

**The diachronic development of the Chinese passive:
From the WEI ... SUO passive to the long passive**

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This article discusses the diachronic development of the Chinese long passive. The diachronic analysis is built on structural analysis of the long passive and the WEI ... SUO passive. I show that both constructions involve a highly restricted embedded clause (a *vP*) and that both are derived via A'-movement. Based on their structural parallelism, I argue that the WEI ... SUO passive, which first appeared in Late Archaic Chinese (fifth century BCE ~ third century BCE), is the direct ancestor of the long passive. The long passive inherits its A' properties and biclausal structure from the WEI ... SUO passive. I also show that the diachronic development from the WEI ... SUO passive to the long passive took place in two steps: (i) the loss of SUO following a morphophonological change in Early Middle Chinese (second century BCE ~ second century CE), and (ii) the replacement of WEI by BEI in Middle Chinese (third century CE ~ sixth century CE).*

Keywords: diachronic syntax, Chinese long passive, WEI ... SUO passive, biclausal passive construction

1. INTRODUCTION. This article analyzes the diachronic development of Chinese long passives. The term LONG PASSIVE is used to distinguish it from another type of passive construction, namely the SHORT PASSIVE, also called the 'agentless passive'. A Mandarin Chinese long passive construction is given in 1a: the passive subject precedes the passive marker BEI,¹ and an agent is embedded under BEI. The matrix subject is related to a gap in the embedded clause. An agentless passive construction, which does not embed an agent under BEI, is given in 1b. The Mandarin agentless passive construction is similar to the English-type passive construction. The light verb is not able to take an external argument or value the case feature on the internal argument. The internal argument moves to [Spec, TP] to check the EPP (extended projection principle) feature on T. The T values the internal argument with nominative case.²

- (1) a. Zhangsan bei Lisi piping le.
Zhangsan PASS Lisi criticize ASP
'Zhangsan was criticized by Lisi.'
b. Zhangsan bei piping le.
Zhangsan PASS criticize ASP
'Zhangsan was criticized.'

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¹ The following functional morphemes in Chinese are given in small caps throughout the article: BEI: passive marker; WEI: a copula verb used to mark passive voice in monoclausal passive constructions in Archaic Chinese; SUO: a functional morpheme that typically appears in Archaic Chinese object relative clauses; ZHI and ZHE: relativizers that mark Archaic Chinese object and subject relative clauses, respectively.

² The following abbreviations are used: ACC: accusative case, APPL: applicative marker, ASP: aspectual marker, CL: classifier, DET: determiner, GEN: genitive case, NEG: negator, NMLZ: nominalizer, PASS: passive, PFV: perfective marker, PL: plural, PTCL: particle, Q: question marker, SG: singular.

The complementation approach (Feng 1990, 1995, 1997, Chiu 1993, Tsai 1993, Ting 1995, 1998, Huang 1999, S.-W. Tang 2001, and Huang et al. 2009) argues that the long passive construction is biclausal, which is surprising from a typological perspective.³ As shown in 2, BEI heads a VP, which denotes the meaning of ‘suffering’ or ‘affected’, and BEI takes an IP as its complement. The patient argument in the embedded IP is a null operator undergoing A'-movement to [Spec, IP]. The subject of the long passive is base-generated and receives an Experiencer θ -role in the matrix clause.

- (2) [Zhangsan [_{VP} bei [_{IP} Op Lisi [_{VP} V piping t_{Op}]]]].

I propose that the Mandarin Chinese long passive construction developed diachronically from the WEI ... SUO passive construction, shown in 3, which was first observed in Late Archaic Chinese (LAC; fifth to third centuries BCE) and flourished in Early Middle Chinese (EMC; second century BCE to fourth century CE). Starting from the fifth century CE, the number of WEI ... SUO passives decreased in frequency,⁴ and long passives began to replace WEI ... SUO passives.⁵ Structurally, WEI ... SUO passives typically embed a clause headed by the functional morpheme SUO. This clause is selected as the complement of the copula verb WEI, and the matrix subject is interpreted as the gap in the SUO clause.

- (3) 負石自投於河，為河鰲所食。

fu shi zi tou yu he wei hebie suo shi (Zhuangzi Daozhi; LAC)
bear rock self throw into river WEI tortoise SUO eat

‘(He), bearing a rock, threw himself into the river. (He) was eaten by a tortoise.’

A comparison of the long passive in 1a and the WEI ... SUO passive in 3 shows that they share certain surface similarities: (i) both constructions embed a clausal constituent that includes the agent under a matrix predicate, and (ii) the matrix subject is related to a gap in the embedded clause.

In this article, I show that Mandarin Chinese long passives and the WEI ... SUO passives share many structural similarities, which can be accounted for if the long passive originated from the WEI ... SUO passive in Late Archaic and Middle Chinese. In other words, the long passive did not evolve from the agentless short passive but has an independent historical source. It inherits its biclausal character from a requirement in Archaic Chinese that object movement be licensed. Therefore, the long passive construction in Mandarin Chinese no longer seems typologically surprising.

I start with an analysis of the syntactic structures of both passive constructions in turn (§§2 and 3), and argue that these two types of passive constructions share similar syntactic structures. Based on this discovery, in §4 I argue that the diachronic change from

³ The other major approach is to extend the analysis of English passive constructions to Mandarin Chinese long passives (Li 1990, Shi 1997). This approach analyzes BEI as a preposition that takes the Agent DP as its complement, similar to English-type passives. The difference between Mandarin long passives and English-type passives is the position to which the PP adjoins. This type of analysis has been argued against by Huang and colleagues (2009). I include one counterexample here (for additional specific arguments please see Huang et al. 2009). Li (1990) and Shi (1997) predict that the Agent DP forms a constituent with BEI. This prediction is not borne out, as shown in (i). Instead, the coordination structure shows that the Agent DP forms a clausal constituent with the *vP* that follows it.

(i) ta bei Lisi piping le, Wangwu zebei le.
3SG BEI Lisi criticize ASP Wangwu blame ASP
‘He was criticized by Lisi and blamed by Wangwu.’

⁴ The same observation has been made by Wei (1994, 2003).

⁵ As noted by Wei (1994, 1999) and Wang (1989), the structure of long passives has not undergone significant change. It has been used as one of the major types of passive construction in Chinese since then.

WEI ... SUO passives to long passives took place in two steps: (i) the loss of SUO, and (ii) the lexical replacement of WEI by BEI. Section 5 concludes.

It is also important for a historical linguistics study to present information about periodization. Following Aldridge 2013a, I assume the following periodization for Archaic and Middle Chinese (historical time periods are in parentheses).

(4) Periodization

Pre-Archaic (PAC):	14th c. BCE ~ 11th c. BCE	(Shang)
Early Archaic (EAC):	10th c. BCE ~ 6th c. BCE	(Zhou)
Late Archaic (LAC):	5th c. BCE ~ 3rd c. BCE	(Warring States)
Early Middle Chinese (EMC):	2nd c. BCE ~ 2nd c. CE	(Han)
Middle Chinese (MC):	3rd c. CE ~ 6th c. CE	(Six Dynasties)
Late Middle Chinese (LMC):	7th c. CE ~ 10th c. CE	(Tang)

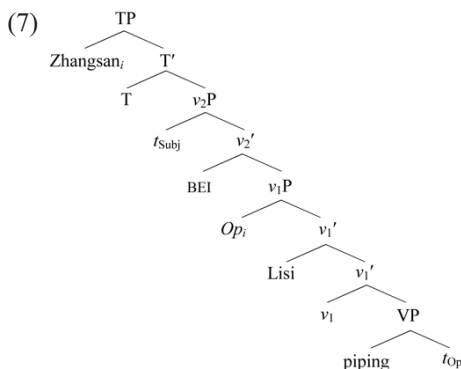
2. THE STRUCTURE OF LONG PASSIVES. Earlier work by Feng (1990, 1995, 1997), Chiu (1993), Tsai (1993), Ting (1995, 1998), and Huang (1999) proposes that Mandarin Chinese long passives are biclausal. This construction involves operator movement from the gap in the embedded object position, as in 5a. Structurally, it resembles the *tough*-construction in English, as shown in 5b.

- (5) a. [Zhangsan [_{VP} bei [_{IP} Op Lisi [_{VP} piping *t*_{Op}]]]].
 b. [The Lakers [_{VP} are [_{IP} Op **tough** to [_{VP} beat *t*_{Op}]]]].

In the analysis shown in 5a, the passive marker BEI takes an IP as its complement, and the patient argument is a gap in the embedded IP. A null operator undergoes A'-movement to [Spec, IP]. The subject of the long passive is base-generated and receives an Experiencer θ -role in the matrix clause. This is because the passive subject can be modified by subject-oriented adverbs such as *guyi* 'intentionally', as shown in 6.

- (6) Zhangsan *guyi* bei Lisi piping le.
 Zhangsan intentionally PASS Lisi criticize ASP
 'Zhangsan intentionally got criticized by Lisi.'

