

RESEARCH

Subject/non-subject movement asymmetries in Late Archaic Chinese

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This paper accounts for the inability of a non-subject DP to move over the subject in Late Archaic Chinese (LAC) by proposing that DP movement could only be licensed by checking a case feature. Consequently, movement into the C/TP layer was generally only possible for the subject. An object could be topicalized, but only if it was base generated in the left periphery and resumed by a pronoun in argument position. Likewise, focused objects could undergo dislocation but they moved no further than the edge of vP. This paper further proposes that the restriction of DP landing sites to positions where they could check a case feature is in turn a consequence of how Labeling takes place. I propose that features like topic, focus, [Q], etc. require overt marking in order to participate in Labeling. In the absence of such marking, the only feature a bare DP can share for the purposes of Labeling is its case feature. LAC did allow non-subjects to move into the C/TP layer in order to form a relative clause, but such relative clauses were nominalized, and the subject valued genitive case with an external determiner. Because the subject was licensed external to the clause with genitive case, it did not need to check the case feature on C/T inside the relative clause, thereby leaving this feature available for the object.

Keywords: C-T Inheritance; movement; nominalization; morphological case; diachronic syntax; parameter change

1 Introduction

This paper proposes an analysis of the movement asymmetry between subjects and non-subjects in Late Archaic Chinese (LAC; 5th–3rd century BCE). One instantiation of this asymmetry can be observed in topicalization. Like most modern Sinitic varieties, LAC was an SVO language, as shown in (1a). As I show in section 3, referential subjects in LAC were licensed by moving to a position in the left periphery of the clause. Object topics can also occupy a position in the left periphery, but they do not move to this position, as evidenced by the fact that they have to be resumed by an overt pronoun within VP, as shown in (1b).

- (1) a. 鄭伯亦惡之。 (Zuozhuan, Xi 31)
Zheng bo yi wu zhi.¹
Zheng earl also dislike 3
'The Earl of Zheng also disliked him.'

¹ This paper follows standard practice in Chinese historical linguistics by transcribing examples in Modern Standard Mandarin.

- b. 是二氏者，吾亦聞之。 (Zuozhuan, Zhao 29)
 Shi er shi zhe, wu yi wen zhi.
 DEM two clan DET 1 also hear 3
 ‘These two clans, I have also heard of them.’

The presence of this asymmetry in LAC contrasts starkly with the situation in modern Mandarin, in which object topicalization is derived through movement, which leaves a gap. In (2b), the object has moved to clause-initial position, and no pronoun appears in the base position in VP.

(2) Mandarin (Huang et al. 2009: 199)

- a. 我很喜歡音樂。
 Wo hen xihuan yinyue.
 I very like music
 ‘I like music.’
- b. 音樂，我很喜歡。
 Yinyue, wo hen xihuan __.
 music I very like
 ‘Music, I like.’

A second asymmetry found in LAC is the employment of separate strategies for forming subject and object relative clauses. Subject relatives are formed by adding the determiner *zhe* to the end of the clause containing a gap, as in (3a). According to Aldridge (2009; 2013a), *zhe* is a functional category in the DP layer that serves to bind the gap in [Spec, CP] and form a relative clause. In contrast, LAC relative clauses with VP-internal gaps are required to be nominalized, which is indicated by the fact that the subject is assigned genitive case. The relative pronoun *suo* also appears between the subject and the VP, as can be seen in (3b).

- (3) a. 欲戰者 (Zuozhuan, Cheng 6)
 [_{DP} [_{CP} __ yu zhan] zhe]
 desire fight DET
 ‘(those) who desire to fight’
- b. 人之所畏 (Laozi 20)
 [_{DP} [_{CP} ren zhi suo wei __]]
 person GEN OP fear
 ‘what people fear’

