan's home (rather than airing out his dirty laundry).'

Example (6) is a grammatical construction with no potential overt antecedent for *ziji* at all – note that the grammatical subject of (6) is not a suitable antecedent. If there were no existentially bound argument binding *ziji*, the grammaticality of (6) would be mysterious.

The available readings of *ziji* in the long passive example (7) below is indicative that the initiator is an argument in a subject position since *ziji* has been described as being subject-oriented (Cole et al. 1990; Cole & Wang 1996; Huang 1999; Tang 1989; Tang 2001; Ting 1998, among others):

(7) zhangsan$_i$ bei lisi$_j$ guan zai ziji$_{i/j}$ de jia li

Zhangsan BEI Lisi lock at self DE home inside

Reading 1: ‘Zhangsan was locked in Zhangsan’s home by Lisi.’

Reading 2: ‘Zhangsan was locked in Lisi’s home by Lisi.’

(Huang 1999; 7, with modifications)

However, it may not necessarily be the case that *ziji* can only take a subject as an antecedent (Hu ms.; 2019; Shi 2005; Shi & Hu 2005; Pan & Hu 2021; Xu 1994). To briefly illustrate the issue, Xu (1994) shows that an antecedent can bind *ziji* from within a PP, as seen in example (8):

(8) cong xiaoli$_i$ de bangongshi dao ziji$_{i/*j}$ de jia hen yuan

[$_{PP}$ from Xiaoli DE office] to self DE home very far

Lit: ‘[$_{PP}$ From Xiaoli’s office] to self’s home is very far.’

‘The distance from Xiaoli’s office to his home is very long.’

(Xu 1994; 119, with modifications)

The grammaticality of example (8) indicates that *ziji* is not necessarily subject-oriented as it can have an antecedent embedded within the PP. Then, we might also expect that in a *bei*-passive, the overt initiator that *ziji* takes as an antecedent can also be in a PP adjunct. The next subsection will argue for this, showing that because the antecedent initiator is in a PP adjunct and not in a subject position, no blocking effect (Biggs 2014; Cole et al. 1990; Cole & Wang 1996; Hu 2019; Tang 1989) is induced.

*2.2.2 The lack of a blocking effect induced by the post-*bei *initiator*

Hu (ms., 2019) proposes that the initiator in the long *bei*-passive is in a PP adjunct (but headed by *bei*[4]) that is still able to serve as an antecedent for *ziji* though crucially the initiator pronoun does not induce a blocking effect[5] precisely because it is not in a subject position:

(9a) zhangsan$_i$ yiwei ni/wo$_j$ bu xihuan ziji$_{*i/j}$ de che

Zhangsan think 2SG/1SG NEG like self DE car

Reading 1: '*Zhangsan$_i$ thinks that you/I don't like his$_i$ car.'

Reading 2: 'Zhangsan thinks that you/I don't like your/my car.'

(Hu ms.; 8, with modifications)

(9b) zhangsan$_i$ bei ni/wo$_j$ linghui-le ziji$_{i/j}$ de jia

Zhangsan BEI 2SG/1SG lead.back-PERF self DE home

Reading 1: 'Zhangsan$_i$ was taken back to his$_i$ home by you/me.'

Reading 2: 'Zhangsan was taken back to your/my home by you/me.'[6]

(Hu ms.; 8, with modifications)

[4] Hu (2019) claims that *bei* is a prepositional element and therefore the post-*bei* NP forms a PP with *bei* as the P head, but as mentioned in Chapter 1 as well as earlier in this chapter, Huang (1999) and Ting (1998) and many others have provided convincing arguments that *bei* cannot be a preposition. It is indeed the case that the post-*bei* NP is in an adjunct, just that the P head is a null element, as I will argue for later on. Thus, Cole & Wang (1996) and Hu's (2019) observations that there is no blocking effect exhibited by the post-*bei* NP is indeed due to it being in a PP adjunct position rather than being in a subject position.

[5] Unlike the English anaphor *herself/himself/itself*, *ziji* typically can exhibit long-distance binding, as we will see in example (5). The blocking effect is thus detected if the long-distance binding of *ziji* to its antecedent A is not possible due to an intervening NP B with a different person feature than A. The basic configuration to consider would be [A$_i$ … [B$_k$ … ziji$_{*i/k}$]].

[6] Though it might sound pragmatically odd for a speaker A to assert to the addressee B that B brought *Zhangsan* back to B's/*Zhangsan*'s home, I believe the reading becomes far more natural when imagining a context where B was drunk and does not remember his actions and A is recounting them to B.

(9c) zhangsan$_i$ yiwei wo$_j$ hui bei ni$_k$ linghui ziji$_{*i/j/k}$ de jia

Zhangsan think 1SG will BEI 2SG lead.back self DE home

Reading 1: '*Zhangsan$_i$ thought that I would be taken back to his$_i$ house by you.'

Reading 2: 'Zhangsan thought that I would be taken back to my house by you.'

Reading 3: 'Zhangsan thought that I would be taken back to your house by you.'

(Cole & Wang 1996; 361, with modifications)

(9d) zhangsan$_i$ yiwei lisi$_j$ hui bei ni/wo$_k$ linghui ziji$_{i/j/k}$ de jia

Zhangsan think Lisi will BEI 2SG/1SG lead.back self DE home

Reading 1: 'Zhangsan$_i$ thought that Lisi would be taken back to his$_i$ house by me/you.'

Reading 2: 'Zhangsan thought that Lisi$_i$ would be taken back to his$_i$ house by me/you.'

Reading 3: 'Zhangsan thought that Lisi would be taken back to my/your house by me/you.'

(Cole & Wang 1996; 361, with modifications)

Example (9a) is an active sentence with the second-/first-person pronoun *ni*/*wo* 'you/me' as the subject of the embedded clause while (9b) is a long passive where *ni*/*wo* has been claimed to be in a subject position as well. Hu argues that the contrast between examples (9a) and (9b) can be accounted for if *ni*/*wo* is indeed in a subject position in the former and in an adjunct position in the latter. That is, the blocking effect is only detected in sentences such as (9a) when the first- or second-person pronoun serving as an antecedent to *ziji* is a subject.

The lack of a blocking effect in the PP adjunct position is even more obvious when comparing (9c) and (9d). Cole & Wang (1996), cited in Hu (2019), noticed that when *wo* is in the embedded subject position in (9c), the matrix subject *Zhangsan* is not a possible antecedent for *ziji*, though both *wo* and *ni* are. However, when the second person pronoun *wo* in the embedded subject position is replaced by *Lisi* in (5d), *Zhangsan*, *Lisi* and *ni/wo* are all possible antecedents for *ziji.* There are two points to note here: 1) in both examples (9c) and (9d), *ni/wo* in the post-*bei* position (i.e. in the PP adjunct position) do not exhibit a blocking effect, consistent with what we have seen in example (9b); 2) as with example (9a), only when *ni/wo* is in a subject position, as in example (9c), do we detect a blocking effect. Just as with Hu (ms.), Hu (2019) points out that this contrast is unaccounted for if we assume that the post-*bei* position is a subject position.

It is easy to see how we can maintain that the overt initiator in the long passive is in a PP adjunct and not in a subject position, and therefore both the long and short passives have a suppressed external argument saturating the subject position. Thus, we can construe both the long and short passives as passive constructions, with the only difference between the two being that the former has an overt adjunct initiator while the latter does not. My analysis for bei-passives allows for an optional PP adjunct.

I have provided evidence supporting the non-subjecthood of the overt initiator in the long passive, and in the next section, I present data demonstrating (the lack of) preposition stranding[7] in Mandarin to support my claim that there is indeed a null P head that takes the adjunct initiator as its complement, hence rounding out the arguments for the presence of an optional PP adjunct in *bei*-passives.

[7] See also chapter 3 for more data on the ban on preposition stranding with respect to resumptive pronouns.

2.3 The PP adjunct in long *bei*-passives

Subsection 2.3.1 shows that, with topicalization of the initiator in the long *bei*-passive, the resumptive pronoun is obligatory, and I argue that this is only expected if we claim that the initiator is being extracted from a PP adjunct since Mandarin bans preposition stranding. Having established that *bei*-passives can have an optional PP adjunct, subsection 2.3.2 then shows how the presence of such a PP adjunct in a passive structure is explained under Legate's (2014) proposal, which justifies the presence of $\text{Voice}_{\text{Pass}}$ as well as external argument suppression in both long and short passives.

2.3.1 Preposition stranding and the overt adjunct initiator

Pan (2016) notes that we find resumptive pronouns (RPs) in many types of Mandarin constructions.[8] In particular, he points out that when the object of a preposition[9] is topicalized (or, in his terms, left-dislocated), RPs are obligatory:

(10a) [na-wei pengyou]$_i$ (a), wo dui *(ta$_i$) hen bucuo

that-CL friend TOP 1SG to 3SG very not.bad

'As for [that friend]$_i$, I am very kind to him$_i$.'

(Pan 2016; 288, with modifications)

[8] We will return to RPs and their syntactic distribution in greater detail in chapter 3. For now, the important property to note is that extracting the object of preposition results in obligatory resumption in Mandarin due to lack of preposition stranding.

[9] I assume along with Pan (2016) that *dui* 'to' and *zai* 'at' are indeed prepositions in their respective sentences. For a detailed discussion of what can be prepositions or not in Mandarin, the interested reader can refer to Biggs (2014).

(10b) louxia [na-jia canting]$_i$, women cengjing

downstairs DEM-CL restaurant 1PL there.was.a.time

zai *(nar$_{i/*j}$) chi-guo yi-ci fan

at that.place eat-EXP one-instance meal

'[That restaurant]$_i$ downstairs, we ate a meal in there$_{i/*j}$ once before.'

(Pan 2016; 289, with modifications)

He also observed that the topicalization of post-*bei* NPs[10] patterns with examples like (10), as we see in (11):

(11) [na-zhi hei mao]$_i$ (a), xiaoqian cengjing bei *(ta$_i$)$_{/*j}$ yao-guo

That-CL black cat TOP Xiaoqian ever BEI 3SG bite-EXP

'As for [that black cat]$_i$, Xiaoqian was bitten by it$_{i/*j}$ before.'

(Pan 2016; 291, with modifications)

We know that *bei* does not necessarily need to be followed by a NP, otherwise there would be no short passives in Mandarin. Authors such as Huang (1999) and Ting (1998) have also examined much data that supports the conclusion that *bei* is not a preposition, hence we do not *a priori* expect that the RP should be obligatory, as in example (10). If *na-zhi hei mao* 'that black cat' in example (11) was in fact an argument in a subject position, as Bruening & Tran (2015), Huang (1999) and Ting (1998) (among many others cited throughout this

[10] Pan (2016) described the RPs as being in a direct object position, but as we shall see, I argue that the RP is actually the object of the null preposition in the PP adjunct, hence why it patterns with examples like (10).

dissertation) claim, then we might even expect that topicalizing it would allow for optional resumption, as we see in example (12):

(12) [zhe-ge gudong huaping]$_i$ (ne/a),

this-CL antique vase TOP

(ta$_i$) yijing bei zhuanshou hao ji-ci le

3SG already BEI resell quite few-instance INCH

'As for [this antique vase]$_i$, it$_i$ has already been resold quite a few times.'

(Pan 2016; 43, with modifications)

In example (12), *zhe-ge gudong huaping* 'this antique vase' is the grammatical subject of the long passive and it has been topicalized. Note that here, the RP is optional. That is, topicalization of an argument occupying the subject position in *bei*-passives should allow for optional resumption. However, topicalization of *na-zhi hei mao* 'that black cat' in example (11) indeed requires an obligatory RP, contrary to what one might have expected. At this point, an obvious objection could be that *na-zhi hei mao* in example (11) is an embedded subject and topicalizing an embedded subject might require an obligatory RP, but examples (13) and (14) show that the topicalization of embedded subjects can indeed also allow for optional resumption:

(13) xiaoqian$_i$ (a), wo juede (ta$_i$) hen defang

Xiaoqian TOP 1SG think 3SG very generous

'As for Xiaoqian$_i$, I think that she$_i$ is very generous.'

(Pan 2016; 43, with modifications)

(14) zhangsan$_i$ (a), wo renwei (ta$_i$) keneng pian-guo hen duo ren

Zhangsan TOP 1SG think 3SG possible cheat-EXP very much people

'As for Zhangsan$_i$, I think he$_i$ could have cheated many people before.'

The set of empirical facts above thus leads us to conclude that *na-zhi hei mao* 'that black cat' cannot be in a subject position. Now, if we instead assume that *na-zhi hei mao* is the object of the null preposition in a PP adjunct, we have a principled explanation for its obligatoriness in example (11) and why it patterns with examples like (10) – though the preposition is phonologically null, the topicalization of its complement still requires an obligatory RP rather than a gap as we have come to expect of PPs in Mandarin. Thus, in addition to the fact that *ziji* can take antecedents in non-subject positions (see subsection 2.2.1) and that there is a lack of a blocking effect in *bei*-passives (see subsection 2.2.2), we have another piece of evidence that the 'initiator argument' really is an object of a null preposition in a PP adjunct rather than a (derived) subject.

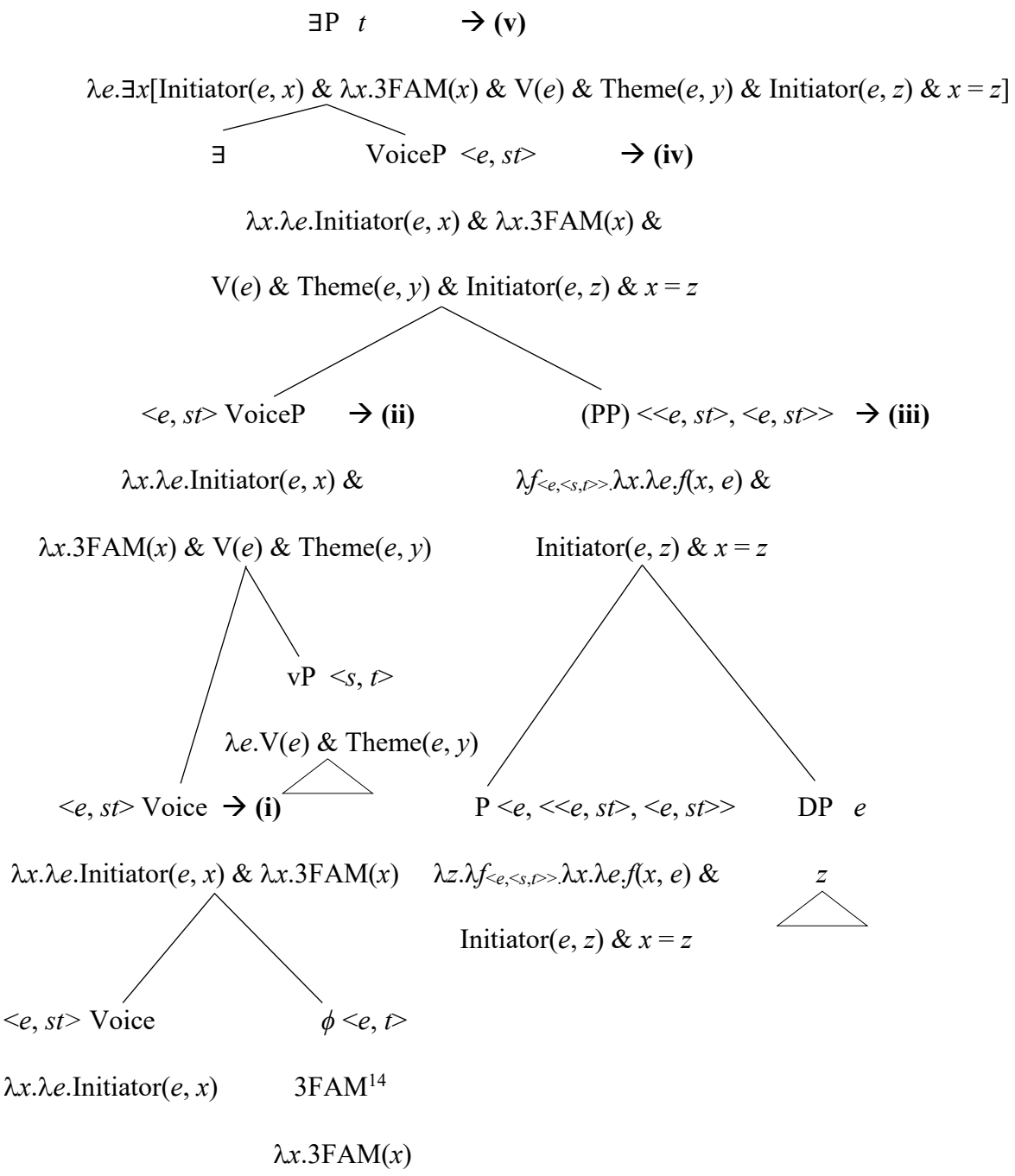
We now turn to discuss in the next subsection how Legate's (2014) analysis of PP adjuncts in passives ultimately allows an account where both long and short passives contain Voice$_{Pass}$ and uniformly involve external argument suppression.

2.3.2 Legate's (2014) account of PP adjuncts in passives and external argument suppression

I adopt Legate's (2014) adjunct analysis for passives,[11] where she suggests that the *by*-phrase, or, more generally, the PP adjunct, is able to adjoin to passive VoiceP,[12] and passive VoiceP crucially always existentially quantifies the external argument. To be clear, under her view, the external argument position is thus always left unsaturated in a passive. Her examples (80b), (82) and (83) are adapted as (15) to abstractly illustrate[13] how the PP adjunct adjoins to VoiceP before existential closure of the unsaturated external argument:

[11] Another option is Bruening's (2013) proposal, where he suggests that a *by*-phrase that contains the initiator selects Voice that has an unsaturated external argument and adjoins to it. Independently of that, he proposes that there is a functional head Pass that also selects an unsaturated Voice projection and will only saturate the external argument of Voice if it is unsaturated at the point of merger with Pass. Thus, existential closure only occurs when there is no *by*-phrase in the passive construction. Although this is at odds with my proposal that $\text{Voice}_{\text{Pass}}$ uniformly existentially quantifies the external argument, the overall effect would still be that the long *bei*-passive is indeed a passive construction since there is Pass in the structure.
That said, as far as I can tell, Bruening's (2013) proposal, combined with Bruening & Tran's (2015) definition of passive constructions, would predict that long passives in English and Mandarin would both not qualify as passive constructions, which is obviously an unwelcome result, and therefore I do not adopt Bruening's (2013) analysis for passives. I return to this issue in chapter 4.
Further, like Legate (2014), Bruening (2013) points out that a Voice head is essential for hosting a *by*-phrase. Then, both proposals are consistent with what I have proposed in the trees (1) above and (12) below, where the PP adjunct containing the initiator and $\text{Voice}_{\text{Pass}}$ are both present in the structure. Notice that this also affords my analysis the optionality of PP, which results in the putative difference between long and short *bei*-passives.
[12] For illustrative purposes, I keep to Legate's term 'VoiceP' as it is used in her illustration of passive constructions as a shorthand for $\text{Voice}_{\text{Pass}}\text{P}$, but as far as I can tell, $\text{Voice}_{\text{Pass}}$ as presented in structures such as (1) would be equivalent to Legate's (2014) Voice in passive constructions or Bruening's (2013) combination of the functional heads Pass and Voice. Like their proposals, $\text{Voice}_{\text{Pass}}$ would still need to be independently available whether the adjunct is present or not. That is, both analyses require proposing some passive functional head and that the PP containing the initiator is an adjunct, consistent with my proposed analysis for long *bei*-passives.
[13] As the current goal is to describe Legate's account, I temporarily abstract away from details regarding the exact location of existential closure under my analysis, hence in the abstract tree (15) below it is simply notated as ∃P. I return to this issue in detail in chapter 4.

(15) Adjoining a PP adjunct to (passive) VoiceP followed by existential closure



[14] For ease of exposition, I simply repeat Legate's illustration, which lists the ϕ-features concretely as 3FAM in the context of her example, but since Mandarin does not express morphological agreement the way that Acehnese does, this part of the tree is not meant to apply directly to my analysis and nothing in my analysis should hinge on this. See also footnote (16).

(i) Semantic Restrict[15] applies, forming a complex Voice head of type <*e*, *st*> with restrictive ϕ-features.

(ii) The complex Voice head of type <*e*, *st*> composes with vP of type <*s*, *t*> via Event Identification, giving us VoiceP of type <*e*, *st*>.

(iii) PP adjunct contains an argument DP that is ultimately related with the external argument in VoiceP.

(iv) If the PP adjunct is present, it adjoins to VoiceP but it *does not* saturate the external argument position i.e. the external argument position remains unsaturated.

(v) Existential closure happens regardless of adjunction of PP to VoiceP i.e. there is external argument suppression in both long and short passives.

The tree in (15) depicts several crucial steps involved in Legate's (2014) analysis, so I will go through them in turn here. In (15i), a complex Voice head with restrictive ϕ-features[16] is formed via the semantic operation Restrict. Based on agreement patterns seen in Acehnese active, passive and object voice constructions, Legate (2012, 2014) claims that the verbal prefix showing agreement with the grammatical subject is not simply a morphological reflex but is in fact a Voice head that introduces the external argument and also contains restrictive ϕ-features which impose interpretive restrictions on the external argument position.

[15] Legate (2014) presents Chung and Ladusaw's (2004) semantic operation Restrict as the following:
(i) *Restrict*
If a is of type <*e*,<*s*,*t*>> and b is of type <*e*,*t*>,
[[a b]] =$\lambda x.\lambda e.$[[a]](*e*,*x*)&[[b]](*x*).

The Voice head is of type <*e*, *st*> and combines with ϕ of type <*e*, *t*> via Restrict, resulting in a complex Voice head of type <*e*, *st*>. Note the parallel with Kratzer's (1996) operation of Event Identification.

[16] Since Mandarin does not exhibit verb agreement, I do not make any claims regarding whether $\text{Voice}_{\text{Pass}}$ itself bears any restrictive ϕ-features, leaving such investigations for future research.

After applying Event Identification (Kratzer 1996) in (15ii), if there is a PP (i.e. the structure of a long passive), it adjoins to VoiceP (as in Bruening (2013), she notes that adjunction of PP is only possible if there is a VoiceP that introduces the external argument) in (15iv) before existential closure applies in (15v). If there is no PP (i.e. the structure of a short passive), then existential closure (15v) straightforwardly applies, hence deriving the optionality of the PP adjunct.

For Legate (2014), VoiceP contains an external argument that is always existentially closed (that is, syntactically suppressed), regardless of the presence of the PP, thus accounting for the implicit initiator in short passives while also claiming that there is an existentially closed external argument alongside the oblique initiator. It is crucial that for Legate, the DP complement[17] of P in the PP adjunct is not the external argument (for her, the external argument is introduced by passive Voice, and I similarly claim that $\text{Voice}_{\text{Pass}}$ introduces the external argument), though it is assigned a θ-role by the P head. The θ-role assigned by the P head is identical to the θ-role assigned by Voice (15iii), so the two arguments are "tied semantically" (Legate 2014; 46) by virtue of them both receiving matching θ-roles from P and Voice respectively.[18]

The above analysis allows Legate to maintain that the PP is an optional adjunct that does not ever saturate the external argument position and also to claim that the external argument is always existentially closed regardless of the presence of the *by*-phrase,[19] contra

[17] The reader should note that in chapter 4, I explicitly assume that Mandarin is an NP language (Chierchia 1998; Despić 2015) and so technically in Mandarin the complement to P should be NP, not DP, but this does not affect the overall implementation of Legate's (2014) proposal, as far as I can tell.

[18] Legate (2014) explicitly claims that the DP argument in the PP adjunct and the external argument are independently required and can receive their own θ-roles. She also explicitly claims that this θ-role is the initiator, as reflected in tree (15).

[19] Legate's proposal that the initiator in the PP adjunct receives a separate but identical theta-role to the implicit initiator potentially requires more empirical work to flesh out, and this is not something I will set out to do in this dissertation. That said, in chapter 5, I present some evidence that initiator PP adjuncts are syntactically distinct from other typical PP adjuncts in that they adjoin to $\text{Voice}_{\text{Pass}}$P while typical PPs adjoin to vP, thus lending some indirect evidence that initiator PPs indeed modify the implicit initiator and hence the two have a semantic relationship.

Bruening's (2013) account. Thus, Legate's analysis dovetails nicely with my proposal, such that both long and short *bei*-passives involve external argument suppression and have the same underlying syntactic structure such that the putative difference between the two is that the former has a PP adjunct while the latter does not.

Given all of the above, contra Bruening & Tran (2015) (see also chapter 4), I maintain that long passives, like short passives, are indeed passive constructions, and the overt initiator is actually an argument contained within a PP adjunct that is semantically linked to the suppressed external argument.[20]

2.4 Tying it all back into the unified A'-movement analysis

By this point, it should be obvious to the reader that Mandarin *bei*-passives are very much unlike English passives because the logical object (i.e. the grammatical subject) is not base-generated in the internal argument position. Instead, the logical object is an argument base-generated in the matrix clause (Bruening & Tran 2015; Huang 1999; Ting 1998, among others), and I claim that it is *bei* that introduces the logical object as the subject of the lambda-predicate. I follow Bruening & Tran (2015) in claiming that *bei* is a primary predicate (Bowers 1993) taking a secondary predicate as its complement. I propose that the complement to *bei* in both the long and short passive is a passive predicate headed by $\text{Voice}_{\text{Pass}}$. Thus, integrating the relevant parts of Legate's (2014) analysis into the tree in (1), we have (16):

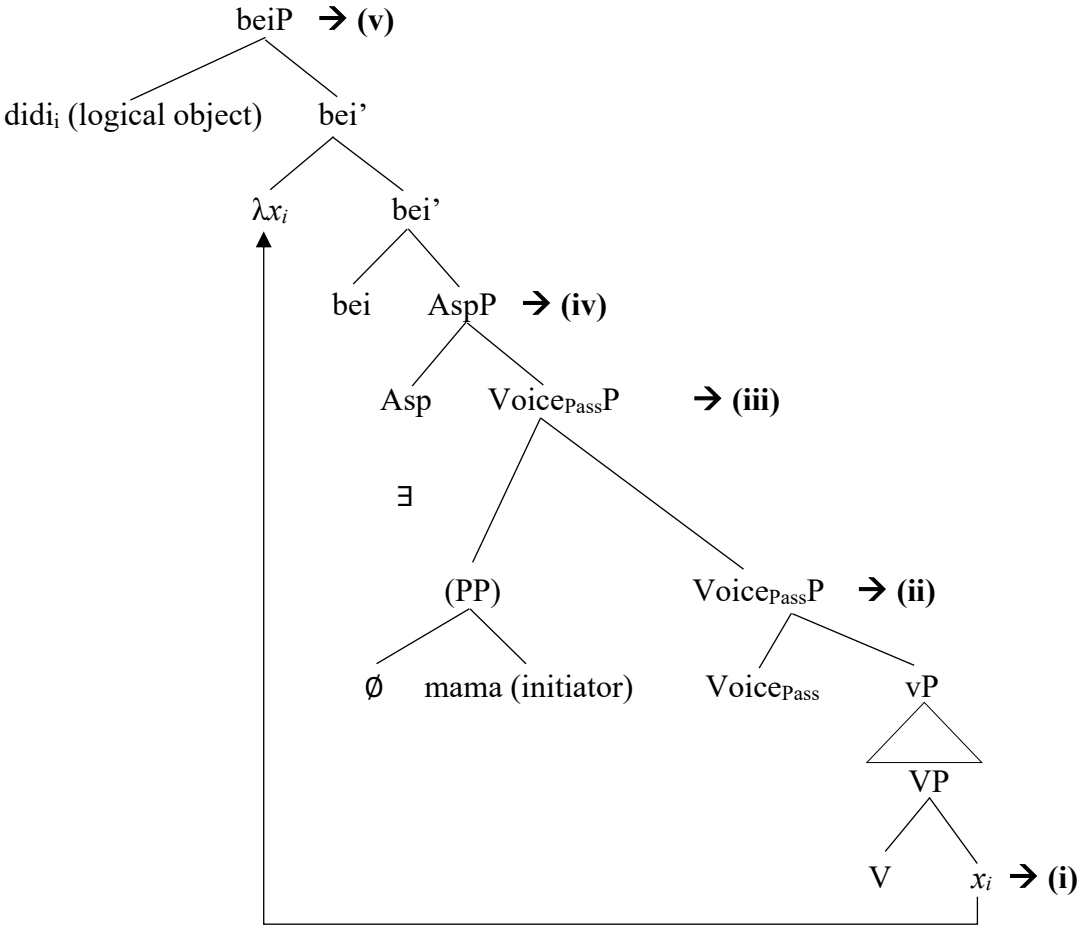
[20] In fact, one might even think of overt initiators in Mandarin *bei*-passives as being a kind of initiator-oriented adverb that acts as a restrictor on the implicit argument, in line with Legate's (2012, 2014) description of the function of PP adjuncts. I thank Heidi Harley (p.c.) for the suggestion. We return to this proposal in chapter 5.

(16) The A'-movement analysis for long and short *bei*-passives (final version)

[$_{beiP}$ didi$_i$ [$_{bei'}$ NOP$_i$ bei (mama) [$_{VP}$ fa-zhan-le t_i]]]

younger.brother BEI mother punish-stand-PERF

'Younger brother was made to stand as a punishment (by mother).'



(i) A'-movement of NOP

(ii) Voice$_{Pass}$ head composes with vP via event identification

(iii) Adjunction of the PP adjunct to Voice$_{Pass}$P – the PP does not saturate the external argument position

(iv) Existential closure in both long and short passives occurs at AspP

(v) The logical object is base-generated in *bei*P

The A'-movement of NOP from the internal argument position and subsequent adjunction to *bei*P is seen in (16i), and the PP adjunct adjoins to Voice$_{Pass}$P in (16iii).[21] The Voice$_{Pass}$ head takes vP as its complement. That is, it composes with vP via Event Identification in (16ii).

Note that although I claim along with Legate (2014) that Voice$_{Pass}$ is responsible for introducing the external agent that ultimately is existentially closed in both long and short passives, I diverge from her analysis as I explicitly posit that existential closure (Heim 1982) happens at AspP (Diesing 1992; Heim 1982; Travis 2000; 2010), as in (12iv), while she apparently assumes that existential closure happens at Voice$_{Pass}$P. I argue that the complement to *bei* is as large as AspP, contra Bruening & Tran (2015) (see chapter 4 for a detailed discussion).

Although I propose that the primary predicate *bei* takes AspP as its complement, nothing ensures that the secondary predicate is Voice$_{Pass}$. That is, Asp can and should be able to select either Voice$_{Act}$ or Voice$_{Pass}$, such that there does not need to be two separate functional heads for active and (*bei*-)passive constructions respectively. Here I propose that *bei* can only select an Asp that selects for Voice$_{Pass}$ via a two-step feature-driven process (in the sense of Adger (2003)). Asp first takes Voice$_{Pass}$P as its complement and inherits the [Passive] feature. If we also assume that *bei* needs to check an uninterpretable [*u*Passive] feature, it must select only an AspP that has Voice$_{Pass}$ in it. This is a simple process that requires no further machinery but will ensure that the possibility of having Voice$_{Act}$ as the secondary predicate is blocked.

This chapter has presented much evidence to support the conclusion that the initiator in a *bei*-passive is not in a subject position, contra Bruening & Tran (2015), Huang (1999)

[21] Huang (1999) and Huang et al (2009) show that (some types of) PPs can appear in the post-*bei* position, and Her (2009) further shows that this is true for both long and short passives, so I take this as preliminary evidence supporting my assumption that the PP adjunct can indeed be in a post-*bei* position via adjunction to Voice$_{Pass}$P in principle.

and Ting (1998). We have seen that 1) the reflexive *ziji* is not obligatorily subject-oriented and thus the fact that the initiator can be an appropriate antecedent of *ziji* is not necessarily indicative of its subjecthood; and 2) the initiator in *bei*-passives does not induce a blocking effect, which would be unexpected if it were in a subject position, but expected if it were in an adjunct position. I thus made the first novel claim of my analysis, which is that the initiator argument in the *bei*-passive is actually a complement to a null P heading an optional PP adjunct, and it does not saturate the external argument position. I then showed that topicalising the initiator in a *bei*-passive incurs a ban on preposition stranding, which can be easily accounted for if we assume that the initiator is an object of a null preposition in a PP adjunct. It is important to note that the claim that that the initiator is in a PP adjunct also falls out of the two observations made above, and that it is theoretically desirable since the only difference between long and short passives in Mandarin amounts to the presence of this PP adjunct in the former but not the latter.

In the next chapter, I show that the second novel claim of proposal, which is that *bei*-passives uniformly involve A'-movement of a NOP, makes various predictions related to A'-effects, including the licencing of parasitic gaps, resumptive pronouns, island (in)sensitivity and long-distance dependencies, and I also show that all of the above predictions are borne out.

Chapter 3 – Evidence for the A'-movement of NOP in *bei*-passives

In the previous chapter, I introduced a structure for *bei*-passives that would unify both the long and short passives such that the only difference between the two is the presence of an oblique initiator in the long passive, and both passives would involve A'-movement of a NOP. This chapter presents the empirical evidence for the presence of A'-movement in both passives, thus providing support for my proposed unified account.

The claim that both long and short passives involve A'-movement makes quite a few clear predictions.[1] For one, parasitic gaps (PGs) should be licenced in both long and short passives, since A'-movement in Mandarin generally supports PGs, as it does in English, and supporting evidence for both the existence of PGs in Mandarin as well as their grammaticality in long and short *bei*-passives are presented in section 3.1. The presence of A'-movement in long and short passives should also licence resumptive pronouns (RPs) in both. I briefly introduce RPs and their syntactic distribution in Mandarin before discussing their presence in *bei*-passives in non-island as well as island contexts in section 3.2. We expect that such A'-movement also allows for unbounded long-distance dependencies in both long and short passives, and the data demonstrating this is covered in section 3.3. Since the goal of this chapter is to present the supporting evidence for the presence of A'-movement in both passives, I leave a detailed comparison of the empirical coverage that my account provides against other accounts for the next chapter.

[1] I provide my own judgements as a native speaker of Mandarin, and I also provide the judgements of my very helpful consultant Yiyun Zhao, whom I have spent many, many hours discussing the data herein with.

3.1 Parasitic gaps and A'-movement in *bei*-passives

The first prediction made by my A'-movement analysis is that PGs should be grammatical in the *bei*-complements of both long and short *bei*-passives. Subsection 3.1.1 will first illustrate how PGs in the English language are licenced by A'-movement. Subsection 3.1.2 then presents Yan's (2017) experimental data that show that PGs exist in Mandarin and that their syntactic distribution is similar to PGs in English. Crucially, PGs are also only licenced by A'-movement. After a discussion of the experimental data, subsection 3.1.3 reviews some theoretical works exploring PGs in Mandarin. Most relevantly, Ting & Huang (2008) claim that PGs are grammatical only in long passives. To end off, subsection 3.1.4 argues that their data is inconclusive at best and presents novel data showing that PGs are indeed grammatical in both long and short passives.

3.1.1 Parasitic gaps are licenced only by A'-movement

Parasitic gaps,[2] so termed by Taraldsen (1981), have been argued to be dependent on (or parasitic on) the existence of a real gap that is derived via A'-movement (Culicover 2001; Culicover & Winkler 2022; Engdahl 1983; 1985; Lai & Sun 2018; Lasnik & Stowell 1991; Lin 2005; Liu 2011; 2013; Nissenbaum 2000; Sag 1983; Ting & Huang 2008; Yan 2017). Furthermore, PGs are typically embedded within adjunct islands, and a distinctive property that such gaps exhibit is that they do not incur island violations, in contrast to other types of A'-extractions that leave gaps behind in islands. Another distinctive property that PGs have is that they cannot be c-commanded by the 'real' gap. Example (1) below presents Chomsky's

[2] For the interested reader, Engdahl (1983; 1985) discusses PG data in-depth while Culicover (2001) provides a comprehensive overview on the observed syntactic distribution of PGs in various languages.

(1982) account for how a PG is licenced,[3] example (2) shows a PG licenced by overt *wh*-movement, example (3) shows a PG licenced by relativisation, example (4) shows a PG licenced by the operator in a *tough*-construction, example (5) shows that the PG exhibits the anti-c-command property, example (6) shows that the PG is ungrammatical in the absence of a real gap derived by A'-movement, and example (7) shows that A-movement cannot licence a PG:[4]

(1) Variable *e* is A'-bound by the operator (Op) of the real gap:

[a book [Op [I copied from *t*] [without buying *e*]]]

(Chomsky 1982; 55, with modifications)

(2) [Which student]$_i$ did [$_{CNPI}$ your attempt to talk to **__$_{PGi}$/*him$_i$/*her$_i$**] scare __$_i$ to death?

(Engdahl 1983; 16, with modifications)

(3) This is [the man]$_i$ [$_{relative\ clause}$ who [$_{adjunct\ island}$ whenever I meet **__$_{PGi}$/*him$_i$**] __$_i$ looks old].

(Culicover 2001; 36, with modifications)

[3] Note that my analysis for *bei*-passives does not hinge on a particular account of PGs even though I follow Chomsky's (1982) proposal – as long as PGs can be shown to exist in Mandarin and are grammatical in both long and short passives, the point is made. Hence, I set aside the issue.

[4] For all examples involving PGs, the real gap is represented by '__$_i$' and the PG is represented by '__$_{PGi}$'.

(4) [This book]$_i$ is too interesting [Op$_i$ to put __$_i$ down] [$_{\text{adjunct island}}$ without having finished **__$_{PGi}$/it$_i$** in one go].

(Engdahl 1983; 13, with modifications)

(5) [Which articles]$_i$ did you say [$_{CP}$ __$_i$ got filed by John [$_{\text{adjunct island}}$ without him reading ***__$_{PGi}$/them**?]]

(Engdahl 1983; 22, with modifications)

(6) *Mary recommended [the movie]$_i$ [$_{\text{adjunct island}}$ after watching **__$_{PGi}$** twice].

(7) *[This movie]$_i$ was recommended (by Mary) [$_{\text{adjunct island}}$ after watching **__$_{PGi}$** twice].

For concreteness, I assume along with Chomsky (1982) that a PG is a syntactic position that contains an empty category (EC) that is a variable *e*, as illustrated in example (1). The variable is A'-bound by the operator of the real gap rather than being a gap left behind by the A'-movement of an operator (see for instance Contreras (1984), Culicover & Winkler (2022), Lasnik & Stowell (1991), Ting & Huang (2008) or Yan (2017) for a summary of such an approach).

There are a few key points to note from examples (2-7):

1) Examples (2), (3) and (4) all involve some form of A'-movement that leaves behind the real gap, and the presence of the PG is licenced. Conversely, the English passive in example (7) involves A-movement of the DP *this movie* to the grammatical subject position, and the

PG is not licenced, while example (6) does not have any gaps derived via movement that would licence the PG. The grammaticality of PGs has thus been argued to be dependent on the presence of a real gap created by movement, and further must be licenced by A'-movement and not A-movement. Also notice, then, that the PG is in an A'-position and its antecedent must also be in an A'-position (Culicover 2001; Engdahl 1983; Ting & Huang 2008, among others).

2) Examples (2) and (3) show that when the PG is replaced by a coreferential pronoun, the constructions are ungrammatical, indicative of obligatory PGs, while example (4) shows that the PG can be optional (Engdahl 1983; Culicover 2001, among others).

3) When the PGs are hosted within islands,[5] the presence of this gap does not incur island violations (Culicover 2001; Culicover & Winkler 2022; Engdahl 1983; Lai & Sun 2018; Yan 2017, among others).

4) Though the overt *wh*-movement in example (5) is a form of A'-movement, the PG is not grammatical because the real gap left behind by overt *wh*-movement c-commands the PG. Thus, PGs exhibit anti-c-command (Culicover 2001; Engdahl 1983; Ting & Huang 2008, among others).

PGs have also been argued to exist in Mandarin (Lin 2005; Liu 2011; 2013; Ting & Huang 2008; Tsai 1997; Yan 2017),[6] and they seem to exhibit the same properties as detailed above (Ting & Huang 2008). Most relevantly, we have seen in examples (1) and (4) that (null) operator movement can licence PGs, hence my analysis predicts that both long and

[5] I choose to use adjunct islands (except for example (2)) for ease of exposition. See, for instance, Culicover & Winkler (2022) for examples of PGs embedded in other types of islands.
[6] For an alternative view, see Xu (1990) or Lai & Sun (2018).

short *bei*-passives should be amenable to PGs (given the right configuration) since there is A'-movement of the NOP.

Before showing that the above prediction holds true, however, I briefly present the evidence supporting the claim that PGs exist in Mandarin in the next subsection.