In this study, I assume the basic spirit of the complementation approach. Building on previous analyses, I propose a nested *v*P construction, as in 7. The passive marker BEI takes a *v*P as its complement. In this analysis, a null operator moves from an internal argument position to the edge of this embedded domain, which is the edge of the embedded *v*₁P, where it is licensed by being bound by the matrix subject. The matrix subject is base-generated in [Spec, *v*₂P] in the matrix clause, where it receives an Experiencer θ -role. The main difference between the structure in 7 and Huang and colleagues' (2009) structure in 5a is that the embedded clause in 7 is more reduced. In §§2.1 and 2.2, I provide further evidence to support the nested *v*P analysis. I first discuss the non-finiteness of the embedded clause, and then provide evidence showing that the embedded constituent in Mandarin Chinese consists of no more than a *v*P.



2.1. THE LONG PASSIVE EMBEDS A NONFINITE CLAUSE. My first piece of evidence comes from the scope of the perfect/inchoative marker *le* in Mandarin Chinese long passives. Lin (2011) argues that Mandarin Chinese epistemic modals (such as *keneng* ‘be likely to’) take a finite TP complement, whereas root modals (such as *neng* ‘be able to’) take a nonfinite TP complement, as shown in 8.

- (8) a. Zhangsan_i *keneng* [TP_{finite} *t_i* xihuan ta].
 Zhangsan be.likely.to like 3SG
 ‘Zhangsan is likely to like her.’
 b. Zhangsan_i *neng* [TP_{nonfinite} PRO xihuan ta].
 Zhangsan be.able.to PRO like 3SG
 ‘Zhangsan is able to like her.’

Shen (2004) argues that the particle *le* in Mandarin Chinese represents perfect aspect, which needs a reference time (see Hornstein 1990, Hacquard 2006). He proposes that *le* heads an AspP in Mandarin Chinese. To license the perfect aspect represented by *le*, the Asp head has to be valued with a reference time by T (or a tense feature). In such cases, the appearance of *le* is legitimate. However, if T is not able to value Asp with a tense feature, the perfect aspect cannot be defined. In other words, *le* cannot be licensed.

It is generally assumed that a nonfinite T is [–Tense], whereas a finite T is [+Tense]. Therefore, Lin (2011) predicts that *le* cannot be licensed within the complement clause of a root modal in Mandarin Chinese. This prediction is actually borne out.

- (9) Zhangsan *neng* qu Taipei *le*.
 Zhangsan be.able.to go Taipei PFV
 a. *le* > *neng*: [Zhangsan *neng* [qu Taipei] *le*].
 ‘It has become the case that Zhangsan is able to go to Taipei.’
 b. #*neng* > *le*: [Zhangsan *neng* [qu Taipei *le*]].
 *‘Zhangsan is able to have gone to Taipei.’ (Lin 2011:53)

As 9 shows, when *le* cooccurs with a root modal, it always takes scope over it. The reverse-scope interpretation is not available. This is because the complement clause of a root modal is nonfinite, so it is not able to provide the reference time required to license *le*. Consequently, the only possible source of the reference time is the finite matrix T, which evokes the wide-scope reading. This shows that a nonfinite clause is not able to license the perfective *le*.

By contrast, when the epistemic modal *keneng* is in the matrix clause, *le* takes only narrow scope. This is because *keneng* embeds a finite clause that is able to license the narrow-scope reading of *le*, and *le* thus does not need to be licensed in the matrix clause.

- (10) Zhangsan *keneng* qu Taipei *le*.
 Zhangsan be.likely.to go Taipei PFV
 a. #*le* > *keneng*: [Zhangsan *keneng* [qu Taipei] *le*].
 *‘It has become possible that Zhangsan goes to Taipei.’
 b. *keneng* > *le*: [Zhangsan *keneng* [qu Taipei *le*]].
 ‘Zhangsan may have gone to Taipei.’

Le’s scope can be used as a test for finiteness in Mandarin Chinese long passives. If the embedded constituent in these long passives is nonfinite, we would predict that only the wide-scope reading of *le* is available. This prediction is borne out, as shown in 11.

- (11) Zhangsan *bei* Lisi *da le*.
 Zhangsan PASS Lisi beat PFV
 a. *le* > *bei*: [Zhangsan [bei Lisi *da*] *le*].
 intended: ‘The impact of Lisi’s beating him was on Zhangsan at the same time as the beating happened.’

- b. *#bei > le*: [Zhangsan bei [Lisi da le]].

intended: 'Zhangsan received the impact of Lisi's beating him after he had been beaten.' (for example, he felt the pain one day later)⁶

The other piece of evidence comes from the licensing of the adverbial elements *gang* 'just now' and *yijing* 'already'. C.-C. J. Tang (2001) shows that *gang* and *yijing* can only be licensed within a finite clause. In 12, in which the matrix predicates embed finite clauses, *yijing* and *gang* can appear in both the matrix and the embedded clauses. In 13, however, *yijing* and *gang* can only appear in the matrix clause, because the control predicate *shefa* 'try' takes an infinitive. In 14 we observe the same phenomenon, since the embedded clause is selected by a root modal. In sum, the adverbial elements *yijing* and *gang* are sensitive to finiteness.

- (12) a. ta (yijing) zhidao [ni (yijing) lai le].
3SG (already) know 2SG (already) come ASP
'He (already) knew that you (already) came.' (C.-C. J. Tang 2001:232)
- b. ta (gang) zhidao [ni (gang) lai].
3SG (just.now) know 2SG (just.now) come
'He (just now) knew that you (just now) came.' (C.-C. J. Tang 2001:233)
- (13) a. ta (yijing) shefa [(*)yijing tongzhi wo].
3SG (already) try (*already) inform 1SG
'He has (already) tried to inform me.' (C.-C. J. Tang 2001:232)
- b. ta (gang) shefa [(*)gang tongzhi wo].
3SG (just.now) try (*just.now) inform 1SG
'He has (just now) tried to inform me.' (C.-C. J. Tang 2001:233)
- (14) a. ta (yijing) neng [(*)yijing shuo yingwen].
3SG (already) be.able.to (*already) speak English
'He (already) can speak English.' (C.-C. J. Tang 2001:232)
- b. ta (gang) neng [(*)gang shuo yingwen].
3SG (just.now) can (*just.now) speak English
'He is (just now) able to speak English.' (C.-C. J. Tang 2001:233)

This test can be applied to Mandarin Chinese long passives, as in 15, where we observe that *yijing* and *gang* are licensed only in the matrix clause, similar to the cases discussed above. We may therefore conclude that the embedded constituent in long passives is nonfinite.

- (15) a. Zhangsan (yijing) bei Lisi (*yijing) piping le.
Zhangsan (already) PASS Lisi (*already) criticize ASP
'Zhangsan has (already) been criticized by Lisi.'
- b. Zhangsan (gang) bei Lisi (*gang) piping le.
Zhangsan (just.now) PASS Lisi (*just.now) criticize ASP
'Zhangsan has (just now) been criticized by Lisi.'

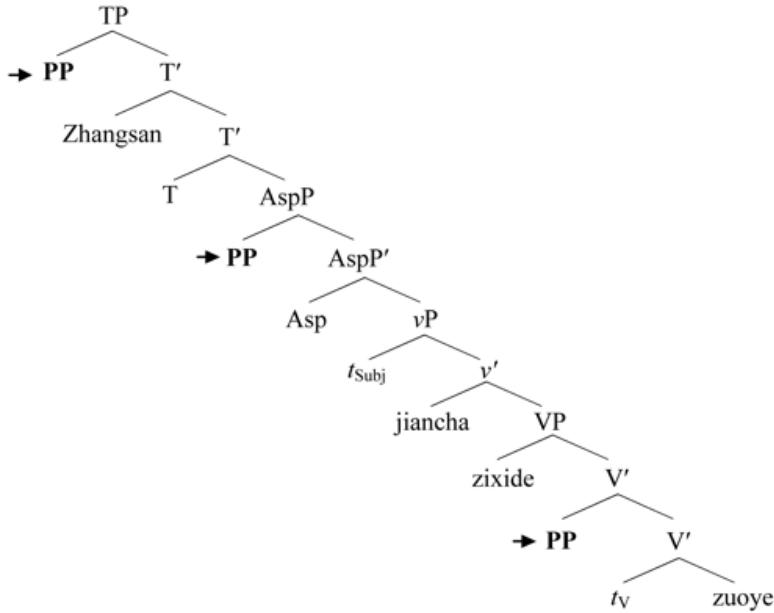
⁶ I translated the examples in 11 this way because it has been argued in the literature that Mandarin Chinese passive sentences convey an affected reading on the matrix subject (Hashimoto 1987, Feng 1990, Huang 1999, S.-W. Tang 2001, Huang et al. 2009). The affected reading becomes clear when a ditransitive sentence is passivized, as in (i). Since the books are not Zhangsan's possession, the only semantic relation between Zhangsan and the event of stealing is that Zhangsan was adversely affected by this event.

(i) Zhangsan ti xuexiao guan shu, dan ta bei Lisi tou le yixie.
Zhangsan help school keep books but 3SG BEI Lisi steal ASP some
'Zhangsan is holding books for the school, but he had some books stolen by Lisi.'

In the next subsection, I argue that the embedded constituent in Mandarin Chinese long passives consists of no more than a *vP*.

2.2. NO EMBEDDED TP LAYER IN MANDARIN CHINESE LONG PASSIVES. This subsection argues that in Mandarin Chinese long passives, *BEI* does not embed a TP layer. First, some adjuncts cannot adjoin to certain positions in the embedded clause of the long passive. C.-C. J. Tang (2001) argues that the *wei* benefactive PP adjoins to T, outer Asp,⁷ or V.