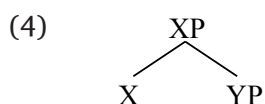
This paper proposes that the genitive marking on the embedded subject in (3b) plays a crucial role in allowing a relative clause to be formed on a VP-internal position. I propose that DPs undergoing movement in LAC must target case licensing positions. On the assumption that only one structural case feature is available per phase, there is only one such position in any given phase.² Consequently, movement of the subject to value nominative case generally blocks movement of other DPs into the C/TP layer. But in a non-subject relative clause, the subject can value genitive case with the external determiner. This allows the object to move into the C/TP layer, since it can now be licensed with structural

² See Takahashi (2010) for a related view of the relationship between case and phases as case being the factor that determines phasehood.

case in the edge of CP. The following section spells out the technical implementation of this proposal within Chomsky's (2013; 2015) Labeling theory. Sections 3 through 6 then show how the proposal accounts for subject/non-subject movement asymmetries in LAC.

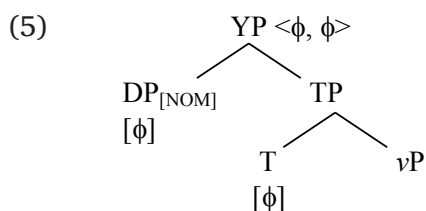
2 Proposal

Stated simply, the asymmetry between subject and non-subject movement in LAC can be accounted for by restricting landing sites for moving DPs to positions where structural case is available, as summarized in the preceding paragraph. It may seem surprising, however, that an object DP, which presumably has already valued accusative case, should need to be licensed again. I propose that this is because case valuation alone does not suffice to license an argument; arguments must also be located in positions where Labeling (in the sense of Chomsky 2013; 2015) can take place. In this section, I introduce the approach to Labeling adopted in this paper and lay out how this ensures that bare DPs in LAC can only move to case licensing positions. Chomsky (2013; 2015) proposes that the label of each syntactic object formed through Merge is determined by an algorithm which searches for the closest head within this constituent. When a head merges with a phrase, that head is closer than the one embedded in the phrase and consequently determines the label of the newly created syntactic object.



Among other things, this allows objects to remain in their base positions in VP and not move to a case-checking position in order to be licensed. They can obtain case under c-command and do not need to share a feature with their sister, i.e. the verb, in order for Labeling to take place.

But Labeling is a more complicated process when movement takes place. This is because movement creates a syntactic object consisting of two phrasal categories. For example, in the case of TP in English, T determines the label of the syntactic object formed by merging T with *v*P, since T is a head. But another mechanism is necessary to label the constituent formed when the subject merges with this TP. For languages like English that have agreement, Chomsky proposes that ϕ -feature sharing between the subject and its sister is the mechanism which labels this syntactic object.



In cases of *wh*-movement, it is the [Q] feature shared by C and the interrogative constituent that labels the clause. Note further that [Q] features also tend to be overtly marked in languages that have *wh*-movement, especially in languages allowing objects to move over subjects to [Spec, CP]. A good example is Tlingit, a language in which a Q-particle merges with an interrogative phrase and projects a QP, as analyzed by Cable (2010). Cable shows that QPs obligatorily move to the left periphery of the clause in Tlingit. I assume that sharing of the [Q] features on QP and C is what labels the clause. I also assume that the *wh*-component in English interrogative pronouns like *who* and *what* is the morphological instantiation of a [Q] feature.

- (6) *Tlingit* (Cable 2010: 24–5)
- a. [_{QP} Daa sá] kéet axá
 what Q killer.whale he.eats.it
 ‘What do killer whales eat?’
- b. Kéet axá [_{QP} daa sá]
 killer.whale he.eats.it what Q
 ‘A killer whale will eat anything.’
 *‘What do killer whales eat?’

Another type of marking which has been claimed to have consequences for Labeling is morphological case. For example, Japanese has case marking for both subjects and objects. Japanese is also a scrambling language, so although the basic word order is SOV, objects can also move to a position where they precede the subject, as in (7b).

- (7) *Japanese*
- a. Hanako = ga sarada = o tabe-ta.
 Hanako = NOM salad = ACC eat-PAST
 ‘Hanako ate the salad.’
- b. Sarada = o Hanako = ga tabe-ta.
 salad = ACC Hanako = NOM eat-PAST
 ‘Hanako ate the salad.’