3.1.2 Do parasitic gaps exist in Mandarin?

Yan (2017) provided experimental data showing that PGs do indeed exist in Mandarin.[7] Noting that PGs are usually embedded in an island without incurring island violations in the presence of a real gap derived via A'-movement, she then demonstrated that island violations were indeed detected when there was no such real gap. Thus, Yan showed that the grammaticality or island insensitivity of such a gap was indeed dependent on the presence of a real gap derived via A'-movement and is consistent with the distribution of PGs discussed above:

[7] Yan, corroborating Ting & Huang (2008), showed that both subject PGs (her experiment 2) and object PGs (her experiment 1) were grammatical in Mandarin given the right syntactic conditions, but I will only discuss the object PGs here for ease of exposition.

(8a) The PG is grammatical given the presence of a real gap derived via relativisation

[$_{\text{relative clause}}$ [daitu-men [$_{\text{adjunct island}}$ anzhong bangjia **__$_{\text{PGi}}$** hou] canren shahai __$_{\text{i}}$] de]

ruffian-PL secretly kidnap after cruelly kill DE

[zhuming yingxing]$_{\text{i}}$ yin-qi quan shehui guangfan de tongqing

famous movie.star arouse-up whole society widespread DE sympathy

'[The famous movie star]$_{\text{i}}$ [(who) the ruffians cruelly killed __$_{\text{i}}$] [$_{\text{adjunct island}}$ after secretly kidnapping **__$_{\text{PGi}}$**] aroused widespread sympathy in the whole society.'

(Yan 2017; 61, with modifications)

(8b) The PG is ungrammatical given the absence of a real gap

*[[daitu-men [$_{\text{adjunct island}}$ anzhong bangjia **__$_{\text{PGi}}$** hou] kai fen-zhang-hui] de]

ruffian-PL secretly kidnap after organise split-profits-meeting DE

[zhuming yingxing]$_{\text{i}}$ yin-qi quan shehui guangfan de tongqing

famous movie.star arouse-up whole society widespread DE sympathy

Intended: '[The famous movie star]$_{\text{i}}$ [(who) the ruffians organised a profits-splitting meeting] [$_{\text{adjunct island}}$ after secretly kidnapping **__$_{\text{PGi}}$**] aroused widespread sympathy in the whole society.'

(Yan 2017; 62, with modifications)

In example (8a), the adjunct island hosting the PG is embedded in a relative clause. The head of the relative clause *zhuming yingxing* 'famous movie star' is extracted from the object

position of *shahai* 'kill', leaving behind a real gap that the PG is dependent on. Notice also that with relativisation, we have A'-movement that licences the PG. In example (8b), the adjunct island hosting the PG is not embedded in a relative clause. That is, unlike in (7a), there was no extraction of any element in (8b) and hence no real gap and no licencing A'-movement, thus the PG was found to be ungrammatical, meaning that the gap in the adjunct island incurred an island violation. To be clear, Yan found a significant effect of the real gap when there was an (object) PG ($p < 0.001$), indicating that the presence of the real gap rendered the PG grammatical.

Further, to briefly sum up her experiment 4, Yan also showed that the head of the relative clause was interpreted as being the antecedent of the PG, meaning that both the PG as well as its antecedent are in A'-positions, which is again consistent with the distribution of PGs.

With respect to the syntactic distribution of PGs discussed earlier on, we see that Yan demonstrated that PGs in Mandarin are dependent on real gaps derived via A'-movement, are hosted in islands and thus are in A'-positions and are bound by antecedents that are also in A'-positions. We also saw that Yan's examples took care to avoid having the real gap c-command the PG since PGs exhibit anti-c-command.

In summary, then, Yan's experimental data supports the conclusion that PGs indeed exist in Mandarin,[8] and also rules out the possibility of other empty categories because the presence of the PG is shown to be licenced by A'-movement – other types of empty categories such as pro-drop (Huang 1984; 1989; Li 2007a; 2007b; 2014; Ting & Huang 2008)

[8] Yan also ruled out lexical or plausibility differences as a confound in her experiments, as demonstrated by her results in Experiment 3, but I will not go into further details on this given space constraints.

or Li's (2007a; 2007b; 2014) proposed true empty category/true empty position (TEC/TEP) do not need licencing via A'-movement.

Besides experimental data, there have also been a few theoretical works that have discussed PGs and their syntactic distribution in Mandarin, and these are reviewed in the next subsection.

3.1.3 Theoretical accounts of Mandarin parasitic gaps

We start with Lin (2005), who argued that PGs in Mandarin must be licenced by syntactic *wh*-movement as opposed to *wh*-in-situ, while Liu (2011; 2013) argued instead that the *wh*-movement need not be overt because PGs can be licenced by null operator movement, though they both converged on Mandarin PGs being licenced by only A'-movement, consistent with the syntactic distribution of PGs discussed above. Ting & Huang (2008) argue, contra Xu (1990), that PGs exist in Mandarin,[9] and provide evidence showing that PGs in Mandarin are 1) dependent on a real gap derived via A'-movement; 2) are in A'-positions and are bound by antecedents in A'-positions; 3) are hosted in adjunct islands and 4) exhibit anti-c-command.[10] Thus, there are quite a few similarities in the syntactic distribution of PGs in Mandarin compared to English, with the most noteworthy one being that PGs in Mandarin are also licenced by A'-movement.

[9] Again, my ultimate goal is to use PGs as a diagnostic for A'-movement in *bei*-passives, so I will not concern myself with the question of whether Mandarin has both subject and object PGs or not and the data I discuss will focus on object PGs.

[10] Like Lin (2005), they also claim that overt syntactic movement is required to licence PGs, but given that I am relating PGs to A'-movement of a NOP in long and short *bei*-passives, and NOP-movement in English *tough*-constructions has also been shown to licence PGs, whether or not this particular claim of theirs bears out in Mandarin or not has no impact on my proposed analysis.

Ultimately, given the weight of both the experimental and theoretical evidence supporting the assumption that PGs exist in Mandarin, my unified A'-movement analysis predicts that they should be grammatical in both long and short passives.

Relevantly, Ting & Huang (2008) point out that PGs should be grammatical in the long *bei*-passive but not in the short *bei*-passive because they assume along with Huang (1999) and Ting (1998) that the former involves A'-movement, which can licence PGs, while the latter involves A-movement that does not licence PGs. Their pair of examples and accompanying analysis is given as (9) below:[11]

(9a) [na-ge xiaotou]$_i$ bei [$_{IP}$ Op$_i$ [jingcha

that-CL thief BEI police

[$_{adjunct\ island}$ zai jianchaguan zhenxun **__$_{PGi}$** hou] daibu-le __$_i$]]

at prosecutor interrogate after arrest-PERF

Lit: '[That thief]$_i$ was arrested by the police [$_{adjunct\ island}$ after the prosecutor interrogated __$_{PGi}$].'

'That thief was arrested by the police after the prosecutor interrogated him.'

[11] Ting & Huang (2008) did not clarify on whether the antecedent of the PG is in an A'-position or not, but under my analysis the antecedent of the PG is technically the NOP, which is indeed in an A'-position, consistent with the properties of PGs discussed above.

(9b) *[na-ge xiaotou]$_i$ [bei [$_{VP}$ PRO$_i$ turan

that-CL thief BEI suddenly

[$_{adjunct\ island}$ zai jianchaguan zhenxun **__PGi** hou] daibu-le __$_i$]]

at prosecutor interrogate after arrest-PERF

Lit: '[That thief]$_i$ was suddenly arrested [$_{adjunct\ island}$ after the prosecutor interrogated **__PGi**].'

Intended: 'That thief was suddenly arrested after the prosecutor interrogated him.'

(Ting & Huang 2008; 35, with modifications)

It is important to observe that they have carefully placed the island hosting the PG within the complement of *bei* in order to ensure that any A'-movement that licences the PG is limited to originating from within the complement. Next, notice that they assume that example (9a), being a long passive, involves A'-movement of a NOP, hence the PG is predicted to be grammatical, and conversely they assume that (9b), being a short passive, involves A-movement of a PRO, hence the PG is predicted to be ungrammatical. Example (9) is the only example they present illustrating the interaction of PGs and *bei*-passives.

However, as Lai & Sun (2018) point out, should the adjunct island hosting the PG be placed in the matrix clause instead, the sentence is rendered grammatical:[12]

[12] Specifically, Lai & Sun's (2018) claim is that the adjunct island in example (10) must adjoin to *v*P, which presumably is lacking in the *bei*-complement given Ting & Huang's (2008) analysis, though they do not explicate further. I merely note that the adjunct island cannot be in the *bei*-complement without further comment given Lai & Sun's (2018) lack of a deeper analysis, and instead will endeavour to provide different examples showing that PGs can indeed be hosted in the *bei*-complement of short passives. It does remain an open question why the adjunct headed by *zai* is grammatical in the *bei*-complement of the long passive in example (9a) but not in the short one in (9b). It should be mentioned that Tang (2008) has also noticed that at least some *zai*-PPs are degraded in short passives as well. All that said, the reader will notice that in the novel examples I provide below I avoid the use of PPs headed by *zai*.

(10) [[na-ge xiaotou]$_i$ [$_{\text{adjunct island}}$ zai jianchaguan zhenxun **__$_{PGi}$** hou]
that-CL thief at prosecutor interrogate after
[bei [$_{VP}$ PRO$_i$ turan daibu-le __$_i$]]]
BEI suddenly arrest-PERF
Lit: '[That thief]$_i$ was suddenly arrested [$_{\text{adjunct island}}$ after the prosecutor interrogated **__$_{PGi}$**].'
'That thief was suddenly arrested after the prosecutor interrogated him.'

(Lai & Sun 2018; 197, with modifications)

Again, this is the only piece of data discussed. Notice that in the grammatical example (10), the PG is now outside of the *bei*-complement, meaning that we can no longer rule out the PG being licenced by A'-movement that is not a result of the NOP-movement within the *bei*-complement. In fact, Ting & Huang (2008) argue that in such configurations, it could be the case that *na-ge xiaotou* 'that thief' has been topicalised and thus licences the PG. In any case, the observed contrast between (9b) and (10) still raises some doubt about what exactly bans the presence of PGs in the former (see footnote (12) as well), and thus I posit that example (9) in particular cannot definitively demonstrate that PGs cannot be hosted in short passives. With that said, in the next subsection, I present novel data showing that both passives can indeed host PGs.

3.1.4 Licencing parasitic gaps in both long and short passives

Importantly, contra Ting & Huang's (2008) claim that the short passive cannot host PGs, my consultant and I find the below sentences to be perfectly well-formed, as predicted under my analysis, and is thus indicative of the involvement of A'-movement of NOP even in the *bei*-complement of short passives:

(11) [na-ge xiaotou]$_i$ [Op$_i$ [bei (jingcha$_k$)

that-CL thief BEI police

[$_{\text{adjunct island}}$ PRO$_k$[13] fanfu zhengxun **__$_{PGi/*j}$** hou] daibu-le __$_i$]]

repeatedly interrogate after arrest-PERF

Lit: '[That thief]$_i$ was arrested (by [the police]$_k$) [$_{\text{adjunct island}}$ after PRO$_k$ repeatedly interrogating **__$_{PGi}$**].'

'[That thief]$_i$ was arrested (by [the police]$_k$) after they$_k$ repeatedly interrogated him$_i$.

[13] Given that this position seems to be occupied by a compulsory empty category, I will assume that PRO occupies said position without further comment. I further note that example (8) also seems to require PRO in this regard, and the assumption that there are object PGs there was unproblematic. Also note that under my analysis, in both the long and short passives, it is the existentially closed external argument that controls such a PRO, not the overt initiator.

(12) [na-ge xiaotou]$_i$ [Op$_i$ [bei (jingcha$_k$)

that-CL thief BEI police

[$_{\text{adjunct island}}$ PRO$_k$ toutou genzong **__PGi/*j** hou] daibu-le __$_i$]]

secretly tail after arrest-PERF

Lit: '[That thief]$_i$ was arrested (by [the police]$_k$) [$_{\text{adjunct island}}$ after PRO$_k$ secretly tailing **__PGi**].'

'[That thief]$_i$ was arrested (by [the police]$_k$) after they$_k$ secretly tailed him$_i$.'

Recall that under my account, in both long and short *bei*-passives, the NOP A'-moves to adjoin to *bei*, meaning that my account predicts that PGs should be licenced in both, as evidenced in examples (11) and (12) above. Further, by having the PG embedded in the *bei*-complement, we ensure that the A'-movement that licences the PG originates from within the *bei*-complement, meaning that the most likely candidate for such A'-movement is the movement of NOP.

Similar to examples (8-10), we know that there is an adjunct island in both examples (11) and (12) because *hou* 'after' modifies *zhengxun* 'interrogate' and *genzong* 'follow' respectively. Thus, we get a configuration most similar to that seen in example (8) and to examples (9) and (10) to a slightly lower degree (since the latter two have overt subjects in the adjunct island). Additionally, in example (11), it is clear that the one being interrogated should be the thief and that someone else is doing the interrogating, which led up to the thief's arrest. Similarly, in example (12), the thief's arrest is understood to be due to him being tailed. Then, again like examples (8-10), it is easily understood based on the context that the object gap is where the PG resides. Note further that the given constituency analyses

for (11) and (12) are the only possible ones. To see this, consider the alternative analyses (that assume that there are no PGs) given in (13) and (14) below:

(13) *[[[na-ge xiaotou]$_i$ [Op$_i$ [bei (jingcha$_k$)

that-CL thief BEI police

[PRO$_k$ fanfu zhengxun __$_i$ hou]]]] daibu-le __$_{*i/*j}$]

repeatedly interrogate after arrest-PERF

Intended: '[That thief]$_i$ arrested *e* after he$_i$ was repeatedly interrogated (by the police).' (where *e* is an empty category)

(14) [[[na-ge xiaotou]$_i$ [Op$_i$ [bei (jingcha$_k$)

that-CL thief BEI police

[PRO$_k$ fanfu zhengxun __$_i$ hou]]]] chumai-le tongmou/__$_{*i/*j}$]

repeatedly interrogate after betray-PERF accomplice

'[That thief]$_i$ betrayed **e*/his accomplice after he$_i$ was repeatedly interrogated (by the police).' (where *e* is an empty category)

Based on the alternative constituency analysis given in (13), the object gap of *zhengxun* 'interrogate' would be a result of NOP-movement, not a PG, and the thief would be the one doing the arresting after he was interrogated, but this is a pragmatically awkward reading. More importantly, it is not possible to construe the object gap of *daibu* 'arrest' as an empty category that is coindexed with either the thief himself or anyone else. Example (14) simply demonstrates that the alternative constituency analysis is indeed possible under a

felicitous context and given a suitable verb. Note that the object position after *chumai* 'betray' in example (14) cannot be an empty category, as with example (13), but it can be overtly filled. Thus, the constituency analysis given in examples (11-12) is the correct one, ruling out the possibility that the object gap of *zhengxun* 'interrogate' and *genzong* 'tail' in examples (11-12) is due to NOP-movement.

How can we further assure ourselves that we are indeed dealing with PGs in examples (11) and (12)? Recall from examples (2) and (3) that PGs can be obligatory in that they are ungrammatical when a coreferential pronoun substitutes for the PG. Observe that in contrast to (11) and (12) above, examples (11') and (12') below are ungrammatical, with the only difference being that the PG is substituted with a coreferential pronoun *ta*, a property associated with obligatory PGs:[14]

(11') *[na-ge xiaotou]$_i$ [Op$_i$ [bei (jingcha$_k$)

that-CL thief BEI police

[$_{\text{adjunct island}}$ PRO$_k$ fanfu zhengxun **ta$_i$** hou] daibu-le] __$_i$]

repeatedly interrogate 3SG after arrest-PERF

Lit: '*[That thief]$_i$ was arrested (by [the police]$_k$) [$_{\text{adjunct island}}$ after PRO$_k$ repeatedly interrogating **him$_i$**].'

'[That thief]$_i$ was arrested (by [the police]$_k$) after they$_k$ repeatedly interrogated him$_i$.

[14] My grammatical judgements for examples (11') and (12') are aligned with my consultant, but as Engdahl (1983) notes, there may be some variability in terms of acceptability when it comes to substituting PGs with coreferential pronouns. I leave this for further research.

(12') *[na-ge xiaotou]$_i$ [Op$_i$ [bei (jingcha$_k$)

That-CL thief BEI police

[$_{\text{adjunct island}}$ PRO$_k$ toutou genzong **ta$_i$** hou] daibu-le] __$_i$]

secretly tail 3SG after arrest-PERF

Lit: '*[That thief]$_i$ was arrested (by [the police]$_k$) [$_{\text{adjunct island}}$ after PRO$_k$ secretly tailing **him$_i$**].'

'[That thief]$_i$ was arrested (by [the police]$_k$) after they$_k$ secretly tailed him$_i$.'

Since there are now no gaps in the adjunct islands in examples (11') and (12'), we should not expect island violations. That is, we can rule out the ungrammaticality of (11') and (12') being due to the presence of the island or any island violations. Next, in Mandarin, PRO cannot be in an object position (Huang 1984; 1989), so the gap cannot have been an obligatory PRO instead of a PG. Further, the gap also cannot have been due to any mechanism allowing for pro-drop either (Huang 1984; 1989, Li 2007a; 2007b; 2014; Ting & Huang 2008) since we then expect that substituting the gap with a coreferential pronoun should not result in ungrammaticality, unlike what we see in examples (11') and (12'). Finally, we have already seen based on (11) and (12) that this configuration is one that can licence PGs, so Li's (2007a; 2007b; 2014) proposed TEC/TEP analysis cannot apply to examples (11') and (12') since TECs/TEPs have been characterised as only being a last resort (Ting & Huang 2008; Lai & Sun 2018).

Having ruled out all of the above, we necessarily conclude that the ungrammaticality of examples (11') and (12') must result from the fact that we are dealing with obligatory

PGs,[15] which would then naturally account for the observations made in examples (11-12) and (11'-12'). Hence, what we can conclude from the examples is that PGs are grammatical in both long and short passives, contra Ting & Huang's (2008) claim.

Section 3.1 has presented both experimental and theoretical evidence for the existence of PGs in Mandarin and has shown that they must be licenced by A'-movement. Consequently, given my unified A'-movement account, I predict that PGs are grammatical in both *bei*-passives, and this prediction has been borne out. We thus have our first piece of evidence supporting my unified approach. More generally, the grammaticality of PGs in both long and short passives presents an empirical challenge to non-unified approaches such as those of Huang (1999) and Ting (1998), but is predicted under my unified A'-movement analysis, giving my approach superior empirical coverage. Next, we turn to discuss resumptive pronouns (RPs) and their distribution with respect to *bei*-passives in the next section.

3.2 Resumptive pronouns and A'-movement in *bei*-passives

Since my unified analysis assumes the A'-movement of a NOP in both *bei*-passives, a second prediction is that we can expect to observe resumptive pronouns (RPs) occupying the tail of the A'-chain headed by the NOP.

We first see in subsection 3.2.1 that Mandarin RPs appear in a variety of syntactic environments involving A'-movement, such as in relative clauses, topicalisation constructions and island extractions, thus establishing that Mandarin RPs are licenced by A'-movement. In subsection 3.2.2, I show how the logical object is ultimately construed as being

[15] I note that, in line with Engdahl's (1983) observations on obligatory PGs, the PGs in examples (11-12) precede the real gap. This is typologically interesting but tangential to the point I am making.

coindexed with the RP given that the RP is at the tail of the A'-chain while it is the NOP that is at the head of the A'-chain. Then, in subsection 3.2.3, I present supporting evidence for the presence of RPs in short passives, unexpected under non-unified analyses but predicted by my unified A'-movement account. I also consider whether to rule out the presence of A'-movement just because RPs are ungrammatical in certain short (or even long) passive configurations. To that end, I demonstrate that inserting an intervening initiator-oriented adverb immediately after *bei* renders an ungrammatical short passive sentence with a RP grammatical, indicating that there could be other restrictions on the distribution of RPs in *bei*-passives unrelated to the A- and A'-movement distinction.[16] Subsection 3.2.4 makes use of the facts that RPs can exhibit long-distance dependencies as well as repair islands to show that grammatical island extractions from within the *bei*-complement requires RPs and thus both long and short passives must involve A'-movement to licence RPs, again consistent with what is predicted under my account.

3.2.1 Resumptive pronouns and their syntactic distribution in Mandarin

Resumptive pronouns (RPs) have been used as a diagnostic for A'-movement (Aoun et al. 2001; Asudeh 2007; Chao & Sells 1983; Feng 1997/2012; Huang 1999; McCloskey 2002, 2006; Pan 2016; Ting 1998; Wang 2008, among others), so if we can be convinced that RPs exist in Mandarin, my account predicts that they should be hosted in both long and short *bei*-passives. That is, assuming that *bei*-passives uniformly involve A'-movement rather than A-movement, we predict that both long and short passives are able to host RPs, which

[16] I also revisit this observation in detail in chapter 5.

crucially occupy the tail of A'-chains rather than A-chains (Aoun et al. 2001; Asudeh 2007; Chao & Sells 1983; Engdahl 1985; McCloskey 2002, 2006; Pan 2016; Wang 2008).[17]

Although Feng (1997/2012), Huang (1999), Huang et al. (2009), Liu (2012; 2016), Liu & Huang (2013; 2016) and Ting (1998) have argued that we detect the presence of RPs only in long passives, Her (2009) and Shi (2008) provide linguistic evidence from online sources demonstrating that we do indeed find RPs in short passives as well (see subsections 3.2.3 and 3.2.4 for a discussion of the data).[18]

If the data does indeed show the presence of RPs in short *bei*-passives as well, we would have support for my account. Thus, I propose that the following properties in (15) are relevant defining properties of Mandarin RPs:

(15) Defining properties of Mandarin RPs

(15a) RPs are only licenced by A'-movement and only can occupy the tails of A'-chains, and therefore are indicative of A'-movement, or A'-chains.

(15b) RPs appear in positions where (A'-)gaps would otherwise be present.

(15c) RPs can only have bound variable interpretations i.e. they are obligatorily coreferential with the variable bound by an operator at the head of the A'-chain.

(15d) RPs can exhibit long-distance dependencies since they are part of A'-chains.

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[17] For readers who are curious if RPs can be part of A-chains, contrary to property (15a), example (i) below is a construction with obligatory subject raising involving the modal *hui* 'will' (example (i) is based on Lin's (2011) example (7)), which is an instance of A-movement rather than A'-movement:

(i) zhangsan$_i$ hui [__/*ta$_i$ zhunbei wancan]
Zhangsan will 3SG prepare dinner
'Zhangsan will prepare dinner.'

We see in example (i) that no resumption is possible, which I take to be sufficiently indicative that Mandarin RPs indeed can occupy A'- but not A-positions.

[18] Biggs (2014) reports in her footnote (57) that despite the claims made in the literature, her consultants found RPs to be marginal in *bei*-passives. That said, she also reported that her consultants also agreed with authors such as Huang (1999) that the acceptability of the RP improved given certain syntactic environments. I will chalk up this difference to speaker variation, and assume that RPs are generally acceptable in *bei*-passives.

(15e) When present in a syntactic island as part of the A'-chain, RPs can render the A'-extraction of the relevant element(s) grammatical, whereas a gap would incur an island violation.

Assuming that (15a) is a key property of RPs, their presence in such *bei*-passives is predicted by my account. However, RPs in Mandarin typically look no different from a full (3rd-person) pronoun *ta*,[19] so it is imperative that we can discern whether a construction contains a RP or a full pronoun, hence the need to cross-reference the other properties in (15). Though one might be tempted to point to (15b) as being a sufficient condition, we should note two points: 1) Mandarin allows for pro-drop (Huang 1984; 1989) in various syntactic environments, which would also result in a gap, and 2) as noted by Pan (2016), there are configurations in which a RP is obligatory,[20] meaning that there is not always an alternation with gaps (even if arguably a gap should exist there due to an A'-movement). Hence, (15b) alone would not straightforwardly indicate the presence of a RP. To that end, I propose that (15c), (15d) and (15e) combined with (15b) will more convincingly show us that we are dealing with a RP. In the following examples, I present a range of syntactic constructions that showcase the list of properties in (15), and later in this section the properties are variously referenced in the context of *bei*-passives.

In his systematic study of RPs and their distribution in Mandarin,[21] Pan (2016) observes that some of the general syntactic environments involving A'-movement in which

[19] Pan (2016) presents compelling arguments that *qi* 'he/she/they/it' is also a resumptive pronoun. Given that *qi* is not typically used in vernacular speech (that is, speakers do not typically use *qi* to refer in the 3rd person in conversations), I do not include examples of that type here to avoid complications in intuitions due to registers. Additionally, Pan also claims that *nar* 'there' is a resumptive pronoun, and we have already seen such an example in chapter 2, but I will generally stick to *ta* for ease of exposition.

[20] It is important to note that in Mandarin, the distribution of RPs is highly restricted (Pan 2016), which makes it necessary to discuss the specific syntactic configurations in which they can appear.

[21] Although Pan (2016) recognises that RPs have typically been described as a diagnostic for A'-movement, his analysis adopts a rather particular view in which RPs diagnose for an A'-dependency instead. There are two

we can find RPs include relativisation (example (16)), topicalisation without an island (example (17)), topicalisation with an island (example (18)), object of preposition (example (19)) and even in the possessor position (example (20)), and note that this is regardless of whether the RP is hosted in a subject or object position:

(16a) Relativisation of embedded subject and optional resumption

[zhangsan shuo [lisi xiangxin [(**ta$_{i/*j}$**) yiding hui jige]]]

Zhangsan say Lisi believe 3SG certainly will pass

de [na-wei xuesheng]$_i$ jieguo mei lai canjia kaoshi

REL DEM-CL student in.the.end NEG come participate exam

'The student$_i$ [who Zhangsan says [that Lisi believes [that **he$_{i/*j}$** will certainly pass the examination]]] ended up not coming for it.'

(Pan 2016; 34, with modifications)

ways to derive such an A'-dependency in Mandarin: Agree without Move (for him, Move is only motivated by EPP) or Match without Agree. In either case, no A'-movement is assumed in the licencing of RPs in Mandarin. However, given that Pan agrees (and shows) that RPs occupy A'-positions, alternate with gaps and have a bound variable reading, it suffices to say that his data can still inform us on the existence and distribution of RPs in a variety of syntactic environments in Mandarin and help us to understand if we are indeed dealing with RPs in the *bei*-passive cases discussed here. I also note that the *bei*-passive configurations to be discussed, such as in 3.2.3 and 3.2.4, are not described by Pan. It is far beyond the scope of this dissertation to adapt or further discuss Pan's analysis of RPs and so I will continue with the assumption that RPs diagnose for A'-movement.

(16b) Relativisation of embedded object and optional resumption

[zhangsan shuo [lisi xiangxin [wangwu hui jiandao (**ta**$_{i/*j}$)]]]

Zhangsan say Lisi believe Wangwu will meet 3SG

de [na-ge ren]$_i$ shi yi-wei yisheng

REL DEM-CL person COP one-CL doctor

'[The person]$_i$ [who Zhangsan says [that Lisi believes [that Wangwu will meet **them**$_{i/*j}$]]] is a doctor.

(Pan 2016; 34, with modifications)

(17a) Topicalization of embedded subject and optional resumption

zhangsan$_i$ (a), wo juede [(**ta**$_{i/*j}$) hen defang]

Zhangsan TOP 1SG think 3SG very generous

'As for Zhangsan$_i$, I think that **he**$_{i/*j}$ is very generous.'

(Pan 2016; 43, with modifications)

(17b) Topicalisation of object and optional resumption

zhangsan$_i$ (a), wo hen liaojie (**ta**$_{i/*j}$)

Zhangsan TOP 1SG very understand 3SG

'As for Zhangsan$_i$, I know **him**$_{i/*j}$ very well.'

(Pan 2016; 263, with modifications)

(18) Topicalisation out of adjunct island and island repair

[na-ge yisheng]$_i$ (a), [$_{\text{adjunct island}}$ yinwei Zhangsan qin-le ***(ta$_i$)$_{/*j}$**]

DEM-CL doctor TOP because Zhangsan kiss-PERF 3SG

zhengge-xuexiao de laoshi dou hen yumen

whole-school DE teacher DIST very unhappy

'As for [that doctor]$_i$, all the teachers of the school are very unhappy [$_{\text{adjunct island}}$ because Zhangsan kissed **him$_{i/*j}$**].'

(Pan 2016; 46, with modifications)

(19) Topicalisation of object of preposition and resumption

[na-wei pengyou]$_i$ (a), wo dui ***(ta$_i$)** hen bucuo

that-CL friend TOP 1SG to 3SG very not.bad

'As for [that friend]$_i$, I am very kind to **him$_i$**.'

(Pan 2016; 288, with modifications)

(20a) Relativisation of subject and optional resumption with possessor

[(**ta-men$_{i/*j}$**-de) baba dou zai gaozhong jiaoshu] de [na-xie haizi-men]$_i$

3-PL-POSS father all at high.school teach REL DEM-CL child-PL

Lit: '[Those children]$_i$ whose (**their$_{i/*i}$**) fathers all teach in high school'

'The children whose fathers all teach in high schools'

(Pan 2016; 294, with modifications)

(20b) Relativisation of object and optional resumption with possessor

weiyi yi-zhong [wo buneng tiaozheng (**ta$_{i/*j}$-de**) kongyouqi]

only one-type 1SG unable adjust 3SG-POSS carburetor

de che$_i$ shi huangli shengchan de

REL car COP pineapple manufacture DE[22]

Lit: 'The only type of car$_i$ that I can never adjust (**its$_{i/*j}$**) carburetor is the one manufactured by Pineapple.'

'The only types of car that I can never adjust the carburetors of are the ones manufactured by Pineapple.'

(Pan 2016; 296, with modifications)

How do we know that the RP is in a position where a gap would otherwise be? In the relativisation example (16a), we see that *na-wei xuesheng* 'the student', which originates in

[22] I follow Pan's (2016) gloss and simply leave sentence-final *de* as DE, noting that providing a particular analysis for this morpheme is far beyond the scope of this dissertation.

the subject position of the innermost embedded clause, is relativised (via A'-movement under standard assumptions (Asudeh 2007; Engdahl 1985; McCloskey 2002, 2006; Pan 2016)) and forms an A'-chain, with *na-wei xuesheng* being at the head of the A'-chain. The foot of the A'-chain is where *na-wei xuesheng* was base-generated, and we see that in this position there can either be a gap or the RP *ta* 'he/she/it',[23] hence the optionality.

We see this pattern of A'-movement leaving behind a gap repeat in examples (16b), (17), (18) and (20) (with the presence of a gap unsurprisingly showing that an island violation is incurred (Ross 1967) in (18)[24] in particular). Example (19) seems to stand out in this regard, but Ting (1998) and especially Huang (1999) have pointed out that Mandarin does not allow for preposition stranding,[25] hence the obligatoriness of the RP in (19). That is, the relativised object of preposition *na-wei pengyou* 'that friend' would indeed also be at the head of the A'-chain and the foot of the A'-chain would have also been able to host a gap if not for the ban on prepositional stranding in Mandarin, hence the obligatory RP instead. In this sense, then, we can see that example (19), as with examples (16), (17), (18) and (20), are all in line with the RP property (15b).[26]

As for property (15d), we see in example (16) that *ta* forms a long-distance dependency with the relativised element since the extraction is from the most deeply-

[23] Pan (2016) recognises that the orthography of Mandarin actually indicates that there is gender agreement between the RP *ta* and its referent at the head of the A'-chain, which distinguishes between *ta1* (=他, for human, masculine) , *ta2* (=她, for human, feminine) and *ta3* (=它, for non-human), and this can be taken to be a piece of evidence that the pronoun has a bound variable reading. However, as will soon be made clear, under my analysis for *bei*-passives, what binds the RP is technically the NOP, so this distinction cannot be taken as direct evidence for the presence of a bound variable reading and thus I dispense with the distinction and simply use *ta*.

[24] RPs are also obligatory in island repair, as seen in example (18). As with the discussion regarding example (19), this obligatoriness does not take away from the fact that the RP is in a position where the gap would otherwise have been, just that the gap would, for some reason or other, result in an island violation that renders the sentence ungrammatical.

[25] In fact, the observed ban on preposition stranding has been used by Huang (1999) and Ting (1998) as counterevidence against the view that *bei* is a prepositional element since *bei* would be exceptional for being grammatical even when it is not followed by a NP, as is the case with short passives.

[26] In his appendix, Pan (2016) presents other configurations in which the RP is obligatory, but I assume that there should be other independent grammatical rules at work that force the RP's presence or ban the gap's presence, hence resolving any conflict with property (15b).

embedded clause. This is only expected if the relativised element is A'-moved and leaves a RP at the foot of the A'-chain.

Although Pan (2016) shows that Mandarin RPs are not always able to repair islands, he does argue based on grammatical examples such as (18) that one of their defining properties is that they can, under the right circumstances. Thus, I take example (18) as indicative that property (15e) is indeed to be expected of RPs.

Another property that helps us to cement the status of *ta* as a RP is the bound variable interpretation it has, as described in (15c). Indeed, throughout examples (16-20), we see that the pronoun at the foot of the A'-chain, when present, must refer to the element at the head of the A'-chain,[27] as evidenced by the ungrammaticality incurred when trying to refer to anything other than said element, and this is consistent with property (15c).

The astute reader will note that since my unified analysis assumes that the NOP is at the head of the A'-chain, the RP is technically bound by the NOP, not the logical object. Now that we have established a list of Mandarin RP properties in (15) in this subsection, I consider (15c) in particular in the next subsection and elaborate on how the RP ends up with the same index as the logical object.

[27] Though one might argue that at least in the topicalisation examples (17) and (19) there is a possibility that there is accidental coreference rather than a bound variable reading due to the prominence of the A'-moved element (given that Mandarin has been argued to be a topic-prominent language (Li & Thompson 1976)), we would be hard-pressed on two fronts: 1) it is not clear how the relativisation examples (16) and (20) involve a prominent A'-moved element given that it is not in a topic position, and 2) if there is indeed only accidental coreference, then it remains a mystery why the pronoun cannot refer to another element – it seems that no amount of context allows for such reference anyway.

3.2.2 Construing the logical object with the resumptive pronoun

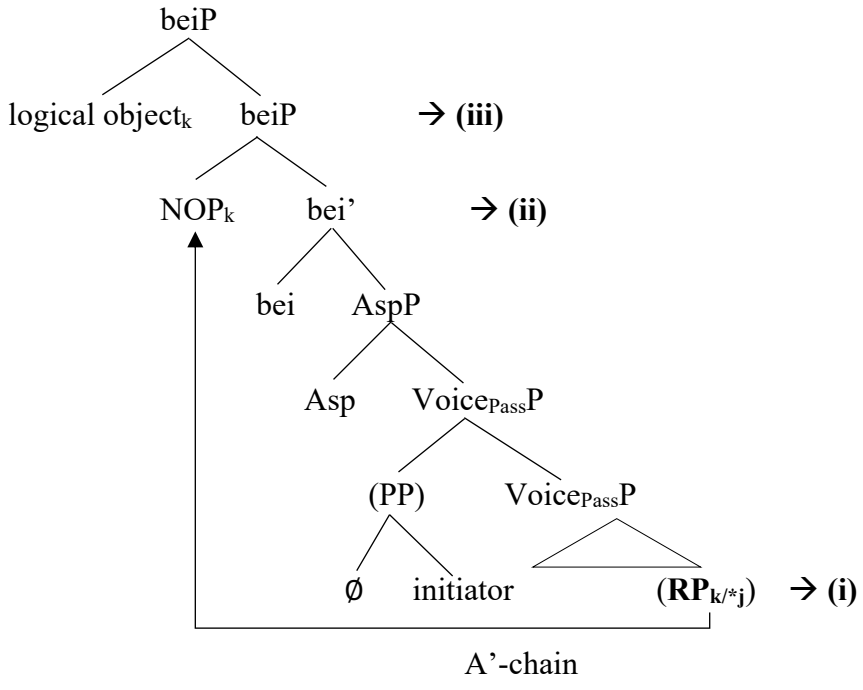
Showing the bound variable interpretation property (15c) of RPs under my analysis for *bei*-passives requires a little more explication. The relevant property is repeated below for ease of reference:

(15) Defining properties of Mandarin RPs

(15c) RPs can only have bound variable interpretations i.e. they are obligatorily coreferential with the variable bound by an operator at the head of the A'-chain.

First, recall the A'-analysis illustrated in chapter 2, here simplified as (21):

(21) RP is bound by NOP as a result of A'-movement:



(i) RP is at the tail of the A'-chain created by A'-movement of the NOP

(ii) A'-movement of NOP in the semantic component is achieved via λ-abstraction, which binds the RP (a la Heim & Kratzer (1998)) and results in the bound variable interpretation

(iii) The grammatical subject/logical object is base-generated higher than the NOP and is what the NOP is coreferent with

Next, observe that the A'-movement of the NOP from its base-generated position leaves behind a copy, which in the case of the tree (21) above is either an unpronounced copy (the gap) or the RP, hence the optionality. Note also that this A'-movement creates an A'-chain, and the RP would be at the tail of the A'-chain while the NOP is at the head of the A'-chain. This is summarised as (21i).

Also recall that the A'-movement of NOP is achieved via λ-abstraction in the semantic component, such that the RP at the tail of the A'-chain is a bound variable. Thus, the bound variable interpretation is derived. This is summarised as (21ii). To be clear, at this stage, the RP is coreferent with the NOP.

Now, notice that under my analysis (and also under the non-unified analyses cited throughout this dissertation), the logical object, or grammatical subject, is base-generated in a higher position. That is, the logical object is not base-generated in the internal argument position. Rather, it is an argument introduced by *bei* and is identified with the NOP via predication, as summarised in (21iii). Thus, although the RP in the *bei*-passive cases under discussion here is (obligatorily) coindexed with the logical object, the RP is technically bound by the NOP as a result of the A'-movement of the NOP, while it is the NOP that is coindexed with the logical object. Since the NOP is coindexed with the logical object, and the RP can only refer to the logical object while being bound by the NOP, we can infer that there

is indeed a bound variable interpretation. Though this makes the coindexation of the RP with the logical object more indirect, the obligatory coindexation arguably is still indicative of the bound variable interpretation (property (15c)).

In this subsection, I have addressed the issue of coindexing the logical object with the RP as it pertains to property (15c). Next, with reference to the list of properties in (15), I review the evidence presented by Her (2009), Shi (2008) and even by Huang (1999) and Ting (1998) regarding RPs in short passives in the next subsection.

3.2.3 Resumptive pronouns are grammatical in short (and long) passives

First, there are three short *bei*-passive examples in particular that Her (2009) brings up, all found on Taiwanese internet forums, and one more from a web novel, presented in Shi (2008):

(22) [ta ba]$_i$ pa bei renwei (**ta$_{i/*j}$**) wufa guanjiao haizi

3SG.POSS father afraid BEI consider 3SG unable discipline child

Lit: '[His father]$_i$ is afraid to be considered that **he$_{i/*j}$** is unable to discipline his children.'

'His father is afraid to be considered as being unable to discipline his children.'

(Her 2009; 432, with modifications)

(23) [shuijiao de ren]$_i$ dou hui bei shuo-cheng (**ta$_{i/*j}$**) shangxian-le

sleep DE person even will BEI describe-become 3SG online-PERF

Lit: 'Even [anyone who is sleeping]$_i$ would be described as **he$_{i/*j}$** is online.'

'Even anyone who is sleeping would be described as online.'

(Her 2009; 433, with modifications)

(24) ta$_i$ bei duozou-le (**ta$_{i/*j}$-de**) zhongsheng quanyi

3SG BEI deprive-PERF 3SG-DE lifelong rights

'He$_i$ was deprived of **his$_{i/*j}$** lifelong rights.'

(Her 2009; 433, with modifications)

(25) liumazi$_i$ bei yong jin-guo shui de masheng

Liumazi BEI use soak-EXP water DE rope

jiejieshishide kun-le (**ta$_i$**) yi xiawu

tightly tie-PERF 3SG one afternoon

Lit: 'Liumazi$_i$ was used a water-soaked rope to tie **him$_i$** up tightly for one afternoon.'

'Liumazi was tied up tightly for an afternoon using a water-soaked rope.'

(Shi 2008; 115, with modifications)

In fact, Huang (1999) and Ting (1998) even concede that there are short passives that can host RPs:

(26) zhangsan$_i$ bei qiang-zou-le (**ta$_{i/*j}$**) zui xihuan de wanju

Zhangsan BEI snatch-away-PERF 3SG.POSS most like DE toy

Lit: 'Zhangsan$_i$ was snatched-away-(**his$_{i/*j}$**)-favourite toy.'

'Zhangsan had his favourite toy snatched away from him.'

(Huang 1999; fn. 18, pp. 24, with modifications)

(27) ?zhangsan$_i$ zai datingguangzhongzhixia

Zhangsan at in.public

bei haobuliuqingde yancipiping-le (**ta$_{i/*j}$**) yi-dun

BEI ruthlessly strongly.criticise-PERF 3SG one-instance

'Zhangsan was ruthlessly and strongly criticised in public once.'