- (16) (wei Lisi) Zhangsan (wei Lisi) zixi-de (wei Lisi) jiancha zuoye.
 (for Lisi) Zhangsan (for Lisi) carefully (for Lisi) examine homework
 'Zhangsan carefully examined the homework for Lisi.'



As 16 shows, there are three possible positions for the benefactive PP headed by *wei*. C.-C. J. Tang (2001) argues that the sentence-initial PP adjoins to T, whereas the PP that follows the manner adverb 'carefully' adjoins to V. The middle PP adjoins to outer Asp. If Mandarin Chinese long passives embed only a *vP*, we would expect that only the last benefactive PP is allowed in the embedded constituent. The other two positions are ruled out because of the lack of hosts. This prediction is borne out.

- (17) Zhangsan bei [(*wei Wangwu) Lisi (*wei Wangwu) henhen-de
 Zhangsan PASS (*for Wangwu) Lisi (*for Wangwu) ferociously
 (wei Wangwu) piping].
 (for Wangwu) criticize
 'Zhangsan has been ferociously criticized by Lisi for Wangwu.'

C.-C. J. Tang (2001) argues that another adjunct *renran* 'still' adjoins to the outer Asp, as shown in 18.

- (18) (*renran) Zhangsan (renran) zixi-de (*renran) xie zuoye.
 (*still) Zhangsan (still) carefully (*still) write homework
 'Zhangsan still does the homework carefully.'

T and V are ruled out as possible hosts for *renran* because it can neither be adjoined to TP nor follow the manner adverb. Therefore, in Mandarin Chinese passives, we do not

⁷ In the sense of Travis 1991.

expect *renran* to appear in the embedded constituent if it is only a *vP*. This is shown to be correct in 19, where *renran* can appear only in the matrix clause.

- (19) Zhangsan (*renran*) bei Lisi (**renran*) zenghen.
 Zhangsan (still) PASS Lisi (*still) hate
 ‘Zhangsan was still hated by Lisi.’

Note that the incompatibility of *renran* in the embedded constituent is not because of the nonfiniteness, since *renran* can appear in an infinitive, as shown in 20.

- (20) ta dasuan *renran* tongzhi wo yi sheng.
 3SG plan still inform 1SG one sound
 ‘He still plans to inform me.’ (C.-C. J. Tang 2001:233)

The second piece of evidence for my proposal comes from temporal adverbs. Alexiadou (1997) argues that Mandarin Chinese temporal adverbs are licensed in the TP layer. C.-C. J. Tang (2001) points out that outer Asp could be another possible licenser for temporal adverbs, as shown by the two possible positions for temporal adverb *jintian* ‘today’ in 21.

- (21) (*jintian*) ta (*jintian*) hen kaixin.
 (today) 3SG (today) very happy
 ‘He is very happy today.’

C.-C. J. Tang (2001) argues that the first temporal adverb in 21 is licensed in TP, while the second is licensed by outer Asp. However, it should be pointed out here that it is possible that temporal adverbs are licensed only by T. The word order in which the temporal adverb follows the subject may be derived from subject topicalization. Either way, Mandarin Chinese temporal adverbs have to be licensed by functional projections above *vP*. Therefore, my analysis of Mandarin long passives predicts that temporal adverbs cannot be embedded. As 22 shows, this prediction is correct.

- (22) Zhangsan (*zuotian*) bei Lisi (**zuotian*) piping le.
 Zhangsan (yesterday) PASS Lisi (*yesterday) criticize ASP
 ‘Zhangsan has been criticized by Lisi yesterday.’

Again, I want to show that this effect is not because of the nonfiniteness. Temporal adverbs are licensed in certain nonfinite embedded clauses, as shown in 23.

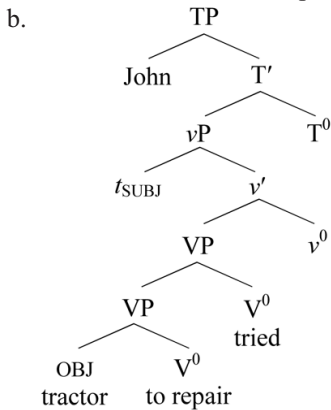
- (23) Zhangsan shefa [*mingtian* lai Shanghai].
 Zhangsan try tomorrow come.to Shanghai
 ‘Zhangsan tried to come to Shanghai tomorrow.’

In addition to the test of temporal adverbs, Wurmbrand (2012) proposes a tense-contradiction test to investigate the size of an embedded infinitive. Specifically, following Martin 1992, 1996, Bošković 1995, 1997, and Chomsky & Lasnik 1995, Wurmbrand (2012) argues that the tense feature of an infinitive resides on the T head. The German lexical restructuring construction in 24, whose restructuring infinitive is a bare VP, is predicted to be tenseless.⁸ To test this hypothesis, Wurmbrand (2012) uses a tense-contradiction test.

⁸ A restructuring construction is an infinitival that is transparent—in other words, it does not show clause-boundedness effects. For example, (ia) is a restructuring construction that allows clitic climbing, while (ib), a nonrestructuring construction, does not allow such an operation.

- (i) Italian
 a. Lo volevo [vedere *t_{CL}* subito]. (restructuring)
 him 1SG.wanted [see *t_{CL}* immediately]
 ‘I wanted to see him immediately.’

- (24) a. weil Hans den Traktor zu reparieren versuchte.
 since John the tractor.ACC to repair tried
 ‘since John tried to repair the tractor.’

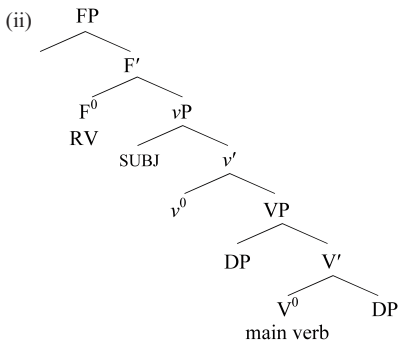


(Wurmbrand 2012:17)

Wurmbrand (2012) distinguishes two types of infinitives: the tensed infinitive and the tenseless infinitive (i.e. lexical restructuring). She proposes that the tense of a tensed infinitive ‘establishes a temporal ordering relation between the time of the infinitival event and the time of the matrix event’⁹ (Wurmbrand 2012:75). But no such temporal-ordering relation can be established in a tenseless infinitive. A tenseless infinitive is

- b. *Lo detesto [vedere t_{CL} in quello stato]. (nonrestructuring)
 him 1sg.detest [see t_{CL} in that state]
 ‘I detest seeing him in that state.’ (Wurmbrand 2004:991–92)

Wurmbrand (2004) further distinguishes two types of restructuring constructions: lexical restructuring (cf. (i)) and functional restructuring. A lexical restructuring embeds a bare VP as its restructuring infinitive. A functional restructuring (ii) assumes the restructuring verb (RV) as a head in the functional domain above *v* that selects the restructuring infinitive.



(Wurmbrand 2004:992)

It is worth noting here that BEI in the long passive is not a restructuring verb. First, BEI is not a functional RV. In a long passive, BEI heads a *vP* that is lower than the functional domain, since it has to assign an external θ -role to the matrix subject. Second, BEI is not a lexical RV. According to Wurmbrand’s (2004) analysis, a lexical RV heads a bare VP, which in turn selects a bare VP as its restructuring infinitive. Notice that the embedded infinitive in a long passive includes an external argument. In other words, a bare VP is not large enough to host the embedded infinitive of a long passive. Therefore, BEI is different from an RV. However, certain diagnostics Wurmbrand uses to test the size of the infinitive can be used in this study.

⁹ The tenseness of the nonfinite clauses referred to in this article is generally based on the discussion by Landau (2000, 2004). Landau observes that some control structures show semantic tense, which may or may not be associated with overt tense morphology, in that there is mismatch between the tense of the matrix clause and that of the embedded infinitive clause, as shown in (i). In (ia), the helping must happen a day after the plan, which happened last night. In (ib), the helping and the condescending have to happen simultane-

only able to receive a simultaneous interpretation. In this sense, 25a (a tensed infinitive) is grammatical, but 25b (a restructuring, i.e. tenseless, infinitive) is not. The temporal adverb is compatible with the interpretation in 25a because it specifies that the time of the embedded event is after the time of the matrix event. Example 25b is not good because while the temporal adverb forces the embedded event to be interpreted after the matrix event, the tenseless nature of the embedded infinitive requires both events to happen simultaneously. Thus, there is a tense contradiction in this sentence.

- (25) a. Hans hat beschlossen (morgen) zu verreisen.
 John has decided (tomorrow) to go.on.a.trip
 ‘John decided to go on a trip (tomorrow).’
 b. Hans hat versucht (*morgen) zu verreisen.
 John has tried (*tomorrow) to go.on.a.trip
 ‘John tried to go on a trip (*tomorrow).’ (Wurmbrand 2012:74)

The same test can be applied to Mandarin long passives. It is predicted that the embedded infinitive of a long passive is tenseless because it lacks a TP layer. This prediction is borne out. Example 26a is ungrammatical because a tense contradiction happens between the embedded event and the matrix event. The embedded future temporal adverb forces the embedded event to happen after the matrix one. But the simultaneity required by the tenseless nature prevents such an ordering. In contrast, 26b, whose embedded infinitive is tensed, is good. The embedded event is interpreted to happen after the matrix event (actually also a day after the utterance time).

