
THE LOSS OF OBJECT FOCUS AND *WH*-MOVEMENT IN EARLY MIDDLE CHINESE*

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ABSTRACT This paper investigates the loss of object focus movement and *wh*-fronting in Early Middle Chinese (EMC) in approximately the 1st century BCE. These two types of object fronting were both productive in Late Archaic Chinese (LAC; 5th–3rd centuries BCE), the movement targeting the edge of the *v*P phase, resulting in a surface position between the subject and VP. Although *wh*-movement did not accompany any additional marking for focus, fronted referential objects were obligatorily followed by the genitive particle *zhī*, which I propose spelled out the focus feature in the landing site. Regarding the loss of object focus fronting in EMC, I propose that the trigger for this change was the loss of the genitive particle. This had the result of removing the overt morphological evidence for focus movement, and referential object focus fronting was lost as a consequence. In contrast to this, the loss of *wh*-movement progressed through an intermediate stage in which preverbal interrogative pronouns were reanalyzed as being adjoined to the lexical verb. I propose that the intermediate stage was also indirectly triggered by the loss of the genitive particle, since this eliminated the evidence for focus fronting to the edge of *v*P. Consequently, acquirers adopted a more local type of movement in order to accommodate the residual cases of preverbal interrogative pronouns they encountered in the acquisition process.

1 INTRODUCTION

This paper proposes an analysis of the loss of clause-internal focus and *wh*-fronting in Early Middle Chinese (EMC) of the 1st century BCE ('before the common era'). Focus and *wh*-fronting of VP-internal constituents is widely found in Late Archaic Chinese (LAC; 5th–3rd centuries BCE). First, observe

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that basic word order in LAC was SVO, subjects typically surfacing in clause-initial position and objects following the verb.

- (1) (a) 鄭伯亦惡之。 (LAC: 5th C. BCE; *Zuozhuan*, Xi 31)
Zhèng bó yì wù zhī.
 Zheng earl also dislike 3.OBJ
 ‘The Earl of Zheng also disliked him’
- (b) 我受其名。 (LAC: 5th C. BCE; *Zuozhuan*, Zhao 26)
Wǒ shòu qí míng.
 I receive 3.GEN reputation
 ‘I will receive this (bad) reputation.’

But VP-internal constituents moved to preverbal position when focused. (2a) shows fronting of an interrogative pronoun, while (2b) is an example of referential object focus fronting. There are two additional characteristics of focus fronting in examples like (2b). First, the focused DP is preceded by the focus copula *wéi*. Secondly, it is followed by the genitive particle *zhī*.

- (2) (a) 吾誰欺? 欺天乎? (LAC: 5th C. BCE; *Analects*, Zihan)
Wú shuí [VP qī —]? Qī tiān hū?
 I who deceive deceive heaven Q
 ‘Who do I deceive? Do I deceive the heavens?’
- (b) 彼唯人言之惡聞, 奚以夫讒讒為乎! (LAC: 4th C. BCE; *Zhuangzi*, Zhile)
Bǐ wéi [rén yán] zhī [VP wù [wén —]], xī
 it only.be human voice GEN hate hear what
yǐ fú náonáo wéi hū!
 APPL DEM shout do EXCL
 ‘What it hates is to hear human voices, so what are (you) doing with that shouting?’

This paper discusses these two types of fronting in LAC and proposes analyses for how they were lost beginning in Early Middle Chinese (EMC) of the 1st century BCE. I propose that these changes were precipitated by the loss of the genitive marker following referential focused objects in examples like (2b), because this loss removed the overt focus marking for the fronted object. This paper first sketches the two types of LAC object fronting in section 2. Section 3 discusses the diachronic development of the genitive marker, including its grammaticalization from a demonstrative pronoun in Early Archaic Chinese (EAC; 10th – 6th centuries BCE) in 3.1 and its decline in EMC in 3.2. Section 4 then turns to the relationship between the loss of genitive marking and the

losses of referential focus fronting (in 4.1) and *wh*-fronting (in 4.2). In particular, I show that referential focus fronting disappeared at the same time as the loss of genitive marking, which is unsurprising given the obligatoriness of genitive marking in LAC with focused objects, as in (2b). The loss of *wh*-movement also began at this time, with *wh*-in-situ emerging for phrasal interrogative constituents. The loss of *wh*-fronting is obscured, however, by the persistence of movement of monosyllabic *wh*-words, which I argue in section 4.2 to be head-adjunction to the verb rather than movement to the focus position in the edge of *v*P. The persistence of one type of *wh*-fronting is also unsurprising given the lack of a direct relationship between genitive marking and movement of *wh*-words. The intermediate stage can then be viewed as an innovated strategy for generating a preverbal *wh*-object position in the absence of a syntactic focus position after the loss of focus marking with the genitive particle. In this way, Chinese provides evidence for the Generative approach to syntactic variation which is tied to the inventory of functional categories first put forth by Borer (1984) and applied to diachronic syntax by Lightfoot (1979), Roberts (1997), Roberts & Roussou (2003), and others. My proposal further supports a growing body of research relating syntactic change in EMC to the loss of morphological complexity, by which the more synthetic Archaic Chinese was evolving into the more analytic modern Sinitic varieties (Mei 1989, 1991, Wei 1994, Feng 2005, Aldridge 2013b,c, Aldridge & Meisterernst 2018, Huang 2015, Huang & Roberts 2017, Meisterernst 2019, 2020).

Before closing this section, I mention the empirical basis for this study. For LAC examples, I have consulted the historical chronicles and philosophical treatises of the Warring States period (3rd – 5th centuries BCE). The EMC data are taken primarily from the various biographical entries in the *Shiji*. I also include a few examples from the historical anthology *Zhanguo*. Both of these texts are known to have been compiled in the 1st century BCE, though they also contain passages which have been copied from LAC period texts. I have been careful to select examples which specifically illustrate EMC innovations. All of the examples used here can be found in the untagged corpus compiled by the Academia Sinica Institute of Linguistics. The institute has also compiled a second corpus which is tagged by part of speech and contains all of the primary texts I consulted except the Buddhist sutras which I consulted for a few later Middle Chinese examples.

2 LAC *WH*-MOVEMENT & FOCUS FRONTING

This section sketches the surface properties and syntactic analyses of the two types of focus fronting in LAC. Focused and interrogative objects were dislo-

cated to a preverbal position within *vP* in LAC. Referential focus constituents were additionally marked overtly with a genitive particle in the landing site.

2.1 LAC *wh*-movement as focus fronting

I first summarize the empirical facts for *wh*-fronting. Interrogative constituents base-generated internal to the VP underwent fronting to a position between the subject and VP. (3a) shows a direct object; (3b) is an example of a goal argument selected by a motion verb.

- (3) (a) 吾誰欺? 欺天乎? (LAC: 5th C. BCE; *Analects*, Zihan)
 Wú *shuí* [_{VP} *qī* —]? *Qī tiān hū?*
 I who deceive deceive heaven Q
 ‘Who do I deceive? Do I deceive the heavens?’
- (b) 天下之父歸之, 其子焉往? (LAC: 3rd C. BCE; *Mencius*, Lilou 1)
Tiānxià zhī fù guī zhī qí zǐ yān [_{VP}
 world GEN father settle 3.OBJ 3.GEN son where
wǎng —]?
 go
 ‘If the fathers of the world settled here, where would their sons go?’

The landing site for this movement was clearly external to the VP. In the following examples, a *wh*-word has moved from an embedded clause or VP over the higher verb. For the purposes of this discussion, it is not relevant whether these examples are analyzed as fully biclausal or as restructuring contexts. What is clear is that the *wh*-word has vacated the VP where it was base-merged.

- (4) (a) 公誰欲相? (LAC: 3rd C. BCE; *Lushi Chunqiu* 1.4)
 Gōng *shuí* [_{VP} [_{VP} *yù* [*xiàng* —]]]?
 lord who want make.prime.minister
 ‘Who, My Lord, do you want to appoint prime minister?’
- (b) 吾誰敢怨? (LAC: 5th C. BCE; *Zuozhuan*, Zhao 27)
 Wú *shuí* [*gǎn* [_{VP} *yuàn* —]]]?
 I who dare resent
 ‘Who do I dare to resent?’

The fact that a fronted object precedes negation also demonstrates that the landing site is external to the VP.

- (5) (a) 然則我何為乎? 何不為乎? (LAC: 4th C. BCE; *Zhuangzi*, Qiu Shui)
Ránzé wǒ hé wéi hū? Hé bù [wéi _] hū?
 then 1 what do EXCL what not do EXCL
 ‘Then what should I do? What should I not do?’
- (b) 其子而食之, 且誰不食? (LAC; 3rd C. BCE; *Hanfeizi*, Shuolin 1)
Qí zǐ ér shí zhī, qiě shuí bù shí?
 3.GEN son CONJ eat 3.OBJ then who not eat
 ‘If (he) eats even his own son, then who wouldn’t (he) eat?’

A causee argument also moves over a causative light verb. I follow Aldridge (2016) in analyzing the complement of a causative verb as a nonfinite, defective TP lacking a C phase head. The causee occupies the [Spec, TP] subject position in the embedded clause as a result of movement from its base position in embedded *v*P. Though not shown here, this is because the subject in the embedded clause is not limited to agents but can also be an internal argument.

- (6) (a) 若子死, 將誰使代子? (LAC: 3rd C. BCE; *Hanfeizi*, Shuolin 1)
Ruò zǐ sǐ, jiāng [vP shuí [v’ shǐ [TP _ dài
 if 2.HON die will who make replace
zǐ]]]]?
 2.HON
 ‘If you die, then who shall (I) have replace you?’
- (b) 吾誰使正之? (LAC: 4th C. BCE; *Zhuangzi*, Qiwu Lun)
Wú [shuí [shǐ [_ zhèng zhī]]]]?
 I who make correct 3.OBJ
 ‘Who shall I have correct it?’

This fronting can also target the object of a preverbal light verb that Aldridge (2012) analyzes as the head of an applicative phrase ApplP.¹

¹ Aldridge (2012) proposes this analysis for the light verb 以 *yǐ*, which grammaticalized from a verb meaning ‘lead, bring someone along’ and subsequently acquired additional senses of ‘carry’, ‘take along’, ‘hold’, and ‘use’ (see Djamouri & Paul 2021 for the diachronic origin). Aldridge (2013a) extends the applicative analysis to the comitative functional head 與 *yǔ* ‘be.with’ shown in (7). Djamouri & Paul (2021) offer an alternative in which *yǐ* and *yǔ* followed by an overt argument are prepositions, while they are clitic pronouns in fronting contexts like (7). This proposal has the advantage of allowing LAC to be analyzed uniformly as a language disallowing preposition stranding. However, the positive contribution of this analysis rests on the authors’ assumption that *yǐ* and *yǔ* are prepositions, an assumption for which they do not offer syntactic evidence. Furthermore, they do not provide direct evidence in favor of their assertion that stranded *yǐ* and *yǔ* are pronouns. On the contrary, all of the examples they consider in the paper are easily accommodated within an analysis of *yǐ* and *yǔ* as light verbs

- (7) (a) 王誰與為善? (LAC: 4th C. BCE; *Mencius*, Teng Wen Gong 2)
 Wáng **shuí** [_{AppIP} yǐ — [_{VP} wéi shàn]]?
 king who be.with do good
 ‘With whom will the king do good?’
- (b) 吾又誰與爭? (LAC: 5th C. BCE; *Zuozhuan*, Zhao 4)
 Wú yòu **shuí** [_{AppIP} yǐ — [_{VP} zhēng]]?
 1 then who be.with compete
 ‘Then who would we compete with?’