(Ting 1998; fn. 3, pp. 344, with modifications)

Example (26) was noted by Huang (1999) while example (27) was suggested to Ting (1998) by one of the reviewers, and I note in particular that Ting does not claim that (27) is ungrammatical – in fact, she agreed with the reviewer's grammaticality judgement in this case. Note that all the examples in (22-27) lack an overt initiator, hence their status as short passives. The optionality of *ta* in examples (22), (23), (25) and (27) indicates that *ta* is in a

position where a gap would otherwise be present, consistent with property (15b), which is repeated below for ease of reference:

(15) Defining properties of Mandarin RPs

(15b) RPs appear in positions where (A'-)gaps would otherwise be present.

As for examples (24) and (26),[28] we have already seen from example (20) that Mandarin RPs can be possessors and also are in positions where gaps would otherwise be, hence the presence of the possessive RP *ta/ta-de* would also be consistent with (15b).

Setting aside the complexity of the sentences in examples (22-27) as compared to the syntactic structure illustrated in (21), we see that the pronouns in question do display properties consistent with (15b) and (15c), hence it appears that RPs can be hosted in short passives in principle, thus falsifying the A-movement analysis for short passives.

To round out this subsection, I now turn to an observation made by Feng (1997/2012), Huang (1999) and Ting (1995; 1998) that pertains to the (un)grammaticality of RPs in long and short passives. In presenting their non-unified analyses for *bei*-passives, they observed that in example (27) below, resumptive pronouns are only hosted in the long passive:

(28a) zhangsan$_i$ bei lisi da-le (**ta$_{i/*j}$**) *(yi-xia)

Zhangsan BEI Lisi hit-PERF 3SG one-instance

'Zhangsan was hit once by Lisi.'

(Huang 1999; 17, with modifications)

[28] In the case of example (26), though there is no *de*, the RP is still understood to be in a possessor relation with *zui xihuan de wanju* 'favourite toy', as is reflected in the gloss. Notice that example (22) also has a *ta* that is in a possessor relation with *ba* 'father' despite the absence of *de*.

(28b) zhangsan$_i$ bei da-le (***ta$_{i/*j}$**) yi-xia

Zhangsan BEI hit-PERF 3SG one-instance

'Zhangsan was hit once.'

(Huang 1999; 24, with modifications)

Feng (1997/2012), Huang (1999) and Ting (1998) noticed that the RP could be hosted in example (28a) but not in (28b),[29, 30] which they took to be indicative that the long and short passives must have syntactically distinct structures. Huang (1999) and Ting (1998) in particular took this as evidence that the long passive must involve A'-movement[31] while the short passive must involve A-movement instead since the RP cannot be hosted.

Huang (1999) further posited that the obligatoriness of the adverbial phrase *yi-xia* 'once' in the presence of the RP in example (28a) paralleled the distribution of RPs in some other environments. Hence, the fact that the long passive in (28a) could host a RP while the short passive in (28b) could not was argued to provide further indication that the former must involve A'-movement while the latter must involve A-movement.

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[29] It is worth pointing out that Ting (1993) claimed that (i) below is grammatical:

(i) Zhangsan$_i$ bei wo da-le ta$_{i/*j}$
zhangsan BEI 1SG hit-PERF 3SG
'Zhangsan was hit by me.'

(Ting 1993; 250, with modifications)

Note that example (i) does not have an adverbial after the RP, but is claimed by Ting (1993) to be grammatical. However, she seems to have since modified her stance on this, as seen in example (ii) below, which is a sentence with a similar configuration to (i):

(ii) ??Zhangsan$_i$ bei wo piping ta$_{i/*j}$
zhangsan BEI 1SG criticise 3SG
'Zhangsan was criticised by me.'

(Ting 1998; 344, with modifications)

[30] To be clear, Ting (1995; 1998) claims that inserting a RP in examples like (28a) is marginal (given a '?') while Huang (1999) described such constructions as being grammatical.

[31] It is important to remember that Huang (1999) and Ting (1998) both follow Feng's (1997/2012) analysis that there is a NOP that A'-moves in the long passive but not in the short passive.

However, we have already seen from examples (22-27) that short passives can indeed host RPs, and it is also clear that the presence of RPs there have nothing to do with being licenced by adverbial phrases.[32] Additionally, as Pan (2016) points out, there seem to be many restrictions on the distribution of RPs in Mandarin, even in cases where A'-movement is clearly involved, so it is not necessarily the case that it is the presence of the adverbial phrase *per se* that licences the RP in (28a), nor would the ungrammatical RP in (28b) necessarily rule out the presence of A'-movement. Thus, the conclusion that short passives must involve A-movement because some short passive structures cannot host RPs is evidently empirically inadequate.

In fact, I note that adding the initiator-oriented adverb *henhende* 'viciously'[33] to (28b) above renders the RP grammatical:

(29) Zhangsan$_i$ bei (Lisi) henhende da-le (**ta$_{i/*j}$**) yi-xia

Zhangsan BEI Lisi viciously hit-ASP 3.SG one-instance

'Zhangsan$_i$ was viciously hit (**him$_{i/*j}$**) a few times (by Lisi).'

An example like (29) (and (27) above) demonstrates that the basic syntactic structure of long and short *bei*-passives proposed in the abstract tree (21) is indeed tenable – as mentioned, since my unified analysis claims that both long and short passives uniformly involve A'-

[32] Actually, Ting (1998; 344) further notes in her footnote (3) that the RP "must be followed by some element, usually an adverbial." This was in response to the example (27) above. Based on the data discussed earlier in this subsection, this certainly seems to be the case, but I will leave the issue of RP distribution in *bei*-passives to future research.

[33] Based on Chen & Li's (2021) proposed test for distinguishing between initiator-oriented adverbs and subject depictives, they would classify *henhende* 'viciously' as a subject depictive rather than as an initiator-oriented adverb, though I show in chapter 5 that this distinction does not affect my overall analysis. I further note that in Ngui (2022) *henhende* was also described as an initiator-oriented adverb and the data was similarly unproblematic.

movement of the NOP, we expect that this A'-movement licences a RP at the foot of the A'-chain headed by the NOP.

Overall, though, it seems to be the case that there are other restrictions on the distribution of RPs in *bei*-passives at work that complicate the picture. Therefore, while I have established that the presence of RPs is predicted under my account, the fact that a particular configuration bans RPs does not immediately rule out the presence of any A'-movement, contrary to what Huang (1999) and Ting (1998) would claim. This is especially so given that we have seen that at least some short passives can host RPs. Simply put, my account predicts that we can observe RPs in both long and short passives, consistent with the data at hand, while the presence of RPs in short passives presents a serious challenge for the non-unified analyses because they under-generate in such cases.

In the next subsection, I examine islands, another environment in which my analysis predicts that both long and short passives should be able to host RPs.

3.2.4 Islands and A'-movement in bei*-passives*

Before showing that RPs, which are licenced by A'-movement, display both properties (15d) and (15e) uniformly in islands in *bei*-passives, in line with what my unified approach would predict, I briefly examine each property in turn. The list of properties in (15) are repeated here:

(15) Defining properties of Mandarin RPs

(15a) RPs are only licenced by A'-movement and only can occupy the tails of A'-chains, and therefore are indicative of A'-movement, or A'-chains.

(15b) RPs appear in positions where gaps would otherwise be present.

(15c) RPs can only have bound variable interpretations i.e. they are obligatorily coreferential with the variable bound by an operator at the head of the A'-chain.

(15d) RPs can exhibit long-distance dependencies since they are part of A'-chains.

(15e) When present in a syntactic island as part of the A'-chain, RPs can render the A'-extraction of the relevant element(s) grammatical, whereas a gap would incur an island violation.

Now, referring back to Pan's (2016) examples, observe again example (16), presented here as (30):

(30a) Relativisation of embedded subject and optional resumption

[zhangsan shuo [lisi xiangxin [(**ta**$_{i/*j}$) yiding hui jige]]]

Zhangsan say Lisi believe 3SG certainly will pass

de [na-wei xuesheng]$_i$ jieguo mei lai canjia kaoshi

REL DEM-CL student in.the.end NEG come participate exam

'The student$_i$ [who Zhangsan says [that Lisi believes [that **he**$_{i/*j}$ will certainly pass the examination]]] ended up not coming for it.'

(Pan 2016; 34, with modifications)

(30b) Relativisation of embedded object and optional resumption

[zhangsan shuo [lisi xiangxin [wangwu hui jiandao (**ta**$_{i/*j}$)]]]

Zhangsan say Lisi believe Wangwu will meet 3SG

de [na-ge ren]$_i$ shi yi-wei yisheng

REL DEM-CL person COP one-CL doctor

'[The person]$_i$ [who Zhangsan says [that Lisi believes [that Wangwu will meet **them**$_{i/*j}$]]] is a doctor.

(Pan 2016; 34, with modifications)

Recall that relativisation in Mandarin involves A'-extraction of the relativised element. Observe that in both (30a) and (30b), *ta* is able to form a long-distance dependency with the relativised elements *na-wei xuesheng* 'the student' and *na-ge ren* 'the person' respectively. Both elements are the heads of their own A'-chains, since they are base-generated in the most deeply-embedded clause and A'-extracted from there, leaving a RP at the foot of the A'-chain that obligatorily refers back to the head of the A'-chain. Thus, example (30) is an illustration of property (15d) of Mandarin RPs.

Next, we review the earlier example (18), in which Pan (2016) has shown that RPs can repair islands (Ackerman et al. 2018; Aoun et al. 2001; Asudeh 2007; 2011; Chao & Sells 1983; Chomsky 1977; Engdahl 1985; Erteschik-Shir 1992; Ferreira & Swets 2005; Heestand et al. 2011; Kroch 1981; McCloskey 2002; 2006; Morgan & Wagers 2018; Pan 2016; Sichel 2014; Ross 1967; Tucker et al. 2019; Wang 2008) in Mandarin in principle. Example (18) is repeated below as (31):

(31) Topicalisation out of adjunct island and island repair

[na-ge yisheng]$_i$ (a), [$_{\text{adjunct island}}$ yinwei Zhangsan qin-le ***(ta$_i$)$_{/*j}$**]

DEM-CL doctor TOP because Zhangsan kiss-PERF 3SG

zhengge-xuexiao de laoshi dou hen yumen

whole-school DE teacher DIST very unhappy

'As for [that doctor]$_i$, all the teachers of the school are very unhappy [$_{\text{adjunct island}}$ because Zhangsan kissed **him$_{i/*j}$**].'

(Pan 2016; 46, with modifications)

As is well-known, A'-extractions out of islands (topicalisation out of the island in the case of example (31)), which leave behind a gap, typically result in island violations (Ross 1967).[34] Example (31) demonstrates that in Mandarin, island violations can be repaired if a RP is overtly present where the gap should be. Hence, the grammatical (31) shows in particular property (15e) of Mandarin RPs. Keeping the properties (15a-c) and especially (15d-e) in mind, we can now determine if a pronoun within an island in a *bei*-passive is a RP or not.

Non-unified approaches that posit A'-movement for long passives and A-movement for short passives expect island violations in both cases, but would claim that only in the

[34] As Biggs (2014) rightly points out, A-movement out of the island also incurs an island violation, and she takes their ungrammaticality in *bei*-passives as indicative that A-movement has occurred. Importantly though, unlike Biggs (2014), I assume that RPs are grammatical in Mandarin – see footnote (18) in particular – and can repair islands in both *bei*-passives and I have also argued extensively for it, hence the island violations here are indeed indicative of A'-movement and not A-movement. I discuss Biggs' approach in more detail in chapter 4.

former can a RP repair island violations since only A'-movement should licence RPs (Ting 1995; Huang 1999; Huang et al. 2009; Liu 2012; 2016; Liu & Huang 2013; 2016):

(32a) zhangsan$_i$ bei wo tongzhi lisi ba

Zhangsan BEI 1SG inform Lisi BA

[$_{CNPI}$ zanmei ***(ta$_i$)** de shu] dou mai-zou le

praise RP DE book DIST buy-away INCH

Lit: 'Zhangsan$_i$ was informed Lisi to buy-up-[$_{CNPI}$ all-the-books-that-praise-him$_i$] by me.'

Huang's (1999) suggested translation: 'Zhangsan$_i$ had me inform Lisi to buy up [$_{CNPI}$ all the books that praise **him$_i$**].'

Possible interpretation 1: 'Zhangsan$_i$ got [$_{CNPI}$ all the books that praised **him$_i$**] bought up by Lisi, and Lisi was instructed by me to do so.'

Possible interpretation 2:[35] 'Zhangsan$_i$ was informed that Lisi had bought up [$_{CNPI}$ all the books that praised **him$_i$**] by me.'

(Huang 1999; 16, with modifications)

Example (32a) above has been cited by Huang (1999), Huang et al. (2009), Liu (2016) and Liu & Huang (2016) as evidence in support of the A'-movement analysis for long passives because the complex noun phrase island (CNPI) can be repaired by the RP,[36] as described in

[35] Many thanks to my consultant Yiyun Zhao for pointing out this possible interpretation.

[36] Ting (1995) presents island examples that are very different from example (32a), but my consultant and I both found them to either be marginal at best even with the RP, or that they were still acceptable without the RP, so (32a) was selected as a better illustration of the issue at hand. Ting (1998), which also argues for a non-unified approach, does not discuss the interaction of *bei*-passives and islands.

property (15e). Note that an island violation is incurred when there is a gap rather than the RP (recall that only PGs are generally grammatical in islands). Thus, even though there can be an alternation of the RP with the gap, as described by property (15b), the presence of the RP is obligatory for grammaticality.

The presence of the RP is further confirmed by 1) the fact that *ta* in example (32a) is obligatorily coreferential with the logical object *Zhangsan*, thus exhibiting property (15c) of RPs that we have already discussed at length; 2) the fact that *ta* exhibits a long-distance dependency with *Zhangsan* given possible interpretation 1, which is in line with property (15d) of RPs.

Since the RP is only licenced by A'-movement, in line with property (15a) discussed in subsection 3.2.1, example (32a) above can be taken as evidence in support of the involvement of A'-movement in long passives.

However, example (32a) is also problematic because there is apparently a syntactic ambiguity such that there can be an unintended interpretation, but more importantly, the authors citing it as support for their non-unified analyses did not explicitly show that the short passive counterpart of (32a) is ungrammatical.

In fact, my consultant and I both find that the short passive counterpart to example (32a) can be repaired by RPs as well:

(32b) zhangsan$_i$ bei tongzhi lisi ba

Zhangsan BEI inform Lisi BA

[$_{CNPI}$ zanmei ***(ta$_i$)** de shu] dou mai-zou le

praise RP DE book DIST buy-away INCH

Lit: 'Zhangsan$_i$ was informed Lisi to buy-up-[$_{CNPI}$ all-the-books-that-praise-**him$_i$**].'

Possible interpretation 1: 'Zhangsan$_i$ got [$_{CNPI}$ all the books that praised **him$_i$**] bought up by Lisi, and Lisi was instructed (by someone) to do so.'

Possible interpretation 2: 'Zhangsan$_i$ was informed that Lisi had bought up [$_{CNPI}$ all the books that praised **him$_i$**] (by someone).'

To my knowledge, none of the works citing example (32a) has discussed the short passive version (32b) and the issue of its grammaticality. The grammaticality of (32b) is completely unexpected under non-unified analyses because the short passive should only involve A-movement that incurs island violations and hence is unable to licence RPs that can repair said violations, but under my unified A'-movement analysis the presence of the RP is predicted. However, as I would like to avoid any potential syntactic ambiguities as well as a discussion of the *ba* and *dou* morphemes[37], I present example (33) below, which also shows us that RPs are indeed present in and can repair islands in both long and short passives:

[37] As a discussion of the *ba* and *dou* morpheme would certainly take us too far afield, the interested reader can see for instance Her (2009), Lee (1989), Li & Thompson (1981), Liu (1997), Peltomaa (2006), Shyu (1995), Tsai (1995), or Zou (1993) for the *ba* morpheme and Cheng (1995), Gao (1994), Huang (1995; 1996), Li & Thompson (1981), Lin (1998), Liu (2017), Mok & Rose (2017), Shyu (1995), Xu & Lee (1998), Yeo & Tsoulas (2013) or Zhou & Gao (2009) for the *dou* morpheme.

(33) kongzi$_i$ bei (baojun) [andili zhao cike

Confucius BEI tyrant in.secret find assassin

[mousha-le [$_{CNPI}$ suoyou zhichi ***(ta$_i$)** de chenzi]]]

murder-PERF all support RP DE officials

Lit: 'Confucius$_i$ was found-assassins-to-murder in secret [$_{CNPI}$ all the officials who supported **him$_i$**] (by a tyrant).'

'Assassins were found in secret (by a tyrant) to murder all the officials who supported Confucius.'

That islands can be repaired by RPs in both long and short passives was also observed in Ngui (2022), though it is hoped that the sentence in example (33) presented above might be more acceptable to native speakers of Mandarin.[38] Similar to example (32), an island violation is incurred when there is a gap with both the long and short passives. Here, as with (32), it is possible for the gap to alternate with a RP (property (15b)). To repair the island violation, the presence of the RP is required (property (15e)). Further, because the obligatory coreference of the embedded RP (property (15c)) is with *Kongzi*, the grammatical subject of the matrix clause and the logical object of the passive construction, we can also observe a long-distance dependency exhibited via the RP (property (15d)).[39] Thus, given that *ta* in example (33) exhibits properties (15b-e), we have evidence that *ta* is indeed an RP.

[38] Biggs's (2014) consultants and Ting (1995) find that RPs in islands only render the sentences marginally acceptable, while authors such as Huang (1999) or Pan (2016) claim that resumption rescues islands. I too assume that Mandarin RPs are able to repair island violations given the available range of data. That said, I do acknowledge the presence of speaker variation regarding RPs and island repair, hence the sentiment. I leave it to further research to determine the extent of speaker variation given different island configurations.

[39] The issue of long-distance dependencies in *bei*-passives sans RPs will also be discussed in section 3.3.

So, assuming that my unified analysis is on the right track, we expect that there is an A'-extraction of the NOP from the island,[40] and indeed the prediction that this A'-movement licences RPs in both *bei*-passives is borne out, contrary to what has been claimed by non-unified approaches, and this is evidenced by examples (32) and (33).

To briefly sum up what we have learned about the interaction of RPs and *bei*-passives so far, we have seen that Mandarin RPs are only licenced by A'-movement. We then saw that both long and short passives can host RPs, indicative of the uniform involvement of A'-movement, though there could be other restrictions on the distribution of RPs in *bei*-passives that are independent of the A- and A'-movement distinction. This allows us to maintain that RPs should be grammatical in both long and short passives in principle. We also saw that grammatical island extractions from within the *bei*-complement required RPs and thus again both long and short passives must involve A'-movement to licence RPs. Overall, then, the distribution of RPs in both *bei*-passives is predicted by my unified analysis whereas non-unified approaches wrongly rule out their grammaticality in short passives.

In the next section, we move away from RPs and discuss the presence of long-distance dependencies in *bei*-passives due the A'-movement of NOP. Since the phenomenon of long-distance dependencies have already been discussed above at length, the goal of section 3.3 will be to briefly present the data and show how the prediction that both long and short passives should exhibit long-distance dependencies bears out.

[40] To be clear, this analysis also applies in non-unified analyses, but only for the long passive.

3.3 Long-distance dependencies in *bei*-passives

We have already seen in the previous section that RPs can exhibit long-distance dependencies, and since this is a property associated with A'-movement, we should also expect that the NOP in the *bei*-passive exhibits long-distance dependencies as well. Crucially, because my account expects A'-movement of the NOP in both long and short passives, both long and short passives are predicted to exhibit long-distance dependencies, and this indeed is borne out. Examples (33-37) below illustrate this:

(34) tongdao$_i$ dou yijing [OP$_i$ [bei (jiangjun) [pai bing$_k$ [PRO$_k$ bashou ***t***$_i$]]]]

passage all already BEI general send troop guard

Lit: 'All passages have been "sent-troops-to-guard" (by the general).'

'(Someone/the general) has sent troops to guard all passages.'

(Her 2009: 431, with modifications)

(35) [xinfeng]$_i$ [OP$_i$ [bei (xianzhengfu) [xunsu pai ren$_k$

letter BEI district.government rapidly delegate person

[PRO$_k$ song t_i dao-le shengzhengfu]]]]

send reach-PERF provincial.government

Lit: 'The letter was rapidly delegated a person to send to the provincial government (by the district government).'

'(Someone/the district government) has delegated a person to send the letter to the provincial government quickly.'

(Shi 2008; 114, with modifications)

(36) [zhe-kuan shouji]$_i$ [OP$_i$ [bei (fayuan) [jinzhi pingguo$_k$ [PRO$_k$ shengchan t_i]]]]

this-type phone BEI court forbid Apple produce

Lit: 'This type of phone has been "forbid-Apple-to-produce" (by the court).'

'(Someone/the court) has forbidden Apple from producing this type of phone.'

(Chen 2022; 12, with modifications)

(37) [gongsi-de wanglu]$_i$ [OP$_i$ [bei (haike$_k$) [qitu [PRO$_k$ ruqin t_i]]]]

company-POSS network BEI hacker attempt infiltrate

Lit: 'The company network has been "attempted-to-infiltrate" (by a hacker).'

'(Someone/a hacker) has attempted to infiltrate the company network.'

(Her 2009: 431, with modifications)

(38) ziliao$_i$ [OP$_i$ [bei (jiandie$_k$) [shefa [PRO$_k$ fuzhi t_i le]]]]

data BEI spy find.a.way copy INCH

Lit: 'The data has been "found-a-way-to-copy" (by a spy).'

'(Someone/a spy) has managed to copy the data.'

(Her 2009: 431, with modifications)

To start, example (34) exhibits a long-distance dependency since the grammatical subject *tongdao* ('passage') is understood to be the logical object of *bashou* ('guard') in the most deeply-embedded clause. Note that the grammaticality of (the short passive version of) (34) is only expected if a NOP is base-generated in the most deeply embedded object position and A'-moves from there. That is, the possibility that *tongdao* is base-generated in said object position and A-moved from there is blocked since both *bing* ('troops') and PRO controlled by *bing* are in A-positions and it would not be possible for *tongdao* to undergo successive-cyclic A-movement while they occupy intermediate A-positions that it would need to pass through or cross. Alternatively, if *tongdao*, *bing* and PRO were all in A-positions, *bing* would be the closest goal that is attracted by the relevant probe, hence A-movement of *tongdao* would be a

locality violation. Of course, if we instead assume A'-movement of a NOP that is coindexed with the grammatical subject *tongdao* as per my analysis, the possibility of a long-distance dependency falls out without any issues:

(34') Hypothetical A-probe *φ* cannot target *tongdao* for extraction due to intervening goal *bing*

$\varphi_{A\text{-}probe}$ dou yijing [bei ([PP jiangjun]) [pai bing$_{\varphi,\,k}$ [PRO $_{\varphi,k}$ bashou tongdao$_{\varphi}$]]]

all already BEI general send troop guard passage

Intended: '(Someone/the general) has sent troops to guard all passages.'

The analysis for example (35) follows from that of (34) – the possibility that *xinfeng* ('letter') is base-generated in the embedded object position and A-moved from there (i.e. no long-distance dependency via A'-movement of NOP) is blocked because *ren* ('person') and PRO controlled by *ren* occupy intermediate A-positions that block the successive A-movement of *xinfeng*, and said A-movement would also obviously be a locality violation.

Note that Chen (2022) claims that example (36) is ungrammatical, while my consultant and I find it to be grammatical, just as examples (34-35) are. Given further that (34-35) are of the same general syntactic configuration as example (36) (object control configurations exhibiting long-distance dependencies), I maintain that (36) is grammatical and thus constitutes evidence supporting my unified analysis.[41]

While examples (34-36) involve object control, examples (37-38) involve subject control. However, it is important to note that under my analysis the overt initiator is in a PP

[41] Her (2009) and Shi (2008) present more data in the same vein, but the abundance of examples above should already serve as adequate empirical evidence to show that both long and short passives can clearly exhibit long-distance dependencies.

adjunct and hence it is not the actual controller of PRO. The PROs in examples (36-37) are controlled by the existentially closed external argument, and this applies uniformly to the long and short passives under my analysis. Similar to examples (34-36), the grammatical subjects in (37-38) are understood to be the logical object objects of the most deeply-embedded clauses, hence the long-distance dependency. Also similar to the analysis for (34-36), the logical object argument would not be able to undergo successive-cyclic A-movement as there is a PRO in the intermediate A-position that it would need to pass through, and A-movement of the logical object would also be a locality violation since PRO would be the closest goal. By assuming A'-movement of a NOP instead, we can easily account for the presence of the long-distance dependency in examples (37-38) as well.

To briefly review, my unified A'-movement analysis expects that within the *bei*-complement, a NOP that is base-generated in the sister-to-V position A'-moves to adjoin to *bei*, and this occurs regardless of whether we are dealing with a long or short passive. The proposed A'-movement in my account predicts that in both long and short passives, we should expect the following: 1) the licencing of PGs (section 3.1); 2) the licencing of RPs as well as island repair via RPs (section 3.2); 3) the presence of long-distance dependencies due to the A'-movement of NOP (section 3.3).

The empirical data we have seen thus far corroborates all of the above predictions, thus lending strong support to my unified analysis and presents many empirical challenges to non-unified accounts. Having shown how my unified A'-movement account correctly generates the empirical data, in the next chapter I move on to review in detail some other proposals for *bei*-passives and show how they under- or over-generate other empirical data as well, while my account can again correctly capture the facts at hand.

Chapter 4 – Empirical inadequacies of previous analyses of *bei*-passives

Chapter 2 introduced my unified A'-movement of NOP proposal for *bei*-passives, and argued that the overt initiator in the long passive is the object of a null preposition and is thus an oblique rather than a derived subject. Thus, the only putative difference between long and short *bei*-passives is the presence of the oblique initiator. Then, given that my account expects A'-movement in both long and short passives alike, we predict the presence of parasitic gaps, resumptive pronouns in non-island and island environments as well as long-distance dependencies. To that end, chapter 3 showed that the empirical data corroborated my account, and remains a challenge for non-unified accounts. However, over the decades, there have been many proposals for *bei*-passives, and so in this chapter I review in some detail a variety of proposed analyses for the long and short *bei*-passives and systematically show why said approaches are empirically inadequate in comparison to my unified account.

In section 4.1, I briefly illustrate the haplology proposal and focus in particular on presenting arguments against 1) the A-movement analysis, 2) the claim that *bei* is merely a passive marker and is not verbal in nature and 3) the claim that there can be a prepositional *bei*. In section 4.2, I discuss some non-unified approaches in detail and show why these approaches are empirically inadequate, and I also discuss data pertaining to idiomatic interpretations and how they ultimately support my unified proposal rather than the non-unified approaches. Other than Huang (1999) and Ting (1998), which I have already discussed at length in previous chapters, I also review Chen's (2022; 2023) non-unified mixed A/A'-movement approach and the empirical evidence she presents in particular, showing that the data is better accounted for under my account rather than hers. I also consider the theoretical implications of Bruening & Tran's (2015) syntactic structures and show why their proposal is ultimately inadequate in comparison to mine. In section 4.3, I show how my unified approach is empirically superior and has stronger explanatory power as

compared to Biggs (2014), Her (2009) and Ting (1993), all of which are also unified approaches. Biggs (2014) proposes that we can indeed have a unified analysis of *bei*-passives, but one that appeals to A-movement, Her (2009) argues that it is possible to provide a unified treatment of *bei*-passives using a LFG framework, and Ting (1993) argues that a unified approach appealing to A'-binding rather than A'-movement is tenable. In contrast, Ngui (2022), and this dissertation by extension, argues that a unified A'-movement analysis is empirically superior. Section 4.4 then presents how other authors have dealt with certain binding facts observed in *bei*-passives when the overt initiator is a third-person pronoun *ta* versus when it is the long-distance reflexive *ziji* before showing how my novel proposed structure also derives the right binding facts.

Before we start on the next subsection, it is important to remember that my unified account predicts the empirical data discussed in this chapter precisely because A'-movement of NOP is posited in both passives. So, a major part of the comparison between my approach against other approaches can be done in the context of a A'- versus A-movement distinction (though other theoretical points will also be discussed later on). That is, assuming *only* the involvement of A-movement in (short) *bei*-passives, we should never expect grammatical parasitic gaps (PGs), grammatical resumptive pronouns (RPs), island repair via RPs or the possibility of long-distance dependencies. The fact that we can observe all four of the above in both passives thus indicates that any A-movement approach is untenable and should be abandoned in favour of an A'-movement approach. As the reader will soon see, this is a recurring point throughout the rest of this chapter.

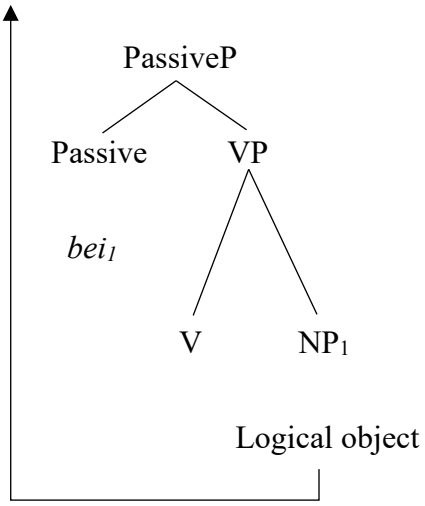
4.1 Against the haplology account

Though much ink has already been spilled arguing against the treatment of *bei* as a preposition (Huang 1999; Ting 1995; 1998, among others), authors such as Hu (ms.), Shi (1997; 2005; 2008), Shi & Hu (2005) and Wuyun & Pan (2014a; 2014b) have proposed a haplology account for *bei*-passives where there are two *bei* morphemes: one functions as a passive marker, claimed to be akin to English *-en*, that passivises the verb the passive marker *bei* is attached to, while the other *bei* is a prepositional *bei*[1] that projects a PP and the initiator is the object of preposition. Note that such haplology approaches adopt an A-movement analysis but are unified (Pan & Hu 2021) since both long and short passives would have the same structure save for the presence of the PP adjunct headed by a prepositional *bei* in the long passive but not in the short passive.

Because my account assumes along with authors such as Bruening & Tran (2015), Feng (1997/2012), Huang (1999) and Ting (1998), among others, that *bei* is the primary predicate with the *bei*-complement containing the secondary predicate, the theoretical discussion thus far has not covered such haplology accounts of the *bei*-passive, which generally assume that there are two *bei* morphemes present in the syntactic structure, which ultimately results in one of the *bei* morphemes being deleted through some means and thus unpronounced. As mentioned, though they are generally unified approaches that treat the PP headed by *bei* as an adjunct that contains the overt initiator in the long passive, they assume that *bei*-passives standardly involve A-movement. Such accounts generally propose the following structures for *bei*-passives:

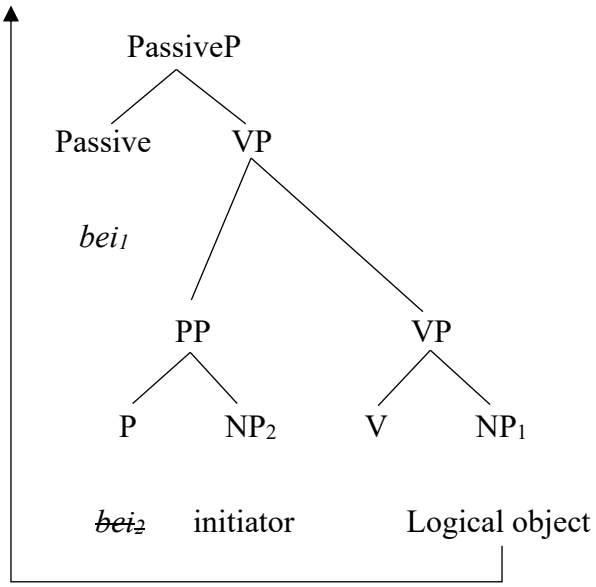
[1] It is important to note that, as Pan & Hu (2021) point out, Shi (1997) originally proposed that one *bei* is verbal while the other was a preposition heading a PP that adjoined to the *Bei*P, but his account at the time did not actually predict that the two *bei*s would be linearly adjacent and hence the application of haplology was slightly problematic. To allow for linear adjacence, the verbal *bei* was instead proposed later on to be a passive marker that had no verbal qualities and instead would be attached to the VP, thus passivising it. The authors cited above all follow this newer analysis.

(1a) Short passives do not have a PP headed by a prepositional *bei*



A-movement of logical object argument out of sister-to-V position

(1b) Long passives have a PP headed by a prepositional *bei* that is deleted



A-movement of logical object argument out of sister-to-V position

(Shi & Hu 2005; 220, with modifications)

Under the haplology approach for the *bei*-passive, *bei1* is claimed to be a passive marker that passivises the VP (i.e. the verb V undergoes a process of unaccusativisation),[2] hence it

[2] Tang (2004; 2008) also claims that *bei*-passives undergo a process of unaccusativisation, and notably he assumes that *bei* is a verb and argues against *bei* being prepositional. However, as far as I can tell, he does not

attaches to the verb and forms a PassiveP. The unaccusativised verb cannot assign accusative case and hence the logical object argument is claimed to A-move to receive case, giving its surface position (Hu ms.; Pan & Hu 2021; Shi 1997; 2005; 2008; Shi & Hu 2005; Wuyun & Pan 2014a; 2014b).

Additionally, *bei*$_2$ is a prepositional element that heads a PP containing the initiator NP (similar to the idea of the *by*-phrase in the English passive), hence deriving the adjunct initiator. It is claimed that because *bei*$_1$ and *bei*$_2$ are linearly adjacent, *bei*$_2$ is deleted via haplology, and long *bei*-passives thus give off the appearance of having only one *bei*.

Crucially, while *bei*$_1$ is invariantly present in both passives, *bei*$_2$ is only present in long passives. Proponents of the haplology account thus claim that the problem of a ban on preposition stranding in Mandarin is avoided because there is no prepositional *bei* in the short passive, and how the initiator in the long passive can be an adjunct is also accounted for.

Notably, under the haplology approach, the structures and derivations of both passives are thus identical save for the PP adjunct in the long passive. That is, both passives uniformly involve A-movement. However, the approach would also predict a distinct lack of A'-effects in the *bei*-complement, and we have already gone through in detail four A'-effects that are consistently observed in *bei*-passives (see chapter 3), thus falsifying the assumption that A-movement is involved in *bei*-passives.

While authors such as Wuyun & Pan (2014a; 2014b) do not address any of the four A'-effects discussed in this chapter, others, like Shi (2008), have attempted to address at least a few observed A'-effects. However, Shi (2008) does not seem to provide a satisfactory account for the presence of RPs in Mandarin in the absence of licencing A'-movement, and

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discuss the treatment of the short passive in detail so I will not review his proposal further here. That said, it should be obvious to the reader that since his approach assumes A-movement for *bei*-passives, the A'-effects observed in both *bei*-passives throughout this dissertation already immediately falsify his analysis.

as far as I can tell, he also discusses neither the grammaticality of island repair via RPs nor the licensing of PGs in *bei*-passives.[3] Ultimately, then, the fact that the haplology approach cannot easily explain said A'-effects and instead predicts their absence is already a strong indication that such analyses are untenable.

While it might sound appealing at first to claim that there is a bei_1 that is a passive marker that can thus straightforwardly indicate that both long and short *bei*-constructions are passive constructions, it is important to remember that the motivation for bei_1 being a passive marker stems from the A-movement analysis. In particular, recall that for haplology approaches, the assumption is that bei_1 is a passive marker, not a predicate, that unaccusativises the V such that the logical object argument that is base-generated in the sister-to-V position has to A-move to receive case and ends up as the grammatical subject. This contrasts with my A'-movement approach where it is claimed that *bei* is a primary predicate that takes a secondary predicate as its complement (what I've been calling the *bei*-complement), and the grammatical subject that is base-generated in the matrix clause can be identified with the A'-moved NOP that is base-generated in the *bei*-complement through predication. I argue that it is the presence of such predication that allows for the observed A'-effects in both passives. Further, in anticipation of the discussion in subsection 4.2.2, the A-movement approach would wrongly predict that idiomatic interpretations are preserved in *bei*-passives since the logical object argument is base-generated low,[4] while my approach correctly predicts that there should be no idiomatic interpretations available because it is the

[3] Shi (2008) proposes that there are no long-distance dependencies observed in *bei*-passives because the VP is monoclausal. However, Chen (2022; 2023) argues against a monoclausal structure derived via restructuring (see subsection 4.2.3).

[4] Though to be fair, to the best of my knowledge, authors who have proposed a haplology approach have not explicitly discussed the availability of idiomatic interpretations in *bei*-passives. That said, because of the similarity to the A-movement analysis for English passives, it is not unreasonable to expect that haplology approaches would predict idiomatic interpretations to be preserved, as is the case with English passive sentences such as *the cat was let out of the bag* or *the score was settled*.

NOP that is base-generated low. Thus, if the A-movement analysis must be rejected, so too must the claim that *bei* is merely a passive marker.

As for the claim that there is a prepositional *bei*$_2$ heading a PP in the long passive, Tang (2008) observes that the basis for *bei*$_1$ and *bei*$_2$ in haplology proposals was that in some northern dialects of Mainland Mandarin, there apparently is a passive marker as well as *jiao*, *rang* or *gei*, which are assumed to be prepositional elements, involved (Shi 1997):

(2a) wo ma jiao che gei zhuang-shang-le

1SG mother JIAO car GEI$_1$ hit-wound-PERF

'My mother was injured by a car.'

(2b) wo ma rang che gei zhuang-shang-le

1SG mother RANG car GEI$_1$ hit-wound-PERF

'My mother was injured by a car.'

(Shi 1997; 50, with modifications)

(3a) *wo ma jiao zhuang-shang-le

1SG mother JIAO hit-wound-PERF

Intended: 'My mother was injured.'

(3b) *wo ma rang zhuang-shang-le

1SG mother RANG hit-wound-PERF

Intended: 'My mother was injured.'

(Shi 1997; 51, with modifications)

(4) wo ma gei che gei zhuang-shang-le

1SG mother GEI_2 car GEI_1 hit-wound-PERF

'My mother was injured by a car.'

(Shi 1997; 67, with modifications)

In comparing the grammatical example (2) with the ungrammatical example (3), the point that Shi (1997) made was that the contrast could be explained if it was assumed that *jiao* ('ask, request') and *rang* ('allow') were prepositional elements that were stranded in the ungrammatical example (3). Since Mandarin does not allow preposition stranding, the ungrammaticality of (3) could then be straightforwardly accounted for. As for *gei* ('give') in example (4), gei_1 would be a passive marker[5] while gei_2 would similarly be assumed to be a prepositional element. Tang (2008) thus points out that if Shi's argument holds, we should expect the presumably prepositional *jiao* and *rang* to be possible in (at least some version of) Mandarin, but this is not the case:

(5) *zhangsan bei jiao/rang/gei che zhuang-shang-le

Zhangsan BEI JIAO/RANG/GEI_2 car hit-wound-PERF

Intended: 'Zhangsan was injured by a car.'

(Tang 2008; 310, with modifications)

[5] Shi (1997) gives (i) as ungrammatical:

(i) wo ma gei che zhuang-shang-le

1SG mother GEI_1 car hit-injure-PERF

'My mother was injured by a car.'

(Shi 1997; 51, with modifications)

However, in his footnote (2), he points out that a reviewer found (i) to be grammatical in Taiwanese Mandarin, and that his consultants also found (i) to be grammatical. I, too, find (i) to be grammatical. For Shi, then, the above would provide more evidence that there is a gei_1, and that it is a passive marker.

According to Tang (2008), if there was indeed a prepositional *bei₂* that got deleted via haplology, we should expect that replacing the prepositional *bei₂* with another prepositional element found in passive constructions such as *jiao*, *rang* or *gei*, as assumed by Shi (1997), should obviate deletion via haplology but would still be in line with the proposed structure in (1b), hence the proposed example (5). However, example (5) is ungrammatical, and this is mysterious given that haplology accounts assume that the overt prepositional element would not be deleted as long as it is not phonologically identical to the passive marker *bei₁*. What's more, we might also expect that with the so-called passive marker *gei₁* we can have the prepositional *bei₂*, but this is not the case either:

(6) *zhangsan gei bei che zhuang-shang-le

zhangsan GEI_1 BEI_2 car hit-wound-PERF

Intended: 'Zhangsan was hit by a car.'

(Tang 2008; 310, with modifications)

In summary, Tang's (2008) argument is that it cannot be the case that there is a passive marker *bei₁* and a prepositional *bei₂* that gets deleted via haplology because we should then expect that when the passive marker and the prepositional element are not the same phonetically haplology should not apply and we should expect passive constructions like examples (5) or (6) to be grammatical, contrary to fact.