- (26) a. Zhangsan yijing bei Lisi (*mingtian) daizou le.
 Zhangsan already PASS Lisi (*tomorrow) bring.away ASP
 ‘Zhangsan has already been brought away by Lisi (*tomorrow).’
 b. Zhangsan yijing jue ding (mingtian) qu Taipei le.
 Zhangsan already decide (tomorrow) go Taipei ASP
 ‘Zhangsan has already decided to go to Taipei tomorrow.’

In sum, the tense-contradiction test also shows that the embedded clause in a long passive lacks a TP layer.

In this section, I presented my nested *vP* analysis for the Mandarin Chinese long passive. This proposal is supported by the following facts: (i) the complement of BEI is nonfinite, and (ii) functional layers above *vP*, such as TP and outer AspP, are absent in the embedded clause. In the next section, I discuss the syntactic structure of the WEI ... SUO passive in Middle Chinese.

ously. He argues that such a mismatch, or the lack thereof, is signified by a [+T] feature on the T head of the embedded clause, whereas a [-T] signifies the absence of the semantic tense.

- (i) a. Last night, Tom planned to help us today.
 b. *Last night, Tom condescended to help us today. (Landau 2013:66)

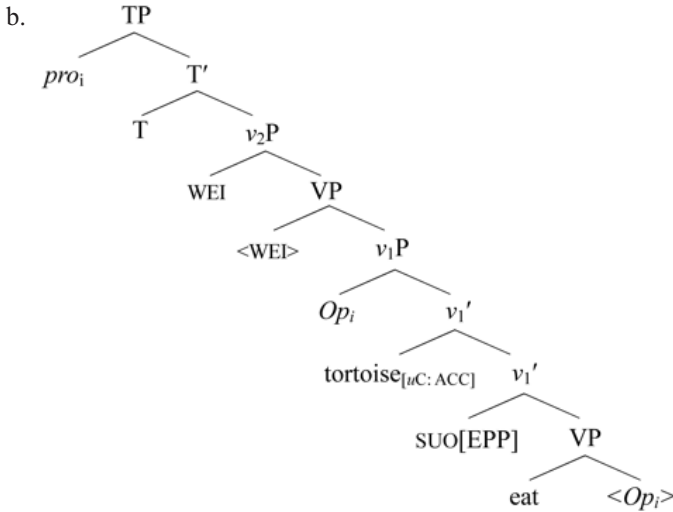
The same mismatch is also observed in Mandarin Chinese; the T head of nonfinite clauses is also specified with a [T] feature, as shown in (ii). Example (iia) shows [+T] on T, as there is mismatch between the matrix tense and embedded tense. Example (iib) shows that the matrix tense and embedded tense are identical.

- (ii) a. Zuowan, wo jihua jintian qu Beijing.
 last.night 1sg plan today go Beijing
 ‘Last night, I planned to go to Beijing today.’
 b. *Zuowan, wo shitu jintian qu Beijing.
 last.night 1sg attempt today go Beijing
 ‘Last night, I attempted to go to Beijing today.’

3. THE STRUCTURE OF WEI ... SUO PASSIVES. This section explores the structure of WEI ... SUO passives. I propose a nested vP analysis for these passives, similar to the analysis of Mandarin Chinese long passives.

- (27) a. 為河鱉所食。
 wei hebie suo shi.
 WEI tortoise SUO eat
 ‘(He) was eaten by a tortoise.’

(Zhuangzi Daozhi; LAC)



Under this analysis, a null operator is merged with the verb, and the whole VP is selected by a light verb v_1 . The agent of the WEI ... SUO passive is base-generated in [Spec, v_1P], where it is θ -marked. v_1P is selected by WEI, which undergoes head-to-head movement to v_2 . v_2 agrees with the agent and values it with accusative case. The subject of the WEI ... SUO passive is generated in [Spec, v_2P], where it receives the Experiencer θ -role, similar to the Mandarin long passive. The subject agrees with T to value nominative case and moves to [Spec, TP] to check the EPP on T. The null operator, which is coindexed with the subject, undergoes A'-movement to [Spec, v_1P]. Since the edge of the strong phase v_1P is the target of the object movement of the null operator, v_1 is pronounced as SUO.¹⁰

I begin this section by reviewing existing analyses of WEI ... SUO passives in §3.1. In §3.2, I show that SUO triggers A'-movement in clauses. In the next subsection, I show that there is no CP or TP layer between WEI and SUO. I also argue that SUO is best analyzed as a v , because it is higher than some vP -internal functional projections.

3.1. PREVIOUS ANALYSES. There are two existing analyses for the WEI ... SUO passives: Peyraube (1989) views WEI as a preposition, which forms a PP with the agent preceding SUO. SUO is analyzed as a passive marker on the verb. By contrast, Ma (1898), Wei (1994), Yan (1995), and Dong (1998) argue that WEI ... SUO passives are actually copula constructions (判斷句). I present empirical evidence against both analyses in this section.

WEI AS A PREPOSITION. Peyraube (1989) argues that WEI is a preposition because it is followed by a noun (the agent). He further argues that since WEI is a preposition, it does

¹⁰ This is a requirement in Archaic Chinese. SUO is necessary when object movement targets or stops at the edge of a strong vP phase (see also the discussion of SUO in Archaic Chinese headless object relative clauses in Aldridge 2013a).

not have the ability to license passivity. Consequently, a passive marker *SUO* is added to the main verb to mark passivity. His analysis is shown in 28.

(28) Subj. [_{PP} *WEI* Agent] [_{VP} *SUO* Verb]

The key prediction made by Peyraube (1989) is that *WEI* forms a constituent with the following agent. In addition, the agent does not form a constituent with *SUO* and the verb. However, this prediction is not borne out if one considers the coordination structure in 29.

(29) 輒為將相所不任，文吏所毗戲。 (Lunheng chengcai; EMC; Wei 1994:307)

zhe wei [_{v₁P} jiang xiang suo bu ren] [_{v₂P} wenli suo
subsequently *WEI* general premier *SUO* not trust officer *SUO*
píxì].
contempt

‘Subsequently, (he) would not be trusted by generals and premiers and would be held in contempt by officers.’

Example 29 is a coordinate structure. In this example, the clauses *jiang xiang suo bu ren* ‘not trusted by generals and premiers’ and *wenli suo pixi* ‘held in contempt by officers’ are coordinated. A coordinate structure typically coordinates constituents of the same type. Therefore, 28 shows that the agent, *SUO*, and the embedded verb together form a constituent. This is not predicted by Peyraube’s preposition analysis of *WEI*. The double-*vP* analysis, by contrast, captures the constituency in 29. In my analysis, the embedded agent, *SUO*, and the embedded verb together form the *v₁P*, which is a single constituent.

In addition to the problem raised above, *SUO*’s status as a passive marker is also questionable. Peyraube (1989) predicts that it is possible to form a *SUO* passive construction without the *WEI-PP*, which is merely an adjunct. In other words, we would expect to find examples like 30 in Middle Chinese. This prediction is not borne out: sentences such as 30 have never been reported in any Middle Chinese texts.¹¹

(30) 輒所不任，所毗戲。

zhe suo bu ren, suo pixi.
subsequently *SUO* not trust *SUO* contempt

‘Subsequently, (he) was not trusted and (he) was held in contempt.’

RELATIVE CLAUSE APPROACH. The second type of analysis proposes that the *WEI ... SUO* passive is a copula construction (判斷句) in which the copula verb *WEI* selects a relative clause (Ma 1898, Wei 1994, Yan 1995, and Dong 1998). This analysis is based on two facts. First, *WEI* could function as a copula in Archaic Chinese (31), as discussed in §1.

(31) 爾為爾，我為我。

(Mencius Gongsun Chou 1; LAC)

er wei er, wo wei wo.
2SG *WEI* 2SG 1SG *WEI* 1SG

‘You are yourself. I am myself.’

¹¹ In fact, there are also examples from Early Middle Chinese in which the *WEI* is not followed by an NP in a *WEI ... SUO* passive, as shown in (i). This sentence can be evidence against Peyraube 1989. If *WEI* is a preposition, it must be followed by an NP. Given (i), *WEI* is not a preposition.

(i) 遂為所憎。

(Lunheng 1; EMC)

sui wei suo zeng.
then *WEI* *SUO* hate

‘Then (he) was hated (by others).’

Second, *SUO* was also used as an object relativizer (32) in Late Archaic Chinese (Aldridge 2013a). For this reason, it is natural to consider the clause following *WEI* to be a complex DP involving a headless object relative clause.

- (32) 人之所畏。(Laozi; LAC; Aldridge 2013a:240)
 ren zhi suo wei.
 person GEN *SUO* fear
 ‘what people fear’

Therefore, under the copula construction analysis, the sentence in 27a has the structure in 33b. Example 33a is literally interpreted as: ‘He belongs to the category of person whom the tortoise eats’.

- (33) a. 為河鱉所食。(Zhuangzi Daozhi; LAC)
 wei hebie suo shi.
WEI tortoise *SUO* eat
 ‘(He) was eaten by a tortoise.’
 b. *pro* [_{VP} *WEI* [_{DP} [_D [_{TP} tortoise_i [*SUO*_j [_{VP} Op_j *t*_i [eat]]]]]]]]]

The copula construction analysis accounts for the constituency problem in Peyraube 1989 since the agent, *SUO*, and the verb now form a DP. However, I show in §3.3 that the syntactic behavior of a headless object relative clause is different from that of the complement clause in a *WEI* ... *SUO* passive.