Scrambling of the object over the subject poses a problem for the Labeling Algorithm, since it does not involve any obvious feature-sharing in the landing site. But a solution can be found in Saito’s (2016) proposal for the relationship between morphological case and the Labeling Algorithm. Saito proposes that morphological case has the opposite effect of features like [ϕ] or [Q] for the purposes of Labeling. He proposes that morphological case makes a DP invisible to the Labeling Algorithm, and this is what allows a scrambled DP to occupy a position where it does not share features with its sister.

Returning now to how movement is licensed in LAC, LAC is a language which lacks overt marking for [Q] and [ϕ], as well as nominative and accusative case. I propose that the lack of morphological reflexes for [Q] and [ϕ] makes these features unsuitable to serve as labels. However, case features can serve this purpose in a language that otherwise lacks morphological marking on nominal arguments.³ The intuition behind this proposal comes from the standard Generative assumption that DPs must be case licensed in all languages and in all clause types, i.e. the generalization underlying Chomsky’s (1981) Case Filter. Consequently, I take case feature checking to be the most basic and essential of feature checking operations. Additional conceptual undergirding for the proposal that case features can serve as labels in some languages comes from the common observation that languages lacking overt case marking tend to have rigid word order, while languages with morphological case allow scrambling. I propose that the relative inflexibility in the positioning of nominal arguments in languages lacking morphological case and agreement is a direct consequence of the role of case features in Labeling. Specifically, morphologically unmarked nominal arguments must occupy positions which make their grammatical

³ See also Saito (2016) for a proposal that case features can serve as labels, a proposal he makes for subjects in Malayalam. Like LAC, Malayalam is a language lacking subject/verb agreement. It also does not have overt nominative case marking. Saito proposes that the label of the projection hosting the subject in its specifier is determined as a result of nominative case feature sharing with the subject.

functions explicit, i.e. positions where their case features are valued. The connection with Labeling is most direct in the case of DPs occupying specifier positions, like the subject. Given that, in the absence of overt case marking, constituents occupying specifier positions must share features with their sisters in order for Labeling to take place, a case feature must be shared if the lack of morphological marking prevents other features from serving this purpose. Consequently, in the absence of other morphological marking, these DPs must occupy case licensing positions. I summarize this proposal in the generalization below.

(8) *Abstract Case and Labeling*

Case features are the only features lacking a morphological reflex that can serve as labels.

The proposal in (8) derives the LAC movement asymmetry in the following way. Put simply, the lack of morphological marking in LAC ensures that DPs in LAC can only occupy specifier positions if they are case licensed there, because only case features can serve as labels in the absence of morphological marking. Since the subject typically occupies the position for nominative case sharing, and there is only one case feature per phase, this means that no other DP can move into the C/TP layer as long as the subject needs to be case licensed there. However, if the subject is licensed independently of the case feature on C/T, then a non-subject DP is able to undergo movement into the CP phase edge. I propose that this happens in non-subject relative clauses, where the subject values genitive case under *c*-command with the external D head. Since the subject does not share the case feature on C, this feature remains available for sharing with a lower argument, thereby allowing a non-subject DP to move into the CP layer in the relative clause. The label for the node dominating the genitive subject, on the other hand, is not a consequence of feature sharing but is simply projected by the subject's sister node. This is because the overt genitive case marking on the subject DP makes it invisible to the Labeling Algorithm, as per Saito's (2016) proposal for the relationship between morphological case and Labeling.

As a consequence of this proposal, it appears that a moving object must value case twice, once with transitive *v* before movement and then again with C after movement. This would be problematic if we assumed the Activation Condition of Chomsky (2000; 2001). Since the case feature of the DP has already been valued by *v*, the DP should no longer be an active goal for case valuation. However, the Activation Condition has come under fire as an independent principle of syntax by Bošković (2007). Furthermore, many languages have been argued to allow multiple case valuation, including Niuean (Bejar & Massam 1999), Korean (Yoon 2004), Icelandic (Jónsson 2009), among others. Finally, my approach to the role of case features in Labeling in fact suggests a simple solution to the question of how DPs in languages like LAC can (and sometimes must) value case more than once. This is because the lack of morphological case marking means that the value of the case feature can only be determined positionally. Specifically, bare DPs within the VP are identified as having accusative case, while bare DPs outside of the VP have nominative case. As an extension of (8), then, it can be said that the value of the case feature of a bare DP occupying a specifier position is the case that the DP shares with its sister. Consequently, a bare DP moving to the C/TP layer can only occupy the position for nominative case. Given that abstract case features are valued by phase heads, this proposal can be stated in terms of a phase-based locality condition on case valuation.