Setting aside Tang's (2008) objection, I contend that whether there is a prepositional *bei₂* that gets deleted or whether there is a null preposition heading a PP is a matter of empirical inquiry as well as conceptual elegance. Depending on whether *bei₂* is deleted as a morphological or a phonological process or how exactly the haplology applies, we may or

may not expect an obligatory RP to avoid preposition stranding in the case of topicalisation of the adjunct initiator (see chapter 3). Conversely, positing a null preposition predicts that we should always expect the RP since the null preposition is present in the syntax even if it is phonologically null. In other words, by assuming that there is a null preposition, we can sidestep the issue of how exactly *bei*$_2$ should be deleted and how that violates the ban on preposition stranding or not. We also do not need to posit that there is another *bei* that actually never gets pronounced, nor do we expect *a priori* that we can replace the null preposition with *jiao*, *rang* or *gei* in long *bei*-passives, as desired.

In this section, we have seen that because haplology accounts assume A-movement, they are immediately challenged by the presence of the A'-effects discussed thus far. The claim that *bei*$_1$ is a passive marker also excludes the possibility of a predication relation between a *bei* predicate and the *bei*-complement, which again runs into the problem of being hard-pressed to explain the presence of A'-effects. Finally, we have also seen some theory-internal arguments against the existence of a prepositional *bei*$_2$ that is deleted via haplology. In the next section, I move on to discuss the predictions made by non-unified approaches and how they do under- or over-generate the empirical data at hand.

4.2 Non-unified approaches and predictions of A-movement

Over the years, there have been many different (non-unified) proposals for the syntactic structures of *bei*-passives. We have already seen in chapters 1 and 3 that scholars such as Feng (1997/2012), Huang (1999; 2013; 2014), Huang et al. (2009), Liu (2012; 2016), Liu & Huang (2013; 2016) and Ting (1995; 1998) claim that long and short *bei*-passives are syntactically distinct, with the former involving A'-movement of a NOP while the latter involves A-movement of PRO.

A variation on the above is seen in Bruening & Tran (2015), who even go so far as to claim that the two are so syntactically distinct that the short passive is a true passive construction while the long passive should be considered an active construction. Another variation is seen in Chen's (2022; 2023) mixed A/A'-movement analysis, where both passives uniformly involve said mixed A/A'-movement but the overt initiator in the long passive is not in an adjunct position but rather in an A-position since it is claimed to be case-licenced by *bei*. The goal of this section is to show why the above non-unified approaches are empirically inadequate.

In subsection 4.2.1, I briefly revisit the non-unified approach as proposed by Feng (1997/2012), Huang (1999; 2013; 2014), Huang et al. (2009), Liu (2012; 2016), Liu & Huang (2013; 2016) and Ting (1995; 1998) to clarify how the structures of the long and short *bei*-passives differ for them and why they only expect A'-movement in the long passive. After we have seen their proposed structures for long and short passives, I discuss data pertaining to idiomatic interpretations and how they ultimately support my unified proposal rather than the non-unified approaches in subsection 4.2.2. In subsection 4.2.3, I discuss Chen's (2022; 2023) non-unified mixed A/A'-movement approach and the empirical evidence she presents in particular, showing that the data is better accounted for under my account rather than hers. In subsection 4.2.4, I discuss the various theoretical implications of Bruening & Tran's (2015) syntactic structures and show why their proposal is inadequate in comparison to mine.

4.2.1 The A- vs. A'-movement analysis for bei-*passives*

Throughout chapter 3, we have already seen that because we observe A'-effects in both long and short passives, any approach that proposes A-movement will need to explain how such A'-effects arise in the absence of A'-movement. In the case of non-unified

approaches put forward by authors such as Feng (1997/2012), Huang (1999; 2013; 2014), Huang et al. (2009), Liu (2012; 2016), Liu & Huang (2013; 2016) and Ting (1995; 1998), among others, they predict that A'-effects are present in long passives and absent in short passives, based on the two syntactic structures proposed below:

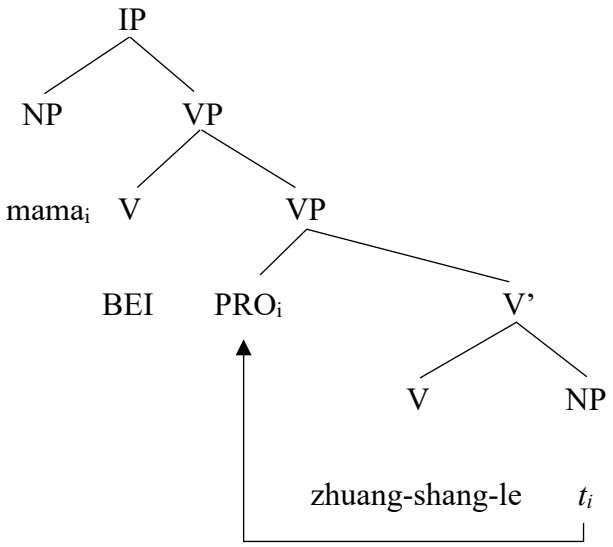
(7a) Short passive involves A-movement of PRO

[$_{IP}$ mama$_i$ [$_{VP}$ bei [$_{VP}$ PRO$_i$ zhuang-shang-le t_i]]]

mother BEI hit-wound-PERF

'Mother was injured.'

(7b) Abstract syntax tree proposed for the short passive in (7a)



A-movement of PRO into the non-thematic [Spec, VP] position from the sister-to-V position; Grammatical subject *mama* is base-generated higher in the structure

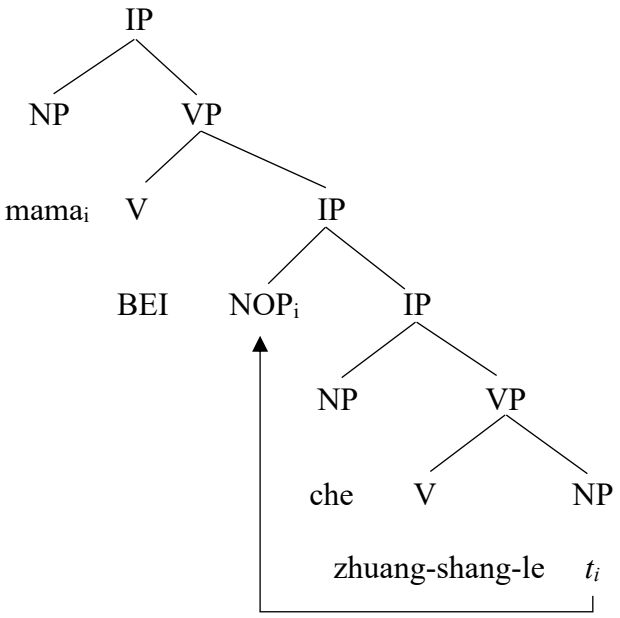
(8a) Long passive involves A'-movement of NOP

[$_{IP}$ mama$_i$ [$_{VP}$ bei [$_{IP}$ Op$_i$ [$_{IP}$ che zhuang-shang-le t_i]]]

mother BEI car hit-wound-PERF

'Mother was injured by a car.'

(8b) Abstract syntax tree proposed for the long passive in (8a)



A'-movement of NOP to adjoin to IP; Grammatical subject *mama* is base-generated higher in the structure

I begin by first discussing tree (7b) illustrating the proposed structure for short passives. Generally speaking, for the non-unified approach, it is assumed that there is a PRO that is base-generated in the sister-to-V position that A-moves into the non-thematic [Spec, VP] position, leaving behind a trace. Further, this PRO is controlled by the grammatical

subject that is base-generated high.[6] Note that the *bei*-complement is a passive VP. As mentioned earlier in this chapter, authors such as Huang (1999) and Ting (1998) claim that A'-effects are blocked in short passives and consequently propose the structure in (7b), though we have seen plenty of empirical evidence that runs counter to this claim by now.

As for tree (8b) that illustrates the proposed structure of the long passive, it is assumed that there is a NOP that is base-generated in the sister-to-V position that A'-moves to adjoin to IP, leaving behind a trace. This NOP enters into a predication relation with the grammatical subject that is also base-generated high. Note that unlike the *bei*-complement to the short passive, the size of this complement is assumed to be as large as IP. Feng (1997/2012) first noticed A'-effects in long passives, and proposed the structure in (8b), which is similar to that of *tough*-movement in English, and authors such as Huang (1999) and Ting (1995; 1998) adopted his analysis as well.

In summary, based on the apparent absence and presence of A'-effects in short and long passives respectively, the non-unified approach was posited. However, as we have already seen in chapter 3, such an approach would predict that A'-effects should invariantly be banned in short passives, but we have seen time and again that this is not the case, and even Huang (1999) and Ting (1998) have conceded as much. Specifically, we have seen that, despite the claims in the various literature, both passives licence PGs in the *bei*-complement, licence RPs, can repair island violations via RPs and can exhibit long-distance dependencies. Thus, the non-unified approach is lacking in terms of empirical coverage due to the key assumption that the long and short passives are syntactically distinct.

[6] Ting (1995), like the previously discussed haplology approach, instead assumed that the grammatical subject was base-generated in the sister-to-V position, but does not get assigned accusative case in its base A-position and hence A-moves to receive nominative case. Ting (1998), however, assumes the structure in (7b) above.

4.2.2 Idiomatic interpretations and bei*-passives*

One other claim made by authors such as Liu (2012; 2016), Liu & Huang (2013; 2016) and Huang (2013; 2014) that I have yet to discuss thus far but will turn to now is that short passives and local long passives preserve idiomatic interpretations:

(9) [$_{DP}$ **pianyi**]$_i$ dou bei (ta) [$_{VP}$ **zhan**-guang-le t_i]

advantage all BEI 3SG take-empty-PERF

'All the advantage was taken (by him).

(Liu 2016; 872, with modifications)

(10) *zhe-zhong [$_{???}$ **mo**]$_i$ yijing bei [$_{???}$ **you**-t_i-guo] hao ji-ci le

this-kind ~~hu~~-mour already BEI hu-~~mor~~-EXP quite few-instance INCH

Lit: 'This type of -mour has been hu-ed several times already.' (*youmo* is 'humour')

Intended: 'This type of humourous saying has been done several times already.'

(Liu & Huang 2016; 389, with modifications)

(11) [$_{DP}$ **niu**]$_i$ dou bei (ta yi-ge ren) [$_{VP}$ **chui**-guang-le t_i]

cow all BEI he one-CL person blow-empty-PERF

Literal: 'All the cows got blown clean away (by him single-handedly).'

Idiomatic: 'All the boasting was done (by him single-handedly).'

(Huang 2013; 101, with modifications)

The bolded phrases *zhan pianyi* (lit. 'claim-cheap', 'take advantage of'; example (9)), *you-mo* (lit. 'serene-silent', 'humour'; example (10)) and *chuiniu* (lit. 'blow-cow', 'to boast'; example (11)) are considered idioms in Mandarin because as compounds, their meanings are non-compositional. Liu (2012; 2016), Liu & Huang (2013; 2016) and Huang (2013; 2014) claim that examples (9-11) show that in short passives as well as in local long passives,[7, 8] idiomatic interpretations can be preserved because of the possibility of a raising analysis for such *bei*-passives.[9] That is, they claim that at least some *bei*-passives exhibit a chameleonic character such that other than the PRO/NOP analysis, it is also possible that the grammatical subject was base-generated in the sister-to-V position and successive-cyclically A-moved (hence raising) just in case the idiomatic interpretation is available.[10]

However, it should be noted that *youmo*, unlike the other two idioms, is not a V-O compound and I submit that it cannot be grammatically passivised as a result.[11] Relatedly, example (10), whether grammatical or not, should not be taken as empirical evidence for the proposed analysis of *bei*-passives. In other words, in order to have a more controlled syntactic environment, let us only consider V-O idioms since we have already seen that such compounds can be passivised in principle.

[7] The term 'local long passive' refers to long passives that do not exhibit a long-distance dependency. That is why a raising analysis involving A-movement rather than A'-movement is posited to be possible.
[8] It is also claimed that another condition necessary for the idiomatic interpretation to survive is the so-called lack of initiator-oriented adverbs, but as we will soon see, my account requires no such stipulation and simply expects the loss of idiomatic interpretations in *bei*-passives, save for V-O idiomatic expressions that do not require V-O constituency.
[9] Ting (1995), contrary to authors such as Liu (2012; 2016), Liu & Huang (2016) and Huang (2013; 2014), claims that the data regarding the *bei*-passivisation of idioms is inconclusive due to variability in judgements (see her subsection 3.5.5 for details). As we will soon see, I argue that we can have a principled explanation of the facts at hand given my unified NOP-analysis.
[10] The interested reader can refer to Liu (2012), for instance, for an in-depth analysis of both the raising and control accounts. I merely note that such analyses have been presented before and will not discuss further details.
[11] Liu & Huang (2016) claim that example (10) is grammatical but my consultant and I both find it to be strongly ungrammatical, probably precisely because there is no straightforward way to displace part of the idiom given the constraints of Mandarin grammar.

Then, the next question that we should ask ourselves is whether there are more V-O idioms, and whether they too pattern with examples (9) and (11). Even though *zhan pianyi* and *chuiniu* are the only two examples given by these authors,[12] it turns out that there are quite a few such idioms, but interestingly they contrast with (9) and (11) in that they are clearly ungrammatical in short and local long *bei*-passives:[13]

(12a) Idiomatic interpretation available in active sentence

zhangsan	[$_{VP}$	**chi**	[$_{DP}$	lisi-de	**cu**]]
zhangsan		eat		lisi-DE	vinegar

'Zhangsan is jealous of Lisi.'

(12b) Idiomatic interpretation available in topicalised sentence

[$_{DP}$ lisi-de	**cu**]$_i$	a,	zhangsan	bu-gan	[$_{VP}$	**chi**	t_i]
lisi-DE	vinegar	TOP	zhangsan	NEG-dare		eat	

'As for Lisi, Zhangsan doesn't dare to be jealous of him.'

[12] As we will soon see, Chen (2022) also makes use of the availability of idiomatic interpretations, but she also defaults to *zhan pianyi* as the example demonstrating this point.

[13] Actually, I cannot get the idiomatic interpretation in example (11), but my consultant rated it as a 5/7 (with 7/7 being a perfectly acceptable sentence of Mandarin). I thus defer to the literature as well as my consultant's judgements.

(12c) Idiomatic interpretation available in sluiced remnant

Speaker A: zhangsan changchang [$_{VP}$ **chi** mouren-de **cu**]

Zhangsan often eat someone-DE vinegar

'Zhangsan is often jealous of someone.'

Speaker B: dui, dan wo bu-zhidao [$_{CP}$ (shi) [$_{DP}$ shei-de **cu**]$_i$

yes but 1SG NEG-know SHI who-DE vinegar

[$_{TP}$ ~~zhangsan changchang [$_{VP}$ chi t_i]~~]]

Zhangsan often eat

'Yeah, but I don't know who ~~Zhangsan is often jealous of t_i~~.'

(Song & Yoshida 2017; 484, with modifications)

(12d) Idiomatic interpretation not available in *bei*-passive; literal interpretation available

[$_{DP}$ lisi-de **cu**] [OP$_i$ [bei (zhangsan) [$_{VP}$ **chi**-le t_i]]]

lisi-DE vinegar BEI zhangsan eat-PERF

Intended: '*Lisi was jealous-ed (by Zhangsan).'

'Lisi's vinegar was eaten (by Zhangsan).'

(13a) Idiomatic interpretation available in active sentence

laoban [$_{VP}$ **chao**-le [$_{DP}$ zhangsan-de **youyu**]]

boss fry-PERF zhangsan-DE cuttlefish

'The boss fired Zhangsan.'

(13b)[14] Idiomatic interpretation available in topicalised sentence

[$_{DP}$ zhangsan-de **youyu**] a, laoban zuotian yijing [$_{VP}$ **chao**-le t_i]

zhangsan-DE cuttlefish TOP boss yesterday already fry-PERF

'As for Zhangsan, the boss already fired him yesterday.'

(13c) Idiomatic interpretation available in sluiced remnant

Speaker A: laoban zuotian [$_{VP}$ **chao**-le [$_{DP}$ mouren-de **youyu**]]

boss yesterday fry-PERF someone-DE cuttlefish

'The boss fired someone yesterday.'

Speaker B: dui, dan wo bu-zhidao [$_{CP}$ shi [$_{DP}$ shei-de **youyu**]$_i$

yes but 1SG NEG-know SHI who-DE cuttlefish

[$_{TP}$ ~~laoban [$_{VP}$ chao-le t_i]~~]]

boss fry-PERF

'Yeah, but I don't know who ~~the boss fired t_i~~.'

[14] My consultant found topicalising *youyu* ('cuttlefish') to be marginal at best, though the sluiced example (13c) is completely fine for her. I acknowledge the variation in intuitions, but ultimately note that this particular discrepancy does not affect the broader observation being made – that there is an asymmetry in the availability of idiomatic interpretations when a copy is in the base position versus when there is a null operator in the base position.

(13d) Idiomatic interpretation not available in *bei*-passive; literal interpretation available

[$_{DP}$ zhangsan-de **youyu**] [OP$_i$ [bei (laoban) [$_{VP}$ **chao**-le t_i]]]

zhangsan-DE cuttlefish BEI boss fry-PERF

Intended: '*Zhangsan was fired (by the boss).'

'Zhangsan's cuttlefish was fried (by the boss).'

(14a) Idiomatic interpretation available in active sentence

zhangsan [$_{VP}$ **chi** [$_{DP}$ **fan**]] le

zhangsan eat rice INCH

'Zhangsan already had/ate his meal.'

(14b) Idiomatic interpretation available in topicalised sentence

[$_{DP}$ **fan**] a, zhangsan gangcai yijing [$_{VP}$ **chi** t_i] le

rice TOP zhangsan just.now already eat INCH

'As for Zhangsan's meal, he already had/ate it.'

(14c) Idiomatic interpretation not available in *bei*-passive; literal interpretation available

[$_{DP}$ **fan**] [OP$_i$ [bei (zhangsan) [$_{VP}$ **chi** t_i] le]]

rice BEI zhangsan eat INCH

Intended: '*The meal was had/eaten (by Zhangsan).'

'The rice was eaten (by Zhangsan).'

(15a) Idiomatic interpretation available in active sentence

kaoshi qian yi-wan, zhangsan [$_{VP}$ **bao**-le [$_{DP}$ **fojiao**]]

examination before one-night zhangsan hug-PERF Buddha.leg

'The night before the examination, Zhangsan made a last-minute effort.'

(15b) Idiomatic interpretation available in topicalised sentence

[$_{DP}$ **fojiao**] zhangsan yi-sheng zhi [$_{VP}$ **bao**-guo t_i] ji-ci

Buddha.leg zhangsan one-life only hug-EXP few-instance

'As for last-minute efforts, Zhangsan has only made them a few times in his lifetime.'

(15c) Idiomatic interpretation not available in *bei*-passive; literal interpretation available

kaoshi qian yi-wan, [$_{DP}$ **fojiao**] [OP$_i$ [bei (zhangsan) [$_{VP}$ **bao**-le t_i]]]

examination before one-night Buddha.leg BEI zhangsan hug-PERF

Intended: '*The night before the examination, a last-minute effort was made (by Zhangsan).'

'The night before the examination, Buddha's leg was hugged (by Zhangsan).'

In example (12), the V-O idiom used is *chicu* (lit. 'eat vinegar', 'to be jealous of'; Che & Bodomo 2018; Song & Yoshida 2017); in example (13), the V-O idiom used is *chao youyu* (lit. 'fry cuttlefish', 'to fire'; Che & Bodomo 2018); in example (14), the V-O idiom used is *chifan* (lit. 'eat-rice', 'to have/eat a meal'); in example (15), the V-O idiom used is *bao fojiao* (lit. 'hug Buddha's foot', 'to make a last-minute effort'; Yang & Wei 2017). We see that in all the (a) examples, the idiomatic interpretation is available in the active sentence. We also

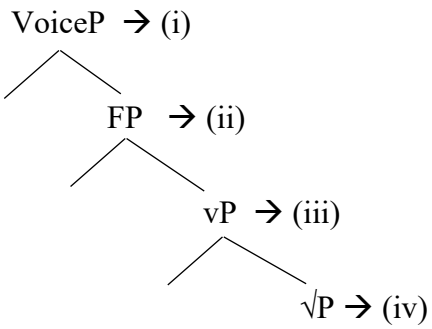
see that in all the topicalisation constructions (b), the idiomatic interpretation is still available. I propose that this is to be expected, since displacement of the object in the V-O idiom does not change the fact that the V and the O still form a constituent and thus should still allow the idiomatic meaning to be preserved (see below for more details). That is, in the case of topicalisation, the presence of the copy of the moved element in the sister-to-V position allows for the idiomatic meaning to survive. In fact, in examples (12c) and (13c), we also see that even when sluicing deletes part of the V-O idiom, the idiomatic meaning can still survive, which again is to be expected because the copy is still present in the sister-to-V position after ellipsis applies, meaning that the constituency of V-O is maintained.[15] In contrast, in the short and local long *bei*-passive variants (12d), (13d), (14c) and (15c), we see that only the literal meaning is possible, or that the idiomatic meaning is not preserved. Recall that Liu (2012; 2016), Liu & Huang (2013; 2016) and Huang (2013; 2014) would predict that the four additional idioms should retain their idiomatic interpretations in the *bei*-passive examples since they are either short passives or local long passives, contrary to fact. Recall also that my unified account assumes only the possibility of A'-movement of NOP, meaning that the ungrammatical examples (12d), (13d), (14c) and (15c) are predicted because there is only a (copy of the) NOP and not a copy of the object O of the V-O idiom chunk in the sister-to-V position and therefore there is no underlying V-O constituent in the first place. Then, the non-unified accounts over-generate while my unified A'-movement of NOP account makes the correct empirical predictions.

That said, does my account expect that the V-O idioms *zhan pianyi* ('take advantage of') in example (9) and *chuiniu* ('to boast') in example (11) will maintain their idiomatic meanings even if there is no V-O constituency? I submit that it does. Although Stone (2016)

[15] The interested reader is invited to examine Song & Yoshida's (2017) analysis for sluicing in Mandarin, which I will not go into here.

only discusses English idioms, she has proposed a principled structural account that categorises idiomatic expressions into VoiceP, FP, vP and √P idioms. Unlike descriptive accounts such as Nunberg et al.'s (1994), which simply categorises syntactically flexible idiomatic phrases as idiomatically combining expressions (ICEs) and syntactically frozen idiomatic expressions as idiomatic phrases (IDPs), Stone's analysis is more fine-grained in that it expects that the various idiom types have different syntactic distributions:

(16) Stone's proposed functional structure of idioms



(i) VoiceP idioms require VoiceP, FP and vP to licence their idiomatic interpretations and thus are inflexible

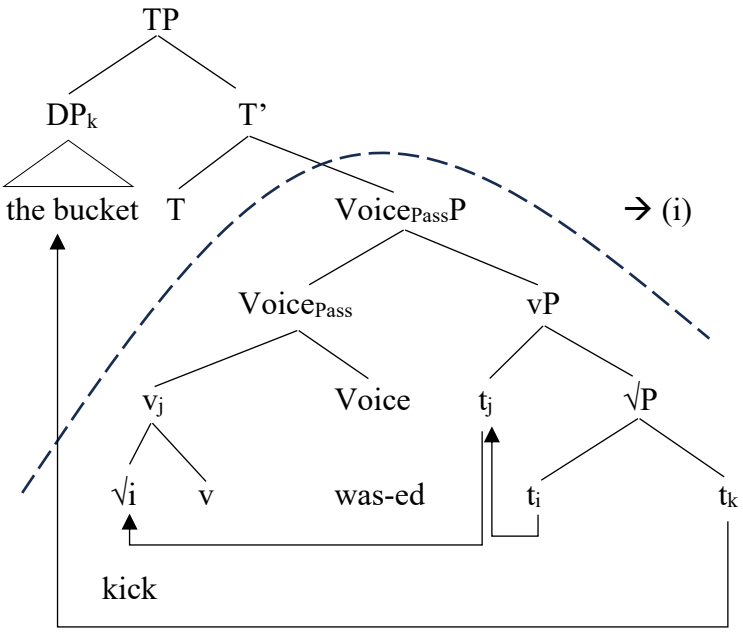
(ii) FP idioms only require FP and vP to licence their idiomatic interpretations and thus allow for English-style passivisation

(iii) vP idioms only require vP to licence their idiomatic interpretations and thus allow for English-style passivisation as well as incorporation

(iv) √P idioms are true root-plus-object idioms and have no requirements on functional structure and are syntactically the most flexible

(Stone 2016; 215, with modifications)

(17) Mismatched Voice results in ungrammatical English-style passivisation of idiomatic expression '#the bucket was kicked' (FP not shown here)



(i) 'kick the bucket' strictly requires VoiceP (or $Voice_{Act}P$) for idiomatic interpretation, hence $Voice_{Pass}P$ is not a licensor

(Stone 2016; 210, with modifications)

Using the ungrammatical passivised idiomatic expression '#the bucket was kicked' in (17) as an illustration, Stone (2016) argues that idiomatic expressions have different structural requirements that result in their respective syntactic distributions, as detailed in (16). In short, Stone's claim is that the syntactic operations that can apply to idiomatic expressions in English have a subset relation and hence are hierarchical, and this subset relation can be accounted for if we assume the general structure of idiomatic expressions in (17). The structure (17) illustrates the prediction that if an idiomatic expression requires VoiceP to licence its idiomatic interpretation, FP (not shown in (17)) and vP will also be required because those functional heads are embedded further in the verbal spine. Stone's

analysis thus also predicts that √P idioms have no requirements on functional structure and are syntactically the most flexible. I tentatively submit that her analysis is directly compatible with the structure of Mandarin V-O idioms discussed above and can form a basis for a structural analysis of the syntactic distribution of V-O idioms in Mandarin, even if her analysis was only meant to cover English-style passivisation, gerundisation and incorporation.[16] We can decompose the structure of V-O idioms in Mandarin in a manner similar to 'kick the bucket' in (17) such that *chicu* (lit. 'eat vinegar'; 'to be jealous of'), for instance, would be analysed as being composed of the V *chi* ('eat') and the O *cu* ('vinegar'), and *chao youyu* (lit. 'fry cuttlefish'; 'to fire') would be analysed as being composed of the V *chao* ('fry') and the O *youyu* ('cuttlefish'). The same analysis applies to *zhan pianyi* ('to take advantage of'), *chuiniu* ('to boast'), *chifan* ('to have/eat a meal') and *bao fojiao* ('to make a last-minute effort').

If V-O idioms in Mandarin can be analysed this way, we might expect that *zhan pianyi* and *chuiniu*, by virtue of being able to be hosted in *bei*-passives while *chicu*, *chao youyu*, *chifan* and *bao fojiao* are not, might have little to no requirements on functional structure and might qualify as √P idioms while the latter idiomatic expressions potentially have more structural requirements and thus would not be √P idioms. Remember that under my unified analysis for *bei*-passives, it is the (copy of the) NOP that is the complement of the verb, which is the sister-to-V position. That is, it is the NOP that forms a constituent with the V of the idiomatic expression, not the O (see also examples (12d), (13d), (14c) and (15c)). Since only *zhan pianyi* and *chuiniu* retain their idiomatic interpretations, it stands to reason that they have the fewest (if any) requirements on functional structure and should be

[16] Sluicing was not discussed in Stone (2016), while topicalisation and *tough*-movement and their respective interactions with idiomatic expressions were only briefly mentioned. *Tough*-movement in idiomatic expressions would likely have been directly comparable because my proposed A'-movement of NOP analysis assumes that *bei*-passives and *tough*-constructions have similar syntactic characteristics in that both involve A'-movement of an operator rather than of the object.

categorized as √P idioms, while the other four presumably have more requirements on functional structure, which would explain their more restricted syntactic distributions in comparison.

It is reasonable to raise the objection that because sluicing, topicalization and *tough*-movement are not discussed by Stone (2016; see also footnote 15), there is little empirical basis to claim that *zhan pianyi* and *chuiniu* would be classified as √P idioms. However, the point being made here is that the V and the O not having to form a constituent should, under Stone's analysis, mean that these two idiomatic expressions have the fewest structural requirements among the six, which would accord with the observation that they can retain their idiomatic expressions in *bei*-passives while the other four cannot. While much more research is clearly necessary, it is not within the scope of this dissertation to do so and thus I set the issue aside.

Based on the above, then, we can continue to assume that in *bei*-passives, it is always a NOP that is base-generated in the sister-to-V position and still correctly predict the data. However, if we were to follow Liu (2012; 2016), Liu & Huang (2013; 2016) and Huang (2013; 2014),[17] then we should always expect that, with V-O idioms in short and local long passives, there is a copy of the A-moved object O that is base-generated in the sister-to-V position (rather than a NOP) and the idiomatic interpretation should always survive, contrary to fact. Thus, while my account is flexible and can account for both cases where idiomatic interpretations are preserved and when they are not, the raising analysis inevitably over-generates.

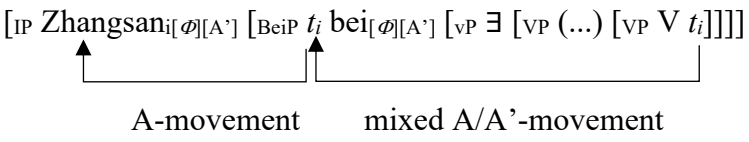
[17] Che & Bodomo (2018) also claim that V-O idioms preserve their idiomatic interpretations in *bei*-passives, but they provide only one example (which I will not reproduce here as it is a sexually overt expression) and they do not propose any kind of analysis for the *bei*-passive. I propose that the grammatical example they provide patterns with *zhan pianyi* and *chuiniu* and thus is similarly not problematic for my proposed analysis.

To round off the discussion in this subsection, I note that the example that the above-mentioned authors cite most often as support for the possibility of a raising analysis for *bei*-passives is *zhan pianyi*, as we have seen in example (9), but even in this brief discussion I have already provided four V-O idioms (see examples (12-15)) that lose their idiomatic meanings in short and local long passives. Thus, I argue that the weight of the empirical evidence suggests that V-O idioms do not invariantly retain their idiomatic interpretations when hosted by *bei*-passives, contra Liu (2012; 2016), Liu & Huang (2013; 2016) and Huang (2013; 2014), an expected result if the NOP, and not a copy of the object O, is in the sister-to-V position. Furthermore, in cases like *zhan pianyi*, the idiomatic interpretation can be retained even if the NOP is in the sister-to-V position because such V-O idioms do not require V-O constituency, unlike the others mentioned above. Since this dissertation's main concern is not with the internal structure of idioms in Mandarin, I merely note that such an asymmetry is not expected under the raising analysis, which would instead uniformly assume that all V-O idioms preserve their idiomatic interpretations since the object O is invariantly base-generated in the sister-to-V position. I leave a detailed examination of Mandarin idioms in the style of Stone (2016) to future research. In the next subsection, I discuss Chen's (2022; 2023) non-unified approach, in which she claims that mixed A/A'-movement is involved.

4.2.3 Chen (2022; 2023) and the so-called anti long-distance dependency effects

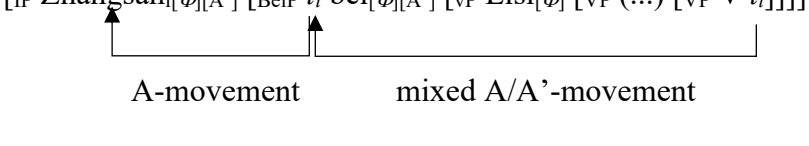
Chen (2022; 2023) also proposes a non-unified account, though unlike the authors discussed in the previous subsection, she proposes that there is mixed A/A'-movement (following van Urk (2015) and Longenbaugh (2017)) involved in both long and short passives. Where the account is non-unified lies not in the proposed movement mechanism but in the non-uniform case-licencing of the initiator for each passive:

(18) The short passive does not have an intervening initiator case-licenced by *bei*



(Chen 2022; 7, with modifications)

(19) The long passive has an intervening initiator case-licenced by *bei*



(Chen 2022; 7, with modifications)

Chen (2022) proposes that *bei* spells out passive Voice in both passives, but that it existentially closes the specifier of vP (given as '∃' in (18)) in the short passive without any case-licencing, while *bei* case-licences the initiator that is base-generated in the specifier of vP (given as 'Lisi' in (19)) in the long passive. Thus, the two structures actually do not involve the same *bei* nor do they have the same underlying structure. In particular, there is a case-licencing *bei* in the long passive but a non-case-licencing one in the short passive, and there is an initiator argument in an A-position in the long passive, while there is existential closure in the specifier of vP in the short passive instead.

All that said, note that in both the long and short passive, the grammatical subject (given as 'Zhangsan' in both examples (18) and (19)) is not base-generated high, but rather is base-generated in the sister-to-V position. This, then, is a raising analysis that is similar to what the haplology accounts propose and is also similar to accounts proposing that *bei* has a

chameleonic character, as discussed in the previous subsection. Where Chen's account differs, though, is that she claims that the argument first undergoes mixed A/A'-movement to the specifier of BeiP and then undergoes A-movement to the specifier of IP, where it receives case from Infl.

To briefly summarise, Chen proposes two different *bei*s with different case-licencing behaviours along with a raising analysis for the grammatical subject, in which the grammatical subject is first base-generated in the sister-to-V position and mixed A/A'-moves to the specifier of BeiP before it A-moves to specifier of IP to receive case from Infl. She claims that her proposal accounts for some anti-long-distance dependency effects apparently observed in *bei*-passives because there is no A'-movement involved anywhere under her proposed analysis, discussed below in turn: 1) idiomatic interpretations are invariantly predicted to be preserved in both *bei*-passives due to the raising analysis; 2) in short passives, it must be the local object that is the complement of an object control verb that raises to become the grammatical subject since it is otherwise a caseless argument; 3) movement of a finite clause object to ultimately become the grammatical subject in a *bei*-passive should be ruled out because movement to the specifier of CP can only involve A'-movement and any subsequent movement must also only be A'-movement, but movement of a finite clause subject to become the grammatical subject should be grammatical because movement of said subject to the specifier of CP instead involves A-movement, which can then be followed by mixed A/A'-movement and A-movement.

Recall from the previous subsection that under such a raising analysis, we should always predict that idiomatic interpretations will be preserved in both the long and short passive. This forms one of the core arguments that Chen uses to support her mixed A/A'-movement account. However, the only example she brings up that is able to have its idiomatic interpretation survive in a *bei*-passive is the idiom *zhan pianyi* ('to take advantage

of') that we have already discussed.[18, 19] Her account would over-generate in the same way as those of Liu (2012; 2016), Liu & Huang (2016) and Huang (2013; 2014), and predict that V-O idioms should invariantly be able to maintain their idiomatic interpretations, but we have already seen that this is not the case. The empirical evidence with respect to the interpretation of idioms then already provides the first serious challenge to her proposal.

Based on her account, she also predicts that in the short passive, the local object ('local' in the sense that no long-distance dependencies are possible or present, similar to the idea of local long passives discussed above) that is a complement to an object control verb must end up as the grammatical subject since the *bei* in short passives cannot case-licence said object, but I dispute her supporting example, presented earlier in chapter 3 and repeated here again as example (20):

(20) [zhe-kuan shouji]$_i$ [OP$_i$ [bei (fayuan) [jinzhi pingguo$_k$ [PRO$_k$ shengchan t_i]]]]

this-type phone BEI court forbid Apple produce

Lit: 'This type of phone has been "forbid-Apple-to-produce" (by the court).'

'(Someone/the court) has forbidden Apple from producing this type of phone.'

(Chen 2022; 12, with modifications)

[18] I note that Chen (2022) shows in her example (17b) that apparently *zhan pianyi* ('take advantage of') can even maintain its idiomatic interpretation in a non-local long passive, contrary to what Liu (2012; 2016), Liu & Huang (2016) and Huang (2013; 2014) claim. However, this still does not discount my argument in any way because we expect her (17b) to be grammatical if we assume that *pianyi*, as the O in the V-O idiom, does not need to form a constituent with the V *zhan* to retain its idiomatic interpretation, as discussed in subsection 4.2.2. Relevantly, in Chen (2023), she instead suggests that *zhan pianyi* and *chuiniu* ('to boast') are ICEs, but in subsection 4.2.2 I argue that Stone's (2016) analysis presents a formal syntactic account and makes empirical predictions while Nunberg et al's (1994) does not, thus I adopt Stone's analysis.

[19] In fact, Chen (2023) notes that *dengtui* (lit. 'stretch legs/kick'; 'die') loses its idiomatic interpretation in a *bei*-passive and thus constitutes supporting evidence against the raising analysis of *bei*-passives. That said, it is unclear why her analysis does not expect that the idiomatic interpretation should be maintained, and as far as I can tell, Chen (2023) does not explore this issue further.

(21) pingguo$_i$ [OP$_i$ [bei (fayuan) [jinzhi t_i [PRO$_i$ shengchan zhe-kuan shouji]]]]

Apple BEI court forbid produce this-type phone

'Apple has been forbidden from producing this type of phone (by someone/the court).'

(Chen 2022; 12, with modifications)

(22) tongdao$_i$ dou yijing [OP$_i$ [bei (jiangjun) [pai bing$_k$ [PRO$_k$ bashou t_i]]]]

passage all already BEI general send troop guard

Lit: 'All passages have been "sent-troops-to-guard" (by the general).'

'(Someone/the general) has sent troops to guard all passages.'

(Her 2009: 431, with modifications)

(23) [xinfeng]$_i$ [OP$_i$ [bei (xianzhengfu) [xunsu pai ren$_k$

letter BEI district.government rapidly delegate person

[PRO$_k$ song t_i dao-le shengzhengfu]]]]

send reach-PERF provincial.government

Lit: 'The letter was rapidly delegated a person to send to the provincial government (by the district government).'

'(Someone/the district government) has delegated a person to send the letter to the provincial government.'

(Shi 2008; 114, with modifications)

Recall that Chen claims that example (20) is ungrammatical, but my consultant and I find that it is perfectly grammatical. Recall also that other grammatical examples in the same configuration as example (20) abound in the literature – other relevant examples from chapter 3 are also repeated here as (22) and (23) to highlight this point.

Bringing the discussion back to Chen's proposal, example (21) is predicted to be grammatical while (20) is not because the former has a local object *pingguo* ('Apple') that is a complement to the object control verb[20] *jinzhi* ('forbid') that ends up as the grammatical subject, while the latter has a local object *pingguo* that does not end up as the grammatical subject. Put a different way, because Chen assumes that there is no case-licencing *bei* in short

[20] To be clear, Chen (2022) proposes that *jinzhi* ('forbid') is an ECM verb, but there does not seem to be any *a priori* reason to assume so, especially when it seems fairly clear that *jinzhi* should select an argument such as *pingguo* rather than a clause as the object. Thus, I contend that it should be seen as an object control verb. In any case, the local object is still unable to be case-licenced under Chen's account because there is no case-licencing *bei* in the short passive and thus examples like (20), (22) and (23) are predicted to be ungrammatical, contrary to the facts at hand.

passives, the local objects *pingguo* in example (20), *bing* (‘troops’) in (22) and *ren* (‘person’) in (23) should end up being caseless and the respective derivations should crash, while the originally caseless local object *pingguo* in (21) is able to A-move to receive case from Infl instead, allowing the derivation to converge. However, the empirical evidence shows otherwise – examples (20-23) are all grammatical. Then, the fact that her account under-generates the above-mentioned data presents a second serious challenge.

Finally, Chen observes the following asymmetry in *bei*-passives, where *renwei* (‘think’) takes a finite clause as its complement (Lin 2011):[21, 22]

(24) No extraction possible with object in a finite clause

*Lisi$_i$ bei (jingcha) renwei [Zhangsan mousha-le t_i]

lisi BEI police think zhangsan murder-PERF

Intended: ‘*Lisi was thought (by the police) that Zhangsan murdered.’

‘Lisi was thought (by the police) to have been murdered by Zhangsan.’

(Chen 2022; 13, with modifications)

[21] The reader should note that the issue of finiteness in Mandarin is a highly complicated and debated issue given the lack of tense morphology in Mandarin. See Lin (2011; 2012), for instance, for an overview.
[22] For the interested reader, there is also some discussion of tensed clauses in Ting (1995).

(25) Extraction possible with subject in a finite clause

Zhangsan$_i$ bei (jingcha) renwei [t_i mousha-le Lisi]

zhangsan BEI police think murder-PERF lisi

Lit: ‘Zhangsan was thought (by the police) that murdered Lisi.’

‘Zhangsan was thought (by the police) to have murdered Lisi.’

(Chen 2022; 13, with modifications)

Chen observes that accounts that assume A’-movement of NOP (such as mine) should either predict that both examples (24) and (25) are grammatical or that both are ungrammatical because A’-movement of NOP should either be allowed from both the subject and object positions or blocked from both positions. She also argues that her account expects the contrast due to the following: i) In finite clauses, the object can only be A’-moved to the specifier of CP, and any subsequent movement must also be A’-movement due to the ban on improper movement. Since Chen’s account only proposes mixed A/A’-movement followed by A-movement, the ungrammatical example (24) is expected; ii) The subject of a finite clause, however, can A-move to the specifier of CP by assuming hyper-raising (following Fong (2019)) in particular, where mixed A/A’-movement and A-movement can then apply. Since this is in line with Chen’s proposed analysis, she argues that the grammaticality of example (25) is expected.