3.2. MOVEMENT IN THE *SUO* CLAUSE. This subsection argues that there is A'-movement in the embedded clause that contains *SUO*. First, the embedded clause in *WEI* ... *SUO* passives is sensitive to locality constraints on movement. In my corpus, I have not found evidence that the operator moves across island boundaries. Second, there is indirect evidence that *SUO* relatives, as in 34a, are more sensitive to locality constraints than Mandarin Chinese relative clauses. As Chiu (1995) argues, while relative clauses permit gaps in some islands without the presence of *SUO*, they generally show island effects when *SUO* is involved.

- (34) a. zhe shi Lisi suo kan de shu.
 this is Lisi *SUO* read DET book
 ‘This is the book that Lisi read.’
 b. [[Lisi kan *e*_i] zui heshi de] shu_i.
 Lisi read most appropriate DET book
 ‘the book that it is most appropriate for Lisi to read’
 c. *[[Lisi **suo** kan *e*_i] zui heshi de] shu_i.
 Lisi *SUO* read most appropriate DET book
 ‘the book that it is most appropriate for Lisi to read’
(34b and 34c are from Aldridge 2013a:249, citing Chiu 1995)

This suggests that *SUO* triggers movement, since island effects emerge when locality constraints are violated by movement.

3.3. THE POSITION OF *SUO*. This subsection argues that *SUO* is a *v*. Crucially, I argue that (i) there is no CP or TP layer between *WEI* and *SUO*, and (ii) *SUO* is higher than some *vP*-internal high functional projections.

THE ABSENCE OF A CP OR TP LAYER BETWEEN *WEI* AND *SUO*. In this subsection, I show that various morphemes associated with CP or TP layers do not intervene between *WEI* and *SUO*. The morphemes that are covered are imperative negators, temporal adverbs, modals, and the subject-oriented quantifier *jie*. I also discuss the possibility of embedding a derived subject in the *WEI* ... *SUO* passive. I begin the discussion with the imperative negator *wu* ‘do not’.

The imperative negator *wu* is not attested to appear between WEI and SUO. In my corpus, all instances of *wu* precede WEI, as in 35.

- (35) 無為吏所獲。 (Sanguo Zhi 1; MC)
 wu wei li suo huo.
 do.not WEI officer SUO catch
 ‘Do not be caught by officers.’

Since *wu* is associated with imperative force, it is likely to appear in the CP domain (Potsdam 2007). This indicates that there is no CP domain below WEI.

In addition, temporal adverbs are not attested between WEI and SUO. Since Aldridge (2013a) suggests that temporal adverbs adjoin to TPs, the absence of temporal adverbs indicates that a TP layer is unlikely to be embedded under existential verbs.

Another piece of evidence for the absence of an embedded TP layer is the position of the modal *jiang* in WEI ... SUO passives. *Jiang* can be analyzed as either a T head (Aldridge 2010) or a temporal adverb (Meisterernst 2010). The fact that *jiang* never appears between WEI and SUO suggests that SUO is below T.

- (36) 今不早圖，將為所制。 (Sanguo Zhi 6; MC)
 jin bu zao tu, jiang wei suo zhi.
 now NEG early consider will WEI SUO control
 ‘If we do not consider it earlier now, we will be controlled by it.’

Additional evidence showing that the embedded element in WEI ... SUO passives is no larger than a *vP* is found in the position of the subject-oriented quantifier *jie*. Aldridge (2013a) argues that *jie* is located outside *vP* for two reasons: first, *jie* is able to quantify over a derived subject in passives, as in 37, which suggests that it is not a stranded quantifier in [Spec, *vP*]; second, *jie* is not attested in postverbal position, indicating that its position is not VP-internal.

- (37) 皆可謂能禮士矣。 (Lüshi Chunqiu 13.5; LAC; Aldridge 2013a:244)
 Jie ke wei neng li shi yi.
 all PASS say can respect gentleman ASP
 ‘(They) all can be said to be able to respect a man of class.’

In WEI ... SUO passives, *jie* never appears between WEI and SUO. In all cases, it is only allowed to precede WEI, as in 38. Since *jie* is *vP*-external, the absence of an embedded *jie* suggests that the functional projection above *vP* that can host *jie* may not be allowed between WEI and SUO.

- (38) 道逢匈奴騎多，皆為所歿。 (Houhanshu liezhuan 9; MC)
 dao feng xiongnu qi duo jie wei suo mo.
 road encounter Hun cavalry many all WEI SUO kill
 ‘(they) encountered a lot of Hun cavalries on their road, and all of (them) were slaughtered.’

I end the discussion in this subsection with an argument against SUO being the operator itself in WEI ... SUO passives. As shown in the discussion so far, there is no TP layer between WEI and SUO, and the subject must therefore remain in its theta position [Spec, *vP*]. Operator movement is triggered by edge features and therefore targets the phase edge. The landing site for WEI ... SUO passives is thus the specifier position of the embedded *vP*.¹² If SUO itself is the operator, we would predict the word order ‘WEI + SUO + agent’. This is certainly not what is found in WEI ... SUO passives.

¹² The operator does not need to further move to the edge of the matrix *vP* because it is able to be coindexed with the matrix subject when the latter is merged in the specifier of the matrix *vP* before its movement to matrix [Spec, TP].

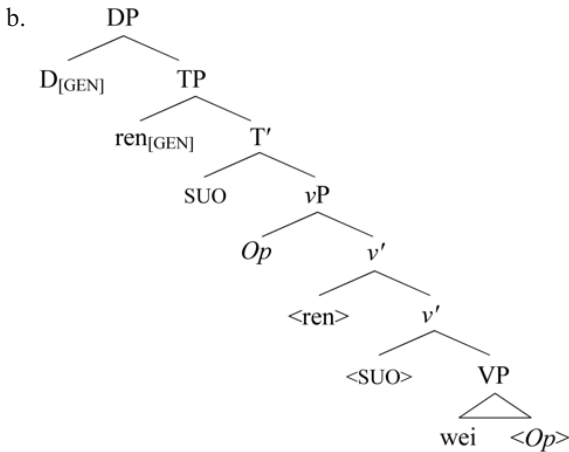
WEI'S EMBEDDED CLAUSE IS NOT AN OBJECT RELATIVE CLAUSE. In the previous discussion, I reviewed the copula approach, which claims that WEI embeds a headless object relative clause in the WEI ... SUO construction; see 39. In this subsection, I compare Archaic Chinese headless relative clauses with the embedded clause in WEI ... SUO passives. These two constructions have different syntactic properties, which are neglected by the relative clause approach. In other words, the embedded clause in the WEI ... SUO construction is not a headless object relative clause.

- (39) a. 為河鰲所食。
wei hebie suo shi.
WEI tortoise SUO eat
'(He) was eaten by a tortoise.'

b. pro [_{VP} WEI [_{DP} [D [_{TP} tortoise_i [_{SUOj} [_{VP} Op_j t_i [eat]]]]]]]

Aldridge (2013a) analyzes the Archaic Chinese headless relative clause in 40a as 40b. SUO is base-merged as a light verb. It forms relative clauses on the VP-internal positions by triggering an operator to move to its edge. SUO further undergoes head-to-head movement to T. The TP is in turn selected by a D head, which licenses the subject in [Spec, TP] with genitive case. Aldridge (2013a) argues that the subject does not move to [Spec, DP].

- (40) a. 人之所畏。
ren zhi suo wei.
person GEN SUO fear
'what people fear'



Since SUO surfaces on T in a headless object relative clause, we expect that it precedes clause-medial elements that are located between TP and vP. But as I have shown in the previous discussion, the SUO in the WEI ... SUO passive is not higher than vP, so we expect this SUO to be preceded by such clause-medial elements.

The first difference is the position of the subject-oriented quantifier *jie*. As I have shown in example 38, in a WEI ... SUO passive, *jie* never intervenes between WEI and SUO. In an object relative clause, however, *jie* follows SUO.

- (41) 此天下百姓之所皆難也。
Ci [tianxia baixing zhi suo **jie** nan] ye.
this world commoner GEN SUO all suffer ASP
'This is something that commoners the world over all agonize over.'

Another element that is between T and v is the perfective aspect marker *yi* 'already'. Meisterernst (2014) proposes that *yi* is an aspectual adverb that is adjoined to the outer

aspect projection between T and v. In WEI ... SUO passives, *yi* always precedes WEI. It is never located between WEI and SUO, as seen in 42.

- (42) 已為魏所破。 (Sanguo Zhi Wu 2; MC)
 yi wei Wei suo po.
 already WEI Wei SUO defeat
 ‘(It) has already been defeated by Wei.’

In an object relative clause, however, SUO is able to precede *yi*, as shown in 43.