The preceding examples show that the landing site for object *wh*-fronting was external to the VP. The following contrast shows that this landing site was located below the licensing position for the subject. As [Wei \(1999\)](#) points out, subject and object *wh*-words do not surface in the same position. For example, a subject *wh*-word precedes the adverb *dú* ‘alone’, as shown in (8a,b).² In contrast to this, object *wh*-words follow the same adverb, as in (8c).

- (8) (a) 誰獨且無師乎? (LAC: 4th C. BCE; *Zhuangzi*, Qiwu Lun)
 Shuí **dú** qiě wú shī hū?
 who alone then not.have teacher EXCL
 ‘Who alone, then, does not have a teacher?’
- (b) 藉為人之國，若為其國，夫誰獨舉其國以攻人之國者哉?
 jiè wèi rén zhī guó ruò wèi qí guó fú
 if treat other GEN nation as treat 3.GEN nation then
 shuí **dú** jǔ qí guó yǐ gōng rén zhī
 who alone mobilize 3.GEN nation C attack other GEN
 guó zhě zāi
 nation DET EXCL

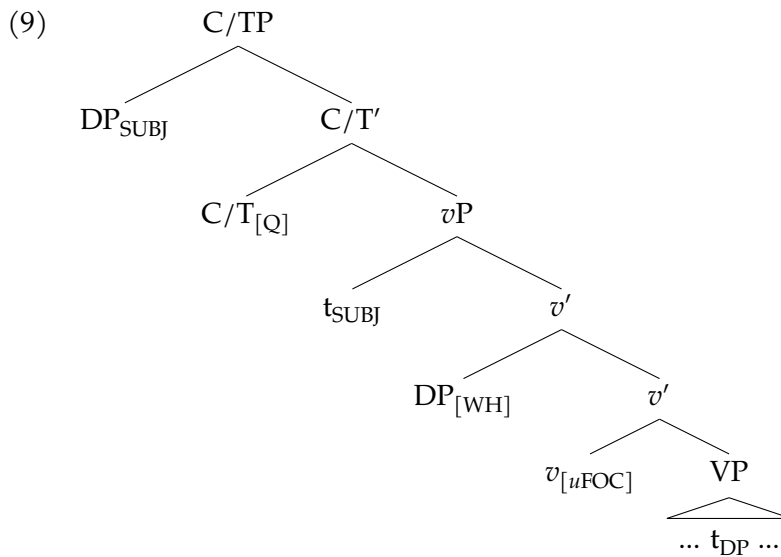
occupying a functional head position on the clausal spine. For example, Djamouri and Paul point out that *yǐ* selects comitative, instrument, theme, beneficiary, and temporal arguments. This same class of arguments is found selected by applicatives in Austronesian ([Peterson 1997](#), [Chen 2017](#)) and Tibeto-Burman ([Matisoff 1991](#), [Peterson 2004, 2007](#)) languages, as well as light verbs in West African languages ([Lord 1993](#), [Sebba 1987](#)) and Creoles ([Muysken & Veenstra 1994](#)). Analyzing *yǐ* and *yǔ* as verbal categories also accounts for how they can be followed by a null category, since this was possible with verbs in LAC as long as the transitivity of the predicate was not in question ([Wei 2020](#)).

² An anonymous reviewer suggests a different translation for (8a) in which *dú* ‘alone’ is an adjective functioning as the main predicate in the first clause of a coordinate structure. If this were true, then the example would not support my argument, since it would no longer show the subject occupying a position higher than a fronted object. However, I do not adopt the reviewer’s interpretation of the example. The commentaries that I am familiar with (e.g. Qing Dynasty 郭慶蕃 *Guō Qīngfān*, published as [Wang 2001](#)) treat *dú* ‘alone’ as an adverb in this passage. The adverbial use of *dú* is also far more common in LAC than the adjectival one, further increasing the likelihood that *dú* in (8a) is also an adverb.

'If (one) treated other nations as they treat their own, then who alone would mobilize their nation to attack another nation?'
(LAC: 4th C. BCE; *Mozi*, Jian'ai 3)

- (c) 先生獨何以說吾君乎? (LAC: 4th C. BCE; *Zhuangzi*, Xu Wugui)
Xiānshēng dú hé yǐ — yuè wú jūn hū?
sir alone what with please 1 lord EXCL
'By what means were you alone able to please my lord?'

This demonstrates that the landing site for object fronting cannot be [Spec, CP], since this would result in both subjects and objects moving to the same position. Consequently, object fronting must be analyzed as targeting a position internal to TP, which Aldridge (2010, 2019) identifies as a focus position in the edge of *v*P. Aldridge (2019) proposes that C-T Inheritance (in the sense of Chomsky 2008) generally does not take place in LAC matrix clauses, so the subject moves to the undivided [Spec, C/TP] position for nominative case licensing.³



Regarding the surface position of subject interrogative constituents, (10) shows that interrogative pronouns functioning as subjects follow the modal 其 *qí*. (10) additionally shows that topics precede 其 *qí*. In (10 a), there is an

³ Part of the evidence for the lack of C-T Inheritance comes from the fact that objects are unable to move over the subject when it has nominative case. For example, topicalized objects cannot move to the Left Periphery but must be base generated in a position higher than the subject and resumed by a pronoun in VP. If Inheritance were to take place, and the subject moved to [Spec, TP], then the object would be able to move over it to the Left Periphery, obviating the need for resumption.

aboutness topic which expresses the set of individuals that the subject quantifies over. (10b) shows an object topic resumed by a pronoun inside VP. I briefly discuss the position of interrogative and other focused subjects in the next subsection and present Aldridge's (2019) analysis in which the focus feature is inherited from C to T, [Spec, TP] then serving as the landing site for the focused subject, as well as its nominative case licensing position, while a topic can occupy [Spec, CP].

- (10) (a) 晉大夫其誰先亡? (LAC: 5th C. BCE; *Zuozhuan*, Xiang 14)
Jīn dàfū qí shuí xiān wáng?
 Jin official MOD who first disappear
 'Of the Jin officials, who would be the first to disappear?'
- (b) 一國兩君，其誰堪之? (LAC: 5th C. BCE; *Zuozhuan*, Zhao 7)
Yī guó liǎng jūn, qí shuí kān zhī?
 one nation two ruler MOD who tolerate 3.OBJ
 '(If) the nation had two rulers, who would tolerate this?'

The next subsection discusses focus fronting of referential objects, which is also driven by a focus feature in the *vP* layer.

2.2 LAC focus movement

Referential focused objects also undergo fronting to a clause-medial position in LAC. These objects are obligatorily preceded by a focus copula, *wéi* in affirmative contexts and *fěi* in negated clauses. The focused object is also followed either by the genitive case particle *zhī* (11a,b) or the resumptive demonstrative pronoun *shì* (11c). Diachronically, both *zhī* and *shì* were demonstrative pronouns, and Wang (1958), Huang (1988), Feng (1996), and Wei (1999) have proposed that *zhī* and *shì* were both originally used as resumptive pronouns in focus constructions. According to Yin (1985), *shì* was productively employed in focus constructions in Early Archaic Chinese (EAC; 10th – 6th centuries BCE), while *zhī* took over this function in the LAC period. By the end of the LAC period in the 3rd century BCE, *shì* is no longer productively used as a focus marker. Consequently, I will focus on *zhī* in this paper. The reader is referred to Meisterernst (2010) for discussion of similarities and differences between these two focus constructions.

- (11) (a) 吾唯子之怨。 (LAC: 5th C. BCE; *Zuozhuan*, Wen 7)
 Wú wéi zǐ zhī yuàn .
 1 only.be 2.HON GEN resent
 ‘I will only resent you.’
- (b) 彼唯人言之惡聞，奚以夫讒讒為乎！
 (LAC: 4th C. BCE; *Zhuangzi*, Zhile)
 Bǐ wéi [rén yán] zhī [VP wù [wén —]], xī
 it only.be human voice GEN hate hear what
 yǐ fú náonáo wéi hū
 APPL DEM shout do EXCL
 ‘What it hates is to hear human voices, so what are (you) doing with that shouting?’
- (c) 今王非越是圖，而齊、魯以為憂。
 (LAC: 5th - 4th C. BCE; *Guoyu*, Wuyu)
 Jīn wáng fēi Yuè shì tú , ér Qí Lǔ
 now king not.be Yue this plot CONJ Qi Lu
 yǐwèi yōu.
 consider worry
 ‘Now, it is not Yue that the king is plotting against, but (he) is worried about Qi and Lu.’

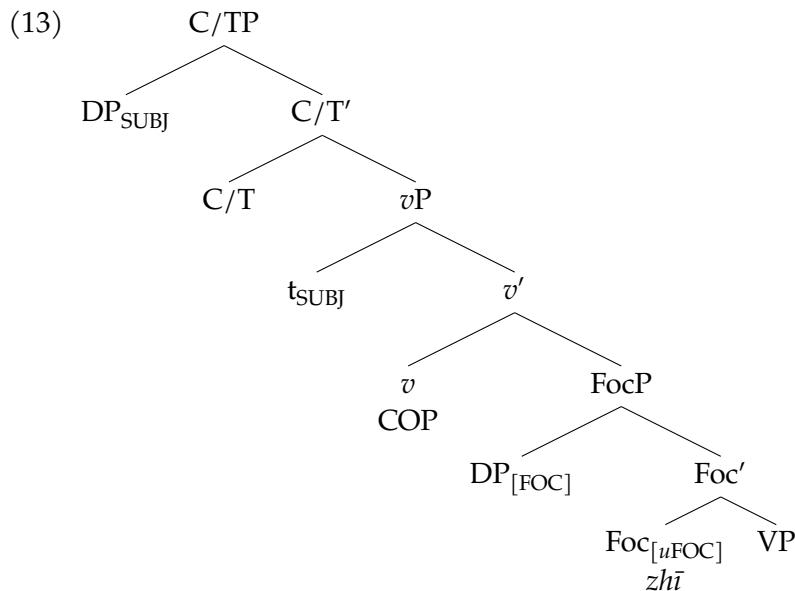
I adopt Aldridge’s (2019) analysis of LAC focus fronting, which in turn builds on Meisterernst (2010). Both Aldridge and Meisterernst acknowledge a diachronic connection to a biclausal cleft structure embedding a nominalized relative clause,⁴ which by the time of LAC had been reduced to a monoclausal construction in which the erstwhile nominal layer of the embedded clause was retained only in the genitive marking on the focused constituent. Aldridge (2019) proposes that the function of genitive marking is to license the fronted referential object in the landing site. Meisterernst (2010) demonstrates that this landing site is lower than the one for interrogative objects. In particular, object *wh*-words can precede negation, as in (12a), while this is unattested for referential focused objects. In (12b), negation precedes the focus copula *wéi*.

- (12) (a) 然則我何為乎？何不為乎？ (LAC: 4th C. BCE; *Zhuangzi*, Qiushui)
 Ránzé wǒ hé wéi hū? Hé bù wéi — hū?
 then 1 what do EXCL what not do EXCL
 ‘Then what should I do? What should I not do?’