However, I contend that her argument that A’-movement of NOP cannot correctly account for the contrast in examples (24) and (25) actually misses the point of such analyses, because a core requirement for such NOP movement is that the clauses which the NOP A’-moves from must be non-finite. Recall that Feng (1997/2012) first proposed the A’-

movement of NOP analysis based on the observation that long *bei*-passives had similar syntactic properties to *tough*-constructions in English, which crucially only allow for long-distance dependencies (an A'-effect) if non-finite clauses, and not finite clauses, were involved. Chen herself also acknowledges the similarities between *bei*-passives and *tough*-constructions, though she assumes that *tough*-constructions exhibit mixed A/A'-properties rather than A'-properties only. Simply put, the syntactic configuration involved in examples like (24) and (25) differs from the typical cases under consideration in the literature as well as in this dissertation and accounting for them will have to be a separate research endeavour, but one well worth undertaking.[23]

Another important point to take note of is that even for Chen, the contrast between examples (24) and (25) is not easily explained. The position that there can be A-movement to the specifier of CP in particular is not uncontroversial, since standard assumptions are that the specifier of CP is an A'-position and A-movement to said position is typically ruled out. That is, very particular stipulations are required for her account to explain the contrast.

In summary, Chen argues that her approach correctly predicts the preservation of idiomatic interpretations, but the larger set of empirical data in subsection 4.2.2 shows otherwise, a result unexpected under her approach. She also argues that *bei*-passives involving object control should be ruled out, but again the larger set of empirical data shows that this is not the case. Lastly, she points out that her approach can account for the asymmetry seen in the extraction of subject versus object in finite clauses, but I note that given her account, certain debatable theoretical assumptions need to be made, and also that such a configuration differs from those under consideration in analyses of *bei*-passives like

[23] Whatever the account may be for such cases, given the analysis laid out in this dissertation, I would expect that a NOP (of some form) has to be present in the *bei*-complement at some point in the derivation, though that is all I have to say on the matter in this dissertation.

those of Feng (1997/2012), Huang (1999), Ting (1998) and my own (among the many others cited throughout this dissertation). It is worth noting that Chen (2022) herself observes that her analysis and NOP-analyses like mine really only diverge on these three issues, thus I argue that my unified analysis still provides better empirical coverage under closer scrutiny.

In the next subsection, I discuss one last non-unified account, Bruening & Tran (2015), in which they propose that only short passives are truly passive constructions, and that the size of the *bei*-complement is only as large as (passive) VoiceP.

4.2.4 Bruening & Tran's (2015) treatment of the bei*-passive*

Bruening & Tran (2015) primarily discuss Vietnamese *bị*-constructions, which look very similar to *bei*-passives in terms of word order:

(26a) Long *bị*-construction

nam bị nga đánh

Nam BI Nga hit

'Nam was hit by Nga (and suffered).'

(Bruening & Tran 2015; 134, with modifications)

(26b) Long *bei*-passive

zhangsan bei lisi da-le

Zhangsan BEI Lisi hit-PERF

'Zhangsan was hit by Lisi.'

(27a) Short *bị*-construction

nam bị đánh

Nam BI hit

'Nam was hit (and suffered).'

(Bruening & Tran 2015; 134, with modifications)

(27b) Short *bei*-passive

zhangsan bei da-le

Zhangsan BEI hit-PERF

'Zhangsan was hit.'

Notice that for example (26a), the initiator shows up immediately after *bi*, similar to the long *bei*-passive in (26b). The short *bị*-construction in (27a) is also similar in word order with the short *bei*-passive in (27b). Given the word order similarities, it is very tempting to analyse *bị*-constructions and *bei*-passives together.

Indeed, Bruening & Tran propose that Vietnamese *bị* can either take $\text{Voice}_{\text{Act}}$ or $\text{Voice}_{\text{Pass}}$ as its complement, such that *bị*-constructions like example (26a) that have an overt post-*bị* initiator are active constructions while *bị*-constructions like example (27a) that do not have an overt post-*bị* initiator are passive constructions,[24] and claim that the same analysis

[24] With a notable exception being when the complement of *bị* is an unaccusative verb (see (i) below) or an unergative verb (see (ii) below), as they claim that in such syntactically intransitive contexts the sentence is actually an active construction, as evidenced by the glosses they provide:

(i) nam bị chết đuối
Nam BI drown
'Nam drowned (and suffered).'
*'Nam was drowned (and suffered).'

(Bruening & Tran 2015; 134, with modifications)

applies to *bei*. This is due to their particular claim that the post-*bi*/*bei* position is a derived subject position, hence the initiator is an argument in an A-position. Given this assumption, they argue that long *bei*-passives do not actually meet their definition of passives. For them, a passive construction's most crucial defining property is that there must be external argument suppression, and so they argue that since the initiator is overt in long passives it must mean that there is no external argument suppression,[25] hence only short *bị*-constructions and short *bei*-passives can truly be considered passives. Additionally, they explicitly claim that the complement to *bị* and *bei* alike are only as large as VoiceP.

However, I posit that the only similarity between *bị*-constructions and *bei*-passives is that they both involve predication of the complements and the grammatical subjects, as rightly pointed out by Bruening & Tran. This is as far as the similarities should go, though, because in *bị*-constructions the predication relation is achieved by having a lambda-operator A'-bind a base-generated variable, but in *bei*-passives predication is achieved via A'-movement of a NOP. It should already be obvious that the two mechanisms are very different. There are also some other major differences between *bị*-constructions and *bei*-passives that, as I will argue in the following exposition, give further motivation to warrant separate analyses.

(ii) nam bị ói
Nam BI vomit
'Nam vomited (and suffered).'
*'Nam was made to vomit (and suffered).'
(Bruening & Tran 2015; 164, with modifications)

[25] Given Bruening & Tran's requirement for passives to necessarily involve an externally suppressed external argument, which I take to mean that there must be an existentially closed external argument, it is not clear to me how Bruening's (2013) account of long passives in English holds. As far as I can tell, following Bruening's (2013) analysis, there is no need for existential closure in the long passive since the *by*-phrase is claimed to saturate the external argument. That is, strictly speaking, there would be no existential closure that occurs in the English long passive, so it would appear that Bruening & Tran's definition of passives would not apply to the English long passive, which seems counter-intuitive.

Bruening & Tran observe that the *bị*-complement may not contain any tense, aspect or mood markers, but it is abundantly clear from examples (26b) and (27b) as well as other examples throughout this dissertation that *bei*-complements allow for aspectual morphemes like perfective *-le* or experiential *-guo*. This difference is important, as Bruening & Tran explicitly claim that *bei*-complements can only be as large as VoiceP, but this seems to ignore the data at hand. We revisit this issue in greater detail soon (see example (31) onwards).

Next, *bị*-constructions apparently are island-insensitive, while *bei*-passives have been clearly shown to be island-sensitive:

(28) both long and short *bei*-passives are island-sensitive

kongzi$_i$	bei	(baojun)	[andili		zhao	cike
Confucius	BEI	tyrant	in.secret		find	assassin
[mousha-le	[$_{CNPI}$ suoyou		zhichi	***(ta$_i$)**	de	chenzi]]]
murder-PERF	all		support	RP	DE	officials

Lit: 'Confucius$_i$ was found-assassins-to-murder in secret [$_{CNPI}$ all the officials who supported **him$_i$**] (by a tyrant).'

'Assassins were found in secret (by a tyrant) to murder all the officials who supported Confucius.'

(29) *bị*-construction is island-insensitive (no CNPI detected):

Đây	là	ngón.tay	[relative clause	mà	tôi	bị	Nga	làm	gẫy]
this	COP	finger	[relative clause	REL	I	BI	Nga	make	snap]

'This is the finger [relative clause that I had Nga snap].'

(Bruening & Tran 2015; 162, with modifications)

If we assume that *bei*-passives involve A'-movement, which is island sensitive (see example (28)), while *bị*-constructions involve A'-binding, which is island-insensitive (see example (29)), this observed difference is immediately accounted for, but again points to the two involving different syntactic structures.

Another difference between *bị*-constructions and *bei*-passives is that *bị* readily takes intransitive verbs as its complement, but *bei* is incompatible with intransitive verbs. Intuitively, we already expect that *bei* should not take intransitive verbs as their complements, but it could indeed be possible for *bị* if the sentence ends up being an active construction rather than a passive. That is, if we analyse *bị*-constructions and *bei*-passives separately, such a distinction falls out naturally. Relevantly, for Bruening & Tran, in order to account for this difference between *bị*-constructions and *bei*-passives, the size of the complement to both *bị* and *bei* must only be as large as VoiceP so that in *bei*-passives the A'-movement of NOP from the point of origin to the adjunction site stays within VoiceP and thus violates antilocality.[26] Again, we revisit this problematic claim later.

[26] It is important to note that Bruening & Tran depart from Huang (1999) and Ting (1998) in that they assume that the A'-movement of NOP can apply in principle in both long and short passives, citing supporting evidence from Her (2009). However, long passives and short passives are still syntactically distinct under their account because for them, long passives are actually active constructions but short passives are truly passive constructions.

One final important difference between *bị*-constructions and *bei*-passives is that in Vietnamese journalistic writing, it is possible to realise the logical subject as an oblique, while no such counterpart exists in Mandarin:

(30) bee cũng từng bị ghét [$_{PP}$ bởi mọi người]

Bee also Remote.Past BI hate by every person

'Bee also used to be hated by everybody (and suffered).'

(Bruening & Tran 2015; 134, with modifications)

In example (30), the logical subject *mọi người* ('every person') is located within a PP headed by *bởi* ('by'), hence it is an oblique much like the ones in English passives. Notice that (30), with its inclusion of the oblique, then looks like the long passive in English, and its omission would be the short passive we are familiar with by now. Without the possibility of examples like (30), we would have been left with a puzzling gap in Vietnamese passive constructions – if the long *bị*-construction is not a passive, we would have been forced to say that there is no way to have a long (*bị*-)passive, which would be cross-linguistically rare. Since no such counterpart to (30) exists in Mandarin, if we assume along with Bruening & Tran that long *bei*-passives are active constructions, we would be forced to conclude that there is no long (*bei*-)passive in Mandarin, which is clearly an undesirable result. However, my account (or indeed, any account that treats the long *bei*-passive as a passive) does not run into such a strange state of affairs.

Given the above-mentioned differences between *bị*-constructions and *bei*-passives, it is the position of this dissertation that it is undesirable to analyse the two together. That is, Bruening & Tran's analysis for Vietnamese, while potentially valid, should not and cannot

apply to *bei*-passives. Though A'-binding of a variable by a lambda-operator and A'-movement of a NOP can both result in a predication relation, the two mechanisms are distinct and make different predictions, with island (in)sensitivity being one of them. Treating the long *bei*-passive as an active also implicitly assumes that there is no long (*bei*-)passive available in Mandarin, which does not seem to be the right conclusion. The claim that *bei*-complements pattern with *bị*-complements and are only as large as VoiceP also cannot be reconciled given the data seen in the dissertation thus far. Below, I present more evidence that the size of the *bei*-complement must be as large as AspP.

We have seen throughout this dissertation that aspectual morphemes such as the perfective *le* or the experiential *-guo*[27] shows up within the *bei*-complement, which is indicative that the size of the *bei*-complement must be as large as AspP. Relevantly, Ngui (2022) observes that adverbials like *liang-ci* ('twice') that can have different adjunction sites provide further evidence that an Asp layer must be available in the *bei*-complement:

(31a) zhangsan bei (lisi) chengzan-le liang-ci

Zhangsan BEI Lisi praise-PERF two-instance

Perfective reading only: 'Zhangsan was praised (by Lisi) twice.'

[27] A detailed discussion of the aspectual morphemes is beyond the scope of this dissertation, but there has been much discussion over the decades by authors such as Bao (2005), Biggs (2014), Chan (1980), Huang (2022), Li (2022), Li &Thompson (1981), Lin (2000; 2003; 2006; 2010), Lin (2015), Martin et al. (2021) and Soh (2009; 2014).

(31b) zhangsan bei (lisi) chengzan liang-ci le

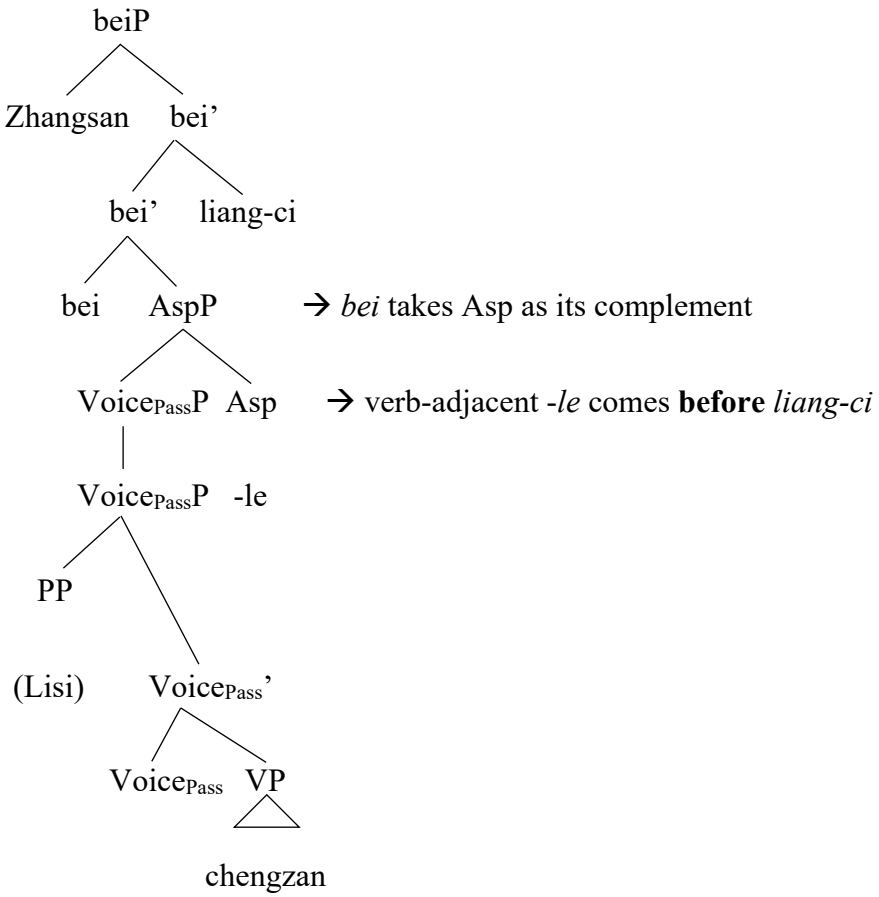
Zhangsan BEI Lisi praise two-instance PERF/INCH

Perfective reading: ‘Zhangsan was praised (by Lisi) twice.’

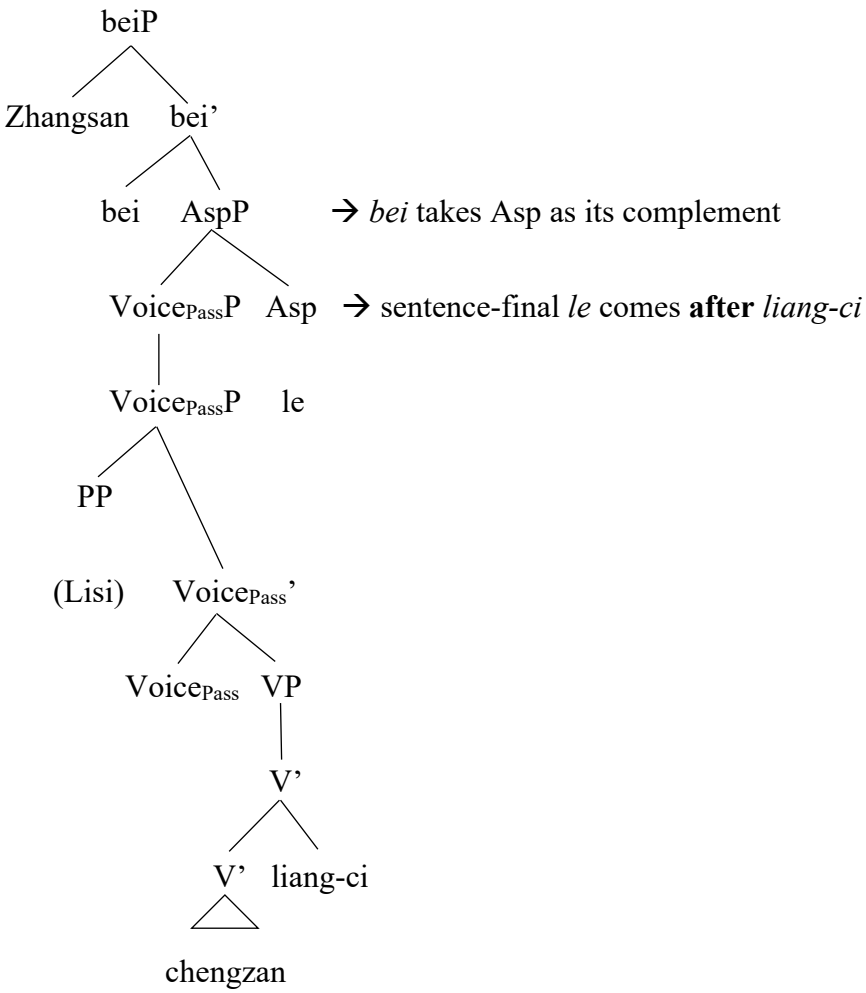
Inchoative reading: ‘Zhangsan has now been praised (by Lisi) twice (when Lisi/someone did not before).’

(Ngui 2022; 361-362)

(32a) Perfective reading when *liang-ci* adjoins higher



(32b) Perfective reading when *liang-ci* adjoins lower



(Ngui 2022; 362-363, with modifications)

The *le* morpheme is grammatical either as a morpheme immediately adjacent to the verb, as seen in example (31a), or as a sentence-final morpheme, as seen in example (31b). Importantly, the perfective reading must be available either way. The simplified trees in (32) show how we can account for the different adjunction sites for *liang-ci* as well as the surface positions of perfective *-le* provided there is a functional head Asp (and thus the AspP layer) to host it in both cases. Further, if we accept that *liang-ci* can indeed attach higher or lower, we can explain why example (33a) is grammatical while (33b) is not:

(33a) zhangsan bei (lisi) chengzan-guo liang-ci

Zhangsan BEI Lisi praise-EXP two-instance

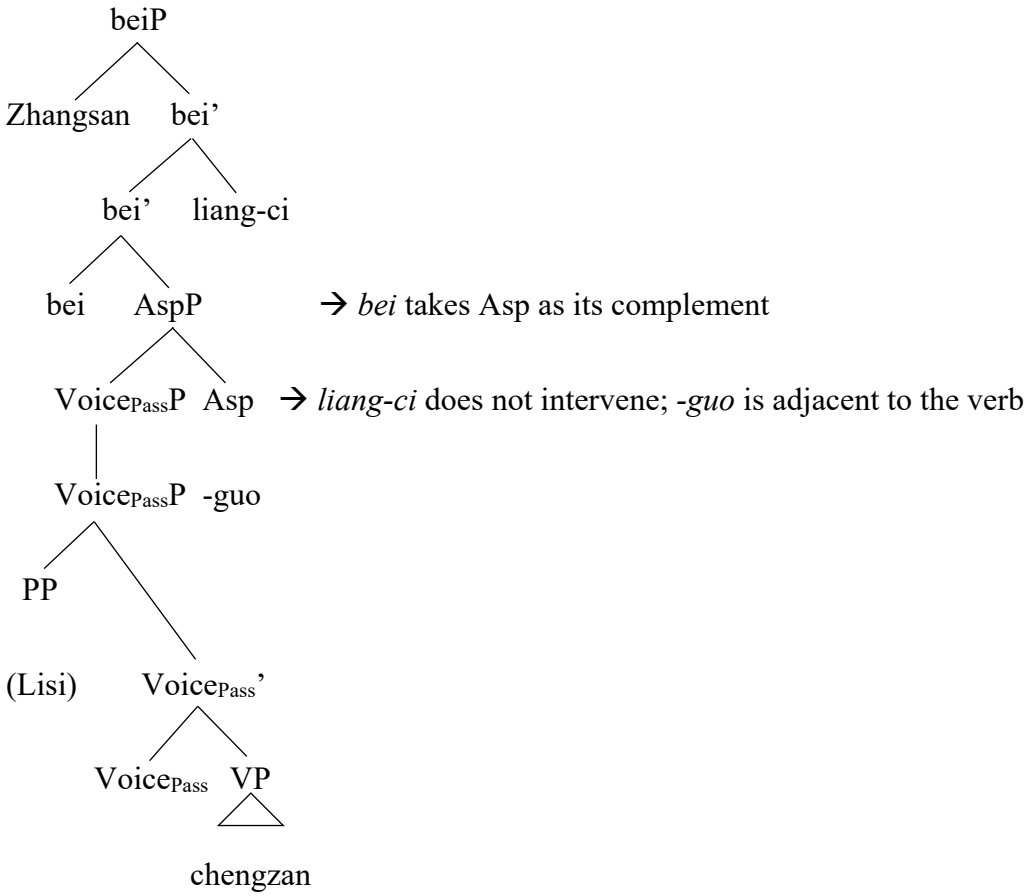
'Zhangsan has been praised (by Lisi) twice before.'

(33b) *zhangsan bei (lisi) chengzan liang-ci guo

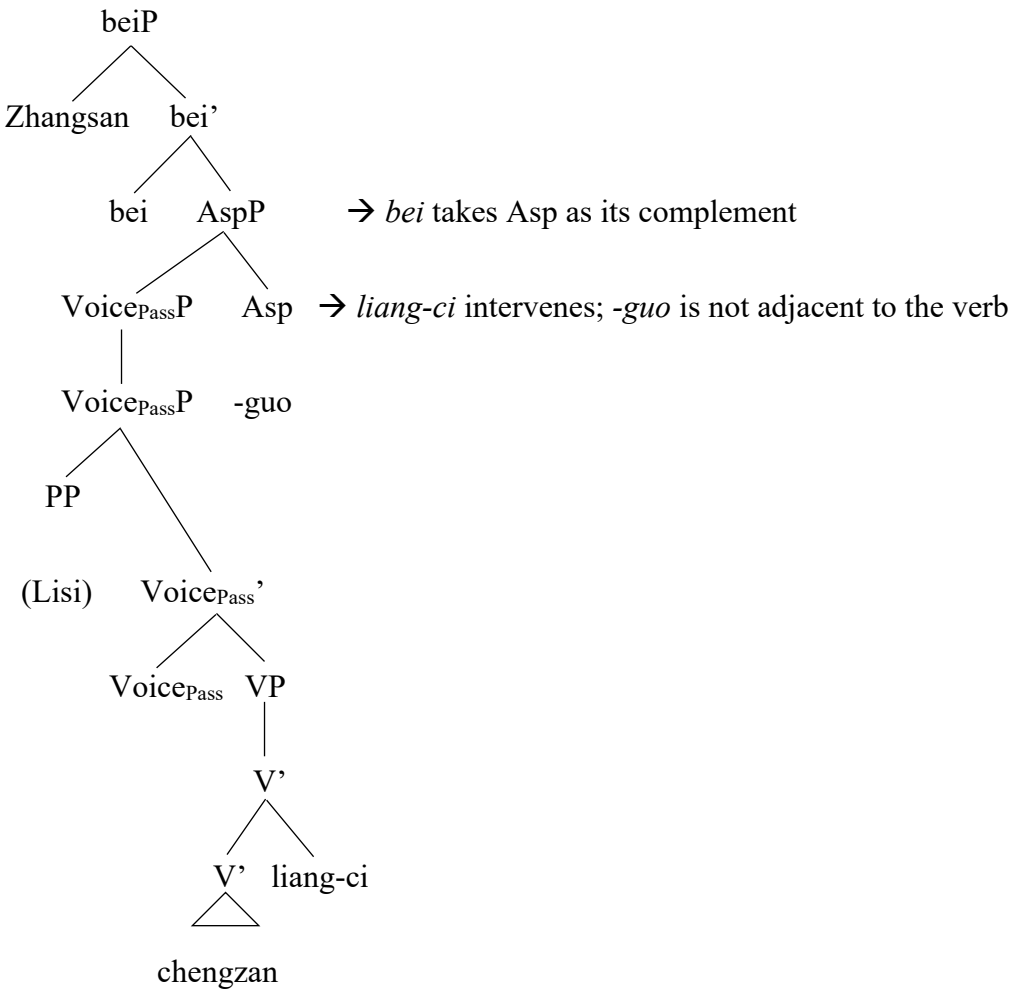
Zhangsan BEI Lisi praise two-instance EXP

Intended: 'Zhangsan has been praised (by Lisi) twice before.'

(34a) Experiential reading when *liang-ci* adjoins higher



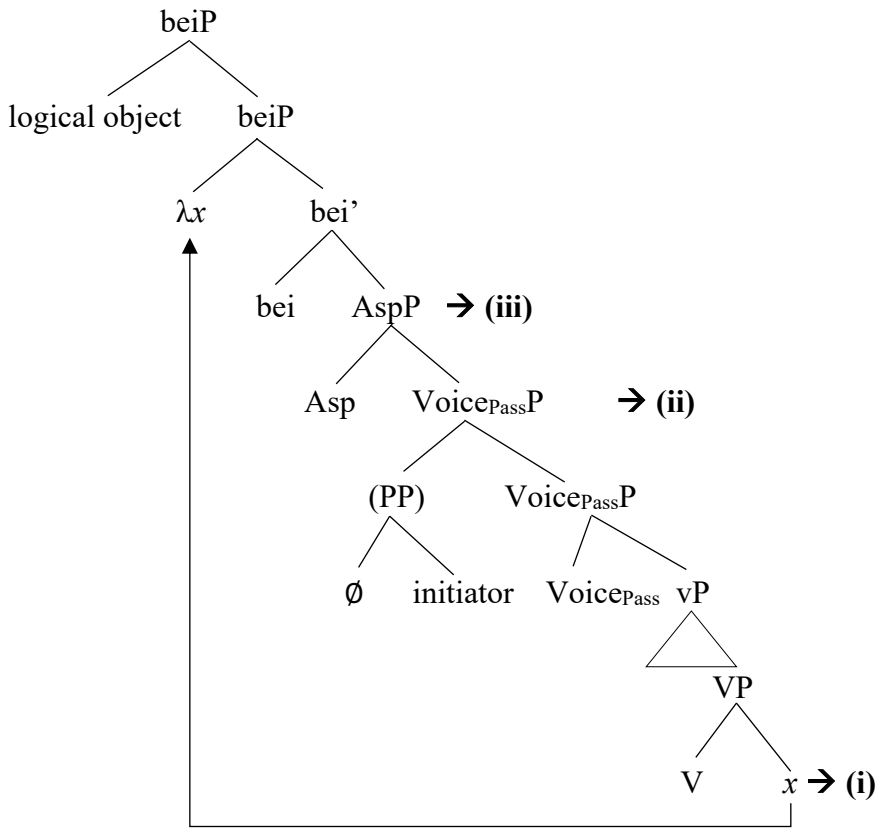
(34b) Experiential reading when *liang-ci* adjoins lower



Note that the experiential *-guo* must be adjacent to the verb for grammaticality, as in examples (33a) and (34a), hence when *liang-ci* adjoins low, as in example (34b), it intervenes between *-guo* and the verb, leading to ungrammaticality as seen in example (33b). This state of affairs is to be expected since the AspP layer is standardly assumed to be above VoiceP. More importantly, the fact that *-guo* can be adjacent to the verb if *liang-ci* adjoins higher (see example (34a)) is indicative that there should be an Asp functional head available to host *-guo*, and that *bei* takes this Asp as its complement. Taken together, examples (31-34) further indicate that the *bei*-complement must be as large as AspP, contra Bruening & Tran's claim.

Other than the morphological data at hand, I further propose that by having an AspP layer, standard closure (Heim 1982) can take place. The abstract tree in chapter 2 is given below as (35), showing in particular that existential closure occurs at AspP, and this is how the external argument in the specifier of $Voice_{Pass}P$ ends up being existentially closed:

(35) The A'-movement analysis for long and short *bei*-passives



(i) A'-movement of a NOP, represented with *x*

(ii) Adjunction of the PP adjunct to $Voice_{Pass}P$ – the PP does not saturate the external argument position

(iii) Existential closure in both long and short passives occurs at AspP

It is important to note that in (35i), it is a NOP rather than a variable that is base-generated in the sister-to-V position. Thus, when existential closure applies at AspP (see (35iii)), the only open variable is that of the external argument in the specifier of $Voice_{Pass}P$, which is not saturated by the PP containing the initiator even if it is overt (see (35ii)), and thus it is the only variable that gets existentially quantified over, as expected. Note that in standard applications of existential closure, existential closure introduced by a functional head operates over (i.e. existentially closes) all open variables that the functional head scopes over. In the case of (35), we observe that it is the Asp functional head, which takes $Voice_{Pass}P$ as its complement, that scopes over the variable for purposes of standard existential closure.

However, Bruening & Tran do not assume standard existential closure (i.e. they do not assume that existential closure occurs at AspP, as illustrated in (35)). Rather, they propose that the passive Voice functional head existentially closes its external argument, and only its external argument, and it is subsequently not projected in the specifier of Voice. The reader will notice that Bruening & Tran are thus proposing a non-standard and targeted form of existential closure because for them 1) *bei* takes either an active or passive Voice as its complement and so *bei* cannot be the functional head that introduces existential closure; and 2) the size of the *bei*-complement is only as large as VoiceP, so there is no possible higher functional head that can introduce existential closure other than passive Voice itself.

Because Bruening & Tran insist that the *bei*-complement is only as large as VoiceP, the issue of existential closure application requires some non-standard assumptions. My account, which assumes that the *bei*-complement is as large as AspP, is compatible with both the morphological data as well as standard existential closure application.

There are two related key motivations for Bruening & Tran to maintain that the *bei*-complement is only as large as VoiceP: 1) because they have proposed that long *bei*-passives

should actually be active constructions, the theoretical implication based on their definition of a passive is that in a long *bei*-passive, there is no existentially closed external argument in the specifier of VoiceP; 2) this also means that they thus cannot rule out the possibility of a NOP being base-generated in the specifier of VoiceP followed by A'-extraction in the case of long passives. However, they argue, if the *bei*-complement is only as large as VoiceP, antilocality can be invoked to ban such an A'-extraction since the NOP would A'-move from the specifier of VoiceP to adjoin to VoiceP. For them, this then explains why unergative verbs are incompatible with *bei*-passives, and also why the logical subject argument of a transitive verb cannot become the grammatical subject of a *bei*-passive. As for unaccusative verbs, they argue that Voice should be "semantically contentless" (Bruening & Tran 2015; 163) and so it would become functionally indistinguishable from VP, or that Voice in unaccusatives is an extension of VP. Then, even if the NOP is base-generated in the sister-to-V position and A'-moves to adjoin to VoiceP, it still counts as a violation of antilocality.[28] With this, then, they can successfully explain why it is that intransitive verbs are ungrammatical in the *bei*-complement, and also why it is not possible to A'-extract NOP from the (embedded) external argument position in transitive verbs.

However, at this point it should be obvious to the reader that if we simply assume, following my account, that both long and short *bei*-passives have a $\text{Voice}_{\text{Pass}}$P layer that always contains an existentially closed external argument, we can easily maintain that both long and short passives are indeed passives while adhering to Bruening & Tran's definition of a passive, and the ungrammaticality of intransitives in the *bei*-complement as well as the ban

[28] Though somehow *bei* must still select Voice and not VP as its complement. That is, it is not entirely clear to me why Voice can still be required if it is non-distinct from VP, especially if unaccusative VoiceP is treated as being within the same projection for the purposes of determining if movement is too local or not.

on A'-extracting a NOP from the external argument position can still also straightforwardly follow.

If we assume that long *bei*-passives are not active constructions, as Bruening & Tran claim, and are indeed passives, then my account requires that the external argument of the transitive verb must be existentially closed. Thus, it would not be possible to also base-generate and then A'-extract a NOP from the external argument position. We would not need to appeal to antilocality to ban such an A'-extraction because it would be illicit anyway given the assumed derivation of *bei*-passives. More importantly, we would also be able to allow for an AspP layer in the *bei*-complement and more easily account for the data at hand.

Similarly, for unergative verbs, if they are to be embedded in the *bei*-complement, the external argument must be existentially closed. However, this leaves us with no more argument positions to base-generate the NOP. Since the *bei*-passive requires the A'-movement of the NOP to form a predication relation between the grammatical subject and the complement, the absence of the NOP leaves us with no means to derive the *bei*-passive with an unergative verb, as expected.

As for unaccusative verbs, if we accept Bruening & Tran's claim that unaccusative Voice has no semantic content, we would then have no external argument to existentially close, but more importantly, Voice would not have the feature [Passive] since it would be treated as merely an extension of the VP. Thus, the unaccusative would not be able to be embedded in the *bei*-complement because *bei* can only select an Asp that has inherited the [Passive] feature from $\text{Voice}_{\text{Pass}}\text{P}$ in order to check its own [*u*Passive] feature (see chapter 2). Alternatively, if there were some way to have an existentially closed external argument, we would again have no argument position left to base-generate the NOP. Either way, we would be unable to derive the *bei*-passive with unaccusative verbs, also as expected.

Notice that by simply adhering to Bruening & Tran's definition of the passive as well as by assuming that both long and short *bei*-passives are indeed passives, we will easily be able to rule out intransitives in the *bei*-complement as well as A'-extraction of NOP from the external argument position even if the size of the *bei*-complement is as large as AspP. There is no need to appeal to antilocality, and thus there is no need to insist that the *bei*-complement can only be as large as VoiceP, which, as we have seen, is a position that is obviously empirically challenged by the presence of aspectual morphemes within the *bei*-complement.

What about Bruening & Tran's claim that the post-*bei* position is a derived subject position because an argument in that position can be construed with initiator-oriented adverbs that diagnose for derived subject positions, as illustrated in the contrast between examples (36a) and (36b)?

(36a) The robot$_i$ broke open deliberately$_{i/*j}$.

(36b) Johnson$_i$ broke the robot$_j$ open deliberately$_{i/*j}$ (only Johnson can be deliberate).

(Bruening & Tran 2015; 144, with modifications)

(37) zhangsan$_i$ bei lisi$_j$ guyi$_{*i/j}$ da-le

Zhangsan BEI Lisi deliberately hit-PERF

'Zhangsan was deliberately beaten by Lisi (only *Lisi* can be deliberate).'

(Ngui 2022; 357, with modifications)

Bruening & Tran correctly point out that even subjects of unaccusative verbs can be construed with initiator-oriented adverbs such as *deliberately*, as in example (36a). However,

when an external argument is present, as is the case in (36b), the initiator-oriented adverb can then only be construed with the external argument *Johnson*. They argue that by assuming that initiator-oriented adverbs diagnose for derived subject positions (of the respective predicates), the contrast between examples (36a) and (36b) receive a principled explanation. Then, going by that same assumption, they argue that the fact that *guyi* ('deliberately') in example (37) can only be construed with *Lisi* must mean that *Lisi* is a derived subject.

It is worth noting that Bruening & Tran cite Huang (2013) in pointing out that initiator-oriented adverbs can also be construed with the implicit argument in the short *bei*-passive, though both Bruening & Tran and Huang (2013) do not elaborate further on the issue. Relevantly, other authors such as Chen (2023), Chen & Li (2021), Ngui (2022) and Shi (2008) also observe that that initiator-oriented adverbs can be construed with implicit arguments or existentially closed external arguments in short passives, as in example (38):

(38) zhangsan$_i$ bei guyi$_{*i/j}$ da-le

Zhangsan BEI deliberately hit-PERF

'Zhangsan was deliberately beaten (only the implicit argument can be deliberate).'

(Ngui 2022; 357, with modifications)

Importantly, the initiator-oriented adverb *guyi* ('deliberately') in example (38) above cannot be construed with *Zhangsan* – that is, just as with example (37), the sentence cannot be understood as meaning that the grammatical subject *Zhangsan* had the intention to be beaten, and can only mean that the implicit argument is being deliberate. Since my account assumes that there is always an existentially closed external argument in *bei*-passives, it would not be unreasonable to also assume that example (38) has the structure (39):

(39) the existentially closed external argument is construed with *guyi* in short *bei*-passives

zhangsan$_i$	bei	[$_{Asp}$ [$_{VoicePassP}$ **∃$_j$**	guyi$^{*i/j}$	da-le]]
Zhangsan	BEI		deliberately	hit-PERF

'Zhangsan was deliberately beaten (only the implicit argument can be deliberate).'

Note that example (39) above is in line with Bruening & Tran's definition of a passive, and also allows us to syntactically represent how it is that the initiator-oriented adverb *guyi* can come to be construed with an implicit argument, or the existentially closed external argument ∃. Next, recall that, under my account, for long passives, the initiator is an oblique that bears a theta-role that is identical to the one borne by the implicit argument, which is how the oblique initiator and the implicit argument are linked (see chapter 2). Now, suppose that even in the long passive, the initiator-oriented adverb is still construed with the implicit argument. I propose that because the oblique initiator and the implicit argument are so linked, the initiator-oriented adverb is able to be construed with the initiator in an indirect fashion, as illustrated in example (40):

(40) the existentially closed external argument is construed with *guyi* in long *bei*-passives

zhangsan$_i$	bei	[$_{Asp}$ [$_{VoicePassP'}$ [$_{PP}$ **lisi$_j$**] [$_{VoicePassP}$ **∃$_j$**	guyi$^{*i/j}$	da-le]]]
Zhangsan	BEI	Lisi	deliberately	hit-PERF

'Zhangsan was deliberately beaten by Lisi (only Lisi can be deliberate).'

Note that given the proposed structure in example (40), we are able to construe *guyi* with both the existentially closed external argument as well as the oblique initiator, as desired.

Then, we can maintain that the initiator is in a PP that adjoins to $Voice_{Pass}P$ rather than in an A-position, contra Bruening & Tran, and also maintain that the long passive still has an existentially closed external argument and thus is indeed a passive, also contra Bruening & Tran. An important point to note is that this state of affairs does not take away from their observation that initiator-oriented adverbs diagnose for derived subject positions, because the existentially closed external argument can indeed be in a derived subject position even if it is phonologically null, as evidenced by example (39). Example (40) is also simply a natural extension of the short passive example in (39) given my unified analysis that assumes that the only putative difference between the long and short passive is the presence or absence of the PP adjunct.

Bruening & Tran have made convincing arguments for their definition of a passive, and this dissertation also adopts their definition. However, we have seen in this subsection that their proposal, which posits that the *bei*-complement is only as large as VoiceP and analyses long *bei*-passives as actives, faces serious empirical as well as theoretical challenges – for the former, we see strong morphological evidence for an AspP layer in the *bei*-complement and so it cannot only be as large as VoiceP; for the latter, we have seen that they are forced to assume that the *bei*-complement must only be as large as VoiceP because of their claim that long *bei*-passives are in fact actives and consequently they must also adopt non-standard assumptions regarding existential closure in order to accommodate a *bei*-complement that is only as large as VoiceP, while my account allows for standard applications of existential closure by naturally including an AspP layer (see example (35)). Furthermore, contra Bruening & Tran, I argued that we can still correctly exclude intransitives and A'-extracting the NOP from the external argument position within *bei*-complements without having to appeal to antilocality by assuming that long passives indeed have an existentially closed external argument. Then, both long and short passives are in line

with what Bruening & Tran would call a passive construction. In contrast to Bruening & Tran's analysis, we have seen that my account expects the presence of aspectual morphemes in the *bei*-complement and also explains how it is that initiator-oriented adverbs can be construed with the oblique initiator.

Thus far, we have reviewed some representative haplology analyses as well as non-unified accounts. In the next section, some unified accounts are briefly reviewed, and I show that they either do not have enough explanatory power or do not make the right empirical predictions.

4.3 Comparisons with other unified approaches

There are three unified accounts under consideration in this subsection. Biggs (2014) assumes that both long and short passives involve A-movement uniformly, Her (2009) proposes that both long and short passives should be analysed on a par using a LFG framework, while Ting (1993) proposes that both long and short passives involve a base-generated *pro* that is A'-bound by a null operator.

In a nutshell, Biggs (2014) proposes the following: *bei* is Voice and thus is the head of VoiceP with CauseP as its complement, and the external argument is base-generated in the specifier of CauseP. Further, the grammatical subject of a *bei*-passive is base-generated in the sister-to-V position and then raised via A-movement. Though her discussion mainly focuses on long passives, her analysis is meant to apply to short passives as well. The reader will notice that the relevant major points of her account then are that 1) the size of the *bei*-complement is even smaller than what Bruening & Tran propose; 2) the overt initiator is not an oblique; and 3) the grammatical subject raises via A-movement to its surface position. For

all the above three points, we have already seen arguments against them and so I briefly summarise them below.