- (43) 不以所已藏害所將受。 (Xunzi 21; LAC; Aldridge 2013a:248)
 bu yi [suo yi cang] hai suo jiang shou.
 not APPL SUO already store harm SUO will receive
 ‘to not use [what you already have] to harm what you will receive’

The third difference between an object relative clause and the embedded clause of the WEI ... SUO passive is that unaccusative verbs are allowed in object relative clauses, while they are not allowed to be embedded under WEI. As I have discussed, the lack of embedded TP layers in the WEI ... SUO passive blocks embedded unaccusative verbs. However, unaccusative verbs are allowed in relative clauses since in those structures D selects a nonfinite T, as shown in 44. In this example, SUO relativizes on a VP-internal locative.

- (44) 穀食之所生。 (Zhuangzi 2.10; Aldridge 2013a:260)
 [gushi zhi suo [_{VP} sheng e]].
 grain GEN SUO grow
 ‘where grain grows’

In conclusion, there are significant differences between headless object relative clauses and the WEI ... SUO passive’s embedded clause. By proposing that WEI embeds a relative clause, the relative clause approach has neglected these important differences. The lack of a CP or TP layer in the embedded clause of the WEI ... SUO passive can, however, be accounted for by my nested vP analysis.

SUO IS ABOVE vP-INTERNAL FUNCTIONAL PROJECTIONS. The preceding subsection showed that SUO in the WEI ... SUO passive is not higher than vP. In addition, by showing that the WEI ... SUO passive’s embedded clause is not an object relative clause, I argued against the copula approach to this passive. I continue the discussion of its structure by arguing that SUO is located above the vP-internal high applicative projection (in the sense of Pylkkänen 2008), which indicates that SUO is very high in the vP domain.

It is somewhat challenging to show that SUO is higher than vP-internal elements other than the main verb in WEI ... SUO passives because of the lack of data. Here I use indirect evidence from SUO in existential relative constructions, as shown in 45.

- (45) a. 大夫有所往。 (Liji yuzao; LAC)
 daifu you suo wang.
 grand.master have SUO go
 ‘The grand masters have places to go.’
 b. 君子無所爭。 (Analects 3; LAC)
 junzi wu suo zheng.
 wise.man lack SUO fight
 ‘Wise men have nothing to fight for.’

Similar to the SUO in WEI ... SUO passives, the gaps in the existential relative construction are in VP-internal positions. There are no attested examples in which a gap is located in a VP-external position. In fact, the SUO in existential relative constructions exhibits striking syntactic parallelism to the SUO in WEI ... SUO passives. First, similar

to WEI ... SUO passives, temporal adverbs precede the existential verb *you* ‘there is’ or *wu* ‘there is not’, as in 46, and never appear between the existential verb and SUO.

- (46) 今有所求，此我將奚聽乎？ (Zhanguo ce Han 1; LAC)
jin you suo qiu, ci wo jiang xi ting hu?
 now have SUO request this 1SG should which listen.to Q
 ‘Now you ask me for something. In this situation, which (norm) should I follow?’

Second, the modal *jiang* in existential relatives always precedes the existential verb, as in 47. It is not attested to appear between existential verbs and SUO.

- (47) 子之於學也，將有所不行乎？ (Zhanguo ce 24; LAC)
 zi zhi yu xue ye, **jiang** you suo bu xing hu?
 2SG GEN on study ASP will have SUO NEG practice Q
 ‘As for your attitude toward study, is there anything that you will not practice?’

Third, like in WEI ... SUO passives, SUO in existential relatives never precedes the subject-oriented quantifier *jie*. As far as I have noticed, SUO always follows *jie*, as in 48.

- (48) 人皆有所不忍，達之於其所忍，仁也。 (Mencius jinxin; LAC)
 ren **jie** you suo bu ren. da zhi yu qi suo ren,
 people all have SUO NEG tolerate extend 3SG.ACC to 3SG.GEN SUO tolerate
 ren ye.
 humanity NMLZ
 ‘People all have something that they do not tolerate. If you extend it to the things you tolerate, this is humanity.’

Finally, examples with the imperative negator *wu* between existential verbs and SUO are unattested. As discussed above, I assume *wu* to be an imperative negator that is in the CP domain. In my corpus, *wu* always precedes the matrix existential verb, as 49 shows.

- (49) 專而農民，毋有所使。 (Liji 6; LAC)
 zhuan er nongmin **wu** you suo shi.
 focus 2SG.ACC farmer do.not have SUO employ
 ‘Let your farmer focus on preparing next year’s work. Do not employ them (to do other things).’

Having shown the syntactic similarities between existential relative constructions and WEI ... SUO passives, I propose that the SUO in both constructions occupies the same syntactic position. This SUO is higher than the *vP*-internal high applicative projection since it precedes the high applicative head *yi*, as shown in 50.

- (50) 夫天生蒸民，有所以取之。 (Xunzi rongru; LAC)
 fu tian sheng zhengmin, you suo **yi** qu zhi.
 PTCL heaven give.birth people have SUO APPL take 3PL.ACC
 ‘As the heaven gives birth to people, it has its ways to control them.’

Aldridge (2012) proposes the structure in 51a for applicatives in Archaic Chinese. As it shows, the base position of *yi* is lower than *v*, and *yi* subsequently head-moves to adjoin the *v*. If SUO is a *v*, the word order in 50 could be explained. Since the *v* is overtly realized as SUO, *yi* moves to adjoin SUO, as in 51b.

- (51) a. [_{TP} Subj [_T T [_{VP} <Subj> [_v *v* + *yi* [_{ApplP} DP [_{Appl}’ <*yi*> [_{VP} V DP]]]]]]]
 b. [_{VP} Subj_j [_v *v* + YOU [_{VP} <YOU> [_{VP} *pro*_j [_v SUO_i + *yi* [_{ApplP} Op_i [_{Appl}’ <*yi*> [_{VP} V DP]]]]]]]]]

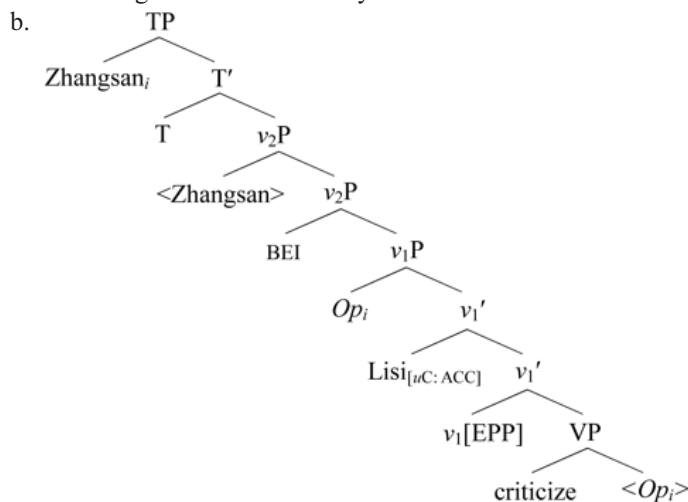
To recap the discussion so far, I have shown that SUO is not higher than the *vP* domain in WEI ... SUO passives. I have also argued that the SUO in both existential relative con-

structions and WEI ... SUO passives occupies the same syntactic position. Based on SUO's order relative to the applicative head *yi*, I have shown that SUO should be higher than the *v*P-internal high applicative projection. At this point, it is most natural to assume that SUO itself is the light verb, projecting the embedded *v*P layer. This analysis has at least two advantages. (i) It is able to account for all of the data discussed above. (ii) By analyzing SUO as the light verb, we are able to establish a relation between SUO and the operator. In Archaic Chinese, SUO is always related to a gap in internal argument position. In my analysis, this relation is accounted for because it is the edge feature on SUO that triggers the operator movement.

It should be pointed out here that one can propose an additional functional projection—for instance, a *SuoP*—between *v* and *ApplP*, which hosts SUO. This analysis also accounts for the word-order issues discussed above. However, proposing a special layer for SUO specifically for Archaic Chinese is idiosyncratic and eliminates the minimalist merits of the *v* analysis. The relation between SUO and the internal gap that SUO triggers null operator movement out of is also not clear under this analysis. Therefore, based on the evidence above, I argue that SUO is a *v* and that WEI ... SUO passives have a double-*v*P construction. In the next section, I turn the discussion to the diachronic development from the WEI ... SUO passive in Late Archaic/Middle Chinese to the long passive.

4. FROM THE WEI ... SUO PASSIVE TO THE LONG PASSIVE. Before discussing the diachronic analysis of the transition from the WEI ... SUO passive to the long passive, I briefly review my proposed structure of Mandarin Chinese long passives. My approach to the long passive builds on Huang's (1999) proposal. However, I analyze the embedded clause as a *v*P instead of an IP, which is Huang's analysis. In a long passive construction, as in 52b, the passive marker BEI takes a *v*P as its complement. A null operator starts from the gap in the embedded internal argument position and undergoes A'-movement to the edge of the embedded *v*₁P in order to be predicated on the matrix subject, in the sense of Huang 1999 and Huang et al. 2009. The matrix subject, which binds the operator, is base-generated from [Spec, *v*₂P] in the matrix clause and receives the Experiencer θ -role there.

- (52) a. Zhangsan bei Lisi piping le.
 Zhangsan BEI Lisi criticize ASP
 'Zhangsan was criticized by Lisi.'



The comparison of the long passive with the WEI ... SUO passive in 53 shows that the structures I have proposed for the two constructions are almost identical. The differences between WEI ... SUO passives and long passives are: (i) SUO is completely optional in long passives, and (ii) the matrix *v* is WEI in WEI ... SUO passives and BEI in long passives.