(9) *Locality Condition on Abstract Case*

In the absence of a morphological reflex, the value of a DP's case feature is determined in the phase where the DP is spelled out.

(9) also accounts for the cross linguistic generalization that morphological case marking is a prerequisite for scrambling, as noted for Japanese above.⁴ The overt marking allows a moving object to retain its accusative case feature after moving into a higher phase. The case feature in turn allows the object to occupy a position where it does not share features with its sister without incurring problems for Labeling. But in languages like LAC which lack morphological nominative and accusative case, a moving DP must target a position where it can share features with its sister. Since, according to (8), case features are the only features which can be shared for this purpose in languages lacking morphological marking on nominals, DPs can only move to case licensing positions. And since abstract case values are determined positionally, the value of a DP's case feature will be set by the head of the phase where the DP is spelled out.⁵

In the following sections, I show how the proposal made above for the relationship between abstract case and Labeling accounts for several movement asymmetries in LAC. In section 3, I present my analysis of DP movement as licensed by case feature sharing and show how it accounts for the subject/object asymmetry in topicalization in LAC. Section 4 applies this analysis to *wh*-questions and focus movement and shows that these DPs likewise always target positions where they can be case licensed. In section 5, in preparation for the discussion of nominalized relative clauses, I demonstrate that LAC had a genitive case which was morphologically distinct from the unmarked nominative and accusative cases. Section 6 builds on the existence of morphological genitive case to show how the assignment of this case to an embedded subject allows objects to move to the left periphery in order to form a relative clause.

3 Object topicalization

In this section, I propose an analysis of object topicalization in LAC and show that this is not derived through movement of the topic over the subject. Rather, the topic is base generated in the left periphery and resumed by a pronoun in the clause. I propose that this is because DPs in LAC can only move to positions where they can share a case feature with their sister. Given that there is only one case feature available per phase, then only one DP can be licensed in a movement landing site in any given phase.

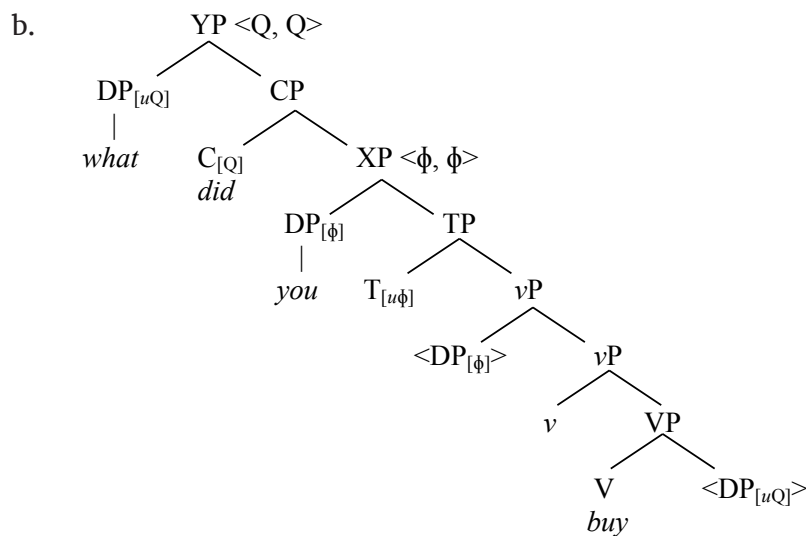
To begin, I spell out how subjects are licensed in LAC. The first point to establish is the position where the subject is licensed. I propose that this is typically [Spec, CP] in LAC rather than [Spec, TP] due to the lack of C-T Inheritance. In the framework of C-T Inheritance (Chomsky 2008), the features responsible for licensing nominative arguments are not inherent to T but rather are inherited by T from C. In particular, C passes [$u\phi$] to T, which licenses the subject and attracts it to the [Spec, TP] subject position. The shared [ϕ] also serves as the label of the newly formed projection. According to