In subsection 4.2.4, we have already seen that assuming that the *bei*-complement is as large as AspP allows us to account for the fact that aspectual morphemes can be present in *bei*-complements. Then, if Biggs is to maintain that the complement is only as large as CauseP, which is below VoiceP, the presence of aspectual morphemes must be properly addressed, and she thus proposes that *bei*-passives involve restructuring. However, Chen (2022; 2023) presents arguments against such a proposal, and more importantly I note that a restructuring account would be incompatible with all the observed A'-effects detected in *bei*-passives that we have already discussed at length in chapter 3.

Also, if the initiator in the long passive is not an oblique and instead is the external argument, then only the short passive involves an existentially closed external argument. This would mean that per Bruening & Tran's (2015) definition of the passive, the long passive would technically be an active construction. If so, Biggs, like Bruening & Tran, would need to explain how unergative verbs and extraction from the subject of a transitive can be excluded from the long *bei*-passive (see again subsection 4.2.4).

As for the last major point, since we have already seen much evidence pointing to A'-effects, we can rule out A-movement as a possibility in both long and short passives handily. Even if we accept for the sake of argument Biggs' claims that it is not clear that resumptive pronouns are grammatical in Mandarin and that the observed long-distance dependencies can be accounted for by assuming that they have to do with the properties of object control verbs, Biggs still cannot explain the presence of parasitic gaps in the *bei*-complement, because only A'-movement licences them. Even more deadly to her A-movement account is the discussion on the non-availability of idiomatic interpretations in *bei*-passives in subsection 4.2.2 – for

some reason, Biggs does not deal with the interpretation of idioms in *bei*-passives directly, but we have already seen that a raising analysis would predict that idiomatic interpretations should always survive in the *bei*-passive, but this is not empirically supported.

In short, Biggs' unified A-movement account does not seem to make the right empirical predictions, while my unified A'-movement account correctly predicts the data and thus has superior empirical coverage.

This dissertation has drawn a lot from Her's (2009) observations regarding both long and short passives uniformly exhibiting a number of A'-effects, mostly pertaining to the presence of resumptive pronouns and long-distance dependencies in both long and short passives. Note that Her (2009) does not discuss any of the predictions regarding parasitic gaps or island repair via resumption. Indeed, as we will see, his analysis would predict that *bei*-passives are island-insensitive, contrary to fact.

Her specifically proposes that under the LFG framework, *bei*-passives are the passive counterparts of *ba*-constructions, which he claims are active constructions. For Her, the only difference between long and short *bei*-passives is that short passives have an empty pronominal while long passives have an overt agent argument. Specifically, he claims that both *ba* and *bei* are 3-place predicates that take a subject NP, an object NP and a VP complement. Example (41) below illustrates his analysis for long and short *bei*-passives:

(41) [[$_{NP}$ zhangsan] [$_{VP}$ bei [$_{NP}$ (Lisi$_i$)] [$_{VP}$ PRO$_i$ piping-le *e*]]]

Zhangsan BEI Lisi criticise-PERF

'Zhangsan was criticised (by Lisi).'

(Her 2009; 442, with modifications)

In example (41), when there is a long passive, the object NP is *Lisi*. When there is a short passive, the object NP is instead an empty pronominal. Therefore, for Her, *bei* is a 3-place predicate that takes 1) the grammatical subject or the logical object, *Zhangsan*; 2) the object NP or the logical subject, *Lisi*; 3) a VP complement. Further, *bei* is an object control verb that projects a VP and the object NP controls PRO. The gap in the VP complement, represented as *e*, is treated as a TOPIC (Her 2009; 448) and is A'-bound by the grammatical subject.[29, 30] For Her, then, this is how the unbounded nature of the gap is derived and the A'-effects he discusses are thus expected in both long and short passives.

As should be obvious by now, an immediate issue of this analysis is that we would predict that *bei*-passives should be island-insensitive because A'-binding rather than A'-movement is involved, but we have seen ample evidence showing that *bei*-passives are indeed island-sensitive. As mentioned earlier, it is notable that Her does not discuss the issue of islands in *bei*-passives despite arguing in detail against Huang (1999) and Ting (1998) otherwise.

Further, note that his analysis also treats the overt initiator as being the external argument rather than as an oblique, and in the short passive it is instead the empty pronominal that saturates the external argument position. Although Her claims that this means that the object NP is optional in *bei*-passives, it is unclear why this optionality exists or how it comes about. Her's analysis contrasts with my own (or other analyses for passives like Legate's (2014) or Bruening & Tran's (2015)), where I clearly assume that the overt initiator is an oblique and that there is always an existentially closed external argument,

[29] In Her's terms, the subject NP enters into a long-distance control relation with the TOPIC of the VP complement, but the only way to understand an unbounded dependency is to either treat it as A'-movement (which LFG rejects) or A'-binding, hence my choice of the term 'A'-bound'.
[30] Her proposes that *ba* is also a 3-place predicate, just that the subject and object NPs in *bei* and *ba* are "inverted" (Her 2009; 447), and that the object NP of *bei* is optional while it is not in *ba*.

which accounts for the syntactically unexpressed external argument in the short passive and the overt oblique initiator in the long passive.

Since there is no existentially closed external argument in either the long or short passive under Her's account, his analysis would not be in line with Bruening & Tran's (2015) definition of passives. More crucially, it is unclear how the proposed empty pronominal object NP in the short passive is different from other empty pronominals found in other active Mandarin constructions, such as in the case of pro-drop (Huang 1984; 1989; Li 2007a; 2007b; 2014; Ting & Huang 2008). Her does not discuss any means to syntactically distinguish the empty pronominal object NP of *bei*-passives from typical empty pronominals in Mandarin.

Overall, then, even though Her's analysis attempts to describe the *bei*-passive, it does not have adequate explanatory power and in addition would wrongly predict that *bei*-passives should be island-insensitive.

Ting (1993), as a precursor to her analysis in Ting (1995; 1998), proposed the following uniform analysis:

(42) zhangsan$_i$ bei [$_{CP}$ NOP$_i$ [lisi/*pro*$_j$ da-le ta$_i$/*pro*$_i$]]

Zhangsan BEI Lisi hit-PERF 3SG

'Zhangsan was hit (by Lisi).'

(Ting 1993; 244-245, with modifications)

There are two key points to take note of in example (42).[31] First, *bei* is a verb that takes a CP complement, and there is a NOP base-generated in the specifier of this CP as well as a *pro* or a resumptive pronoun[32,33] that is base-generated in the sister-to-V position within this complement CP. In this way, for Ting, both the long and short passive uniformly involve A'-binding, and it is this A'-binding that allows for a predication relation (see also Bruening & Tran's (2015) analysis in subsection 4.2.4 for the *bị*-construction in this regard).

Second, for Ting, the initiator (either *Lisi* or pro_j in example (42) above) is in an A-position that is within the CP complement that *bei* takes. As far as I can tell, she does not discuss the issue of existential closure and the implicit initiator in the short passive is analysed as being another *pro* (see also Her (2009) for a similar approach to the implicit initiator).

Readers will notice that because Ting does not assume that there is an existentially closed external argument for both the long and short passives and instead proposes an alternation between an overt initiator and a *pro*, her account runs into the same problems as Her's (2009) account: 1) it is difficult to square the lack of existential closure with Bruening & Tran's (2015) definition of the passive; 2) the observed optionality of the initiator is left unaccounted for; 3) it is not clear how we should distinguish an initiator *pro* from the *pro* that is A'-bound by the NOP, or more generally from *pro*s that appear in subject positions or otherwise in other constructions in Mandarin.

[31] While Ting (1993) presents example (42) as grammatical, Ting (1998) would later claim that the resumptive *ta* ('him/her/it') is only grammatical in the long passive provided that it is followed by an adverbial such as *yixia* ('once'), and that the resumptive pronoun should be ruled out completely in the short passive.
[32] Note that Ting (1993) does not explicitly refer to *ta* here as a resumptive pronoun, but does observe that it must obligatorily refer to the NOP, which A'-binds it. Pan (2016) argues that in Mandarin, it is possible to have resumptive pronouns via A'-binding.
[33] Note that Ting (1995; 1998) no longer presents examples like (42) that have the resumptive pronoun in the sentence-final position as grammatical.

Another issue with Ting's analysis is that she does not discuss what her A'-binding account predicts.[34] While Ting does make use of the presence of resumptive pronouns, which is an A'-effect, to argue for her proposal, she does not explicitly point out that her account should predict that *bei*-passives are invariantly island-insensitive, in the same vein as Her's (2009) analysis for *bei*-passives and Bruening & Tran's (2015) A'-binding proposal for *bị*-constructions, contrary to fact, or that her account should predict that *bei*-passives can host parasitic gaps. This latter point is especially salient because Ting directly compares her A'-binding proposal for *bei*-passives to that of Cinque's (1990) for parasitic gaps. That is, ceteris paribus, her account should similarly expect parasitic gaps to be grammatical in *bei*-passives, but she remains silent on the matter.

Curiously enough, Ting claims that while A'-binding can explain the various *bei*-passive constructions, A'-movement cannot, but as far as I can tell there is little discussion comparing the two. While it is commendable that Ting proposes a unifying account, her claim that we cannot achieve such unification via A'-movement is not well-substantiated at best, while I have made explicit predictions given my unified A'-movement of NOP account that are corroborated by the empirical evidence. To reiterate, although Ting also does not address the issue of syntactic islands and their interactions with *bei*-passives, it is obvious by now that her A'-binding account would predict that both *bei*-passives should be island-insensitive, but in chapter 3 I have already definitively shown that both *bei*-passives are indeed island-sensitive, and that island violations can be repaired via resumptive pronouns. Then, the empirical data at hand favours my unified A'-movement account and discounts an A'-binding account.

[34] That said, Ting does show that her A'-binding account seems to work for cases where the logical object is located in an embedded finite CP, which is also discussed by Chen (2022), albeit from a different perspective (see subsection 4.2.3).

Thus, Ting's A'-binding account leaves us with many empirical gaps due to the lack of any predicted syntactic phenomena that are associated with A'-binding, and also leaves us with theoretical gaps due to the position that the implicit initiator is a *pro* rather than involving existential closure, which is typically assumed to be present in some form in most standard analyses of passives.

To sum up, in this subsection we have briefly reviewed three other unified analyses for long and short *bei*-passives. In particular, we have seen why it is that my A'-movement of NOP analysis is superior to Biggs' (2014) A-movement account as well as Her's (2009) and Ting's (1993) respective A'-binding accounts from both the theoretical and empirical perspectives.

4.4 Accounting for binding facts under my proposal

The previous sections have compared my unified account against haplology accounts, non-unified accounts and even other unified accounts, and I have argued that my account is empirically and theoretically superior. However, I have yet to explain how my analysis accounts for the following contrast:

(43a) *zhangsan$_i$ bei ta$_i$ hai-can-le

Zhangsan BEI 3SG sabotage-badly-PERF

Intended: 'Zhangsan$_i$ was sabotaged badly by him$_i$.'

(43b) zhangsan$_i$ bei ziji$_i$ hai-can-le

Zhangsan BEI self sabotage-badly-PERF

Lit: 'Zhangsan$_i$ was sabotaged badly by himself$_i$.'

Notice that in example (43a), the pronoun *ta* cannot be coindexed with the matrix subject *Zhangsan*, while in (43b), the reflexive *ziji* 'self' can be coindexed with the matrix subject.[35] That is, there is a violation of Principle B but there is no violation of Principle A (Chomsky 1980). I present how some other accounts have dealt with this contrast before discussing how my account is also able to explain this.

Huang (1999) and Ting (1998) deal with the contrast between examples (43a) and (43b) by proposing that *bei* is an ECM verb. Recall that for them, the overt initiator in the long passive is in the embedded subject position, meaning that in example (43a) *ta* should have been bound outside of its binding domain, but because *bei* is an ECM verb, the binding domain of *ta* is the main clause rather than the embedded clause (thus the Principle B violation), much like the English example (44) below, in which we see the same contrast because *believe* is also an ECM verb here:

(44) John$_i$ believes *him$_i$/himself$_i$ to be honest.

Her (2009) instead assumes that *bei* is an object control verb, such that *bei* takes an object NP. Her argues that in this way, *ta* is bound in its binding domain, which is a violation of Principle B, hence accounting for the contrast in example (43):

(45) [[$_{NP}$ zhangsan$_i$] [$_{VP}$ bei [$_{NP}$ *ta$_i$/ziji$_i$] [$_{VP}$ PRO$_i$ pian-le]]]

Zhangsan BEI 3SG/self trick-PERF

Lit: 'Zhangsan$_i$ was tricked (by him$_i$/himself$_i$).'

(Her 2009; 443, with modifications)

[35] But note that *ziji* is a long-distance reflexive (Cole et al. 1990; Cole & Wang 1996; Tang 1989), unlike an English reflexive like *herself/himself*.

Interestingly, though Her claims that Huang (1999) and Ting (1998) merely stipulate that *bei* is an ECM verb, he also simply asserts that the overt initiator behaves as if it were the object NP of *bei* without much further comment.

As for Ting's (1993) account that assumes A'-binding of the *pro* base-generated in the sister-to-V position by a base-generated NOP, the ungrammatical example (46) is claimed to be due to strong crossover (SCO):

(46) *Zhangsan$_i$ bei [$_{CP}$ NOP$_i$ [ta$_i$ da-le *pro*$_i$]]

Zhangsan BEI 3SG hit-PERF

Lit: '*Zhangsan$_i$ was hit by him$_i$.'

Intended: 'Zhangsan$_i$ was hit by himself$_i$.'

(Ting 1993; 250, with modifications)

Though Ting (1993) does not explicate how SCO arises in example (46), as far as I can tell, it is presumably because *pro* is coindexed with NOP but there is also a pronoun *ta* that c-commands *pro* and is also coindexed with said *pro*. Even if we accept that this non-typical configuration[36] is what invokes SCO, it is unclear why examples like (47) are then grammatical:

[36] A typical configuration that invokes SCO would be the following:
(i) *who$_i$ did he$_i$ like t_i?

In example (i), the trace of the WH-element *who* is also coindexed with the pronoun *he*. Note that example (i) does not involve either *pro* or NOP, unlike example (46). I thank Simin Karimi (p.c.) for reminding me to point out this important difference in configuration.

(47) Zhangsan$_i$ bei [$_{CP}$ NOP$_i$ [ziji$_i$ hai-can-le *pro*$_i$]]

Zhangsan BEI self sabotage-badly-PERF

Lit: 'Zhangsan$_i$ was sabotaged badly by himself$_i$.'

Ting (1993) does not discuss why SCO is not invoked in examples like (45), and only tentatively discusses such configurations in her footnotes. That is, not only does Ting not seem to provide a satisfactory account for ruling out examples like (46), she also does not explicitly account for the contrast in grammaticality between (46) and (47).

That said, Ting also notes that the application of Principle B already rules out example (46), since *pro* is bound in its binding domain by *ta*, though she also notes that examples like (47) are then unaccounted for because there clearly also is a Principle B violation since *pro* is similarly bound in its binding domain, this time by *ziji*. When also taking into consideration the arguments against her A'-binding approach from section 4.3, I argue that her analysis is lacking in empirical coverage.

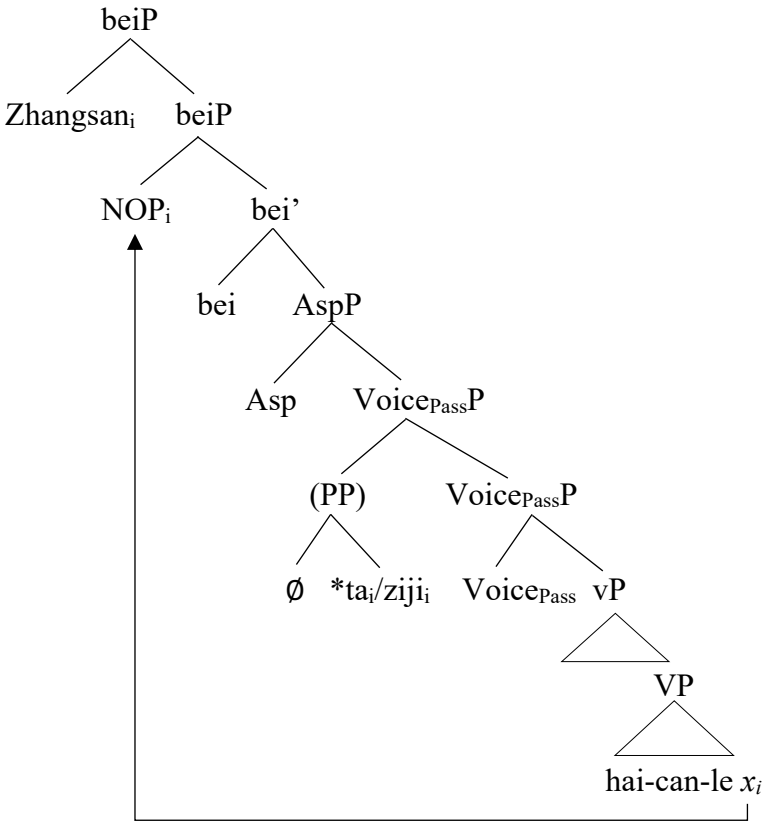
It is important to bear in mind that all the four accounts discussed above assume that the overt initiator is in an A-position, while my account assumes that the initiator is an oblique. Specifically, recall that my account assumes that the initiator is a PP adjunct that is adjoined to Voice$_{Pass}$P:

(48) The A'-movement analysis for long and short *bei*-passives

zhangsan$_i$ [$_{beiP}$ NOP$_i$ [$_{beiP}$ bei [$_{PP}$ *ta$_i$/ziji] [$_{vP}$ hai-can-le x_i]]]

Zhangsan BEI 3SG/self sabotage-badly-PERF

Intended: 'Zhangsan$_i$ was sabotaged badly by *him$_i$/himself$_i$.'



If we assume that binding domains can be defined in terms of phases (Despić 2015; Quicoli 2008), and that vPs and CPs are phases[37, 38] (Chomsky 2001b; 2005), what we observe is that the pronoun *ta* or the reflexive *ziji* within the PP is in the same binding domain as the logical object/grammatical subject *Zhangsan*, and in both cases they are coindexed with *Zhangsan*.

[37] I assume along with Chierchia (1998) and Despić (2015) that Mandarin is a NP language rather than a DP language, and so set aside the issue of whether DP should count as a phase.
[38] Though see authors such as Bošković (2014) or Carnie (2005) for alternative analyses on what should count as a phase.

More specifically, Quicoli (2008) proposes the following definition for local binding domains (local domains in his terms):[39]

(49) Local domain

β is a local domain for α if and only if β is the minimal category containing α and a SUBJECT accessible to α.

(Quicoli 2008; 300)

He also proposes that Principles A, B and C (Conditions A, B and C in his terms) apply cyclically at the end of each phase. In (50) the standard formulation of binding relations is presented, and (51) presents an interpretive version:

(50) Binding theory

Condition A: An anaphor must be bound in a local domain.

Condition B: A pronominal must be free in a local domain.

Condition C: An R-expression is free.

(Quicoli 2008; 300, with modifications)

[39] It is important to establish that Quicoli (2008) and Despić (2015) are concerned with local binding domains, since they set aside the issue of long-distance binding seen in reflexives like *ziji*.

(51) Interpretive binding theory (where D is the binding domain as defined in (49))

Condition A: If α is an anaphor, interpret it as coreferential with a c-commanding phrase in D.

Condition B: If α is a pronoun, interpret it as disjoint from every c-commanding phrase in D.

Condition C: If α is an R-expression, interpret it as disjoint from every c-commanding phrase.

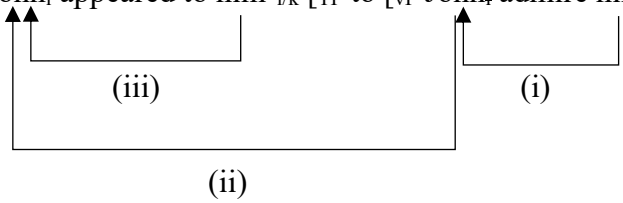
(Quicoli 2008; 301, with modifications)

Quicoli (2008) adopts the interpretative version of binding theory in (51), but he acknowledges that the version in (50) would account for the data just as well. Thus, for the purposes of this dissertation, I describe the data using (50) instead.

What is more relevant to note here is that Principle A and Principle B as stated in (48), when applied phase by phase, applies first at vP and then again at CP (Despić 2015; Quicoli 2008). Examples (52) and (53) demonstrate respectively how Principle B and Principle A work in combination with phase theory according to analyses like Despić's or Quicoli's:

(52a) John$_i$ appeared to him$_{*i/k}$ to admire him$_{*i/k}$.

(52b) [$_{vP}$ John$_i$ appeared to him$_{*i/k}$ [$_{TP}$ to [$_{vP}$ ~~John$_i$~~ admire him$_{*i/k}$]].



(i) pronoun *him* cannot be bound in its binding domain i.e. cannot be coindexed with antecedent *John* base-generated in embedded vP

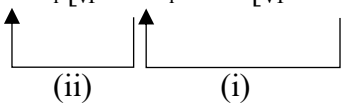
(ii) successive-cyclic A-movement of *John* from embedded vP to matrix vP

(iii) pronoun *him* cannot be bound in its binding domain i.e. cannot be coindexed with antecedent *John* that has moved into matrix vP

(Quicoli 2008; 305, with modifications)

(53a) John$_i$ likes himself$_i$.

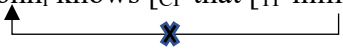
(53b) [$_{TP}$ John$_i$ [$_{vP}$ ~~John$_i$~~ likes [$_{VP}$ himself$_i$]]



(i) reflexive *himself* is successfully bound in vP phase before A-movement of antecedent *John* to [Spec, TP]

(ii) *John* base-generated in vP and A-moves to [Spec, TP]

(53c) *John$_i$ knows [$_{CP}$ that [$_{TP}$ himself$_i$ saw Mary]].



antecedent outside of CP phase; reflexive not bound in its binding domain

(Despić 2015; 204, with modifications)

Now, starting with example (52), we see that *John* is base-generated in the specifier of the embedded vP under standard assumptions. Applying the definition of binding domain in (49) to this vP phase, it means that *John* serves as the SUBJECT accessible to the embedded pronoun *him*. Additionally, since Principle B applies cyclically by phase, it applies to this vP phase once it is built up, such that the pronoun *him* cannot be coindexed with *John* (i.e. the pronoun is free in its binding domain) if the sentence is to be grammatical. After *John* A-moves to the specifier of matrix vP (also under standard assumptions), it again is an accessible SUBJECT, but this time to the matrix pronoun *him*. We again apply Principle B in the matrix vP phase once it is built up, thus ensuring that matrix *him* is also free in its binding domain. The above sums up the phase-based application of Principle B.

Moving on to example (53a-b), in a simple monoclausal sentence, where *John* is base-generated in vP and is the SUBJECT accessible to the reflexive *himself*, we apply Principle A once the vP phase is built up and before *John* A-moves, thus ensuring that the reflexive is bound in its binding domain. Under Quicoli's (2008) and Despić's (2015) formulation of phase-based binding domains, it is critical that Principle A applies once the vP phase is built up since the antecedent *John* will no longer be accessible once it A-moves. This formulation of a binding domain correctly predicts that example (53c) is ungrammatical. Note that the binding domain of *himself* in (53c) is the embedded CP, and Principle A applies at the point the embedded CP is built up. However, at this stage, there is no accessible antecedent for *himself* since *John* is base-generated in a higher phase, and so there is a violation of Principle A. Example (53c) is thus correctly predicted to be ungrammatical via a phase-based binding domain coupled with the cyclical application of Principle A.

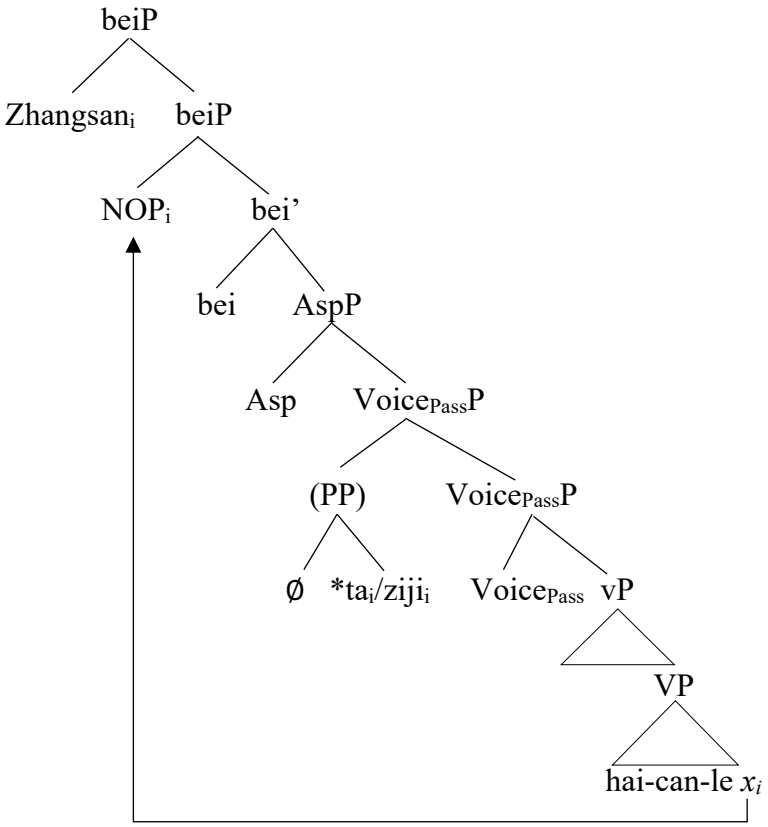
Now, we can clearly see how Quicoli's and Despić's proposals apply to the *bei*-passive when the PP adjunct contains a pronoun *ta*. I repeat the example (48) above and its accompanying tree as (54) below for convenience:

(54) The A'-movement analysis for long and short *bei*-passives

zhangsan$_i$ [$_{beiP}$ NOP$_i$ [$_{beiP}$ bei [$_{PP}$ *ta$_i$/ziji] [$_{vP}$ hai-can-le x_i]]]

Zhangsan BEI 3SG/self sabotage-badly-PERF

Intended: 'Zhangsan$_i$ was sabotaged badly by *him$_i$/himself$_i$.'



Observe that the PP adjunct containing the pronoun *ta* is in the same phase as the logical object/grammatical subject *Zhangsan*, and *Zhangsan* is an accessible SUBJECT in the binding domain. Principle B applies within this phase, thus ensuring that just in case the PP adjunct contains a pronoun *ta*,[40] it cannot be coindexed with *Zhangsan* since the pronoun

[40] As a quick verification, we see in (i) and (ii) below that *ta* can be bound even when it is within a PP:

(i) zhangsan$_i$ shuo lisi$_k$ gen **ta$_{i/*k}$** hen yaohao
Zhangsan say Lisi with 3SG very friendly
'Zhangsan$_i$ says that Lisi$_k$ is well-acquainted with **him$_{i/*k}$**.'

must be free in its binding domain. Thus, my account correctly rules out coindexation of the pronoun *ta* with the grammatical subject even though the overt initiator is an oblique and is not in an A-position.

Although Quicoli's and Despić's accounts do not directly deal with long-distance reflexives like *ziji* (Cole et al. 1990; Cole & Wang 1996; Tang 1989; Xu 1993; 1994),[41] we can see that the definition of a local binding domain in (49) and Principle A as described in (50) or (51) is still compatible with a cyclical application by phase since the reflexive *ziji* and its antecedent *Zhangsan* are in the same phase. That is, if we expect that the pronoun *ta* and *Zhangsan* cannot be coindexed because of a Principle B violation, we should also expect that the reflexive *ziji* and *Zhangsan* can be coindexed, in line with Principle A. It should also be mentioned that *ziji* can be bound from within a PP (Cole et al. 1990; Cole & Wang 1996; Tang 1989), hence my PP adjunct analysis can be maintained with *ziji* as well.

At this juncture, it is important to note that my account simply requires a phase-based binding theory (which, I submit, is independently an empirically desirable goal) in order to derive the contrast in an example like (54). While my account still assumes that *bei* is a verb, it does not need to assume that *bei* is a control or ECM verb in particular in order to ensure that the grammatical subject ends up in the binding domain of the initiator. Further, my account does not need to appeal to crossover effects, which do not apply anyway given that my account assumes A'-movement of NOP (Chen 2022; 2023).

Throughout this chapter, we have reviewed various types of proposals for the *bei*-passive, and we have seen how they fall short in terms of empirical coverage in one way or

(ii) zhangsan$_i$ shuo lisi$_k$ dui **ta$_{i/*k}$** fa piqi
Zhangsan say Lisi to 3SG vent temper
'Zhangsan$_i$ said that Lisi$_k$ lost his$_k$ temper at him$_{i/*k}$.'

[41] It should be obvious that Principles A, B and C cannot account for long-distance binding. For the interested reader, Hu's (2019) Reflexive Binding Condition (RBC) provides one possible account for the long-distance reflexive *ziji*. I further note that his account is not phase-based, though it is far beyond the scope of this dissertation to attempt an integration of his account with a phasal analysis here.

another. I have argued that, in comparison, my account does not over-generate or under-generate the data. To that end, beyond the predictions discussed in chapter 3 that corroborate my unified A'-movement of NOP analysis, I have shown that 1) idiomatic interpretations do not always survive in *bei*-passives and that this is predicted by my account; 2) the size of the *bei*-complement should be as large as AspP in order to account for the morphological data at hand; 3) we can maintain that the overt initiator in the long *bei*-passive is an adjunct while also maintaining that initiator-oriented adverbs diagnose for derived subjects; 4) my unified analysis for *bei*-passives proposes structures for long and short passives that would be in line with Bruening & Tran's proposed definition of passives; and 5) my account is also able to correctly rule out coindexation of a third-person pronoun adjunct initiator with the grammatical subject while still correctly ruling in coindexation of a reflexive adjunct initiator with the grammatical subject.

In the next chapter, I turn to discuss cases where my account apparently does under-generate the data, and I argue that this is due to a linear ordering constraint that can be satisfied, and so my proposed syntactic structure for *bei*-passives remains tenable.

Chapter 5 – The presence of a linear ordering constraint in *bei*-passives

In chapter 2, I laid out my unified A'-movement of a null operator (NOP) analysis, and also argued that the initiator in the long *bei*-passive is really in a PP adjunct. My analysis predicts that in both the long and short passives we expect A'-effects such as the licencing of parasitic gaps and resumptive pronouns, island repair via resumption and the presence of long-distance dependencies, all of which were discussed in detail in chapter 3. Chapter 4 then demonstrated that my account has superior empirical coverage compared to haplology accounts, non-unified accounts and even other unified accounts by considering the evidence from chapter 3 as well as new evidence from V-O idioms. Arguments were also made for why both the long and short passives are indeed passive constructions and why the *bei*-complement must be as large as AspP. Finally, chapter 4 also showed that my analysis correctly accounts for the binding facts.

And yet, there is still another crucial observation that has not been discussed thus far, and it is addressed in this chapter. In example (1) below, we see that the long-distance dependency is blocked in this instance of the short passive unless there is an intervening element:

(1a) *[di chuan]$_i$ bei [pai haijun [ji-chen-le x_i]]

enemy ship BEI send navy attack-sink-PERF

Intended: 'The enemy ship was sent-navy-to-sink.'

'(Someone) has sent the navy to sink the enemy ship.'

(1b) [di chuan]$_i$ bei xunsude [pai haijun [ji-chen-le x_i]]

enemy ship BEI rapidly send navy attack-sink-PERF

'The enemy ship was rapidly sent-navy-to-sink.'

'(Someone) has rapidly sent the navy to sink the enemy ship.'

(Ngui 2022; 355, with modifications)

Authors who proposed that long and short passives should have two syntactically distinct structures, such as Huang (1999) and Ting (1998), only cited examples akin to (1a) as evidence that long-distance dependencies were blocked in short passives, and therefore they must not involve A'-movement and consequently should only involve A-movement (see chapter 4).[1] However, it is also evident from (1b) that their proposals cannot be the full story since the sentence is revealed to be grammatical provided that there is an intervening element between *bei* and the verb. That there can indeed be a long-distance dependency in principle definitively rules out the A-movement account for short passives and lends support to my unified account.

Thus, the purpose of this chapter is to show that we can have a principled explanation of this apparent asymmetry between long and short passives. In particular, this chapter will argue that the apparent asymmetry is due to a linear ordering constraint that prevents *bei* from being immediately followed by a verb (in some short *bei*-passives[2]), and that the constraint

[1] See Huang (1999) or Ting (1998) for more arguments on why the short passive should involve A-movement instead.

[2] It must be conceded that the linear ordering constraint proposed in this chapter does not explain why it is that there are short *bei*-passives that do exhibit A'-effects even without any interveners (see chapters 3 and 4 for the relevant short passive examples). It seems that this constraint does not straightforwardly apply to both long and short *bei*-passives (in that there are probably more as-yet-unknown LF- or PF-side phenomena that interact with this constraint), though I do not currently have a good explanation for this and will have to leave a more comprehensive account for future research. In example (6) below, I set this issue aside and propose a linear ordering constraint that is meant to apply in the general case.

can be satisfied by having an appropriate intervening element between *bei* and the secondary predicate. Since we are dealing with a linear ordering constraint, the prediction is that the intervening element can be of any part of speech, as long as it has an appropriate prosodic weight (Duanmu 2014; Lin 2014; Simpson 2014) and as long as the syntax of Mandarin allows for it to intervene between *bei* and the secondary predicate, and I argue that this prediction is indeed borne out.

Section 5.1 first describes this constraint, and I argue that this is the core reason for the reported ungrammaticality of some short passives as observed by authors such as Huang (1999) and Ting (1998). Section 5.2 discusses data from Chen & Li's (2021) observations, and I argue that their data provides support for how the proposed ordering constraint can be satisfied by presenting data showing that adverbial phrases (AdvPs) can be intervening elements. Section 5.3 presents data showing that prepositional phrases (PPs) can also be intervening elements. Section 5.4 then argues that the oblique initiator I have been arguing for, being a PP, is also an intervening element and further argues that the initiator PP adjunct is not only semantically but also syntactically distinct from typical PPs due to restrictions in PP reordering in *bei*-passives.

5.1 Proposing a linear ordering constraint in *bei*-passives

As discussed above as well as in chapters 3 and 4, two motivating factors for the non-unified approach as proposed by authors such as Huang (1999) and Ting (1998) are that long-

In addition, further work is needed to discover what factors condition the application of this linear ordering constraint, i.e. whether it is specific to these cases or whether there is a broader generalisation that explains when it applies (as here) and when it does not (as in the cases discussed throughout the earlier part of this dissertation). See also section 5.2 for a brief discussion on this issue.

distance dependencies are apparently blocked only in short passives (example (2))[3] and that resumptive pronouns are also apparently blocked only in short passives[4] (example (3)):

(2) zhangsan$_i$ bei *(lisi) [pai jingcha [zhuazou-le t_i]]

Zhangsan BEI Lisi send police arrest-PERF

Lit: 'Zhangsan was sent-police-to-arrest (by Lisi).'

Intended: 'Police were sent to arrest Zhangsan *(by Lisi).'

(Huang 1999; 23, with modifications)

(3) zhangsan$_i$ bei *(lisi$_j$) piping-le ta$_{i/*j}$ yidun

Zhangsan BEI Lisi criticise-PERF 3SG once

'Zhangsan was criticised once *(by Lisi).'

(Ting 1998; 324, with modifications)

[3] Heidi Harley (p.c.) observes that the presence of RPs should also be blocked in example (2), and we see in (i) that such is indeed the case:

(i) zhangsan$_i$ bei *(lisi) [pai jingcha [zhuazou-le **ta$_{i/*j}$**]]

Zhangsan BEI Lisi send police arrest-PERF **3SG**

Lit: 'Zhangsan$_i$ was sent-police-to-arrest him$_i$ (by Lisi).'

Intended: 'Police were sent to arrest Zhangsan *(by Lisi).'

The reader should note that the particular example (i) above is not discussed by Huang (1999). While the ungrammaticality of example (i) is expected, it is crucially also indicative that there could indeed be a linear ordering constraint in effect rather than some other effect induced in particular by long-distance dependencies or RPs when they are respectively present in certain short *bei*-passives. I thank Heidi for checking that the data and my proposal is consistent.

[4] Huang (1999) and Ting (1998) claim that not all long passives can host resumptive pronouns, and attribute their grammaticality in examples such as (3) to either the licencing adverb *yidun* 'once' or 'more material' surrounding the resumptive pronoun (see also footnote 19). For the purposes of this dissertation, what matters is that we can find resumptive pronouns in long and short passives alike, thus showing that A'-movement of NOP is involved in both, so I will not concern myself with whatever else the resumptive pronoun requires for grammaticality (see also a discussion of the distribution of resumptive pronouns in Mandarin in chapter 3).

Huang (1999) and Ting (1998) use the contrasts seen between long and short passives in examples (2) and (3) above to argue that only the long passive should involve A'-movement of a NOP and short passives should instead involve A-movement of a PRO (see chapter 4) since long-distance dependencies and resumption, which are A'-effects (see chapter 3), are only observed in the long passive variants of (2) and (3). Even though we have seen much evidence by now that supports my unified account and falsifies these analyses, example (1a) above and examples (2) and (3) here seem to show that my account over-generates because it predicts such examples to be grammatical, contrary to fact.[5]

However, the evidence thus far strongly indicates that the story is not quite so simple. That is, we do not find ourselves in an all-or-nothing situation in which short passives invariantly ban long-distance dependencies or resumption, and in fact we have discussed in great detail four significant A'-effects that are found in both long and short passives (see chapter 3), which corroborates my unified analysis. I argue that example (1), repeated below as example (4), seems to point to a potential solution that can reconcile the contradictory evidence at hand:

(4) [di chuan]$_i$ bei *(xunsude) [pai haijun [ji-chen-le x_i]]

enemy ship BEI rapidly send navy attack-sink-PERF

'The enemy ship was rapidly sent-navy-to-sink.'

'(Someone) has rapidly sent the navy to sink the enemy ship.'

(Ngui 2022; 355, with modifications)

[5] But I will in fact propose later in subsection 5.4 that the initiator PP adjunct in examples such as (2) and (3) are also interveners that satisfy the proposed linear ordering constraint and thus reveal that the respective long-distance dependency and resumptive pronoun A'-effects are grammatical.

In example (4), we see that without the intervening element *xunsude* (‘rapidly’) placed between *bei* and the verb *pai* (‘send’), the long-distance dependency is blocked. However, the intervening element itself, as an adjunct, does not seem to have anything to do with licencing this long-distance dependency, at least not in the syntax or semantics. We also see in example (5) that resumptive pronouns can be hosted in the short passive with the presence of an intervening element:

(5) Zhangsan$_i$ bei (Lisi) *(henhen-de) ma-le ta$_i$ ji-ci

Zhangsan BEI Lisi vicious-DE scold-PERF 3.SG few-instance

‘Zhangsan$_i$ was viciously scolded him$_i$ a few times (by Lisi).’

(Ngui 2022; 355, with modifications)

I therefore tentatively propose that in most *bei*-passives, a linear ordering constraint blocks the *bei* morpheme from being linearly adjacent to the verb (V) in the PF just in case there is a long-distance dependency, or if there is a resumptive pronoun:

(6a) satisfying the constraint reveals that long-distance dependencies are grammatically well-formed in short *bei*-passives

DP$_i$ bei *(AdvP/PP) [$_{VP1}$ V… [$_{VP2}$ … x_i]]

(6b) satisfying the constraint reveals that resumptive pronouns can be hosted in short *bei*-passives

DP$_i$ bei *(AdvP/PP) V ta$_i$

Relevantly, if the linear ordering constraint can be successfully satisfied, we should find that both the long-distance dependencies and resumptive pronouns are revealed to be grammatical even in short passives, consistent with my A'-movement of NOP analysis (see also the discussion on short *bei*-passives that exhibit long-distance dependencies and presence of resumptive pronouns in chapter 3), since the constraint is purely a PF-side or extra-syntactic phenomenon and should not affect the syntax.

The reader should immediately notice that my proposed linear ordering constraint for Mandarin *bei*-passives is similar in nature to analyses that propose that the violation incurred in the *that*-trace effect is not internal to the narrow syntax, and neither is its obviation. The *that*-trace effect has been discussed by Bresnan (1977), Erlewine (2017), Culicover (1993), Kandybowicz (2006), Kruger (2019) and Sato & Dobashi (2016), among many others, with the latter authors arguing that the phenomenon of an intervening element obviating the *that*-trace effect falls outside of the realm of narrow syntax[6] and is therefore a PF-side or extra-syntactic issue. Example (7) below first demonstrates what the *that*-trace effect is in English, and example (8) illustrates the obviation of the *that*-trace effect with an intervening element:

(7a) Who$_i$ do you think [$_{CP}$ (***that**) t_i wrote the book]?

(7b) What$_i$ do you think [$_{CP}$ (**that**) Bill wrote t_i]?