⁴ See also Ding (1983), who credits Ma (1898) with the original proposal that *zhī* and *shì* function as nominalizing subordinators in focus constructions.

- (b) 是夫也，將不唯衛國之敗，其必始於未亡人。
 (LAC: 5th C. BCE; *Zuozhuan*, Cheng 14)
Shì fū yě jiāng bù wéi [Wèi Guó] zhī bài
 this man TOP will not only.be Wei nation GEN ruin
 —, *qí bì shǐ yú wèi wáng rén.*
 MOD certainly begin with not.yet dead person
 ‘This man will ruin not only ruin the nation of Wei but will
 begin with me, the widow (of his father).’

Aldridge (2019) accounts for the lower position for referential focused objects by proposing that the focus feature is inherited from the phase head *v* to a focus position inside the lower phase.⁵ Focused objects then move to the specifier of this projection. Thus, I assume that the particle is the spell out of the focus feature on this functional head, as proposed by Meisterernst (2010), Wang (2016), and others.



Developing an analysis by Saito (2016), Aldridge (2019) proposes that DPs dislocated from their case licensing positions need to be overtly marked in order for the immediately dominating node to be Labeled (in the sense of Chomsky 2013).⁶ LAC *wh*-words, on the other hand, do not require addi-

⁵ Aldridge (2019) labels this projection “GenP”, but I adopt “FocP” for simplicity and clarity.

⁶ Marking can come in many forms. LAC topicalized objects, for instance, were marked by merging a resumptive pronoun inside VP. I assume that inversion used to mark A'-movement in some languages is also a form of this type of marking.

tional marking when fronted, since they can be identified as the lexical class of interrogative pronouns.

An anonymous reviewer suggests a different analysis of (11 a) in which the DP preceding *zhī* in is the subject of the predicate *yuàn* rather than the fronted object. The object of *yuàn* would then be a null category referring to the matrix subject. On this interpretation, there is no object fronting, as shown in (14).

- (14) (a) 吾唯子之怨。 (LAC: 5th C. BCE; *Zuozhuan*, Wen 7)
Wú_i wéi zǐ zhī yuàn pro_i.
 1 only.be 2.HON GEN resent
 ‘I will be the one that you resent.’

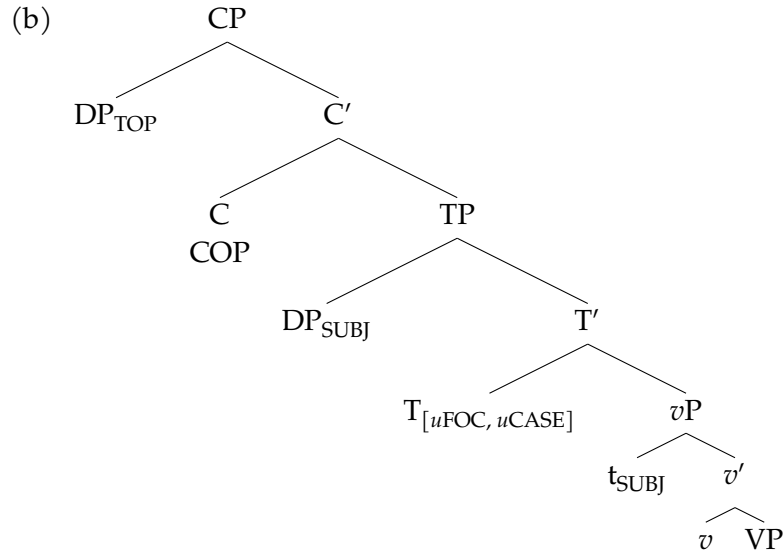
However, it is not possible to analyze the focused constituent as the subject in the examples in (11). First, genitive marking does not occur with focused subjects. Focused subjects are preceded by the same focus copula *wéi*, but they are not followed by a focus particle like *zhī*. The focus copula may also be preceded by a topic, as in (15 a).

- (15) (a) 諸侯唯我事晉。 (LAC: 5th C. BCE; *Zuozhuan*, Ding 6)
Zhūhóu wéi wǒ shì Jìn.
 lord only.be 1 serve Jin
 ‘Of the feudal lords, only we serve the Jin.’
- (b) 唯仁者能好人，能惡人。 (LAC: 5th C. BCE; *Analects*, Liren)
Wéi [rén zhě] néng hào rén néng wù
 only.be virtuous DET can like person can dislike
rén.
 person
 ‘Only one who is virtuous is capable of liking someone or disliking someone.’

In the Aldridge (2019) analysis, the focus copula is merged in the higher phase head, and the focus feature is inherited by T along with the nominative case feature to license the subject. Aldridge proposes that focus marking with *zhī* is obviated since the subject occupies a case licensing position. Focus marking is only necessary when dislocation from the canonical case position takes place, as in object focus movement in (11). Note further that inheritance of the focus feature allows a uniform analysis of the focus copula as well, as it occupies a phase head position, C for subject focus and *v* when the object is focused. [Spec, CP] is additionally available for a topic in subject focus con-

structions, since inheritance of the focus feature forces the subject to move to [Spec, TP].

- (16) (a) 諸侯唯我事晉。 (LAC: 5th C. BCE; *Zuozhuan*, Ding 6)
Zhūhóu wéi wǒ shì Jìn.
 lord only.be 1 serve Jin
 ‘Of the feudal lords, only we serve the Jin.’



Another reason to reject the translation, “I will be the one that you resent,” for (11 a) is because it is also not possible to analyze the DP preceding *wéi* in (11) as coreferential with the object of the predicate following *wéi*. This is because overt marking is necessary when an object DP surfaces in a position other than its canonical case licensing position, as mentioned above. There are two structures which allow the DP preceding *wéi* to be understood as the object of the predicate following *wéi*. In one, the clause-initial object functions as a topic and is resumed by a pronoun following the predicate, as in (17 a). Coindexation with the pronoun serves to mark the topic as the object of the verb. The other possibility is to use an object relative clause formed by the relativizer *suǒ*, as in (17 b). *Suǒ* forms relative clauses only on non-subjects and is necessary in order to allow movement of a VP-internal operator over the subject in the relative clause (Aldridge 2013a, 2019) and also serves to mark the fact that the VP contains a gap.

- (17) (a) 諂諛之臣，唯聖王知之，而亂主近之。
 (LAC: 3rd C. BCE; *Hanfeizi*, Shuoyi)
 [Chǎnyú zhī chén], wéi shèng wáng zhī zhī,
 flatter GEN advisor only.be sage king know 3.OBJ
 ér luàn zhǔ jìn zhī.
 CONJ disorder ruler near 3.OBJ
 ‘A flattering advisor, only a sage king can see through, but an undisciplined ruler keeps him close.’
- (b) 齊、晉亦唯天所授，豈必晉？
 (LAC: 5th C. BCE; *Zuozhuan*, Cheng 2)
 Qí, Jìn yì wéi tiān suǒ shòu; qǐ
 Qi Jin also only.be Heaven REL bestow EXCL
 bì Jìn?
 necessarily.be Jin
 ‘Qi and Jin only *Heaven* can bestow (victory to); how is it necessarily Jin (that will win)?’

Since the examples in (11) employ neither of these strategies, it must be concluded that the focused constituent following *wéi* in (11) is the object of the embedded predicate and not the subject.

This subsection introduced the two types of focus fronting found in LAC: *wh*-movement of VP-internal constituents and referential object fronting. Although both are driven by a focus feature merged on *v*, the landing sites for the two types of movement are in fact different, interrogative pronouns targeting the edge of *v*P, while referential focused objects move to the specifier of FocP after the focus feature has been inherited from *v*. However, Aldridge (2019) still allows a uniform analysis to be applied to both types of focus movement. Referential focused objects are marked not only by the focus marker *zhī* but also by the focus copula *wéi*. Under the Aldridge (2019) approach, the focus feature is uniformly merged on a phase head, but Inheritance to a lower head is necessary in the case of referential NP focus constructions, since the focused constituent must surface in the position following the focus copula in the phase head. A parallel analysis of *wh*-movement and focus fronting is also warranted, given well-known similar semantic and syntactic properties of focus and *wh*-constructions. Rooth (1992), for example, analyzes the focus semantic value of both types as a set of alternatives. On the syntactic side, many parallel analyses have been proposed in the literature. In particular, Kiss (1987, 1995), Tuller (1992), and Jayaseelan (2001) have argued for a clause-internal focus position for both interrogative and referential NPs in Hungarian, Chadic languages, and Malayalam, respectively.

Bonan (2021) has put forth a more recent analysis of *wh*-movement to a clause-internal focus position. Bonan treats clause-internal *wh*-movement in the Northern Italian dialect Trevisan as a type of *wh*-in-situ since the movement does not place the *wh*-constituent in the interrogative scope position in the Left Periphery. Bonan proposes that a null Q particle adjoined to the *wh*-phrase is probed by and moved to the high focus position in the Left Periphery after the *wh*-phrase has moved to a low focus position in the edge of *vP*.

This proposal is also similar in some key respects to the Aldridge (2010) approach to LAC *wh*-movement. Since the movement does not serve to check the [Q] feature in the CP layer, a null operator is inserted in [Spec, CP] which unselectively binds the interrogative pronoun in the edge of the lower phase. In Aldridge (2019), this function is performed directly by the [Q] feature on the C/T head. Aldridge (2010, 2019) also points out the parallel behavior between LAC *wh*-words and their counterparts in Modern Mandarin as functioning as *wh*-indefinites, a behavior commonly found in *wh*-in-situ languages. Aldridge (2010) additionally speculates that the fact that *wh*-movement did not target the scope position in the Left Periphery facilitated the change to *wh*-in-situ in EMC. The current study concludes that this indeed turns out to be the case. Since there was no direct connection between *wh*-movement and deriving the interrogative interpretation, the loss of LAC *wh*-movement could be triggered only by the loss of focus movement, as I argue in section 4.

The remainder of this paper is concerned with the loss of focus fronting in the lower phase, both for interrogative and referential objects. I will argue in section 4 that this was triggered by the loss of the genitive case particle which was the dominant strategy in LAC for licensing referential focused objects in their landing site. First, I summarize the grammaticalization of this particle from a demonstrative pronoun, as well as its decline in EMC in section 3.

3 GENITIVE MARKING

This section discusses the diachronic development of genitive marking with the particle *zhī* from its grammaticalization from a demonstrative pronoun in Early Archaic Chinese (EAC; 10th – 6th centuries BCE) to its loss in Early Middle Chinese (EMC; 1st century BCE – 2nd century CE).

3.1 Diachronic origin of genitive marking

In Pre-Archaic Chinese (PAC; 14th– 11th C. BCE), *zhī* was a distal demonstrative pronoun (Chou 1959, Wang 1958, Yang & He 1992, Djamouri 1999, Zhang 2001, Wei 2004). It could surface inside a larger nominal, as in (18a,b), or it

could function independently as an argument, as in (18 c).