- (53) a. WEI ... SUO passives
 [_{v2P} Matrix Subj_i [_{v2'} WEI [_{v1P} Op_i [_{v1'} Agent [_{v1'} SUO_[EPP] [_{VP} V *t*_{Op_i}]]]]]]]
 b. Mandarin Chinese BEI long passives
 [_{v2P} Matrix Subj_i [_{v2'} BEI [_{v1P} Op_i [_{v1'} Agent [_{VP} V *t*_{Op_i}]]] le]]

In this section, I propose that the diachronic change from the WEI ... SUO passive to the long passive involves two steps: (i) the loss of SUO, and (ii) the lexical replacement of WEI by BEI. I also discuss evidence supporting my proposal that the Mandarin BEI long passive descends from the WEI ... SUO passive.

4.1. DIACHRONIC CHANGE. As mentioned above, Aldridge (2013a) assigns the structure in 54 to Archaic Chinese object relative clauses. Crucially, she argues that SUO is merged as a light verb and has a nominal category feature. It subsequently undergoes head movement to T. As a result, T obtains the nominal category feature from SUO, which enables it to be selected by D. D values the subject with genitive case.

- (54) [D_[GEN] [TP Subj_[Gen] [T' SUO_i [_{VP} Op_i [_{v'} *t*_{Subj} [_{tSUO} [_{VP} *t*_{Op}]]]]]]]]]

She notes that SUO was obligatory for object relative clauses until the first century BCE. As 55 shows, object relative clauses could instead be formed with the Archaic Chinese subject relativizer ZHE in the first century BCE.

- (55) a. 我請君塞兩耳，無聽談者。 (*Zhanguo ce* Zhao 1; LAC; Aldridge 2013a:255)
 wo qing jun sai liang er, wu ting [tan **zhe**].
 1SG ask lord close two ear do.not listen discuss ZHE
 'I asked my lord to close his ears and not listen to what was being discussed.'
 b. 君王將何問者也? (*Zhanguo ce* Chu 1; LAC)
 Junwang jiang he [wen **zhe**] ye?
 majesty will what ask ZHE NMLZ
 'What is it that Your Majesty would like to ask?'

She argues that the loss of SUO was related to the loss of the nominal layer, which was triggered by the loss of the morphological distinction between cases in Early Middle Chinese. According to her survey, of 255 total object relative clauses with overt subjects in *Zhuangzi*, 232 have genitive subjects. This suggests that the genitive marker was basically obligatory in SUO relatives in the fourth and third centuries BCE. She further provides evidence showing that the genitive marker ZHI was lost in Early Middle Chinese. Example 56a is a Late Archaic Chinese example of a sentential subject, and the embedded subject is marked with genitive case. Example 56b shows that a similar sentence in Early Middle Chinese does not mark the embedded subject with genitive case.

- (56) a. 天下之無道也久矣。 (*Analects* 3; LAC; Aldridge 2013a:254)
 [Tianxia **zhi** wu dao ye] jiu yi.
 world GEN not.have way NMLZ long ASP
 'It is a long time since the world has been without the proper way.'
 b. 天下無道久矣。 (*Shiji* 47; EMC; Aldridge 2013a:254)
 [Tianxia wu dao] jiu yi.
 world not.have way long ASP
 'It is a long time since the world has been without the proper way.'

Based on these facts, Aldridge (2013a) argues that genitive case marking is crucial for learners to acquire the marked nominalization structure of embedded clauses (cf. 54). As a result of the loss of the morphological trigger, the learners acquired the default (in the sense of Roberts 1997 and Roberts & Roussou 2003) embedded structure: a finite CP that does not involve SUO.

I propose that the loss of SUO in object relative clauses was triggered by the loss of SUO's relation with the internal argument gap, which subsequently led to the loss of SUO in WEI ... SUO passives. Since the SUO in WEI ... SUO passives is not related to genitive case licensing, it was lost later than the SUO in object relative clauses. I observe that the loss of SUO in passives began no earlier than the third century CE, which is the Western Jin period. It should be noted that the term *loss* here does not refer to the complete disappearance of SUO in Chinese passive constructions. *Loss* means that SUO is no longer compulsory in biclausal passives. In other words, SUO has been optional in biclausal passives since the third century CE.¹³

Based on the structural similarities between WEI ... SUO passives and long passives discussed in the previous sections, I propose that in the Sui period (early sixth century CE), WEI ... SUO passives underwent a lexical replacement process. Specifically, WEI was replaced by BEI, which was already being used as a passive marker in the agentless BEI passives at that time.¹⁴

Wei (1994) relates the rise of the BEI long passives to the loss of SUO in WEI ... SUO passives, and I adopt his view here. As a result of the loss of SUO, the WEI ... SUO passive took the form of 'WEI + Agent + V', as shown in 57.

- (57) a. 槎浮，則船為之破壞。 (youminglu;¹⁵ MC)
 jie fu ze chuan wei zhi pohuai.
 branch float then boat WEI 3SG.ACC destroy
 'The branch floats. Then the boat is destroyed by it.'
- b. 其為時賢重。 (gaosengzhuan;¹⁶ MC)
 qi wei shi xian zhong.
 3SG.GEN WEI contemporary sage value
 'He was valued by contemporary sages.'

¹³ SUO is still an optional part of Modern Mandarin long passives, as shown in (i). It does not contribute to the overall semantics of the clause. Long passives with SUO are found more frequently in the written language.

(i) Zhangsan bei Lisi suo yiwang.
 Zhangsan BEI Lisi SUO forget
 'Zhangsan was forgotten by Lisi.'

¹⁴ One piece of evidence showing that WEI was replaced by BEI is that biclausal passive constructions with both BEI and SUO were commonly used in Buddhist texts in the Sui period. Example (i) shows BEI ... SUO passives found in *fo ben xing ji jing*, a Sui-period Buddhist text.

(i) a. 被鬼所持。 (fo ben xing ji jing 7; MC)
 bei gui suo chi.
 BEI devil SUO control
 '(They) were controlled by the devil.'

b. 草屋被火所燒。 (fo ben xing ji jing 34; MC)
 caowu bei huo suo shao.
 hut BEI fire SUO burn
 'The hut was burned by fire.'

¹⁵ This is a text written in the mid fourth century CE.

¹⁶ This is a text written in the early fifth century CE.

Since WEI is a copula verb meaning ‘become’,¹⁷ ‘WEI + Agent + verb’ is structurally ambiguous. It could be analyzed as a copula construction in which the copula WEI takes a relative clause as its complement: WEI + [_{RC} Agent + verb]. Therefore, BEI, which was already a passive marker in that period, was used to replace WEI in order to disambiguate the construction. Peyraube (1989) shows that after the early fifth century CE, both WEI ... SUO passives and ‘WEI + Agent + verb’ constructions rapidly decreased in numbers. This coincided with the rise of BEI long passives, as in 58. Example 58 is taken from *baiyujing*, which was written in the early to mid fifth century CE.

- (58) 如彼愚人，被他打頭。 (baiyujing 5; LMC)
 ru bi yuren, bei ta da tou.
 similar.to that stupid.people BEI he hit head
 ‘(You are) similar to that stupid guy whose head was hit by someone.’

It should be noted here that the ‘WEI + Agent + verb’ construction discussed above is different from the WEI construction in Archaic Chinese, which is shown in 59.

- (59) 必為天下大笑。 (xunzi jiangguo; LAC)
 bi wei tianxia da xiao.
 necessarily WEI world great laugh.at
 ‘(He) will necessarily be greatly laughed at by the whole world.’

Wei (1994) points out that in the Archaic period, the verb in the ‘WEI + Agent + verb’ form is highly restricted to a small class of verbs consisting of *lu* 戮 ‘kill’, *xing* 刑 ‘execute’, *qin* 禽 ‘capture’, *xiao* 笑 ‘laugh at’, and *yong* 用 ‘use’. Wei notes that the lexical category of these verbs is actually ambiguous since they were used as nouns in that period as well. But the verb in the Middle Chinese ‘WEI + Agent + verb’ construction is not limited to this small class. In addition, as he also notes, most of the verbs are no longer ambiguous in terms of their lexical category.¹⁸

4.2. GAPLESS LONG PASSIVES. In the last subsection, I proposed that the Mandarin Chinese BEI long passive construction descends from the WEI ... SUO passive. Essentially, BEI long passives are not structurally related to the agentless passive using BEI (cf. 1b). The passive marker BEI in long passives is merely a result of the lexical replacement that happened in Middle Chinese. In this subsection, I provide evidence to support my proposal,

¹⁷ WEI was still used as a copula in the fifth century CE. The following example is taken from *Nanqi shu*, written around that time.

- (i) 初為建威府參軍。 (Songshu Xiao Chengzhi Zhuan; MC)
 chu wei jianwei fu canjun.
 beginning WEI jianwei city consultant
 ‘At the beginning, he was a consultant in Jianwei.’

However, as Wang (1989) and Xiang (2010) point out, the copula WEI started to decline in Middle Chinese. This could have been a trigger for the lexical replacement of WEI by BEI.