(Kandybowicz 2006; 220, with modifications)

(8a) Who$_i$ did she say [$_{CP}$ that *(**tomorrow**) t_i would regret his words]?

[6] But see Erlewine (2017) for a contemporary alternative proposal that involves accounting for the *that*-trace effect by invoking anti-locality.

(8b) [Which doctor]$_i$ did you tell me [$_{CP}$ that *(**during an operation**) t_i had had a heart attack]?

(Bresnan 1977; 194, with modifications)

(8c) I asked what$_i$ Leslie said [$_{CP}$ that *(**in her opinion**) t_i had made Robin give a book to Lee].

(Culicover 1993; 558, with modifications)

In English, the *that*-trace effect can be observed when there is a long-distance extraction of a subject, but not an object, across an embedded clause with an overt *that* complementiser, as seen in example (7). Importantly, if the complementiser *that* is not overtly present in the sentence, no *that*-trace effect is incurred, as seen in example (7a). Interestingly, when there is an intervening element between the overt *that* and the trace of the *wh*-moved subject, as in example (8), the *that*-trace effect is no longer detected, or it could also be said that the *that*-trace effect has been obviated.

Culicover (1993) proposes that a structural analysis alone will not adequately account for the obviation of the *that*-trace effect, though he does not directly propose a post-syntactic account. Kruger (2019) observes that his proposed framework for mapping syntax isomorphically onto prosody cannot fully account for why the *that*-trace effect is incurred as well as why it can be obviated, but also asserts that the phenomenon should fall outside of narrow syntax partly because of intra-linguistic variation in the robustness of the *that*-trace effect. In relation, Kruger also claims that intervening adverbs such as those in example (8) that can obviate the *that*-trace effect do not affect the syntactic structure of the sentences. Thus, he suggests that an adequate account should instead look to the post-syntactic stage of the derivation, and proposes that the *that*-trace effect and its obviation fall out of the parsing

process. Specifically, he suggests that while the parser typically attempts to discharge the filler into a gap as soon as possible, the selection of the overt *that* in example (7a) delays the discharge of the filler initiated by *who* when it should have been discharged into the subject gap that immediately follows *that*, resulting in the observed *that*-trace violation. Kruger also suggests that the intervening elements that immediately follow *that* and precede the subject gap in example (8) are intervening constituents that have to be processed first regardless, such that even if there is an overt *that* that delays the discharge into the subject gap, the filler does not need to be discharged immediately anyway and thus the *that*-trace effect is obviated in example (9).

Kandybowicz (2006) also observes that there is much intra-linguistic variation when it comes to the *that*-trace effect in English and suggests that such variation cannot be adequately accounted for by purely syntactic analyses. In addition to the obviation of *that*-trace effects via intervening elements as in example (8) above, he also observes that the *that*-trace effect can also be obviated under a variety of conditions: 1) when a monosyllabic complementiser is reduced or unstressed; 2) when there is an intonational break induced by Right Node Raising; 3) when there is complementiser-auxiliary contraction across the subject trace; 4) when intonation focus falls on the embedded verb instead; and 5) when ellipsis occurs. Briefly, Kandybowicz proposes that all of the above can be accounted for by assuming that the *that*-trace effect in English is actually a violation of a prosodic requirement that the overt complementiser *that* and the subject trace must be linearly adjacent when they are in the same prosodic phrase when they are situated at the phrase's left edge, contra Kruger's (2019) suggestion that the *that*-trace violation is due to parsing issues that arise as a result of the overt *that* complementiser.

Sato & Dobashi (2016) also argue that a purely syntactic account for the *that*-trace effect and its obviation is inadequate, and instead propose a prosodic account where

successive applications of Spell-Out eventually results in the complete phonological form, PF. In a nutshell, for them, because the complementiser *that* cannot form a prosodic phrase with the unpronounced subject trace, it forms a prosodic phrase on its own, which incurs a violation in the PF. Like Kandybowicz (2006), they also show that their account can explain why the *that*-trace effects can be obviated 1) when there are intervening elements as in example (8); 2) when ellipsis occurs; 3) when contrastive focus stress is placed on the embedded verb; 4) when auxiliary reduction across a subject trace occurs; and 5) when there is an intonational break induced by Right Node Raising. However, they depart from Kandybowicz' (2006) account by pointing out that while his account is descriptive, they assume a strict syntax-prosody mapping to derive the *that*-trace violation as well as the various observed environments in which the *that*-trace effect is obviated.

The abovementioned accounts all propose that the *that*-trace effect cannot be due to a violation that arises in the narrow syntax, while Kandybowicz (2006) and Sato & Dobashi (2016) in particular appeal to prosody. I have alluded to some long-distance dependencies and resumptive pronouns being blocked in short *bei*-passives due to a linear ordering constraint, and here I make the tentative observation that in the PF, *bei* cannot be linearly adjacent to the verb if there is a long-distance dependency or resumptive pronoun present. While it might be tempting to focus on the fact that in both the proposed constraint and the *that*-trace effect, a long-distance dependency or an A'-chain is present, it must also be noted that just as the *that*-trace effect exhibits intra-linguistic variation, we see that the constraint is only present in some, and importantly not all, short passives (see chapter 3 in particular for examples of A'-effects observed uniformly in both short and long passives). This state of affairs is not expected if the answer to this violation lies in the narrow syntax. Thus, like Culicover (1993), Kruger (2019), Kandybowicz (2006) and Sato & Dobashi (2016), I suggest

that the reason for the violation lies beyond narrow syntax, hence the proposal of a linear ordering constraint.

Abstractly, the similarity between my proposed constraint and the *that*-trace effect can be described as follows: when a function word, namely *that* in English and *bei* in Mandarin, is linearly adjacent to another element, the subject trace in English and the verb in Mandarin, an extra-syntactic violation arises.[7] That said, other than the distinct possibility that there is a linear ordering constraint such that *bei* cannot be linearly adjacent to (some forms of) the verb (in some but not all cases), it might also be the case that a parsing account similar to Kruger's (2019) could be more appropriate. It might even turn out to be that prosodic weight (Duanmu 2014; Lin 2014; Simpson 2014) in Mandarin, rather than the proposed linear ordering constraint, would provide a better empirical account. After all, it is well-known that Mandarin has a prosodic requirement such that a minimal expression is typically disyllabic, and that monosyllabic expressions have an empty second syllable to maintain the disyllabic foot structure (Duanmu 1999; 2014), hence it could be that the observed linear ordering constraint (when it is in effect in short passives) is really a reflex of such a prosodic requirement. However, determining which extra-syntactic account is most appropriate requires more empirical research that goes far beyond the scope of the dissertation and must be left to future research.

To recapitulate, I have proposed a linear ordering constraint in Mandarin *bei*-passives, and I have also argued that if the constraint can be successfully satisfied, we should find that both the long-distance dependencies and resumptive pronouns are available even in short passives given my unified account. With the above in mind, I begin the next subsection by

[7] Tentatively, I envision two possible accounts for the proposed linear ordering constraint – either *bei* cannot head its own phrase (in some but not all cases), or *bei* cannot form a phrase with (some forms of) the verb that is linearly adjacent to it.

discussing Chen & Li's (2021) data on AdvPs and show that the three types of AdvPs that they present can all be interveners in the sense of (6), as expected.

5.2 Against Chen & Li's (2021) analysis of AdvPs, and satisfying the constraint

In earlier chapters, I have used the term 'initiator-oriented adverb' rather than the more conventional 'subject-oriented adverb' without further comment. Before going any further, I address my use of the term. We have seen in chapter 4 that Bruening & Tran (2015) rightly point out that so-called subject-oriented adverbs diagnose for derived subject positions, hence the nomenclature. I too agree that subject-oriented adverbs/initiator-oriented adverbs should be construed with the argument in the derived subject position. However, in that same chapter, I have also argued that it is possible to analyse the overt initiator as being an oblique in a PP adjunct and hence my analysis can maintain that there is still an existentially closed external argument even in the long *bei*-passive, contra Bruening & Tran. Therefore, for me, the subject-oriented adverb/initiator-oriented adverb is technically construed with both the existentially closed external argument as well as the oblique initiator. My choice of the term 'initiator-oriented adverb' is thus my shorthand for this indirect relationship between the subject-oriented adverb and the oblique initiator in (long) *bei*-passives, and so I will continue to use this term rather than 'subject-oriented adverb' even as I review Chen & Li's (2021) analysis.

In their discussion of the distinction between syntactic subjects and the agentivity feature in verbs, Chen & Li (2021) discuss data regarding *bei*-passives and generally follow the non-unified analysis by authors such as Feng (1997/2012), Ting (1995), Huang et al. (2009) or Bruening & Tran (2015).[8] Since their key intention was not to propose an analysis

[8] Notably, they do not cite Huang (1999) or Ting (1998).

for the long and short *bei*-passives, I only briefly review their account here, and the reader should keep in mind that we have already seen the structures proposed for non-unified accounts and plenty of accompanying counterarguments in chapter 4.

For them, the *bei*-complement in long passives is as large as CP, and involves an A'-moved NOP that is identified with the grammatical subject via predication, as we have seen in other non-unified accounts. The *bei*-complement of the short passive is only as large as VP, again consistent with other non-unified accounts discussed in this dissertation. Similar to Liu (2012; 2016), Liu & Huang (2013; 2016) and Huang (2013; 2014), they assume that either the grammatical subject is base-generated in the sister-to-V position and raised via A-movement to the subject position, or that there is A-movement of PRO to the specifier of VP. They claim that the different syntactic structures of long and short passives is what results in the subject depictives only being grammatical in long passives, but I dispute this on two fronts: 1) we have plenty of empirical evidence to falsify the non-unified approach, raising or otherwise; 2) contra Chen & Li, my unified approach predicts that subject depictives and initiator-oriented adverbs alike should be grammatical in both passives, and my and my consultant's judgements seem to converge on this, even if Chen & Li claim otherwise (more on this soon). Given that their focus is not the *bei*-passive, this is as much as I will comment on their analysis of *bei*-passives.

Coming back to their main point, the goal was to show that the apparent asymmetry between what they call subject depictives and initiator-oriented adverbs in long and short passives is expected if we adopt the assumption that while both long and short passives encode agentivity, only long passives can host initiators in the syntax. That is, for them, the apparent asymmetry between subject depictives and initiator-oriented adverbs teaches us that

agentivity can be encoded without having to also have the initiator be syntactically present.[9] The examples below demonstrate their point:

(9a) subject depictive *hanjinjin-de* is grammatical in long *bei*-passives

qianglai de jinyin bei li kui hanjinjin-de / hen mingzhi-de tuihuan-le.

rob DE[10] treasure BEI Li Kui sweaty-DE[11] very wise-ly return-PERF

Chen & Li's suggested interpretation: 'The robbed treasure was returned by the sweaty Li Kui/was wisely returned by Li Kui.'

My suggested additional available interpretation: 'The robbed treasure was returned in a sweaty manner by Li Kui (Li Kui was sweaty)/was wisely returned by Li Kui.'

[9] While their point is well-taken (their argument essentially implies that we can have suppressed external arguments in *bei*-passives), we will soon see that the reported contrast between subject depictives and initiator-oriented adverbs is not as strong as they have claimed. In a nutshell, at least for myself and my consultant Yiyun Zhao, subject depictives are not straightforwardly ungrammatical in short passives and can be intervening elements that satisfy the linear ordering constraint.

[10] Chen & Li (2021) have glossed what appears to be the possessive *de* morpheme as *-DE* as well, hence implicitly treating it on a par with *-de* in subject depictives, but I believe this to be erroneous on their part and have instead opted to gloss possessive *de* as DE. As already mentioned in chapter 1, I do not attempt any further analysis of this morpheme.

[11] Chen & Li (2021) rightly point out that the nature of *-de* has received much attention over the decades and do not provide any further analysis, though they point to authors such as Li & Thompson (1981) or Huang et al. (2009) for further reading. As such an analysis takes us too far afield, I similarly do not attempt an analysis and will simply gloss *-de* in as *-DE*. Further note that following Chen & Li, I have deliberately glossed *-de* as *-DE* in the so-called subject depictives and *-de* as *-ly* in initiator-oriented adverbs, though my point will ultimately be that there is no asymmetry in the syntactic distribution of the two.

(9b) subject depictive *hanjinjin-de* is reportedly ungrammatical in short *bei*-passives

qianglai de jinyin bei */(?)hanjinjin-de / hen mingzhi-de tuihuan-le.

rob DE treasure BEI sweaty-DE very wise-ly return-PERF

Chen & Li's suggested interpretation: 'The robbed treasure was *sweatily/wisely returned.'

My suggested additional available interpretation: 'The robbed treasure was returned in a sweaty manner (the implicit initiator was sweaty)/was wisely returned.'

(9c) both subject depictive *hanjinjin-de* and initiator-oriented adverb *hen mingzhi-de* are ungrammatical in unaccusative constructions

qianglai de jinyin *hanjinjin-de / *hen mingzhi-de ronghua-le.

rob DE treasure sweaty-DE very wise-ly melt-PERF

'*Wisely/*all sweaty, the robbed treasure melted.'

(Chen & Li 2021; 127, with modifications)

Based on example (9), they claim that initiator-oriented adverbs and subject depictives are both licenced only by verbs that encode for agentivity,[12] and subject depictives further require an overt argument present in the syntax to be licenced. In the context of *bei*-passives, their claim is that this licencing overt argument is the initiator that is only present in long but not short passives, hence explaining the apparent ungrammaticality of subject depictives in example (9b).

[12] For Chen & Li (2021), they make a two-way distinction for verbs. They either have [+agentive], as in examples (9a) and (9b), or [-agentive], as in example (9c), as feature specifications, and only [+agentive] motivates a voice layer.

To further bolster their claim that both initiator-oriented adverbs and subject depictives can only be licenced by verbs with the [+agentivity] feature specification, they show that in example (9c), where there is neither an overt initiator present in the syntax nor agentivity encoded in the unaccusative verb,[13] both initiator-oriented adverbs and subject depictives are not licenced.

As for example (9a), which has a verb with the [+agentive] feature specification as well as an overt initiator, we see that both initiator-oriented adverbs as well as subject depictives are licenced. In this way, example (9) seems to show a neat three-way contrast between long passives (example (9a)), short passives (example (9b)) and unaccusatives (example (9c)).

However, I contend that the reported ungrammaticality of subject depictives in short passives is questionable at best. My account would also not expect such an asymmetry in syntactic distribution because the structures of the long and short passives should only differ in the presence of the oblique initiator, and it would be difficult to explain why initiator-oriented adverbs would be grammatical in short passives while subject depictives are not since they should both be AdvPs, which should neither require alteration of the syntactic structure of the *bei*-passive nor distinct syntactic structures for their presence.

In fact, my consultant and I both find that example (9b) with the subject depictive is not straightforwardly ungrammatical (specifically, I find it perfectly fine while my consultant

[13] While their point regarding unaccusative structures is generally true, we have already seen from Bruening & Tran's (2015) arguments that at least the initiator-oriented adverb *hen mingzhi-de* 'very wisely' should be grammatical if we imagine that the treasure has "sentience" (Chen & Li 2021; 16) and can melt at will (perhaps as a means of escape), and, at least based on my own intuitions, such is indeed the case. For myself, given that same reading where the treasure is sentient, it is even possible that the treasure experienced the event of melting, and did so in a sweaty manner. Chen & Li (2021) also briefly discuss this in their example (12) and their footnote (5). In a nutshell, even for their consultants, such constructions can be grammatical or acceptable as long as the syntactic subject is construed of as having volition in the event.

thinks it is marginally acceptable).[14, 15] Though Chen & Li did not discuss the use of other subject depictives, in their footnote (1) they suggested that *qichongchong-de* ('in an angry manner/angrily') is another such subject depictive, and example (10) below shows that it is at least marginally acceptable[16] in short *bei*-passives, a result not expected by Chen & Li:

(10) (?)qianglai de jinyin bei (lisi) qichongchong-de tuihuan-le.
rob DE treasure BEI Lisi angry-DE return-PERF
'The robbed treasure was angrily returned/returned in an angry manner (by Lisi).'

As discussed above, given my unified account for *bei*-passives, we expect that like example (9b), example (10) should be grammatical with *qichongchong-de* in both the long and short passives even if it is a subject depictive rather than an initiator-oriented adverb. Put a different way, since initiator-oriented adverbs and subject depictives are both AdvPs, there is nothing in the syntax in principle that blocks the presence of one but not the other, and there should not be any reason to think that subject depictives and initiator-oriented adverbs alter the syntax such that A'-effects are blocked with the former but not with the latter.

Now, note further that *henhen-de* ('viciously/cruelly/severely'), which has been described as a manner adverb by Ting (1995; 1998), is also grammatical in the short passive:

[14] My consultant commented that even with the long passive, the subject depictive *hanjinjin-de* ('in a sweaty manner/sweatily') is an odd choice of description, which contributed to her finding it marginally acceptable in example (9b).
[15] Robert Henderson (p.c.) points out that the reported distinction between subject depictives and initiator-oriented adverbs could be semantic rather than syntactic in nature, such that subject depictives are more naturally construed with their argument via anaphora, and in the case of the long passive it is easier to access a referent for the variable since there is an overt initiator argument close by. Thus, it might be the case that the reported asymmetry in judgements is a result of anaphora resolution being easier or harder for some people. I thank Robert for this insightful alternative analysis. Unfortunately, because this falls beyond the scope of the current work, I must set the issue aside.
[16] I find *qichongchong-de* ('in an angry manner/angrily') in a short passive to be perfectly fine, but my consultant again thinks that it is marginally acceptable, so I defer to her judgement on the matter.

(11) zhangsan bei henhen-de da-le

Zhangsan BEI cruel-DE hit-PERF

'Zhangsan was hit cruelly.'

(Ting 1995; 141, with modifications)

(12) zhangsan bei henhen-de piping-le yi-dun

Zhangsan BEI severe-DE criticise-PERF one-CL

'Zhangsan was severely criticised once.'

(Ting 1998; 325, with modifications)

The grammaticality of *henhen-de* in examples (11) and (12) are again completely expected under my account since it is also an AdvP. That said, it is interesting to note that under Chen & Li's (2021) proposed test for distinguishing between initiator-oriented adverbs, subject depictives and manner adverbs, *henhen-de* would be classified as a subject depictive and not a manner adverb:

(13) *zhan hou de fulu, zhangsan chuzhi de henhen-de

battle after DE captive Zhangsan handle DE vicious-DE

Intended: 'The captives left over from the battle, Zhangsan handled them viciously.'

(14) ?li kui yi henhen-de fangshi shuo(hua)

Li Kui with vicious-DE manner talk

Intended: ‘Li Kui talked in a vicious manner.’

(15) *li kui shuo de henhen-de

Li Kui talk DE vicious-DE

Intended: ‘Li Kui talked with viciousness.’

Chen & Li (2021) claim that in the sentence structure in example (13), we should find that there is a contrast such that initiator-oriented adverbs such as *hen mingzhi-de* ‘wisely’ would be grammatical in final position while subject depictives such as *henhen-de* would be ungrammatical. They also claimed that given the sentence structures of examples (14) and (15) respectively, subject depictives would be ungrammatical or marginally acceptable at best while manner adverbs would be grammatical. According to their own diagnostics, then, *henhen-de* would be diagnosed as a subject depictive and thus should be ungrammatical in short passives, contrary to fact.

To round out the three categories of AdvPs under discussion, I argue that *xunsude* ‘rapidly’ from example (1) is indeed a manner adverb according to their diagnostics, which we can quickly verify:

(16) li kui yi xunsude fangshi shuo(hua)

Li Kui with rapidly manner talk

‘Li Kui talked in a rapid manner.’

(17)[17] (?)li kui shuo de xunsude

Li Kui talk DE rapidly

'Li Kui talked in a rapid way.'

As my analysis does not theorise a distinction between the three types of AdvPs, I predict that AdvPs in general, regardless of type, can serve as intervening elements that satisfy the ordering constraint:

(18)[18] initiator-oriented adverb *hen mingzhi-de*, subject depictive *henhen-de* and manner adverb *xunsude* all satisfy the linear ordering constraint

di chuan bei *(hen mingzhi-de/henhen-de/xunsude)

enemy ship BEI very wise-ly/vicious-DE/rapidly

pai haijun ji-chen-le

send navy attack-sink-PERF

Lit: 'The enemy ship was very wisely/viciously/rapidly sent-navy-to-sink.'

'(Someone) has (very) wisely/viciously/rapidly sent the navy to sink the enemy ship.'

(based on Ngui 2022; 355)

[17] In their own work, Chen & Li (2021) suggested that *qihuhude* 'angrily' is a manner adverb, but that in a configuration like example (17) it was possibly marginally acceptable, and we see the same for *xunsude* 'rapidly'.

[18] To be clear, while I find the sentences in example (18) to be unremarkable, my consultant felt that the sentence perhaps needs a stronger context to be more acceptable. I take this as an indication that there is nothing ungrammatical about the sentence *per se*, in contrast to cases where the sentence is plainly ungrammatical no matter how much more context is added.

Example (18) is ungrammatical without any of the three given AdvPs, which accords with my claim that the extra-syntactic linear ordering constraint, rather than syntactic well-formedness, is what results in long-distance dependencies being blocked in such short passives since it seems that the intervening AdvP reveals that the long-distance dependency is grammatical after all. Additionally, bear in mind that the simple addition of the intervening AdvP should not alter the syntax of example (18) in any significant way, as argued for by Kruger (2019), nor should short passives that can host such AdvPs exceptionally allow for A'-effects when they are blocked otherwise. That is, I argue that examples such as (18) support my claim that short passives actually have the same underlying syntactic structure as long passives do, in line with my unified A'-movement of NOP analysis. Furthermore, example (18) shows that all three types of AdvPs can be appropriate interveners in short *bei*-passives, contra Chen & Li (2021), but expected under my analysis.

We now have some evidence for AdvPs satisfying the linear ordering constraint for long-distance dependencies in certain short passives, as in (19a), and now I show that AdvPs can similarly satisfy the ordering constraint for resumptive pronouns in some short passives, as in (19b):

(19a) satisfying the constraint with intervening AdvPs reveals that long-distance dependencies are grammatically well-formed in short *bei*-passives

DP$_i$ bei *(AdvP) [$_{VP1}$ V… [$_{VP2}$ … x_i]]

(19b) satisfying the constraint with intervening AdvPs reveals that resumptive pronouns can be hosted in short *bei*-passives

DP$_i$ bei *(AdvP) V ta$_i$ adverb

Observe that in examples such as (20-22) below, the resumptive pronoun is blocked in the short passive:

(20a) **zhangsan$_i$** bei ma-le (***ta$_i$**) ji-ci

Zhangsan BEI hit-PERF **3SG** few-instance

'Zhangsan$_i$ was scolded (*him$_i$) a few times.'

(based on Ngui 2022; 355)

(20b) **zhangsan$_i$** bei *(Lisi) da-le **ta$_i$** yi-xia

Zhangsan BEI Lisi hit-PERF **3SG** one-instance

'Zhangsan was hit once by Lisi.'

(based on Huang 1999; 17)

(21) **zhangsan$_i$** bei pai ren [$_{PP}$ zai jianyu li]

Zhangsan BEI send person at prison inside

xiuli-le (***ta$_i$**) yi-dun

beat.up-PERF **3SG** one-CL

'(Someone) sent a person to beat up Zhangsan in prison.'

(22) lisi: zhangsan ren ne?

Lisi Zhangan person Q

wangwu: **zhangsan$_i$** yijing bei pai ren

Wangwu Zhangsan already BEI send person

[$_{PP}$ cong tufei nali] jiu **(*/?ta$_i$)** chulai le,

from bandit there save **3SG** out INCH

xianzai shou jingcha baohu

now under police protection

Lisi: 'Where's Zhangsan?'

Wangwu: '(Someone) has already sent a person to rescue Zhangsan from the bandits, now he's under police protection.'

Note that based on examples (20-21), we see that, contrary to what Huang (1999) and Ting (1998) claim, the presence of more material following the RP does not necessarily lead to grammaticality. Furthermore, based on examples (21-22), we see that the presence of the RP is still blocked despite the presence of a PP that precedes it.[19] Crucially, example (22) shows that it is likely that additional context[20] is not a sufficient condition to satisfy the ordering constraint, just as having 'more material' is also not a sufficient condition, though it certainly can help provided there is an appropriate intervening element that immediately follows *bei*.

[19] It is likely that adding a PP under such circumstances would also have qualified as 'more material' that can render the presence of the RP in a short passive grammatical, in line with what Huang (1999) or Ting (1998) suggest, though the data show otherwise.

[20] The additional context in example (22) was originally suggested to me by my consultant for examples (23-25).

Although authors such as Huang (1999) or Ting (1998) might argue that examples (20-22) can be taken as direct evidence that short passives do not involve A'-movement of a NOP, I propose that the examples could be indicative of the linear ordering constraint being in effect and that it has not been satisfied because the intervening element is not between *bei* and the verb immediately following it, as described in (19b) in particular.

With the above in mind, observe that in examples (23-25) below, all three types of AdvPs that can be inserted between *bei* and the verb are appropriate interveners that can satisfy the ordering constraint in (19b), and again note that the addition of the AdvPs should not affect the syntactic structure:

(23) lisi: zhangsan jin-le yiyuan, zhenshi xiwenlejian

Lisi Zhangsan enter-PERF hospital really welcome.news

wangwu: duiya, tingshuo **zhangsan$_i$** bei [$_{AdvP}$ henhen-de]

Wangwu yeah hear zhangsan BEI vicious-DE

pai ren zai jianyu li xiuli-le **ta$_i$**

send person at prison inside beat.up-PERF **3SG**

yi-dun, zhenshi e ren you e bao

one-CL really evil person have evil just.desserts

Lisi: 'Zhangsan being hospitalised is such great news.'

Wangwu: 'Yeah, I heard that (someone) viciously sent a person to beat up Zhangsan in prison, serves him right!'

(Zhao, personal communication)

(24) lisi: zhangsan ren ne?

Lisi Zhangan person Q

wangwu: **zhangsan$_i$** yijing bei [$_{AdvP}$ xunsude] pai ren

Wangwu Zhangsan already BEI rapidly send person

cong tufei nali jiu **ta$_i$** chulai le,

from bandit there save **3SG** out INCH

xianzai shou jingcha baohu

now under police protection

Lisi: 'Where's Zhangsan?'

Wangwu: '(Someone) has already rapidly sent a person to rescue Zhangsan from the bandits, now he's under police protection.'

(Zhao, personal communication)

(25) lisi: fasheng-le shenme shi?

Lisi happen-PERF what matter

wangwu: **zhangsan$_i$** yijing bei [$_{AdvP}$ hen mingzhi-de] pai ren

Wangwu Zhangsan already BEI very wise-ly send person

cong tufei nali jiu **ta$_i$** chulai le,

from bandit there save **3SG** out INCH

xianzai shou jingcha baohu

now under police protection

Lisi: 'What happened?'

Wangwu: '(Someone) has already wisely sent a person to rescue Zhangsan from the bandits, now he's under police protection.'

(Zhao, personal communication)

Note that in examples (23-25) above, there is now an intervening AdvP placed between *bei* and the verb, in contrast to examples (20-22), and the RPs can be hosted in the short passives, as expected.[21]

With examples (18) and (20-25), we have now seen some evidence that intervening AdvPs can satisfy the ordering constraint that blocks long-distance dependencies and

[21] The reader will also notice that examples (23-25) have far more surrounding context than examples (20-22), mainly because my consultant generally felt resumptive pronouns were "redundant" and thus tended to judge them as being marginally acceptable in isolated sentences. That said, it is important to point out that with the interveners present the sentences became *marginally acceptable* and are no longer *ungrammatical* or *unacceptable*, meaning that my consultant still makes this categorical distinction, as we would expect given the proposed linear ordering constraint. See also footnotes (20) and (26).

resumptive pronouns in some short *bei*-passives. That such apparent counter-examples to an A'-movement account of short passives can be accounted for with the simple addition of intervening AdvPs lends further support to my unified A'-movement of NOP analysis, and in the next section I move on to discuss prepositional phrases (PPs) as interveners.

5.3 PPs as interveners

We have seen some evidence indicating that adverbial phrases can be interveners that satisfy the proposed linear ordering constraint that blocks long-distance dependencies and resumptive pronouns in short passives, and the schema for the satisfaction of the proposed constraint is reiterated as (26) below:

(26a) satisfying the constraint reveals that long-distance dependencies are grammatically well-formed in short *bei*-passives

DP_i bei *(AdvP/PP) [$_{VP1}$ V… [$_{VP2}$ … x_i]]

(26b) satisfying the constraint reveals that resumptive pronouns can be hosted in short *bei*-passives

DP_i bei *(AdvP/PP) V ta_i

In this subsection, I demonstrate that PPs can also be interveners, in accordance with the proposed (26).

Before further discussion on PPs, it is important to note that while Huang (1999) and Ting (1998) claim that place adverbials like *zai xuexiao* ('in school') in example (27)[22] or *zai gongsi-li* ('in the company office') in example (28) are ungrammatical in short passives, Her (2009) shows that such a claim is false given the examples in (29):

(27) *zhangsan bei [PP zai xuexiao] pian-zou-le

Zhangsan BEI at school trick-away-PERF

Intended: 'Zhangsan was abducted at school.'

(Huang 1999; 22, with modifications)

(28) *zhangsan bei [PP zai gongsi-li] piping-le

Zhangsan BEI at office-inside criticise-PERF

Intended: 'Zhangsan was criticised in the office.'

(Ting 1998; 350, with modifications)

(29a) qizi bei [PP zai gongong changsuo] baoli ouda yi-ci

wife BEI at public place violence assault one-instance

Lit: 'Wife was violently assaulted once in a public place.'

'My wife was violently assaulted once in a public place.'

[22] Ting (1995;1998) actually proposes that the PP cannot immediately follow *bei* if such a PP is headed by the prepositional element *zai*, though we will see that examples such as (29) below immediately cast doubt on this proposal.

(29b) yi-zhi laoshu bei [PP zai jiujing-zhong] jinpao-le yi nian

one-CL mouse BEI at alcohol-inside] soak-PERF one year

Lit: 'A mouse was soaked in alcohol for a year.'

'There was a mouse that was soaked in alcohol for a year.'

(Her 2009; 438, with modifications)

Given the contrast between examples (27-28) and (29), it might be that the restriction of this particular type of PP is not syntactic but rather semantic in nature, though I do not speculate further since it goes beyond the scope of this dissertation,[23, 24] and merely note that Huang's (1999) and Ting's (1998) claims may not pan out as straightforwardly as expected.

[23] Robert Henderson (p.c.) suggests that the contrast between examples (27-28) and example (29) could be because the former have definite objects as the complement to the preposition while the latter has an indefinite object as the complement. To systematically test for this contrast, one could ask if there is a difference in the grammaticality between the two examples below:

(i) zhangsan bei [PP zai na-jian xuexiao] pian-zou-le
Zhangsan BEI at that-CL school trick-away
'Zhangsan was abducted at that school.'

(ii) ? zhangsan bei [PP zai mou-jian xuexiao] pian-zou-le
Zhangsan BEI at some-CL school trick-away-PERF
'Zhangsan was abducted at some school.'

I do not have firm judgements on the above, but I remind the reader that the crucial observation being made is simply that Huang's (1999) and Ting's (1998) claim regarding place adverbials being ungrammatical in short passives is easily falsified, so I will leave the issue of whether there is a contrast in grammaticality or not to future work. I thank Robert for this suggestion.

[24] Simin Karimi (p.c) observes that example (29a) also has an AdvP *baoli* ('violently') in addition to the PP, which then makes the example configurationally different from examples (27-28). Subsequently, the syntactic environments are not directly comparable. While I agree, I note that example (29b) has no such AdvP, and I further submit that example (i) below, which does not have *baoli* ('violent') present, is still grammatical:

(i) qizi bei [PP zai gongong changsuo] ouda yi-ci
wife BEI at public place assault one-instance
Lit: 'Wife was assaulted once in a public place.'
'My wife was assaulted once in a public place.'

Thus, I maintain that Her's (2009) data falsifies Huang's (1999) and Ting's (1998) claim regarding place adverbials. I thank Simin for this observation.

I additionally note that there is some evidence that other types of PPs can also be grammatical in short passives. Ting (1998) provides some examples of a short passive with a grammatical PP:

(30) nei-xie fulu bei [PP yi yi-zhong
those-CL P.O.W BEI with one-CL
canku-de fangshi] linglue-zhe
cruel-DE method torture-DUR
'Those P.O.Ws were being tortured with a particularly cruel method.'

(Ting 1998; 350, with modifications)

(31) nei-sou chuan bei [PP cong hai li] lao chulai-le
that-CL ship BEI from sea inside dredge out-PERF
'That ship was dredged out of the sea.'

(Ting 1998; 326, with modifications)

Then, based on the examples (27-31) above, it seems obvious that while there may indeed be some kind of as-yet-unclear restrictions on the types of PPs that can appear in short passives,[25] PPs can indeed be appropriate interveners for the proposed ordering constraint.

[25] At this stage, I have yet to investigate what types of PP count as appropriate interveners to satisfy the linear ordering constraint, nor do I have any proposals to account for this potential distinction between types of PPs, except for the distinction between the initiator PP adjunct and other typical PPs in section 5.4.

With the above in mind, I propose that the intervening PPs in (32) successfully satisfy the constraint, thus demonstrating that long-distance dependencies, an A'-effect, are available even in apparent short passives:

(32a) [di chuan]$_i$ bei *([$_{PP}$ zai yi xiaoshi zhinei])

enemy ship BEI at one hour within

[pai [haijun ji-chen-le x_i]]

send navy attack-sink-PERF

Lit: 'The enemy ship was within the hour sent-navy-to-sink.'

'(Someone) has sent the navy to sink the enemy ship within the hour.'

(32b) zhangsan$_i$ bei *([$_{PP}$ zai datingguangzhong zhixia])

Zhangsan BEI at public in

[pai [jingcha zhuazou-le x_i]]

send police arrest-PERF

Lit: 'Zhangsan was in public sent-police-to-arrest.'

'(Someone) has sent the police to arrest Zhangsan out in public.'

(32c) zhangsan$_i$ bei *([$_{PP}$ zai gongsi menkou])

Zhangsan BEI at company entrance

[pai [jingcha zhuazou-le x_i]]

send police arrest-PERF

Lit: 'Zhangsan was [$_{PP}$ at the company's entrance] sent-police-to-arrest.'

'(Someone) has sent the police to arrest Zhangsan by the company's entrance.'

As before, in all the examples above, we see that without the PP, the long-distance dependency is blocked in the short passive and that the addition of the PP reveals that the sentences are syntactically well-formed. There is no *a priori* reason to think that the addition of a PP adjunct affects the syntactic structure of the short passive such that the PP itself somehow licences an A'-effect in a structure that otherwise only involves A-movement, nor that short passives that can host such PPs can exceptionally exhibit A'-effects when they otherwise would somehow block A'-effects. If we assume that the PP can be an appropriate intervening element that satisfies the linear ordering constraint blocking long-distance dependencies, just as AdvPs have been shown to be able to do in the previous subsection, we receive a principled explanation for why the long-distance dependencies in example (32) are apparently unavailable (without the PPs) – as expected by my unified analysis, both long and short passives should standardly involve A'-movement of a NOP in the syntax, and apparent counterexamples are due to an extra-syntactic constraint.

Recall that I have also proposed that the apparently ungrammatical presence of resumptive pronouns in short passives can also be accounted for if we assume that there is a linear ordering constraint, and that satisfying this constraint with appropriate AdvP

interveners reveals that resumptive pronouns can indeed be hosted in short passives after all, an unsurprising result given the evidence presented in chapter 3. Since we have seen that PPs reveal that long-distance dependencies are indeed exhibited in short passives, we should also expect that they will similarly reveal that resumptive pronouns can be hosted in short passives, as shown in examples (33-34):

(33a) **zhangsan$_i$** bei [pai ren [xiuli-le (***ta$_i$**) yi-dun]]

Zhangsan BEI send person beat.up-PERF **3SG** one-CL

'(Someone) sent a person to beat up Zhangsan in prison.'

(33b) lisi: zhangsan jin-le yiyuan, zhenshi xiwenlejian

Lisi Zhangsan enter-PERF hospital really welcome.news

wangwu: ?duiya, tingshuo **zhangsan$_i$** bei [$_{PP}$ zai jianyu li]

Wangwu yeah hear Zhangsan BEI at prison inside

[pai ren [xiuli-le **ta$_i$** yi-dun]],

send person beat.up-PERF **3SG** one-CL

zhenshi e ren you e bao

really evil person have evil just.desserts

Lisi: 'Zhangsan being hospitalised is such great news.'

Wangwu: 'Yeah, I heard that (someone) [$_{PP}$ in prison] sent a person to beat up Zhangsan, serves him right!'

(34a) lisi: zhangsan ren ne?

Lisi Zhangan person Q

wangwu: **zhangsan$_i$** yijing bei [pai ren

Wangwu Zhangsan already BEI send person

[$_{PP}$ cong tufei nali] [jiu **(*/?ta$_i$)** chulai]] le,

from bandit there save **3SG** out INCH

xianzai shou jingcha baohu

now under police protection

Lisi: 'Where's Zhangsan?'

Wangwu: '(Someone) has already sent a person to rescue Zhangsan [$_{PP}$ from the bandits], now he's under police protection.'

(34b) lisi: zhangsan ren ne?

Lisi Zhangan person Q

wangwu: **zhangsan$_i$** yijing bei [$_{PP}$ cong jingcha zongbu] [pai ren

Wangwu Zhangsan already BEI from police HQ send person

cong tufei nali [jiu **ta$_i$** chulai]] le,

from bandit there save **3SG** out INCH

xianzai shou jingcha baohu

now under police protection

Lisi: 'Where's Zhangsan?'

Wangwu: '(Someone) [$_{PP}$ from the police headquarters] has already sent a person to rescue Zhangsan [$_{PP}$ from the bandits], now he's under police protection.'

(34c) lisi: zhangsan ren ne?

Lisi Zhangan person Q

wangwu: **zhangsan$_i$** yijing bei [$_{PP}$ zai yi xiaoshi nei] [pai ren

Wangwu Zhangsan already BEI at one hour in send person

[$_{PP}$ cong tufei nali] [jiu **ta$_i$** chulai]] le,

from bandit there save **3SG** out INCH

xianzai shou jingcha baohu

now under police protection

Lisi: 'Where's Zhangsan?'

Wangwu: '(Someone) has, [$_{PP}$ within the hour], already sent a person to rescue Zhangsan [$_{PP}$ from the bandits], now he's under police protection.'

We see from example (33a) that there is a long-distance dependency as well as a RP, and that the RP is apparently ungrammatical. We then see in example (33b) that the addition of the intervening PP *zai jianyu li* ('in prison') satisfies the ordering constraint and reveals that the RP is grammatical in the short passive after all.[26]

Example (34a) also has an apparently ungrammatical RP, and this is so even with the additional context and the presence of a PP. Importantly, the PP in (34a) does not satisfy the linear ordering constraint because it is not in the appropriate syntactic position to do so. We

[26] My consultant found that the additional context, along with the intervening PP, helped make the presence of the RP more natural and acceptable. The reader should, however, bear in mind that we have already seen from example (22) that additional context is not a sufficient condition for the RP to be grammatical. It is also notable that I do not need such additional context for the RPs in examples (33) and (34) to be grammatical, so it is possible that additional context is also not a necessary condition.

then see that the PPs *cong jingcha zongbu* (‘from the police headquarters’) and *zai yi-xiaoshi nei* (‘within one hour’) are in the appropriate syntactic position to satisfy the ordering constraint in examples (34b) and (34c) respectively, again revealing that sans the constraint, RPs are grammatical in such short passives. Thus, examples (33) and (34) show us that a variety of PPs, including place adverbials that Huang (1999) and Ting (1995; 1998) have claimed should be ungrammatical in short passives, are appropriate interveners as well provided that they are in the right syntactic position.

More importantly, examples (33-34) and, more generally, the data presented in sections 5.2 and 5.3 also lend support to my claim that both long and short passives uniformly involve A’-movement of NOP by demonstrating that the short passives which reportedly do not exhibit A’-effects actually do so once the linear ordering constraint is satisfied. In the next subsection, building on the discussion of PPs as interveners, I address how assuming that the initiators in long *bei*-passives are PP adjuncts gives us a principled account of why long-distance dependencies and the presence of RPs are observed to be grammatical in long passives.

5.4 Initiator PP adjuncts as interveners

In the previous subsection, I demonstrated that PPs, like AdvPs, are appropriate interveners that can satisfy the linear ordering constraint, an extra-syntactic phenomenon that blocks long-distance dependencies and RPs in short *bei*-passives. Importantly, the interveners must immediately follow *bei* and precede the verb adjacent to *bei* for successful satisfaction of the constraint, as repeated in (35):

(35a) satisfying the constraint reveals that long-distance dependencies are grammatically well-formed in short *bei*-passives

DP_i bei *(AdvP/PP) [$_{VP1}$ V… [$_{VP2}$ … x_i]]

(35b) satisfying the constraint reveals that resumptive pronouns can be hosted in short *bei*-passives

DP_i bei *(AdvP/PP) V ta_i

Recall that under my proposed unified analysis, the only putative difference between long and short passives is the presence of the overt initiator, which I have proposed to be oblique PP. The position which the initiator occupies should look immediately familiar:

(36a) di chuan bei *([$_{PP}$ **jiangjun**]) [pai [haijun ji-chen-le]]

enemy ship BEI general send navy attack-sink-PERF

'(The general/someone) has sent the navy to sink the enemy ship within the hour.'