- (18) (a) 之夕 (PAC; *Heji* 24773; *Djamouri* 1999: 35)
zhī xī
 that night
- (b) 之人 (PAC; *Heji* 7851; *Zhang* 2001: 30)
zhī rén
 that person
- (c) 出于之 (PAC; *Heji* 28012; *Djamouri* 1999: 36)
chū yú zhī
 go to there
 ‘go there’

According to *Djamouri* (1999), the demonstrative *zhī* grammaticalized into a personal pronoun in EAC (Early Archaic Chinese; 10th – 6th centuries BCE) (*Chou* 1959, *Wang* 1958, *Qian* 2004), as shown in (19 a). The pronoun *zhī* also developed into a genitive/attributive marker in EAC, as in (19 b).

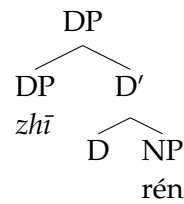
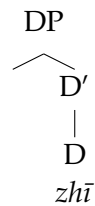
- (19) (a) 勿庸殺之。 (EAC; *Shangshu*, *Zhoushu*, Jiu Gao)
Wù yōng shā zhī.
 do.not use kill 3.OBJ
 ‘Do not kill them.’
- (b) 文武之光訓 (EAC; *Shangshu*, *Zhoushu*, Guming)
Wén Wǔ zhī guāng xùn.
 Wen Wu GEN shining instruction
 ‘the brilliant instructions of (Kings) Wen and Wu’

Wang (1958) & *Yue* (1998) propose that grammaticalization of the genitive particle *zhī* was facilitated by the use of pronominal *zhī* as a resumptive possessor agreeing with an external nominal possessor. Such a pattern is attested cross-linguistically, e.g. in some Altaic languages like Dagur, as shown by *Hale* (2002). In (20), the external possessor *mini* is resumed by the agreeing suffix *miny* on the possessed NP.

- (20) Dagur (*Hale* 2002: 110)
mini mery-miny sain
 1SG.GEN horse-1SG.GEN good
 ‘My horse is good.’

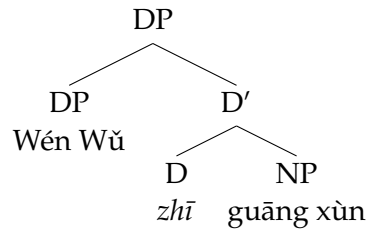
The historical development of *zhī* as proposed by Wang (1958), Chou (1959), Yue (1998) & Djamouri (1999) can be understood formally in the following way. I assume that, as a pronominal form, *zhī* headed a DP, both as a demonstrative and as a personal pronoun, as shown in (21). In its attributive function, it surfaced in the specifier of a larger DP, as in (22). Before grammaticalizing into a genitive marker, it could also serve as a resumptive possessive pronoun in this position.

- (21) **ZHI as pronoun** (22) **ZHI as attributive demonstrative**
 ‘that/him/her/them’ ‘that person’



The resumptive possessive pronoun *zhī* grammaticalized into a genitive particle heading DP along the lines of van Gelderen’s (2004) Head Preference Principle. In other words, *zhī* was reanalyzed as the head of DP, which in turn freed the specifier position to be occupied by the nominal possessor.

- (23) **ZHI as GEN**
 ‘the brilliant instructions of Kings Wen and Wu’



Another outcome of this process was the loss of the ability of *zhī* to function as a possessive pronoun, this function being taken over by other pronominal forms. (24a) shows an EAC example, while (24b) shows one from LAC (Late Archaic Chinese; 5th – 3rd centuries BCE).

- (24) (a) 同于厥邦。 (EAC; *Shangshu*, *Zhoushu*, *Lizheng*)
 ... *tóng yú jué bāng*.
 gather in his state
 ‘... gathered in his state.’

- (b) 天下之父歸之，其子焉往？ (LAC: 4th C. BCE; *Mencius*, Lilou 1)
Tiānxià zhī fù guī zhī [qí zǐ] yān wǎng?
 world GEN father settle 3.OBJ 3.GEN son where go
 ‘If the fathers of the world settled here, where would their sons go?’

In LAC, *zhī* was widely employed as genitive particle marking not only possessors in DPs, as in (25 a), but also subjects in nominalized clauses, as in (25 b).

- (25) (a) 諸侯之地方百里。 (LAC: 4th C. BCE; *Mencius*, Gaozi 2)
[Zhūhóu zhī dì] fāng bǎi lǐ.
 feudal.lord GEN land square 100 li
 ‘The fiefdoms of the lords are square and consist of 100 li.’
- (b) 臣固知王之不忍也。 (LAC: 4th C. BCE; *Mencius*, Teng Wen Gong 1)
Chén gù zhī [wáng zhī bù rěn] yě.
 1.HUM already know king GEN not endure STAT
 ‘I already knew you would not be able to endure it.’

On the other hand, the function of *zhī* as a pronoun in object position was not affected by the reanalysis of the attributive *zhī* as a genitive particle. Pronominal *zhī* continues to be attested well into the Middle Chinese period. The following examples show *zhī* functioning as a direct object in LAC.⁷

- (26) (a) 鄭伯亦惡之。 (LAC: 5th C. BCE; *Zuozhuan*, Xi 31)
Zhèng bó yì wù zhī.
 Zheng earl also dislike 3.OBJ
 ‘The Earl of Zheng also disliked him.’
- (b) 不以私害之。 (LAC: 3rd C. BCE; *Xunzi*, Bu Gou)
Bù yǐ sī hài zhī.
 not APPL private harm 3.OBJ
 ‘(He) does not damage it with private concerns.’

In the following subsection, I show that genitive marking with *zhī* began to disappear from the language in EMC, beginning in the 1st century BCE. In section 4, I propose that this in turn led to the loss of object focus and *wh*-fronting.

⁷ This pronoun never appears in subject position in a finite clause. LAC was a subject pro-drop language; the only 3rd person pronominals allowed in subject position were demonstratives, appearing typically when the subject was focused.

3.2 Loss of genitive marking

In Early Middle Chinese (EMC) of the 1st century BCE, examples can easily be found which show that the genitive marker *zhī* was beginning to disappear from the language. First, genitive marking on possessors was far less common in EMC. Comparing the LAC example shown in (27 a) with a similar EMC example in (27 b), it can be seen that the EMC example does not employ any overt marking between the possessor and possessum.

- (27) (a) 諸侯之地方百里。 (LAC: 4th C. BCE; *Mencius*, Gaozi 2)
 [Zhūhóu zhī dì] fāng bǎi lǐ.
 feudal.lord GEN land square 100 li
 ‘The fiefdoms of the lords are square and consist of 100 li.’
- (b) 侵奪諸侯地。 (EMC: 1st C. BCE; *Shiji*, Wu Wang Pi Liezhuan)
 Qīn duó [zhūhóu — dì].
 cut.into confiscate feudal.lord land
 ‘(They) reduce and confiscate the fiefdoms of the lords.’

(28) shows a similar pair with a different head nominal. The LAC example in (28 a) has a genitive particle, while the EMC counterpart in (28 b) does not.

- (28) (a) 吾不用子之言，以至於此，為之奈何？
 (LAC: 3rd–4th C. BCE; *Guoyu*, Yueyu 3)
 Wú bù yòng [zǐ zhī yán] yǐ zhì yú cǐ; wèi
 1 not use 2.HON GEN word c arrive at this for
 zhī nài hé?
 3.OBJ do what
 ‘I did not listen to your advice (words), arriving at this (situation). What are (we) to do about it?’
- (b) 吾欲聽子言，吾不忍其使者。
 (EMC: 1st C. BCE; *Shiji*, Yue Wang Goujian Shijia)
 Wú yù tīng [zǐ — yán]; wú bù rěn qí
 1 want listen 2.HON word 1 not endure 3.GEN
 shǐzhě.
 messenger
 ‘I want to listen to your advice (words), but I can’t bear (to harm) his messenger.’

Genitive marking on subjects of embedded clauses also began to disappear in EMC. If we compare the following examples, (29 a) shows a Late Archaic period sentential subject with genitive marking on the embedded subject. (29 b)

is a quotation of the same sentence in an EMC historical chronicle. The EMC example does not use genitive case for the embedded subject.

- (29) (a) 天下之無道也久矣。 (LAC: 5th C. BCE; *Analects*, Bayi)
 [Tiānxià zhī wú dào yě] jiǔ yǐ.
 world GEN not.have way TOP long PFV
 'It is a long time since the world has been without the proper way.'
- (b) 天下無道久矣。 (EMC: 1st C. CE; *Shiji*, Kongzi Shijia)
 [Tiānxià — wú dào] jiǔ yǐ.
 world not.have way long PFV
 'It is a long time since the world has been without the proper way.'

Subjects of other types of non-assertive clauses, i.e. complements of factive and psych verbs, were also marked with genitive case in LAC.

- (30) (a) 未知母之存否。 (LAC: 5th C. BCE; *Zuozhuan*, Xuan 2)
 Wèi zhī [mǔ zhī cún fǒu].
 not.yet know mother GEN be.alive not.be
 '(I) do not yet know whether my mother is alive or not.'
- (b) 臣固知王之不忍也。 (LAC: 4th C. BCE; *Mencius*, Teng Wen Gong 1)
 Chén gù zhī [wáng zhī bù rěn] yě.
 1.HUM already know king GEN not endure STAT
 'I already knew you would not be able to endure it.'
- (c) 吾恐其為天下笑。 (LAC: 4th C. BCE; *Zhuangzi*, Xu Wugui)
 Wú kǒng [qí wéi tiānxià xiào].
 1 fear 3.GEN PASS world laugh
 'I fear that he will be laughed at by the whole world.'

This marking was also lost in EMC.

- (31) (a) 寡人已知將軍能用兵矣。 (EMC: 1st C. BCE; *Shiji*, Sun Wu Benzhuan)
 Guǎrén yǐ zhī [jiāngjūn — néng yòng bīng]
 1.HUM already know general can use military
 yǐ.
 PFV
 'I already know that you, general, are skilled in using military force.'

(b) 秦欲攻韓，恐天下救之。

(EMC: 1st C. BCE; *Shiji*, Su Qin Liezhuan)

Qín yù gōng Hán, kǒng [tiānxià — jiù zhī].

Su Qin want attack Han fear world rescue 3.OBJ

‘Su Qin wanted to attack Han but feared that the other countries would come to their rescue.’

In this section, I summarized the diachronic development of the genitive case particle *zhī* in Early Archaic Chinese (EAC) and also introduced evidence marking the beginning of its decline⁸ in EMC. In the next section, I relate the loss of genitive case marking to changes taking place at the same time in object focus and *wh*-fronting.

4 EMC LOSS OF *WH*- AND FOCUS FRONTING

In this section, I discuss how the decline of genitive case marking provided the trigger for the loss of object focus and *wh*-fronting in Early Middle Chinese (EMC; 1st century BCE – 2nd century CE). I first discuss object focus fronting. This loss is unsurprising given that licensing of the fronted object depended directly on the genitive particle. *Wh*-fronting also underwent significant changes in this period. First, *wh*-in-situ begins to emerge, though examples of fronting can also be found. What is notable here is that the landing site of *wh*-movement has changed. Specifically, *wh*-movement appears not to target the *v*P phase edge but has become a more local type of dislocation, which I propose to be head adjunction to the lexical verb. I further propose that the loss of movement to the focus position in the edge of the lower phase was triggered by the loss of the genitive particle and focus fronting of referential NPs, since this resulted in the loss of evidence for the focus feature on *v* which this particle spelled out. The change to more local *wh*-movement then can be understood as a strategy for generating the preverbal positioning of *wh*-words that acquirers continued to encounter in the language spoken in their environment.