¹⁸ It is also possible that the WEI construction in Archaic Chinese continued to occasionally be used in Middle Chinese, and these WEI constructions underwent an extension so that more verbs were used. However, Cao (2012) has done a survey of the marked passive construction (these roughly correspond to the WEI construction, YU passive, JIAN passive, and WEI ... SUO passive in this study) in Middle Chinese. She found out that in the Eastern Han period (25 ~ 220 CE), the total percentage of the WEI construction (both agentless and agentive) in marked passives is 6.6% (Cao 2012:115). However, entering the Wei Jin period (220 ~ 420 CE), the percentage of the WEI construction curiously increased to 10.1% (Cao 2012:138, 140). In the Six Dynasty period (420 ~ 589 CE), the percentage of the WEI construction sharply decreased to 3% (Cao 2012:157). The curve in the usage of the WEI construction in Middle Chinese indicates that even if the WEI construction in Archaic Chinese remained in Middle Chinese, the drop of SUO in WEI ... SUO passives may have contributed to the increased usage of the WEI construction in the Wei Jin period.

discussing a later construction involving BEI in which it embeds a full clausal constituent. Superficially, this suggests that the Mandarin Chinese long passive evolved directly from agentless passives. However, I show that this is not the case. I present evidence that BEI, as a transitive verb, is able to take clausal complements, and that these clausal complements are furthermore finite. In other words, they are radically different from the nonfinite embedded clause in BEI long passives. Consequently, we must conclude that BEI long passives are not diachronically related to the fully biclausal structure projected by the transitive verb BEI, which is the source of BEI in agentless passives (see Ma 1898, Wang 1989, Wei 1994, Yao 1999, Aldridge 2013b, among others).

It has been noted by Wang (1989) that BEI is able to embed a gapless clause, as shown in 60. Both the external and the internal argument for the transitive verb *hua* ‘transform’ are overt in the embedded clause. I call these constructions ‘gapless passives’. This is different from the WEI ... SUO passive, which has to have an embedded gap.

- (60) 被猴行者化一團大石。 (Datang sanzang qujing shihua; Early Mandarin)
 bei houxingzhe hua yi tuan da shi.
 BEI Monkey.King transform one CL big rock
 ‘(He) suffered from the fact that the Monkey King turned into a big rock
 (and entered into his belly).’

I argue that the gapless passives embed a full finite clause based on the evidence below.

First, embedded temporal adverbs are allowed in gapless passives, while they are not allowed in gapped long passives, as shown in 61a. Example 61b shows that gapless passives have an embedded TP layer to license temporal adverbs.

- (61) a. *Zhangsan bei Lisi zuotian piping le.
 Zhangsan BEI Lisi yesterday criticize ASP
 ‘Zhangsan has been criticized by Lisi yesterday.’
 b. 被那山主前日前來，綁在此間。 (shuihuzhuan 85; Early Mandarin)
 bei na shanzhu qianri qianlai bang zai cijian.
 BEI that lord.of.the.mountain yesterday come bind in here
 ‘(I) suffered from the fact that the lord of this mountain came yesterday. (I) was bound here by him.’

Second, different from gapped long passives, certain high modals are allowed to appear in the embedded clause in gapless passives. For example, *yao* ‘be going to’ is a modal expressing imperfective aspect. I propose that it is similar to Archaic Chinese *jiang*, which is associated to TP. While embedded *yao* is not allowed in gapped long passives (62a), it is found in gapless passives (62b). This again suggests that gapless passives embed at least a TP layer.

- (62) a. *Zhangsan bei Lisi yao piping.
 Zhangsan BEI Lisi be.going.to criticize
 ‘Zhangsan will be criticized by Lisi.’
 b. 今被番家要興兵搶占高麗。 (Jingshi tongyan 9; Early Mandarin)
 jin bei fanjia yao xing bing qiangzhan gaoli.
 now BEI barbarians be.going.to raise army occupy Goryeo
 ‘Now (we) suffer from the fact that the barbarians are going to raise their army to invade the Goryeo.’

Based on the data discussed above, I propose that gapless passives embed a full finite CP under BEI. Consequently, the BEI in gapless passives must not be analyzed as a passive marker, as in Mandarin BEI long passives, but rather as a transitive verb that takes a clausal complement, as shown in 63.

- (63) [_{VP} Subj [_{VP} BEI [_{CP} ...]]]

Etymologically, the verb BEI originally meant ‘cover; to cover something with’, and its meaning then extended to ‘suffer’. I propose that gapless passives should be interpreted as the subject suffering or encountering an event.

To support my proposal, I show that the transitive BEI is correlated with gapless passives. I examined four books for gapless passives and transitive BEI with DP as its complement. The four books I used are *dunhuang bianwen* (700 ~ 900 BCE), *zhuzi yulei* (1263 BCE, late Southern Song), *jingshi hengyan* (1627 BCE, late Ming), and *guanchang xianxingji* (1903 BCE, late Qing). There is roughly a four-hundred-year interval between each book.

In these books, there are many cases in which the complement of the transitive BEI is actually ambiguous with respect to its lexical category. For example, BEI’s complement *zhang* ‘flog’ in 64a could be either verbal, which leads to reading 1, or nominal, which leads to reading 2. Such examples were excluded from my survey. I included only unambiguous ones, such as 64b, in which BEI is clearly a transitive verb.

- (64) a. 婦聞雀兒被杖。 (dunhuang bianwenji-xinshu yanzifu; LMC)
 fu wen queer **bei zhang**.
 woman hear bird BEI flog
 reading 1: ‘The woman heard that the bird was flogged.’
 reading 2: ‘The woman heard that the bird suffered the punishment of flogging.’
- b. 養子還徒被老時。 (dunhuang bianwenji-fumu en zhong jing jiang jing wen; LMC)
 yang zi huan tu **bei** lao shi.
 nurture offspring PTCL prepare suffer aging time
 ‘(People) nurture their offspring because they want to prepare for the time when they suffer from aging.’

Table 1 shows the total occurrences of BEI as well as the percentages of both transitive BEI and gapless BEI. Note that the percentages have been rounded.

TEXT	TOTAL BEI	TRANSITIVE BEI	GAPLESS PASSIVES
<i>dunhuang bianwen</i>	283	8 2.8%	10 3.5%
<i>zhuzi yulei</i>	670	32 4.8%	78 11.6%
<i>jingshi hengyan</i>	345	1 0.3%	9 2.6%
<i>guanchang xianxingji</i>	531	1 0.2%	6 1.1%

TABLE 1. The occurrences of transitive BEI and gapless passives in four different texts. Note: the total number includes all occurrences of BEI: short passive BEI, long passive BEI, gapless BEI, transitive BEI, and nominal BEI (meaning ‘blanket’).

As shown in the table, in the text *dunhuang bianwen* from the Tang period (sixth ~ ninth centuries CE), the transitive BEI and gapless passives have about the same percentage. If one counts the ambiguous sentences like 64a, transitive BEI may have even higher percentage.

In the text *zhuzi yulei* from the Song and Yuan period (tenth ~ thirteenth centuries CE), the use of transitive BEI actually increases in terms of the percentage (from 2.8% to 4%). Gapless passives also became very popular during this period. This was also noted by Wang (1989). However, starting from the late Ming period (sixteenth century CE), transitive BEI becomes very rare (only one example in the two texts *jingshi hengyan* and *guanchang xianxingji*), and gapless passives also decreased. In modern Mandarin, both are generally not allowed.

In conclusion, there is a correlation between the use of transitive BEI and gapless passives: the gapless passives decreased as the use of transitive BEI decreased. This further

supports my analysis of the gapless passives. In addition, this correlation also explains the decrease in gapless passives starting from the Ming period: it is the loss of transitive BEI that triggers the decline of the gapless passives.

Based on the discussion above, the gapless passive developed from the transitive BEI. In other words, a transitive BEI took a finite clausal complement. BEI long passives embed a nonfinite complement. Therefore, syntactically, the BEI in long passives is not related to the transitive BEI, which is the source for the BEI in agentless passives. This further suggests that there is no connection between the short passives and the BEI long passives.

5. CONCLUSION. This article has proposed that WEI ... SUO passives in Middle Chinese contain a restricted embedded structure: a ν P, which is headed by SUO. The operator in the WEI ... SUO passive moves to the specifier of the embedded ν P, triggered by the [EPP] feature on SUO. It also argued that Mandarin Chinese long passives have the same syntactic structure as WEI ... SUO passives. Based on the syntactic analysis of both passive constructions, I proposed that the change from WEI ... SUO passives to Mandarin Chinese long passives involves two steps: (i) the loss of SUO, and (ii) the lexical replacement of WEI with BEI. I also proposed that the loss of SUO in WEI ... SUO passives is related to the loss of the SUO in Archaic Chinese object relative clauses, which was in turn triggered by the loss of overt case morphology in Early Middle Chinese. Following Wei (1994), I argue that the lexical replacement was a result of the structural ambiguity triggered by the loss of SUO in WEI ... SUO passives.

Based on this analysis, this article shows that the Mandarin Chinese long passive did not descend directly from the agentless BEI passives in Middle Chinese. Instead, the historical source of the long passive is the WEI ... SUO passive. Since SUO is a phase head triggering the operator movement from an internal argument position in Archaic and Early Middle Chinese, this analysis explains why long passives are derived from A'-movement while short passives involve A-movement (Huang et al. 2009). In other words, the Mandarin Chinese long passive, which significantly differs from canonical English-type passive constructions, is not surprising after all, since it originated from an old requirement that object movement should be licensed in Archaic Chinese.

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