(36b) zhangsan bei *([$_{PP}$ **Lisi**]) [pai jingcha [zhuazou-le]]

Zhangsan BEI Lisi send police arrest-PERF

'(Lisi/someone) has sent the police to arrest Zhangsan.'

(37a) **zhangsan$_i$** bei *([$_{PP}$ **Lisi**]) da-le **ta$_i$** yi-xia

Zhangsan BEI Lisi hit-PERF **3SG** one-instance

'Zhangsan was hit once (by Lisi).'

(based on Huang 1999; 17)

(37b) tingshuo **zhangsan$_i$** bei *([$_{PP}$ **laoda**])

hear Zhangsan BEI gang.leader

[pai ren [xiuli-le **ta$_i$** yi-dun]]

send person beat.up-PERF **3SG** one-CL

'(I) heard that (the gang leader/someone) sent a person to beat up Zhangsan.'

In examples (36-37) above, we see that the long-distance dependency and RPs are grammatical in the long passive, but we also see that the initiator is in exactly the position I have been arguing that intervening elements must occupy to successfully satisfy the ordering constraint. If we further take into consideration that my analysis treats the initiator NP as an object of a preposition i.e. that the initiator is a PP adjunct, we have a principled explanation for how the long-distance dependency and the presence of the RP is always detected in the long passive.[27] More generally, then, long passives always appear to display A'-effects because initiator PP adjuncts are appropriate interveners that can satisfy the ordering constraint. This would also explain Huang's (1999) and Ting's (1998) observations regarding long passives and the detection of A'-effects (see also chapter 4 for a review of their approaches).

However, it must be acknowledged that the oblique initiators are not the same as standard PPs. Recall that under my unified analysis, there is an existentially closed external argument introduced in both the long and short passives, and I proposed in chapter 2 that, following Bruening (2013) and Legate (2014), it is because of the existentially closed

[27] Relevantly, since we have seen that PPs can, in principle, immediately follow *bei*, we immediately expect that the oblique initiator, also being a PP, immediately follows *bei* as well.

external argument that the oblique initiator PP can adjoin to $Voice_{Pass}P$. Furthermore, the initiator is assigned a theta role that is identical to the theta role of the existentially closed external argument, and so the oblique initiator PP is linked to the implicit argument. This, I submit, is a property unique to the oblique initiator. Thus, though it may be a PP that is also an appropriate intervening element, the syntactic distribution of the oblique initiator differs from that of a typical PP.

I tentatively propose that the uniqueness of the oblique initiator PP in this regard is reflected in its inflexible word order as seen in examples (38-40):

(38a) zhangsan$_i$ bei [$_{PP1}$ pashou] [$_{PP2}$ cong shen shang] tou-le (ta$_i$-de) qianbao

Zhangsan$_i$ BEI pickpocket from body on steal-PERF his$_i$-DE wallet

Lit: 'Zhangsan$_i$ was stolen (his$_i$) wallet [$_{PP}$ by pickpocket] [$_{PP}$ from body].'

'Zhangsan's wallet was stolen [$_{PP}$ by a pickpocket] [$_{PP}$ from his person].'

(38b) *zhangsan$_i$ bei [$_{PP2}$ cong shen shang][$_{PP1}$ pashou] tou-le (ta$_i$-de) qianbao

Zhangsan$_i$ BEI from body on pickpocket steal-PERF his$_i$-DE wallet

Intended: 'Zhangsan's wallet was stolen [$_{PP}$ from his person] [$_{PP}$ by a pickpocket].'

(39a) zhangsan bei [$_{PP1}$ laoban] [$_{PP2}$ zai bangongshi li] ma-le yi-dun

Zhangsan BEI boss at office inside scold-PERF one-instance

Lit: 'Zhangsan was reprimanded [$_{PP}$ by boss] [$_{PP}$ in the office] once.'

'Zhangsan was reprimanded once [$_{PP}$ by the boss] [$_{PP}$ in the office].'

(39b) *zhangsan bei [$_{PP2}$ zai bangongshi li] [$_{PP1}$ laoban] ma-le yi-dun

Zhangsan BEI at office inside boss scold-PERF one-instance

Intended: ‘Zhangsan was reprimanded once [$_{PP}$ in the office] [$_{PP}$ by the boss].

(40a) zhangsan bei [$_{PP1}$ di jun] [$_{PP2}$ yi canren-de fangshi]

Zhangsan BEI enemy soldier with cruel-DE method

[$_{PP2'}$ zai jianyu li] zhemo-le hao-ji-ci

at prison inside torture-PERF good-few-instance

Lit: ‘Zhangsan was tortured [$_{PP1}$ by enemy soldier] [$_{PP2}$ with a cruel manner] [$_{PP2'}$ in prison] quite a few times.’

‘Zhangsan was tortured quite a few times [$_{PP1}$ by the enemy troops] [$_{PP2}$ in a cruel manner] [$_{PP2'}$ in prison].’

(40b) zhangsan bei [$_{PP1}$ di jun] [$_{PP2'}$ zai jianyu li]

Zhangsan BEI enemy soldier at prison inside

[$_{PP2}$ yi canren-de fangshi] zhemo-le hao-ji-ci

with cruel-DE method torture-PERF good-few-instance

Lit: ‘Zhangsan was tortured [$_{PP1}$ by enemy soldier] [$_{PP2'}$ in prison] [$_{PP2}$ with a cruel manner] quite a few times.’

‘Zhangsan was tortured quite a few times [$_{PP1}$ by the enemy troops] [$_{PP2'}$ in prison] [$_{PP2}$ in a cruel manner].’

(40c) *zhangsan bei [$_{PP2}$ yi canren-de fangshi] [$_{PP1}$ di jun]

Zhangsan BEI with cruel-DE method enemy soldier

[$_{PP2'}$ zai jianyu li] zhemo-le hao-ji-ci

at prison inside torture-PERF good-few-instance

Intended: 'Zhangsan was tortured quite a few times [$_{PP2}$ in a cruel manner] [$_{PP1}$ by the enemy troops] [$_{PP2'}$ in prison].'

(40d) *zhangsan bei [$_{PP2'}$ zai jianyu li] [$_{PP1}$ di jun]

Zhangsan BEI at prison inside enemy soldier

[$_{PP2}$ yi canren-de fangshi] zhemo-le hao-ji-ci

with cruel-DE method torture-PERF good-few-instance

Intended: 'Zhangsan was tortured quite a few times [$_{PP2'}$ in prison] [$_{PP1}$ by the enemy troops] [$_{PP2}$ in a cruel manner].'

(40e) *zhangsan bei [$_{PP2}$ yi canren-de fangshi] [$_{PP2'}$ zai jianyu li]

Zhangsan BEI with cruel-DE method at prison inside

[$_{PP1}$ di jun] zhemo-le hao-ji-ci

enemy soldier torture-PERF good-few-instance

Intended: 'Zhangsan was tortured quite a few times [$_{PP2}$ in a cruel manner] [$_{PP2'}$ in prison] [$_{PP1}$ by the enemy troops].'

Example (38) has a typical PP (PP2) headed by the preposition *cong* ('from') while example (39) has a PP2 headed by the preposition *zai* ('at'). Examples (38-39) show that while there

can be more than one PP following *bei*, the oblique initiator (PP1) must immediately follow *bei*, as in (38a) and (39a). If the two PPs are re-ordered and the oblique initiator is no longer immediately following *bei*, as in (38b) and (39b), the sentence is rendered ungrammatical. This is unexpected if both PPs adjoin at the same level in the syntactic structure. More importantly, based on examples (40a) and (40b), we see that typical PPs such as *yi canren-de fangshi* ('in a cruel manner') or *zai jianyu li* ('in prison') can be re-ordered,[28, 29] and in contrast, examples (40c-40e) demonstrate again that the oblique initiator PP cannot be re-ordered and must immediately follow *bei*. Taken together, examples (38-40) thus indicate that the oblique initiator adjoins at a higher level in the syntax as compared to other typical PPs, which would account for its perceived inflexibility in terms of re-ordering. However, such adjunction should happen in such a way to yield a linear order that permits the oblique initiator to qualify as a prosodic intervener. Thus, I suggest the structure in (41) below:

[28] In example (40), the two typical PPs are headed by two different prepositions, *yi* ('with') and *zai* ('at'), which usually has to be the case if there is more than one PP in a sentence.
[29] I am not making the claim that all typical Mandarin PPs can be re-ordered, and anyway such a claim would be irrelevant to the point at hand. I only show that they can be reordered in principle, and that there is no strict grammatical constraint on the ordering of PPs *per se.*

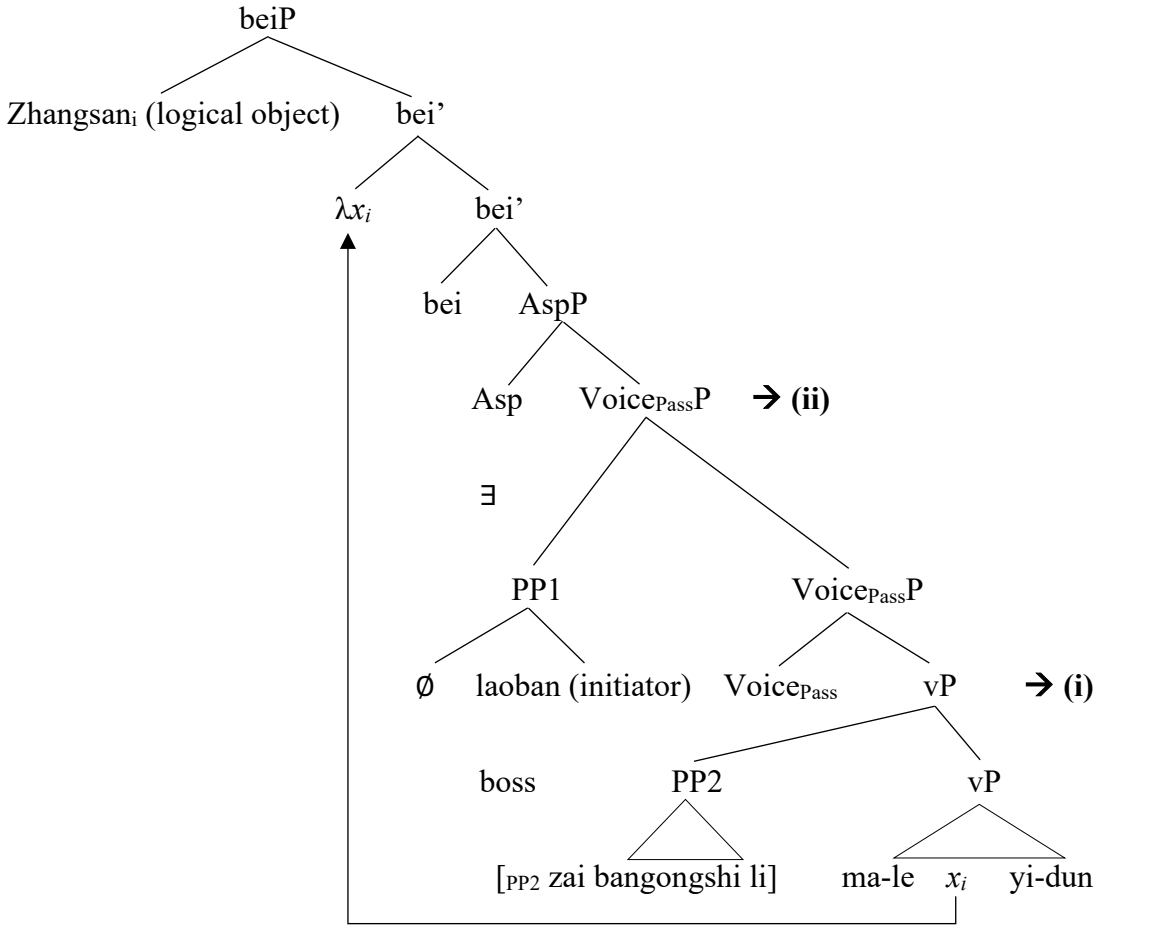
(41) Adjunction of initiator PP adjunct (PP1) vs. adjunction of typical PP (PP2)[30]

[$_{BeiP}$ zhangsan$_i$ [$_{Bei'}$ NOP$_i$ bei [$_{VoicePassP}$ [$_{PP1}$ laoban] [$_{vP}$ [$_{PP2}$ zai bangongshi li] [$_{vP}$ ma-le t_i yi-dun]]]]]

Zhangsan BEI boss at office inside scold-PERF one-instance

Lit: 'Zhangsan was reprimanded [$_{PP1}$ by boss] [$_{PP2}$ in the office] once.'

'Zhangsan was reprimanded once [$_{PP1}$ by the boss] [$_{PP2}$ in the office].'



(41i) Adjunction of typical PPs (PP2) is proposed to occur at vP

(41ii) Adjunction of initiator PP adjunct (PP1) is proposed to occur at Voice$_{Pass}$P

[30] For ease of exposition, I will abstract away from the exact positions of the perfective *-le* as well as the AdvP *yi-dun* ('once').

Given structure (41) above, typical PPs (PP2) adjoin at the vP level, hence if there is more than one typical PP, they can be re-ordered like in example (40), while initiator PPs (PP1) adjoin at the $Voice_{Pass}P$ level, which is higher in the structure than typical PPs, hence they cannot be re-ordered with respect to typical PPs as seen in examples (38-40) and typical PPs also cannot intervene between *bei* and initiator PPs because they cannot adjoin to $Voice_{Pass}P$.

In addition to being able to maintain that the initiator is indeed a PP adjunct that is an appropriate intervener which can satisfy the linear ordering constraint, such a proposal also ensures that the initiator PP is syntactically distinct from typical PPs and would still be in line with Bruening's (2013) and Legate's (2014) proposals that the initiator PP adjunct adjoins to $Voice_{Pass}P$ (see also chapter 2 for discussion on such an analysis). To that end, it is worth noting that having the initiator PP adjunct adjoin to the same projection as the existentially closed external argument (in [Spec, $Voice_{Pass}P$]) is motivated, since the initiator PP is identified with or modifies the existentially closed external argument (Legate 2014). It is also worth noting, then, that typical PPs seem to modify events rather than external arguments, hence there is also motivation for positing that they adjoin to vP. In particular, since the event can be construed at the vP level, before the external argument is merged in (Kratzer 1996), having typical PPs adjoin to vP will allow us to maintain that they modify events, as expected.[31]

Given the weight of the evidence in Mandarin *bei*-passives, I thus argue that initiator PP adjuncts are syntactically distinct from typical PPs because they adjoin to $Voice_{Pass}P$ rather than vP. Additionally, I also argue that they are semantically distinct from typical PPs

[31] Given that typical PPs modify events, it is conceivable that an event can be modified along more than one dimension and hence there can be multiple PP2s, as seen in example (40). Additionally, because initiator PP adjuncts modify the external argument (before existential closure occurs), of which there can only be one, it is also expected that there cannot be multiple PP1s.

because they modify the external argument (that is subsequently existentially closed) rather than the event argument. In relation, the Mandarin data presented in this section motivates Legate's (2014) proposal that the initiator argument in the PP adjunct and the implicit initiator receive separate but identical theta-roles and are thus linked.

In this section, then, we see that the proposal that the overt initiator in long passives is not an argument but is instead a PP adjunct that is linked to the implicit initiator allows us to 1) explain why it is that the addition of the initiator PP satisfies the linear ordering constraint such that long-distance dependencies and RPs, both A'-effects which are apparently ungrammatical in some short passives, are revealed to be grammatical in the long passive; 2) explain why it is that typical PPs can be re-ordered but cannot intervene between *bei* and the initiator PP adjunct; 3) motivates a syntactic and semantic distinction between initiator PPs and typical PPs such that initiator PPs are adjoined to $\text{Voice}_{\text{Pass}}$P and therefore modify the implicit initiator while typical PPs are adjoined to vP and therefore modify events.

Though tentative, this chapter has proposed that a linear ordering constraint exists in most *bei*-passives, such that certain short *bei*-passives appear not to exhibit long-distance dependencies or allow resumption. The proposed constraint and its satisfaction is repeated as (42) below:

(42a) satisfying the constraint reveals that long-distance dependencies are grammatically well-formed in short *bei*-passives

DP_i bei *(AdvP/PP) [$_{\text{VP1}}$ V… [$_{\text{VP2}}$ … x_i]]

(42b) satisfying the constraint reveals that resumptive pronouns can be hosted in short *bei*-passives

DP_i bei *(AdvP/PP) V ta_i

I proposed that such a constraint is extra-syntactic in nature, in a similar vein as some accounts for the *that*-trace violation and its obviation in English, which would allow for my unified A'-movement of NOP analysis to be maintained. To that end, I then presented evidence that the constraint can be satisfied by AdvPs and PPs if they intervene between *bei* and the verb that immediately follows *bei* in a typical short passive. Since the presence of such adjuncts in short passives does not motivate a distinct syntactic structure of the short passive, the fact that their addition to short passives reveals that the aforementioned A'-effects are detected is indicative that the short passive should also involve A'-movement of a NOP, as my unified analysis proposes, that can be brought out once the linear ordering constraint is satisfied.[32]

I have also argued that the initiator PP adjunct in Mandarin is syntactically distinct from typical PP adjuncts given the restrictions in PP reordering possibilities. In particular, while initiator PP adjuncts adjoin to $\text{Voice}_{\text{Pass}}$P, where the existentially closed external argument is, typical PPs adjoin to vP, where the event is construed. This syntactic distinction corresponds with the observation that while the initiator PP adjunct modifies the external argument before existential closure occurs (see also chapter 2), typical PPs modify the event.

In the concluding chapter, I briefly discuss some avenues for future research, such as the semantic contribution of the *bei* morpheme, scope ambiguities in *bei*-passives and cross-linguistic comparisons that can be made based on what has been presented for Mandarin *bei*-passives thus far.

[32] Of course, if there are any semantic or pragmatic incongruities, the sentence is still unacceptable. While they are straightforwardly extra-syntactic in nature as well, they have no bearing on the validity of the proposed linear ordering constraint since the constraint is only concerned with whether an appropriate intervening element is present between the *bei* morpheme and a verb V.

Chapter 6 – Conclusion

In this dissertation, I have proposed a novel unified formal syntactic and semantic analysis of both the long and short Mandarin *bei*-passives that uniformly involves A'-movement of a null operator as well as standard existential closure at AspP. In particular, in both *bei*-passives, a NOP that is base-generated in the sister-to-V position A'-moves to adjoin to *bei*. I have also made a second novel proposal, which is that the only putative difference between the long and short passive is the presence of a PP adjunct that contains the initiator in the former, and this PP adjunct is headed by a null P. I have provided much supporting empirical evidence for my claims in chapters 2, 3 and 4, and have also proposed viable extra-syntactic accounts that can explain apparent counterexamples to my claims in chapter 5.

First, chapter 2 laid out my proposed syntactic structure for such a unified A'-movement proposal, and also presented empirical evidence arguing for both the non-subjecthood of the initiator in the PP adjunct as well as for the initiator being contained in a PP adjunct headed by a null P. The chapter also reviewed Legate's (2014) account for passives, which assumes that existential closure applies uniformly in both long and short passives and that the PP adjunct containing the initiator does not saturate the external argument position. I argued that her analysis can be successfully integrated into my proposed structure, thus accounting for the initiator PP adjunct as well as the uniform application of standard existential closure.

Then, chapter 3 provided empirical evidence to show that the predictions made by my unified A'-movement are borne out. Namely, that 1) parasitic gaps are licenced in both long and short *bei*-passives; 2) resumptive pronouns are licenced in both *bei*-passives; 3) extraction from islands embedded in both *bei*-passives incur island violations that can be

repaired via resumption; and 4) unbounded long-distance dependencies are licenced in both *bei*-passives.

In chapter 4, I systematically reviewed in some detail other proposals for *bei*-passives and showed how they under- or over-generated the empirical data, and also compared them against my account, which correctly captures the empirical facts at hand. In particular, I reviewed haplology accounts, non-unified accounts as well as other unified accounts. In comparing the empirical coverage of the various accounts against mine, I showed that 1) haplology accounts, which assume that A-movement is involved, that there is a prepositional *bei*, and that *bei* is merely a passive marker, are not tenable; 2) idiomatic interpretations do not always survive in *bei*-passives and that this is predicted by my account but not by non-uniform accounts such as those of Chen (2022; 2023), Huang (1999) or Ting (1998); 3) the size of the *bei*-complement should be as large as AspP in order to account for the morphological data at hand, contra Bruening & Tran (2015); 4) we can maintain that the overt initiator in the long *bei*-passive is an adjunct while also maintaining that initiator-oriented adverbs diagnose for derived subjects; 5) my unified analysis for *bei*-passives proposes structures for long and short passives that would be in line with Bruening & Tran's (2015) proposed definition of passives; 6) by simply adopting a phase-based binding theory like that of Despić's (2015) or Quicoli's (2008), we can do away with the additional assumption that *bei* is an ECM or control verb, and we can also do away with appealing to crossover effects, which might not apply in my analysis since A'-movement of a null operator is involved; and 7) my account is also able to correctly rule out coindexation of a third-person pronoun adjunct initiator with the grammatical subject while still correctly ruling in coindexation of a reflexive adjunct initiator with the grammatical subject.

Chapter 5 sought to provide an account for why some short *bei*-passives exceptionally did not exhibit A'-effects such as resumptive pronouns and long-distance dependencies.

Thus, the focus of the dissertation turned to extra-syntactic effects and how they interacted with *bei*-passives. In particular, I proposed a linear ordering constraint that can be satisfied by AdvPs and PPs, including initiator PP adjuncts, if they intervene between *bei* and the verb that immediately follows *bei* in a typical short passive. In doing so, I additionally showed that the initiator PP adjunct is syntactically distinct from typical PP adjuncts given the restrictions in PP-reordering possibilities. By showing that such an extra-syntactic effect is tenable, my unified A'-movement of NOP analysis can be maintained.

The remainder of this chapter will lightly touch on a few directions for further research in section 6.1 before concluding in section 6.2.

6.1 Further research

While I have provided a unified syntactic account for *bei*-passives, sketched out how my proposed structure can semantically compose successfully, and have even proposed a linear ordering constraint to account for apparent counterexamples to the predictions made by my account, I have not discussed the semantic contribution of *bei*, and I do not attempt to do so in this dissertation. However, in subsection 6.1.1, I provide a very brief survey of *bei*-passives that apparently have strong adversative readings but also show that there are plenty of *bei*-passives which clearly have strongly non-adversative readings, and ultimately argue that the availability of non-adversative readings of *bei*-passives obfuscates the semantic contribution of *bei* after all. Then, in subsection 6.1.2, I briefly introduce Larson & Wu's (2018) account for scope ambiguities (or lack thereof) in Mandarin, and point out the theoretical implications for scope ambiguities given my analysis against an account such as theirs. Finally, subsection 6.1.3 will discuss potential cross-linguistic comparisons that might

prove fruitful should my analysis be tenable for some other languages in which we see similar passive constructions.

6.1.1 Is there a clear semantic contribution of the bei *morpheme?*

In this dissertation, I have explicated a syntactic structure for *bei*-passives that can also semantically compose successfully, but I will not attempt to propose a semantic function for *bei*. While I do not seek to develop a semantic or discourse account for *bei*, which authors such as Liu (2011) or Wuyun & Pan (2014a; 2014b) have done, I do acknowledge that *bei*-passives do not simply have a suppressed external argument or have a grammatical subject that is interpreted as the logical object – there can be discourse effects that are present in the passive counterpart of an active construction, such that there can clearly be an adversative reading (Bruening & Tran 2015; Huang 1999; Kim & Sato 2013; Li & Thompson 1981; Lin 2009; 2015; Nomoto & Wahab 2012) in the former but not the latter.

Although Bruening & Tran (2015) do not explicitly spell out a semantics for *bei*-passives, they suggest that based on the intuitions of their consultants, the following sentence seems to have some form of adversative reading:

(1) zhangsan bei lisi da-le

Zhangsan BEI Lisi hit-PERF

'Zhangsan was hit by Lisi.'

(Bruening & Tran 2015; 150, with modifications)

They suggest that even if Zhangsan in example (1) is not affected by Lisi's hitting of him in any way, their consultants find that example (1) has negative connotations, hence it must be the case that the semantic meaning of *bei* must be based on speaker evaluation. The implication of their suggestion is that the *bei* morpheme semantically contributes an adversative reading, even though they do not investigate the issue further. However, I would like to point out that the act of hitting someone is generally frowned upon anyway, so it would not be surprising that "from the speaker's perspective, Lisi hitting Zhangsan was in some way a bad thing to do." (Bruening & Tran 2015; 150) If it were indeed the case that *bei* obligatorily introduces the adversative reading, we should expect that such a reading is either present even if the verb used typically has positive connotations or that the sentence is ungrammatical or infelicitous when the adversative reading cannot be brought out (Kim & Sato 2013), but this is not the case.

As an illustration of the complexity of the semantic contribution of *bei*, consider example (2), which has a strong adversative reading, and example (3), which has a strong non-adversative reading:

(2a) zhangsan bei (lisi) kanjian le

Zhangsan BEI Lisi see INCH

'Zhangsan was seen (by Lisi).'

(2b) zhangsan bei (lisi) faxian le

Zhangsan BEI Lisi discover INCH

'Zhangsan was discovered (by Lisi).'

(3a) zhangsan bei (laoban) shengzhi le

Zhangsan bei boss promote INCH

'Zhangsan was promoted (by the boss).'

(3b) you ge xin de zhiwu pinzhong bei (kexuejia) faxian le

exist CL new DE plant species BEI scientist discover INCH

'There was a new plant species that was discovered (by the scientists).'

One might be tempted to point to example (2) as evidence that *bei* introduces the adversative reading, given that *kanjian* ('see') and *faxian* ('discover') do not have negative connotations under ordinary circumstances but do have adversative readings here. However, we might then expect that example (3a) should either necessarily have an adversative reading or be ungrammatical or infelicitous, but in fact example (3a) has a strong non-adversative reading. What's worse, notice that even though the same verb *faxian* is used in example (3b), there is now instead a strong non-adversative reading. Both sentences in example (3) are unexpected if *bei*'s semantic function was to contribute or introduce an adversative reading.

At this juncture, it might be more reasonable to assume that whether the adversative reading is present in the *bei*-passive or not really depends more on the context or intended message of the speaker rather than the presence of the *bei* morpheme itself. A potential caveat, however, is that gapless *bei*-passives (Her 2009; Huang 1999; Lin 2009; 2015), which we have not examined in this dissertation, appear to have strong adversative readings:

(4) zhangsan bei lisi chi-le laoban yuanben yao

Zhangsan BEI Lisi eat-PERF boss originally want

chi de na-zhi ji

eat DE that-CL chicken

Lit: ‘Zhangsan was ate-up-the-chicken-that-the-boss-wanted-to-eat by Lisi.’

‘Lisi ate the chicken on Zhangsan that the boss originally planned to eat.’

My suggested translation: ‘Lisi ate the chicken that the boss originally wanted to eat, and Zhangsan was adversely affected by it.’

(Lin 2015; 201, with modifications)

(5) zhangsan bei lisi da-si-le

Zhangsan BEI Lisi hit-dead-PERF

laoban yang de na-zhi langgou

boss keep DE that-CL wolfhound

Lit: ‘Zhangsan was hit-dead-the-wolfhound-that-the-boss-kept by Lisi.’

‘Lisi hit the wolfhound that the boss kept to death on Zhangsan.’

My suggested translation: ‘Lisi killed the wolfhound that the boss kept, and Zhangsan was adversely affected by it.’

(Lin 2015; 200, with modifications)

Examples (4-5) must be interpreted such that *Zhangsan* is negatively affected in some way by the event that took place, but is not directly involved in the event. For instance, felicitous contexts for examples (4) and (5) respectively could be that *Zhangsan* was put in charge of getting the chicken for the boss or was responsible for the well-being of the boss' wolfhound. Importantly, *Zhangsan* cannot be understood as having been positively impacted by the event, nor understood to be unrelated to the event (and thus unaffected by the event) in any way.

To account for the presence of the adversative readings in examples (4-5), Lin (2015) proposes that the syntactic structure of gapless *bei*-passives is different from that of the long and short *bei*-passives, such that there is an additional formal semantic requirement for the licencing of gapless *bei*-passives,[1] and, more relevantly for us, that the gapless *bei*-passives induce discourse effects while long and short passives do not necessarily do so.[2] If so, it would at least explain why it is that gapless *bei*-passives have strong adversative readings, as seen in examples (4-5), while long and short passives may not necessarily have adversative readings, as seen in the contrasting examples (2-3).

In consideration of the above, I submit that the semantic contribution of the *bei* morpheme remains mysterious for now and much more research is needed to shed light on the issue. What does seem to be clear, at least to me, is that a uniform treatment of the semantic contribution of *bei* may not be tenable.[3] In the next subsection, I briefly introduce the issue of scope ambiguity and its interaction with *bei*-passives.

[1] Specifically, Lin's (2015) claim is that gapless *bei*-passives are only licenced if *bei* in such cases takes an accomplishment event as its complement. See his examples (43) and (44) for more details.
[2] Huang (1999) also similarly concluded that gapless *bei*-passives (or, in his terms, the indirect passives) induce adversative readings, which are not necessarily present in long and short *bei*-passives.
[3] For the interested reader, Huang (1999) extends his A'-movement account of a null operator for long *bei*-passives to gapless *bei*-passives.

6.1.2 Scope ambiguity and bei*-passives*

Scope ambiguity is an issue that this dissertation has not covered, but it has also received some attention in the literature. Aoun & Li (1989) have argued that Mandarin is not a fixed-scope language and that *bei*-passives can exhibit scope ambiguities as well. Larson & Wu (2018) point out that Huang (1999) disputes the argument made by Aoun & Li (1989) and instead claims that active sentences and their passive counterparts should exhibit the same scope ambiguities (or lack thereof). Relatedly, Larson & Wu (2018) have proposed that Mandarin exhibits fixed scope just in case the syntactic structure allows for a TopP, [4] and so it should be expected that whether a *bei*-passive has fixed scope or not has nothing to do with whether it is a passive construction, but rather has more to do with whether there is a TopP in the structure or not, thus accounting for the presence of scope ambiguity in example (6) and its absence in examples (7-8):

(6) yaoshi liang-ge xiansuo bei mei-ge ren zhaodao…

if two-CL clue BEI every-CL person find

'If two clues were found by everyone…' (2 > ∀; ∀ > 2)

(Aoun & Li 1989; 142, with modifications)

[4] Relevantly, a topic-prominent language such as Mandarin or Japanese differs from a subject-prominent language such as English in that grammatical subject is typically understood to be the topic in a topic-comment structure. For the interested reader, Larson & Wu (2018) assume that Mandarin, being a topic-prominent language (Li & Thompson 1976; 1981), projects an additional TopP layer above TP, but its matrix clause structure up to TP is otherwise the same as English.

(7) you liang-ge xiansuo bei mei-ge ren zhaodao-le

EXIST two-CL clue BEI every-CL person find-PERF

'There were two clues which were found by everyone.' (2 > ∀; *∀ > 2)

(Aoun & Li 1989; 142, with modifications)

(8) liang-ge xiansuo bei mei-ge ren zhaodao

two-CL clue BEI every-CL person find

'Two clues were found by everyone.' (2 > ∀; */?∀ > 2)

(Larson & Wu 2018; 4, with modifications)

Aoun & Li (1989) report that scope ambiguity is present in example (6), but not in example (7), while Larson & Wu (2018) additionally note that scope ambiguity is also not present in example (8). It is important to note three critical assumptions that Larson & Wu have at this point: 1) the matrix clause structure of Mandarin up to TP is identical to the matrix clause structure of English; 2) in Mandarin, TopP is projected directly above TP, such that there is no CP layer between TP and TopP; [5] and 3) where TopP is available in Mandarin, the subject will raise to TopP and become the topic. Then, for Larson & Wu, this contrast between example (6) and examples (7-8) is explained by assuming that the former has a reduced left-periphery such that no TopP position is available (and therefore

[5] At least, based on the structures proposed in their discussion, there is no mention of CP in the Mandarin matrix clause structure and TopP is shown to project immediately above TP, so I have opted to represent their proposal as-is. They do, however, bring up that CP is projected immediately above TP and embedded under DP in Mandarin relative clauses.

topicalisation is not possible)[6] while the latter do not have a reduced left-periphery, hence TopP projects immediately above TP, the subject is raised into TopP (via topicalisation) and scope is subsequently fixed or frozen.

Unfortunately, Larson & Wu only include examples (6) and (8) in their discussion of scope ambiguities and its interaction with *bei*-passives. Thus, a topic for further research could be to see if their predictions regarding scope ambiguity in long and short passives hold given a variety of syntactic or semantic conditions and whether that has any theoretical implications for my proposed unified A'-movement account. It also remains to be seen what the full syntactic structures of examples (6-8) should be, and my analysis (or other tenable analyses) can potentially shed some light on this matter. In the next subsection, I briefly highlight Vietnamese, Cantonese, Southern Min and Thai passives and make cross-linguistic comparisons with the Mandarin *bei*-passive.

6.1.3 Cross-linguistic comparisons

In chapter 4, Bruening & Tran's (2015) analysis for Vietnamese passives was brought up. Here, I present the *bị*-construction as well as the *được*-construction[7] and we can note their surface similarities with *bei*-passives:

[6] Unfortunately, Larson & Wu (2018) do not elaborate on what the truncated syntactic structure should then look like, and so I do not have more to say regarding this matter.
[7] I refrain from labelling the *bị*- and *được*-constructions as passives as I do not mean to argue against Bruening & Tran's (2015) analysis for Vietnamese *bị*- and *được*-constructions. I merely wish to highlight the similarities at this point, which will make for interesting avenues for research in various directions.

(9) nhà này bị Nam đốt

House this BI Nam burn

'This house was burned by Nam (and someone suffered).'

(Bruening & Tran 2015; 149)

(10) cây cầu này cần được phá đi

CL bridge this need DUOC destroy

'This bridge needs to be destroyed (and someone will benefit).'

(Bruening & Tran 2015; 150)

(11a) zhe-jian fangzi bei zhangsan shao-hui-le

this-CL house BEI Zhangsan burn-destroy-PERF

'This house was burned down by Zhangsan.'

(11b) zhe-zuo qiao xuyao bei cuihui

This-CL bridge need BEI destroy

'This bridge needs to be destroyed.'

While the *bị*- and *được*-constructions in examples (9) and (10) respectively apparently share a similar word order as the *bei*-passives in example (11), it is notable that (9) is obligatorily interpreted such that someone must suffer due to the burning of the house, while (10) is obligatorily interpreted such that someone must benefit due to the destruction of the bridge.

That is, both *bị* and *được* have clear semantic contributions, but this stands in stark contrast to the *bei*-passives in example (11), where it is not clear that such an obligatory interpretation must exist.

For example (11), the reading is naturally a negative one because of the nature of the events being described, but it would be possible to imagine a context where, if the events occurred out of necessity or for some greater purpose, both can have a positive reading too. Then, it is clear that *bei* does not necessarily make a semantic contribution like *bị-* or *được* do. Hence, while there are interesting similarities between the Vietnamese constructions and Mandarin *bei*-passives, there are also important differences.

Beyond what was discussed above, there also seem to be other potential structural differences, such as *bị*-constructions being able to have intransitive verbs in their complement clauses (Bruening & Tran 2015), being island-insensitive (Bruening & Tran 2015; see chapter 4) or apparently not being able to have long-distance dependencies in certain configurations (Simpson & Ho 2008). It would also be interesting to develop cross-linguistic accounts for why such differences exist.

Huang (1999) noted the differences and similarities between the Mandarin *bei*-passive and both the Cantonese as well as the Southern Min passive. For instance, neither Cantonese nor Southern Min have short passive forms:

(12) ngo bei *(keoi) da-zo

1SG BEI 3SG hit-PERF

'I was hit by him/her.'

(Huang 1999; 30, with modifications)

(13) goa ho *(i) phatio a

I HO 3SG hit PRT

'I was hit by him/her.'

(Huang 1999; 31, with modifications)

Although the surface word order is again similar to Mandarin *bei*-passives, native Cantonese and Southern Min passives must have an overt initiator. Interestingly, Huang (1999) also points out in his footnote (23) that grammatical short passives in both Cantonese (Tang 2001) and Southern Min do exist, but they are borrowed from the Mandarin short *bei*-passive.

Similar to Mandarin *bei*-passives, Southern Min[8] also allows for gapless passive constructions (Huang 1999):

(14) goa ho i tsao-khi a

1SG HO 3SG run-away PRT

'I (adversely) experienced his running away.'

My suggested interpretation: 'He ran away, and I was adversely affected by it.'

(Huang 1999; 33, with modifications)

Other than the surface similarity to gapless *bei*-passives, Southern Min gapless passives also have a strong adversative reading. One difference, though, at least according to Huang

[8] Neither Huang (1999) nor Tang (2001) provide an example of a gapless passive in Cantonese, but based on Huang's claim that "Chinese dialects" (Huang 1999; 32) have gapless passive forms, it is implied that they exist. Here, too, are interesting avenues for future research.

(1999), is that gapless passives in Mandarin are far more restricted in distribution than in Southern Min.

Finally, there are surface similarities between the Thai passive and the Mandarin *bei*-passive as well:

(15) luuk thuuk (mɛɛ) tii

child THUUK mother hit

'The child was hit (by his/her mother).'

(Lee & Ackerman 2017; 360)

(16) haizi bei mama da-le

child BEI mother hit-PERF

'The child was hit (by (his/her) Mother).'

Importantly, Lee & Ackerman (2017) argue that the Thai short passive is a true passive construction that is monoclausal, while the Thai long passive is actually biclausal, and is not a passive construction at all.[9] The proposed approach for Mandarin *bei*-passives in this dissertation could form an empirical base for investigating the structural similarities or differences between Thai *thuuk*-passives and Mandarin *bei*-passives.

It is important to note that there are many other languages where similar cross-linguistic comparisons may be made, and here I have very briefly introduced only four such

[9] It should be noted that Lee & Ackerman's (2017) claim that the long Thai *thuuk*-construction is not actually a passive bears some similarity to Bruening & Tran's (2015) analysis of the *bị*-construction.

languages. For the interested reader, other languages worth investigating would include Burmese, Khmer, Malay (Bruening & Tran 2015) and Zhuji (a Northern Wu dialect; Tang 2001).

6.2 Conclusion

The previous chapters have fleshed out a syntactic and semantic analysis for the structure of *bei*-passives, showed how my novel analysis correctly predicts that parasitic gaps, resumptive pronouns, island repair via resumption and long-distance dependencies are all licenced by the A'-movement of a null operator in both the long and short passives alike, covered previous approaches and compared them to my unified A'-movement-based analysis, and has even proposed an extra-syntactic linear ordering constraint along with how said constraint might be satisfied to show that A'-effects are indeed detected even in short *bei*-passives.

Additionally, this chapter has very briefly illustrated that there is still much more work to be done for *bei*-passives in general. We have seen that while gapless *bei*-passives have a strong adversative reading, the overall semantic contribution of *bei* remains unclear – in fact, whether a unified account for the semantic contribution of *bei* is even tenable still requires further empirical support. We have also seen that the interaction of scope ambiguity with *bei*-passives is an area that still warrants much investigation, though there are some clearly testable hypotheses. Furthermore, based on what has been proposed here, there could be more fruitful cross-linguistic comparisons to be made that would broaden our understanding of the language faculty in general.

Finally, given the wealth of supporting syntactic evidence for my unified analysis, it is my hope that this dissertation will help to inform future empirical studies into the *bei*-

passive and its relatives. For instance, we could ask if the distribution of parasitic gaps, resumptive pronouns, island violations and long-distance dependencies in *gei*-passives are identical to what has been discussed here, which would have theoretical implications on the analysis on other types of passive constructions in Mandarin. More generally, it is also hoped that the data pertaining to preposition stranding, long-distance reflexives, parasitic gaps, resumption, island sensitivity and idiomatic interpretations presented in this dissertation (to highlight a few) not only adds to the existing pool of cross-linguistic evidence but also sheds more light on the nature of such syntactic and semantic phenomena. Furthermore, the fact that the *tough*-movement analysis, which was originally proposed for English, can apparently apply so successfully in the case of *bei*-passives leaves us with the important question of whether the A'-movement of a null operator as a mechanism may be more widespread than previously understood. If so, it would certainly have strong theoretical implications for its learnability across languages as well as its significance in Universal Grammar.

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