In section 4.1, I show that NP focus fronting was lost completely in EMC. In section 4.2, I discuss the reanalysis of *wh*-movement as local head movement and adjunction to the lexical verb.

⁸ Genitive marking with *zhī* is still found in EMC texts, but it is unclear what conditions govern its presence or absence. Chen (2017) shows that the distribution of *zhī* in the 1st century CE text *Lunheng* is prosodically based, thus suggesting that its syntactic function of marking case has been completely lost. For the present, further investigation into this question will have to be left for future research.

4.1 Loss of NP focus fronting

This subsection discusses the loss of object focus fronting in EMC. Part of the evidence comes from the EMC commentary on EAC (Early Archaic Chinese; 10th – 6th centuries BCE) and LAC (Late Archaic Chinese; 5th – 3rd centuries BCE) texts compiled by Sun (1994). (32 a) is an example of focus fronting in the EAC verse anthology *Shijing*.⁹ In EAC, *wéi* was used as a copula and had not acquired the sense of ‘only’.¹⁰ Accordingly, *wéi* in (32 a) is glossed as a copula. (32 b) shows a translation of this passage in the EMC commentary on the EAC anthology. The translation continues to employ *wéi*, which in this period functioned as a focus copula. In (32 b), *wéi* is followed by the verb and focuses on the entire VP rather than just on the direct object.

- (32) (a) 唯酒食是議 (EAC: 1st – 2nd C. CE; *Shijing*, Xiaoya, Sigan)
Wéi [jiǔ shí] shì yì.
 be wine food this discuss
 ‘It is wine and food that are discussed.’
- (b) 唯議酒食爾 (EMC: 1st – 2nd C. CE; Zhengxuanjian; Sun 1994: 113)
Wéi [yì jiǔ shí] ěr.
 only.be discuss wine food only
 ‘Only discuss wine and food.’

The following pair of examples makes the same point. (33 a) is also taken from the *Shijing* and shows a focused object fronted to preverbal position following the focus copula *wéi*. The fronted object is also followed by the genitive particle. The EMC translation in (33 b) places the object in postverbal position, and there is no focus marking at all. The particle *zhī* is also found in this example, but it is functioning as an attributive marker inside the object DP following the modifier *rényì* ‘righteous’. Examples of this particle can still be found in the EMC period, though its use is clearly in decline, as demonstrated by the numerous omissions, as discussed in section 3.2.

- (33) (a) 維德之行 (EAC: *Shijing*, Daya, Daming)
Wéi dé zhī xíng.
 be virtue GEN implement
 ‘It was virtue which (they) implemented.’

⁹ An anonymous reviewer expresses concern that verse texts may not offer accurate empirical data for the purposes of research on word order. To assuage this concern, I point out that only two examples are used (32 a, 33 a) in this paper, and the word order they exhibit conforms entirely to the expected pattern found in narrative texts of the same period.

¹⁰ I thank an anonymous reviewer for pointing out this fact about EAC.

(b) 行仁義之德

(EMC: 1st – 2nd C. CE; Zhengxuanjian; Sun 1994: 116)*Xíng rényì zhī dé.*

perform righteous GEN virtue

'(They) implemented righteous virtue.'

Turning to texts written in the EMC period, the historical chronicle *Shiji* does contain a few examples of object focus fronting, but there are several points worth mentioning here. First, the fronted object is never followed by the genitive particle. It can only be followed by the demonstrative pronoun *shì*, which was already obsolete in this function by the end of the LAC period. Secondly, given that *shì* was no longer productive as a focus marker in EMC, it should come as no surprise that many of the examples in the *Shiji* appear to have been copied from earlier texts. For example, (34a,b) appear in the corresponding stories in the EAC history *Shangshu*, which clearly suggests that they were copied and do not necessarily reflect the language of EMC.

(34) (a) 禹，汝平水土，維是勉哉。

(EMC: 1st C. BCE; *Shiji*, Yu/shun Benji)*Yǔ, rǔ píng shuǐ tǔ, wéi shì miǎn zāi.*

Yu 2 level water earth only.be this endeavor EXCL

'Yu, you level out the water and the earth. Endeavor at only this.'

(b) 旦新受命三王，維長終是圖。

(EMC: 1st C. BCE; *Shiji*, Lu Zhougong Shijia)*Dàn xīn shòu mìng sān wáng, wéi*

Dan newly receive mandate three king only.be

cháng.zhōng shì tú.

eternal this strive

'When Dan first received his mandate from the three (great) kings, he strove only for permanence.'

I have been able to identify earlier sources for six examples in the *Shiji*. I have not found sources for four additional examples, but these also appear in *Shiji* biographies of people who were supposed to have lived in the EAC period. As such, these passages might either be copied from more archaic texts or might be imitations of grammatical forms prevalent in earlier texts.

In addition to the preceding 10 examples, there are six more like the following example. This expression is copiously employed in LAC texts and continued to be extremely common in EMC. It is thus reasonable to assume that it had been established as an idiom by the EMC period.

- (35) 惟命是聽
Wéi mìng shì tīng.
 only.be order this obey
 '(I/we) have but to obey.'

In this subsection, I presented evidence showing that referential object focus fronting had been lost by the beginning of the EMC period. In particular, there are no examples in which the focus feature is spelled out as *zhī*. Since this loss coincided with the decline of the genitive case particle *zhī*, it is reasonable to propose that focus fronting was lost as a consequence of the disappearance of the particle which provided the overt licensing for this movement in the LAC period. The following subsection turns to *wh*-fronting, which also undergoes changes in EMC as a result of the loss of focus fronting.

4.2 *Changes leading to the loss of wh-movement*

In this subsection, I discuss the changes which took place in EMC relating to *wh*-movement and the emergence of *wh*-in-situ. I first show that *wh*-in-situ is observed first for polysyllabic *wh*-phrases. This is unsurprising, since fronting of *wh*-phrases in LAC required the use of the genitive particle *zhī*, as I show below. The loss of the particle, then, precipitated the loss of phrasal *wh*-fronting. On the other hand, monosyllabic interrogative pronouns continued to undergo fronting. However, it is also clear that this dislocation is more local than in the LAC period, which I propose can be analyzed as head movement and adjunction to the lexical verb. This analysis accounts for the fact that only non-phrasal, monosyllabic *wh*-words undergo this movement, as well as the fact that nothing intervenes between the fronted *wh*-word and the lexical verb, as I show below. I further propose that the reanalysis from focus movement targeting the edge of *vP* to head movement and adjunction to the local verb was the strategy adopted by language acquirers in order to generate the OV word order they continued to encounter in the language in the absence of evidence for focus movement to the edge of the lower phase. Consequently, the change to head movement and adjunction can also be viewed as an indirect result of the loss of focus marking with the genitive particle *zhī*.

To begin, I first offer evidence for the connection between the loss of genitive marking and the emergence of phrasal *wh*-in-situ. (36 a) shows a *wh*-phrase following the existential light verb *yǒu*, and (36 b) shows a direct object following a lexical verb.

- (36) (a) 關東有何變? (EMC: 1st C. BCE; *Shiji*, Fansui/Caize Liezhuan)
Guān dōng yǒu hé biàn?
 border east have what change
 ‘What is happening on the eastern frontier?’
- (b) 先生能飲幾何而醉?
 (EMC: 1st C. BCE; *Shiji*, Chun Yukun Liezhuan)
Xiānshēng néng yǐn jǐ hé ér zuì?
 2.HON can drink amount what CONJ be.drunk
 ‘How much can you drink before getting drunk?’

In LAC, *wh*-phrases are found undergoing movement. However, unlike monosyllabic interrogative pronouns, fronted *wh*-phrases are followed by the genitive particle in LAC. (37 a) shows a fronted direct object, while (37 b) and (37 c) show fronted predicates. The genitive particle appears following the *wh*-phrase in all three examples. When a lexical predicate is fronted, the stranded *v* is spelled out by a light verb. As can be seen in the contrast between (37 b) and (37 c), this light verb spells out the stative or dynamic *v* which selected the lexical predicate. In (37 b), *yàn* ‘satisfaction/satisfied’ is an adjective when used as a main predicate. Since this is a stative predicate, *v* is spelled out as the existential verb when the adjective is fronted in examples like (37 b). When the fronted predicate is dynamic, then *v* is spelled out as *wéi* ‘do’, as in (37 c).

- (37) (a) 貴何業之守? (LAC: 5th C. BCE; *Zuozhuan*, Zhao 29)
Guì [hé yè] zhī shǒu — ?
 exalted what enterprise GEN maintain
 ‘What enterprise could those exalted ones maintain?!’
- (b) 夫晉，何厭之有? (LAC: 5th C. BCE; *Zuozhuan*, Xi 30)
Fú Jìn, [hé yàn] zhī yǒu — ?
 DEM Jin what satisfaction GEN be
 ‘Those Jin, what satisfaction would they have (how could they be satisfied)?!’
- (c) 秦則無禮，何施之為? (LAC: 5th C. BCE; *Zuozhuan*, Xi 33)
Qín zé wú lǐ, [hé shī] zhī wéi — ?
 Qin but not.have propriety what benefit GEN do
 ‘But Qin does not behave correctly, so what benefit do they offer (how do they benefit others)?!’

LAC phrasal *wh*-fronting is typically found in rhetorical questions, and all examples involving predicate *wh*-fronting are rhetorical questions. However, a

few examples of true interrogative (non-rhetorical) questions involving phrasal object fronting can also be found, as Yang & He (1992: 800) point out. The *wh*-question contained in the dialogue below clearly has interrogative force. It asks for elaboration on the preceding query made by the king; the king also responds to it. The fronted constituent is the object of a lexical verb.

- (38) 齊宣王問卿。孟子曰：「王何卿之問也？」王曰：「卿不同乎？」
 (LAC: 4th C. BCE; *Mencius*, Wanzhang 2)
 Qí Xuān wáng wèn qīng. Mèngzǐ yuē: “Wáng [hé
 Qi Xuan king ask minister Mencius say king what
 qīng] zhī wèn yě? Wáng yuē: “Qīng bù tóng hū?”
 minister GEN ask STAT king say minister not same Q
 ‘King Xuan of Qi asked about the rank of minister. Mencius
 answered, “What minister is Your Majesty asking about?” The king
 asked, “Are ministers not all the same?”’

Non-rhetorical *wh*-questions in which the predicate is questioned do not involve movement. In the following examples, both the question and the answer involve nominal predication marked by the particle *yě*.

- (39) (a) 「何器也？」曰：「瑚璉也。」
 (LAC: 5th C. BCE; *Analects*, Gongye Zhang)
 “Hé qì yě?” Yuē: “Húliǎn
 what vessel STAT say hulian (type of sacrificial vessel)
 yě.”
 STAT
 ‘“What (kind of) vessel (am I)?” (He) said, “(You are) a
 hulian.”’
- (b) 「伯夷、叔齊何人也？」曰：「古之賢人也。」
 (LAC: 5th C. BCE; *Analects*, Shu’er)
 “Bó Yí, Shū Qí hé rén yě?” Yuē: “Gǔ zhī xián
 Bo Yi Shu Qi what person STAT say old GEN sage
 rén yě.”
 person STAT
 ‘“What (kind of) people were Bo Yi and Shu Qi?” (He) said,
 “(They were) sages of old.”’

Given the preceding discussion, the emergence of phrasal *wh*-in-situ in EMC, as shown in (36), can be viewed as a direct consequence of the loss of the genitive particle, since phrasal *wh*-fronting in LAC was marked by *zhī*. It should

be pointed out that examples of phrasal *wh*-fronting and focus marking by *zhī* continue to be found in rhetorical questions in EMC texts. I assume for the present that this construction survived as an idiomatic expression specialized for packaging rhetorical questions.¹¹ Furthermore, examples of in-situ rhetorical *wh*-questions can also be found, as shown in (40), which is unsurprising given that phrasal *wh*-in-situ had become possible in the language.

(40) (a) 此固其理也，有何怨乎？

(EMC: 1st C. BCE; *Shiji*, Lian Po/Lin Xiangru Liezhuan)

Cǐ gù qí lǐ yě, yǒu hé yuàn hū?
 this originally 3.GEN way STAT have what complaint EXCL
 ‘This is the way things have always been; what complaint could you have?!’

(b) 是臣之大榮也，臣有何恥？

(EMC: 1st C. BCE; *Shiji*, Fan Sui/Cai Ze Liezhuan)

Shì chén zhī dà róng yě, chén yǒu hé chǐ?
 this 1.HUM GEN great honor STAT 1.HUM have what
chǐ?
 shame

‘This is a great honor for me; what shame could there be?!’

Before proceeding to the discussion of monosyllabic *wh*-words in EMC, it is necessary to consider an alternative view of the loss of focus fronting and phrasal *wh*-fronting. This view also relates to the use of genitive marking in these constructions. Recall first that referential NPs were marked by the genitive particle when fronted (as in 41 a), while monosyllabic interrogative pronouns were not otherwise marked when fronted, as in (41 b). According to Feng (1996), this is due to prosodic factors. When a monosyllabic *wh*-word fronts, it forms a prosodic word together with the verb in order to carry nuclear stress. In referential object focus constructions with the focus copula *wéi*, the genitive *zhī* particle is inserted as a foot-filler in order to create a disyllabic predicate that can accept nuclear stress. He further proposes that phrasal *wh*-fronting was lost due a shift in the placement of nuclear stress when basic word order changed from SOV to SVO.

¹¹ Interestingly, Watanabe (2002) also finds that a conservative strategy was employed in Early Medieval Japanese to mark rhetorical questions during the time when *wh*-in-situ was emerging in this language.

- (41) (a) 吾唯子之怨。 (LAC: 5th C. BCE; *Zuozhuan*, Wen 7)
 Wú wéi zǐ zhī yuàn _ .
 1 only.be you GEN resent
 ‘I will only resent you.’
- (b) 公誰欲相? (LAC: 3rd C. BCE; *Lushi Chunqiu* 1.4)
 Gōng shuí [yù [xiàng _]]?
 lord who want make.prime.minister
 ‘Who, My Lord, do you want to appoint prime minister?’

There are several problems with this analysis. First, as pointed out by Aldridge (2021), it is based on the unsupported assumption that Proto-Sinitic was an SOV language. There is also an empirical problem, since the analysis predicts that the particle should not appear if both the fronted constituent and the predicate consist of two syllables. Such examples are frequently found in the case of phrasal *wh*-fronting, as in (42). Feng (1996: 360) also acknowledges this potential problem for his analysis and proposes that the particle in this case marks a pause between the fronted focus constituent and the predicate.

- (42) (a) 何惡之能為? (LAC: 5th C. BCE; *Zuozhuan*, Xiang 14)
 [Hé è] zhī néng wéi?
 what evil GEN can do
 ‘What harm could (we) do?!’
- (b) 苟得容以逃死，何位之敢擇?
 (LAC: 5th C. BCE; *Zuozhuan*, Zhao 7)
 Gǒu dé róng yǐ táo sǐ, [hé wèi] zhī gǎn
 if obtain accept c escape death what rank GEN dare
 zé?
 choose
 ‘If one is able to find acceptance and escape death, then what rank would (he) dare ask for?!’

On the other hand, such a stipulation can be avoided in the analysis that I proposed in section 2.2 in which focus marking with *zhī* is necessary when an object is dislocated from its canonical case position. Although the fronted phrase contains a *wh*-word, the referential portion surfaces adjacent to the lexical verb. Genitive marking then serves to distinguish this nominal from the predicate.

Regarding the purported prosodic basis for the emergence of phrasal *wh*-in-situ, in the absence of evidence for a change in basic word order and the

position of nuclear stress, it falls short of the current proposal, since my study has identified a clear morphosyntactic trigger for the change. Furthermore, Feng (1996) has nothing to say about the change taking place in the fronting of monosyllabic *wh*-words, which I turn to in the following discussion. Since Feng assumes a prosodic basis for *wh*-movement in the LAC period, he predicts that the fronting of monosyllabic *wh*-words should not have undergone any change, given that these were not affected by the shift in nuclear stress. However, I show in the following discussion that, although the monosyllabic interrogative pronouns continue to undergo fronting, the landing site was different. This is predicted by my proposal that the trigger for EMC changes was the loss of focus fronting. This triggered a reanalysis of the landing site in order to derive the preverbal positioning of interrogative pronouns in the absence of evidence for focus fronting.

Having discussed the emergence of phrasal *wh*-in-situ, I now turn to monosyllabic interrogative pronouns, which to a large extent continue to surface in preverbal position in EMC.

- (43) (a) 公何患於齊? (EMC: 1st C. BCE; *Zhanguo*, Zhongshan)
Gōng hé huàn — yú Qí?
 lord what fear from Qi
 ‘What does the lord fear from Qi?’
- (b) 君臣淫亂，民何效焉? (EMC: 1st C. BCE; *Shiji*, Chen Qi Shijia)
Jūn chén yín luàn, mǐn hé xiào —
 lord minister improper disorder people what learn
yān?
 3.DAT
 ‘If the lord and his ministers behave in an improper and disorderly manner, then what will the people learn from them?’
- (c) 子將何欲? (EMC: 1st C. BCE; *Shiji*, Cao Mo Benzhuan)
Zǐ jiāng hé yù — ?
 2.HON will what want
 ‘What will you want?’

Clearly, then, examples of *wh*-fronting can still be found. As pointed out by Wei (1990, 2004), the majority of non-phrasal interrogative pronouns continue to surface in preverbal position. In particular, *wh*-in-situ following a lexical verb was rare in EMC; I have yet to find a single example in a text predating the Common Era. The earliest examples can more easily be found in translations of Buddhist sutras in the early Common Era, though these are still relatively small in number.

- (44) 當以衣與誰 (EMC: 1st – 2nd C. CE; Taisho 15, No. 626)
Dāng yǐ yī yǔ shuí?
 should APPL clothing give who
 ‘Who should I give this clothing to?’

What is more common in the beginning of EMC is the loss of fronting of arguments selected by light verbs like the comitative *yǔ* ‘be with’. (45 a) shows that such fronting was the rule in LAC. But in-situ examples like (45 b) are not uncommon in EMC.

- (45) (a) 吾又誰與爭? (LAC: 5th C. BCE; *Zuozhuan*, Zhao 4)
Wú yòu shuí [AppIP yǔ — [VP zhēng]]?
 1 then who be.with compete
 ‘Then who would we compete with?’
- (b) 陛下與誰取天下乎? (EMC: 1st C. BCE; *Shiji*, Liu Hou Shijia)
Bìxià [AppIP yǔ shuí [VP qǔ tiānxià]] hū?
 sire be.with who take world EXCL
 ‘With whom will Your Majesty conquer the world?’

The asymmetry between fronting of the object of a lexical verb and the lack of fronting when the *wh*-word is selected by a functional category provides a clue as to the nature of *wh*-movement in EMC. I propose that *wh*-movement to the edge of *vP* in LAC was reanalyzed as head movement and adjunction to the lexical verb but not to a functional category. This also explains why *wh*-phrases in non-rhetorical questions are only found in-situ, since phrasal categories cannot undergo head movement. My hypothesis receives additional support from the case of long distance *wh*-questions. Long distance movement out of an embedded clause or VP was obligatory for subject control embedding verbs in the LAC period.

- (46) (a) 吾誰敢怨? (LAC: 5th C. BCE; *Zuozhuan*, Zhao 27)
Wú shuí gǎn [yuàn —]?
 1 who dare resent
 ‘Who do I dare to resent?’
- (b) 公誰欲相? (LAC, 3rd C. BCE; *Lushi Chunqiu* 1.4)
Gōng shuí [yù [xiàng —]]?
 lord who want make.prime.minister
 ‘Who, My Lord, do you want to appoint prime minister?’

But this is no longer found in EMC. Instead, the *wh*-word surfaces between the matrix and embedded verbs. This is easily accounted for in terms of head

movement, since the *wh*-word is selected by the embedded verb, so it can only incorporate to this verb via head movement. I have found no examples in which another constituent intervenes between a fronted object *wh*-word and the verb that selects it.

- (47) (a) 吾敢誰怨? (EMC: 1st C. BCE; *Shiji*, Wu Taibo Shijia)
Wú gǎn [shuí yuàn _]?
 1 dare who resent
 ‘Who do I dare to resent?’
- (b) 諸君欲誰立? (EMC: 1st C. BCE; *Shiji*, Zhao Shijia)
Zhū jūn yù [shuí lì _]?
 all gentleman want who stand
 ‘Gentlemen, who do you want to place (on the throne)?’

Fronting with other functional categories is likewise lost. (48a) shows that a causee in LAC was required to surface to the left of the causative light verb. But in the EMC examples in (48b) and (48c), the causee remains in its base position following the causative verb. This is also predicted by the head movement analysis, assuming that incorporation only targets the lexical verb which selects the pronoun.

- (48) (a) 若子死，將誰使代子? (LAC, 3rd C. BCE; *Hanfeizi*, Shuolin 1)
Ruò zǐ sǐ, jiāng shuí shǐ [_ dài zǐ]?
 if 2.HON die will who make replace 2.HON
 ‘If you die, then who shall (I) have replace you?’
- (b) 若其王在陽翟，主君將令誰往?
 (EMC, 1st C. BCE; *Zhanguoce*, Dong Zhou)
Ruò qí wáng zài Yángdí, zhǔjūn jiāng lìng [shuí wǎng]?
 if 3.GEN king be.at Yangdi lord will make who go
 ‘If their king were in Yangdi, then who would (our) lord have go?’
- (c) 蕭相國即死，令誰代之? (EMC, 1st C. BCE; *Shiji*, Gaozu Benji)
Xiāo xiàngguó jí sǐ, lìng [shuí dài zhī]?
 Xiao minister if die make who replace 3.OBJ
 ‘Should Prime Minister Xiao die, who should (we) have replace him?’

Before proceeding, it should be pointed out that examples of *wh*-fronting to the left of a functional category can still be found in some Middle Chinese

texts. However, my own search has only yielded such examples in texts dating from the Common Era. It is also of interest that this is the period during which *wh*-in-situ can be found following a lexical verb, as shown above in (44). Furthermore, *wh*-in-situ can be found with a lexical verb, as in (49 a), while in the same text examples can also be found in which the argument of a light verb undergoes fronting, as in (49 b).

- (49) (a) 時以語誰? (MC: 3rd C. CE; *Sanguozhi*, Wei 12)
Shíyǐ yù shuí?
 then tell who
 ‘At that time, who did (you) tell?’
- (b) 公誰與定天下? (MC: 3rd C. CE; *Sanguozhi*, Wei 14)
Gōng shuí [_{AppIP} *yǔ* — [_{VP} *dìng tiānxià*]]?
 lord who be.with set realm
 ‘With whom would my lord establish the new realm?’

Since it is widely acknowledged (e.g. by [Wei 2004](#)) that *wh*-in-situ following a lexical verb emerged later than *wh*-in-situ with a light verb, we can safely conclude that the preverbal examples with a light verb like (49 b) are merely archaic relics and do not reflect a productive movement operation in use at this time. They consequently also do not challenge my proposal that movement to the edge of *v*P was reanalyzed as head movement in EMC.

Positing this intermediate stage receives additional support from a parallel development in the loss of pronoun fronting in negated clauses in the LAC period. In the Pre-Archaic Chinese (PAC: 14th C. BCE – 11th C. BCE) Oracle Bone Inscriptions, object personal pronouns were required to move out of the VP in negated clauses. [Aldridge \(2021\)](#) analyzes this as syntactic object shift to a structural case licensing position where the person feature of the pronoun could be valued.¹² In (50), the pronoun moves over the temporal-aspectual adverb *qí*, so this movement cannot be viewed as an instance of incorporation to the verb.

- (50) 師不余其見? (PAC; *Heji* 175; [Zhang 2001](#): 211)
Shī bù yú qí jiàn _ ?
 army not 1 FUT see
 ‘Will the army not see me?’

12 [Aldridge \(2021\)](#) implements [Csirmaz’ \(2005, 2008, 2012\)](#) proposal for Finnish that negation creates a divisible event in which partitive case is assigned to the internal argument in a transitive clause. According to [Aldridge \(2021\)](#), personal pronouns in Pre-Archaic Chinese underwent fronting in order to escape the assignment of this defective case so they could receive structural licensing and value their person features.

The following example from the early LAC period shows that this movement could also be long distance.

- (51) 余不女忍殺。 (LAC: 5th C. BCE; *Zuozhuan*, Zhao 1)
 Yú bù rǔ rěn [shā —].
 1 not 2 endure kill
 ‘I cannot bear to kill you.’

However, pronoun fronting in negated clauses begins to decline at the same time and disappears altogether by the end of the LAC period. The decline was particularly clear with the clausal negator *bù*. Aldridge (2021) proposes that *bù* was reanalyzed as an adjunct to VP in LAC and so was only able to affect case assignment by the verb heading this VP. Consequently, pronoun fronting also became very local, which Aldridge proposes was head movement and adjunction to the lexical verb, as in the case of EMC monosyllabic *wh*-movement. This analysis accounts for examples like (52 a) in which the object of a lexical verb underwent fronting in LAC negated clauses. But (52 b) shows that the argument selected by a light verb did not front; nor did a causee, as in (52 c). Fronting likewise did not take place across a clause boundary, as shown in (52 d). Unlike in the case of *wh*-fronting, objects in negated contexts did not generally undergo adjunction to the embedded verb but rather remained in their base positions in the embedded clause. This was particularly the case when the matrix negator was *bù* ‘not’. However, examples can be found with other negators like *mò* ‘none’ in which the pronoun adjoins to the local verb in the embedded clause, as shown in (52 e).

- (52) (a) 我饑而不我食。 (LAC: 3rd C. BCE; *Lushi Chunqiu* 12.5)
 Wǒ jī ér bù wǒ sì — .
 1 starve CONJ not 1 feed
 ‘When I was starving, (they) did not feed me.’
- (b) 不與之爭能。 (LAC: 3rd C. BCE; *Xunzi*, Jundao)
 Bù [_{AppIP} yǔ zhī [_{VP} zhēng néng]].
 not be.with 3.OBJ dispute ability
 ‘(He) does not dispute ability with them.’
- (c) 臧氏將為亂，不使我葬。 (LAC: 5th C. BCE; *Zuozhuan*, Xiang 23)
 Zàng shì jiāng wéi luàn, bù shǐ [wǒ zàng].
 Zang clan will make rebellion not make 1 bury
 ‘The Zang clan is about to rebel, not allowing us to perform the funeral rites.’

- (d) 為人臣者，不敢去之。 (LAC: 4th C. BCE; *Zhuangzi*, Shanmu)
Wéi rén chén zhě bù gǎn [qù zhī].
 be person minister DET not dare leave 3.OBJ
 ‘One who serves as someone’s minister does not dare to leave him.’
- (e) 五人御於前，莫肯之為。 (LAC: 3rd C. BCE; *Lushi Chunqiu* 24.1)
Wǔ rén yù yú qián, mò kěn [zhī wéi _].
 five person attend by side none dare 3.OBJ do
 ‘Five people were in attendance, but none of them dared to do this.’

In this way, the loss of pronoun fronting to negation in LAC is almost completely parallel to monosyllabic *wh*-movement in ECM.

To summarize the preceding subsection, unlike referential object focus fronting, *wh*-movement was not lost in one fell swoop but took place in stages. As shown in Table 1, referential object focus movement and phrasal *wh*-fronting were lost first in EMC, and this correlates with the loss of the genitive particle that was necessary to mark the fronted object in the landing site. In contrast, monosyllabic *wh*-words continued to undergo fronting in EMC, but this was reanalyzed as head movement and adjunction to the lexical verb. Consequently, fronting was lost with the arguments selected by functional categories. Fronting of *wh*-words selected by lexical verbs was not lost until later Middle Chinese after entering the Common Era.

	LAC	EMC _{BCE}	MC _{CE}
Object focus	Focus movement with <i>zhī</i>	In-situ	In-situ
Wh-phrase	Focus movement with <i>zhī</i>	In-situ	In-situ
Wh-word selected by functional category	Focus movement without <i>zhī</i>	In-situ	In-situ
Wh-word selected by lexical verb	Focus movement without <i>zhī</i>	Head adjunction to the verb	In-situ

Table 1 Summary of changes

However, although fronting of different types of focused constituents was lost in different periods, there is still evidence that the initial trigger for this process was the loss of genitive marking in focus constructions. First, the loss of phrasal *wh*-fronting was clearly a direct consequence of the loss of genitive

marking, since phrasal fronting depended on this marking in order for the fronted object to be marked in the landing site. Secondly, the reanalysis of *wh*-fronting in EMC from focus movement to head movement and adjunction to the lexical verb also provides indirect evidence for the connection to the loss of genitive marking, since the loss of genitive marking removed the morphological evidence for a focus position in the edge of the lower phase. The adoption of head movement can then be viewed as the mechanism adopted by language acquirers in order to generate OV *wh*-questions which they continued to encounter in their acquisition input after the loss of genitive marking and focus fronting. The finding that the loss of LAC *wh*-fronting was triggered only by the loss of focus movement also substantiates the speculation by Aldridge (2010) that *wh*-movement is predicted to be particularly susceptible to change to *wh*-in-situ if the movement did not serve to place the *wh*-constituent in the interrogative scope position, given the lack of a direct morphosyntactic connection between *wh*-movement and deriving the interrogative interpretation.

5 CONCLUSION

This paper proposed an analysis of the loss of object focus and *wh*-movement in Early Middle Chinese (EMC). I proposed that the trigger for these changes was the loss of the morphological marking which licensed the dislocated object in the landing site. Consequently, this study adds to the growing body of evidence that syntactic change in EMC was triggered by the loss of Archaic Chinese morphological complexity (Mei 1989, 1991, Wei 1994, Feng 2005, Aldridge 2013b,c, Aldridge & Meisterernst 2018, Huang 2015, Huang & Roberts 2017, Meisterernst 2019, 2020; and others). According to these findings, Chinese also provides evidence for the Generative approach to syntactic variation which is tied to the inventory of functional categories first put forth by Borer (1984) and applied to diachronic syntax by Lightfoot (1979), Roberts (1997), Roberts & Roussou (2003), and others.

In addition to this, I proposed that the loss of *wh*-fronting in Middle Chinese can be captured as a two-step process, traversing through an intermediate reanalysis resulting from the reinterpretation of former focus movement to the lower phase edge as the more local operation of head movement and adjunction to the lexical verb. This not only provides a principled explanation for the persistence of one type of *wh*-fronting in EMC, it also supports the view put forth by Roberts (1997), Clark & Roberts (1993), Roberts & Roussou (2003), and others that language acquirers adopt the simplest analysis possible which generates the data they encounter. Consequently, although learners of EMC would have continued to encounter preverbal *wh*-words, the lack of a morphological means for positing syntactic focus fronting prompted

them instead to adopt the most local type of movement consistent with the data, which was head movement and adjunction to the lexical verb.

DIGITAL CORPORA FOR PRIMARY SOURCES

中央研究院漢籍電子文獻瀚典全文檢索系統 2.1 版
Academia Sinica untagged Ancient Chinese corpus, version 2.1
<http://db1x.sinica.edu.tw/textdb/corpus/>

中央研究院上古漢語標記語料庫
Academia Sinica tagged Ancient Chinese corpus
<http://lingcorpus.iis.sinica.edu.tw/cgi-bin/kiwi/akiwi/kiwi.sh>

REFERENCES

- Aldridge, Edith. 2010. Clause-internal *wh*-movement in Archaic Chinese. *Journal of East Asian Linguistics* 19. 1–36.
- Aldridge, Edith. 2012. PPs and applicatives in Late Archaic Chinese. *Studies in Chinese Linguistics* 33(3). 139–164.
- Aldridge, Edith. 2013a. Object Relative Clauses in Archaic Chinese. *Canadian Journal of Linguistics* 58(2). 239–265.
- Aldridge, Edith. 2013b. Survey of Chinese historical syntax part I: Pre-Archaic and Archaic Chinese. *Language and Linguistics Compass* 7(1). 39–57.
- Aldridge, Edith. 2013c. Survey of Chinese historical syntax part II: Middle Chinese. *Language and Linguistics Compass* 7(1). 58–77.
- Aldridge, Edith. 2016. ECM and control in Archaic Chinese. In Barbara Meisterernst (ed.), *New aspects of Classical Chinese grammar*, 5–25 (Series Asian and African Studies of the Humboldt University Berlin). Wiesbaden: Harrassowitz.
- Aldridge, Edith. 2019. Subject/non-subject movement asymmetries in late Archaic Chinese. *Glossa* 4(1). 1–38. <https://doi.org/10.5334/gjgl.743>.
- Aldridge, Edith. 2021. The syntax of pronoun fronting in Late Archaic Chinese negated clauses. *Journal of East Asian Linguistics* 30(1). 39–79. <https://doi.org/10.1007/s10831-021-09219-x>.
- Aldridge, Edith & Barbara Meisterernst. 2018. Resultative and termination: A unified analysis of Middle Chinese VP-YI. In Kunio Nishiyama, Hideki Kishimoto & Edith Aldridge (eds.), *Topics in Theoretical Asian Linguistics: Studies in honor of John B. Whitman*, 157–179. Amsterdam: John Benjamins.
- Bonan, Caterina. 2021. The periphery of vP in the theory of *wh*-in situ. *Glossa* 6(1). 1–43.

- Borer, Hagit. 1984. *Parametric Syntax: Case studies in Semitic and Romance languages*. Dordrecht: Foris.
- Chen, Victoria. 2017. *A Reexamination of the Philippine-type Voice System and its Implications for Austronesian Primary-level Subgrouping*: University of Hawaii dissertation.
- Chomsky, Noam. 2008. On phases. In Robert Freidin, Carlos P. Otero & Maria Luisa Zubizarreta (eds.), *Issues in Linguistic Theory: Essays in Honor of J-R. Vergnaud*, 133–166. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2013. Problems of projection. *Lingua* 130. 33–49.
- Chou, Fa-kao. 1959. *Zhongguo Gudai Yufa: Chengdai bian* [A Historical Grammar of Ancient Chinese: Anaphora]. Taipei: Academia Sinica Institute of History and Philology vol. 3 edn.
- Clark, Robin & Ian Roberts. 1993. A computational model of language learnability and language change. *Linguistic Inquiry* 24(2). 299–345.
- Csirmaz, Aniko. 2005. *Semantics and phonology in Syntax*. Cambridge, MA: MIT dissertation.
- Csirmaz, Aniko. 2008. Aspect, negation, and quantifiers. In Katalin Kiss (ed.), *Event structure and the Left Periphery: Studies on Hungarian*, 225–253. Dordrecht: Springer.
- Csirmaz, Aniko. 2012. The case of the divisible phase: Licensing partitive case in Finnish. *Syntax* 15(3). 215–252.
- Ding, Zhenqu. 1983. Lun qianzhi binyu hou de ‘shi’, ‘zhi’ de cixing [On the lexical nature of ‘shi’ and ‘zhi’ following a fronted object]. *Zhongguo Yuwen* 1983(2). 120–125.
- Djamouri, Redouane. 1999. The evolution of ZHI 之 in Archaic Chinese. In Alain Peyraube & Sun Chaofen (eds.), *Linguistic essays in honor of Mei Tsulin: Studies on Chinese historical syntax and morphology*, 33–47. Paris: Centre de Recherches Linguistiques sur l’Asie Orientale.
- Djamouri, Redouane & Waltraud Paul. 2021. Clitic pronouns in Archaic Chinese. *Journal of Historical Linguistics* 11(1). 60–101.
- Feng, Shengli. 1996. Prosodically constrained syntactic changes in early Archaic Chinese. *Journal of East Asian Linguistics* 5. 323–371.
- Feng, Shengli. 2005. Qing dongci yiwei yu gujin hanyu de dongbin guanxi [Light verb movement in Modern and Classical Chinese]. *Yuyan Kexue* 4(1). 3–16.
- van Gelderen, Elly. 2004. *Grammaticalization as economy*. Amsterdam: John Benjamins.
- Hale, Ken. 2002. On the Dagur object relative: Some comparative notes. *Journal of East Asian Linguistics* 11. 109–122.
- Huang, C.-T. James. 2015. On syntactic analyticity and parametric theory.

- In Audrey Li, Andrew Simpson & Dylan Tsai (eds.), *Handbook of Chinese Linguistics*, 1–48. Wiley-Blackwell.
- Huang, C.-T. James & Ian Roberts. 2017. Principles and parameters of Universal Grammar. In C.-T. James Huang & Ian Roberts (eds.), *The Oxford Handbook of Universal Grammar*, 307–354. Oxford: Oxford University Press.
- Huang, Dekuan. 1988. Jiaguwen ‘S-hui-OV’ jushi tanzong [An approach to the sentence pattern ‘S-hui-OV’ in inscriptions on bones or tortoise shells]. *Yuyan Yanjiu* 1988(1). 42–50.
- Jayaseelan, Karattuparambil. 2001. IP-internal topic and focus phrases. *Studia Linguistica* 55. 39–75.
- Kiss, Katalin. 1987. *Configurationality in Hungarian*. Dordrecht: Kluwer Academic Publishers.
- Kiss, Katalin. 1995. NP movement, operator movement, and scrambling in Hungarian. In Katalin Kiss (ed.), *Discourse Configurational Languages*, 207–243. Oxford: Oxford University Press.
- Lightfoot, David. 1979. *Principles of Diachronic Syntax*. Cambridge: Cambridge University Press.
- Lord, Carol. 1993. *Historical Change in Serial Verb Constructions*. Amsterdam & Philadelphia: John Benjamins.
- Ma, Jian-zhong. 1898. *Ma Shi wentong* [Ma’s Guide to the written language]. Reprinted as: Ma Shi wentong duben. Shuxiang Lü & Haifen Wang (eds.). Shanghai: Shanghai Jiaoyu Chubanshe.
- Matisoff, James. 1991. Areal and universal dimensions of grammaticalization in Lahu. In Elizabeth Traugott & Bernd Heine (eds.), *Approaches to Grammaticalization*, 383–453. Amsterdam and Philadelphia: John Benjamins.
- Mei, Tsu-lin. 1989. The causative and denominative functions of the *s- prefix in Old Chinese. In *Dierjie Guoji Hanxue Huiyi lunwenji: Qingzhu Zhongyang Yanjiu Yuan yuanying liushi zhounian* [Proceedings of the second International Meeting on Sinology: Papers in honor of the sixtieth anniversary of Academia Sinica] vol. 1. 33–51.
- Mei, Tsu-lin. 1991. Cong Handai de ‘dong-sha’, ‘dong-si’ lai kan dongbu jieyou de fazhan [A look at the development of the verb-resultative construction from ‘V-kill’ and ‘V-die’ in the Han period]. *Yuyanxue Luncong* 16. 112–136.
- Meisterernst, Barbara. 2010. Object preposing in Classical and Pre-Medieval Chinese. *Journal of East Asian Linguistics* 19. 75–102.
- Meisterernst, Barbara. 2019. A new approach on the modal KE 可 and the relation between the aspectual and the modal system in Archaic Chinese.

- In Barbara Meisterernst (ed.), *New perspectives on Aspect and Modality in Chinese Historical Linguistics*, 159–189. Beijing: Springer & Peking University Press.
- Meisterernst, Barbara. 2020. A New Approach on the Development of Deontic Markers in Pre-Modern Chinese. In Janet Xing (ed.), *A Typological Approach to Grammaticalization and Lexicalization*, vol. Trends in Linguistics, vol 327, 191–230. Berlin: De Gruyter Mouton.
- Muysken, Pieter & Tonjes Veenstra. 1994. Serial verbs. In Jacques Arends, Pieter Muysken & Norval Smith (eds.), *Pidgins and Creoles*, 289–301. Amsterdam & Philadelphia: John Benjamins.
- Peterson, David A. 1997. The evolution of applicative constructions and Proto-Austronesian morphosyntax. *Berkeley Linguistics Society* 23. 278–289.
- Peterson, David A. 2004. High and low applicatives: Evidence from Lai. *Berkeley Linguistics Society* 30. 353–364.
- Peterson, David A. 2007. *Applicative Constructions*. Oxford & New York: Oxford University Press.
- Qian, Zongwu. 2004. *Jinwen Shangshu Yufa Yanjiu* [Grammatical study of the Shangshu New Text]. Beijing: Shangwu Yinshuguan.
- Roberts, Ian. 1997. Directionality and word order change in the history of English. In Ans van Kemenade & Nigel Vincent (eds.), *Parameters of Morphosyntactic Change*, 397–426. Cambridge: Cambridge University Press.
- Roberts, Ian & Anna Roussou. 2003. *Syntactic change: A Minimalist approach to grammaticalization*. Cambridge: Cambridge University Press.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1. 75–116.
- Saito, Mamoru. 2016. (A) case for labeling: Labeling in languages without ϕ -feature agreement. *The Linguistic Review* 33(1). 129–175.
- Sebba, Mark. 1987. *Syntax of Serial Verbs: An Investigation into Serialisation in Sranan and other Languages*. Amsterdam & Philadelphia: John Benjamins.
- Tuller, Laurice. 1992. The syntax of postverbal focus constructions in Chadic. *Natural Language and Linguistic Theory* 10. 303–334.
- Wang, Aiqing. 2016. *Clause-internal preposing in Late Archaic Chinese*: University of York dissertation.
- Wang, Li. 1958. *Hanyu shigao*. Beijing: Zhonghua Shuju. Reprinted 2004.
- Wang, Xiaoyu (ed.). 2001. *Zhuangzi jishi (Qing: Guo Qingfan)* [Zhangzi Qing Dynasty annotated compilation by Guo Qingfan]. Taipei: Dingyuan Wenhua Shiye Limited Co.
- Watanabe, Akira. 2002. Loss of Overt Wh-Movement in Old Japanese. In David Lightfoot (ed.), *Syntactic Effects of Morphological Change*, 179–195.

- Oxford: Oxford University Press.
- Wei, Pei-chuan. 1990. *Han Wei Liuchao zhidaici yanjiu* [Research on pronouns of the Han, Wei and Six-Dynasty periods]. Taipei: National Taiwan University dissertation.
- Wei, Pei-chuan. 1994. Guhanyu beidongshi de fazhan yu yanbian jizhi [On the development and mechanism of change of the passive construction in Classical Chinese]. *Chinese Languages and Linguistics* 2. 293–319.
- Wei, Pei-chuan. 1999. Lun Xian-Qin Hanyu yunfu de weizhi [On the position of operators in Pre-Qin Chinese]. In Alain Peyraube & Chaofen Sun (eds.), *Linguistic essays in honor of Mei Tsu-lin: Studies in Chinese historical syntax*, 259–297. Paris: Centre de Recherches Linguistiques sur l'Asie Orientale.
- Wei, Pei-chuan. 2004. *Hàn Wèi Liù Cháo chēngdàicí yánjiū* [Research on Pronominal Forms in the Han, Wei, and Six Dynasties Periods]. Taipei: Academia Sinica, Institute of Linguistics.
- Wei, Pei-chuan. 2020. Shanggu Hanyu de lingxing daici [Null pronouns in Archaic Chinese]. *Zhongguo Yuwen* 397. 413–430.
- Yang, Bojun & Leshi He. 1992. *Gu Hanyu Yufa ji qi Fazhan* [Archaic Chinese and its Development]. Beijing: Yuwen Publishers.
- Yin, Guoguang. 1985. Xian-Qin Hanyu dai yufa biaoji de binyu qianzhi jushi chutan [On grammatically marked object fronting in Pre-Qin Chinese]. *Yuyan jiaoxue yu yanjiu* 9(2). 162–171.
- Yue, Anne O. 1998. Zhi in Pre-Qin Chinese. *T'oung Pao* 84. 239–292.
- Zhang, Yujin. 2001. *Jiaguwen Yufaxue* [Grammar of the Oracle Bone Inscriptions]. Shanghai: Xuelin.

ABBREVIATIONS

1	1st person
2	2nd person
3	3rd person
APPL	applicative
BCE	before Common Era
C	complementizer
CE	Common Era
CONJ	conjunction
DAT	dative
DEM	demonstrative
DET	determiner
EAC	Early Archaic Chinese
EMC	Early Middle Chinese
EXCL	exclamation
FUT	future
GEN	genitive
HON	honorific
HUM	humble
LAC	Late Archaic Chinese
MC	Middle Chinese
MOD	modal
OBJ	object
PAC	Pre-Archaic Chinese
PASS	passive
PFV	perfective
Q	question particle
REL	relativizer
SG	singular
STAT	stative
TOP	topic

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