⁴ Languages like Turkish make this connection even clearer, since objects within VP need not be overtly case marked, while accusative case marking is obligatory if an object undergoes dislocation (Kornfilt 1984; 2003; Runner 1993; Cagri 2005; and others).

⁵ It may be wondered how objects are able to move from vP without losing their case features in languages like English, which also lack overt marking for nominative and accusative case. I assume that the difference between languages like English and languages like LAC is in the presence or absence of agreement. Since only the subject triggers agreement on the predicate in English, the two grammatical functions are still distinguished morphologically, so English does not completely lack morphological marking which identifies case.

Chomsky (2013; 2015), trace positions do not count for the purposes of Labeling, so the subject's base position in vP is ignored by the Labeling Algorithm. v projects the label for the syntactic object dominating itself and the VP. For clarity, I continue to indicate the base position of the subject and mark this entire projection as vP . If C has a feature driving A'-movement like [Q], this is retained by C, allowing movement over the subject in [Spec, TP] if the clause contains an XP with a matching [uQ] feature, as in cases of object *wh*-movement. The top-most projection of the clause is then labeled by the [Q] feature.

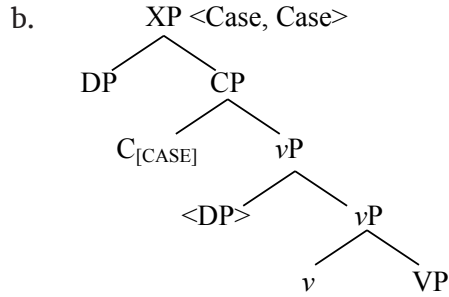
(10) a. What did you buy?



I follow Richards (2007; 2012) in assuming that C-T Inheritance need not be stipulated but takes place if it is forced. Richards proposes that C-T Inheritance is forced in English because the probe attracting the subject has an unvalued feature which must be spelled out and deleted as soon as it is valued. The reason is to ensure that newly valued features are not transferred to the C-I (Conceptual-Intentional) Interface. If a newly valued feature were not deleted immediately upon valuation, it would be indistinguishable from valued and interpretable features and consequently would be incorrectly transferred to the C-I Interface.

But in languages like Chinese that do not have agreement, there is no reason to assume that C enters the derivation with an unvalued [ϕ] feature. I propose instead that DPs are licensed by checking a case feature, which does not seek a value and consequently does not need to be inherited by T. This allows the subject to move directly to [Spec, CP]. See Ouali (2006), Goto (2011), Legate (2014), Gallego (2014), Aldridge (2017; 2018), Erlewine (2018), and others for proposals that C-T Inheritance is obviated under certain conditions. Therefore, I propose that the subject moves to [Spec, CP] to check the case feature there, and sharing of this feature between the subject and C is what serves to license the subject and label the CP.

(11) a. 我受其名。 (Zuozhuan, Zhao 26)
 Wo shou qi ming.
 1 receive 3.GEN reputation
 'I will receive this bad reputation.'



Evidence for the high position of the subject comes from the following contrast between referential and interrogative subjects. A referential subject precedes a high adverb like the modal marker *qi*, as in (12a), while the non-referential subject follows the same adverb, as in (12b). In section 4.1, I propose that C-T Inheritance does take place in subject *wh*-questions, triggered by the presence of an uninterpretable focus feature. Inheritance also serves to place the subject in the scope of the [Q] feature on C so it can receive an interrogative interpretation.

- (12) a. 民其謂我何？ (Zuozhuan, Huan 6)
 Min qi wei wo he?
 people MOD speak 1 what
 ‘What will the people say of me?’
- b. 一國兩君，其誰堪之？ (Zuozhuan, Zhao 7)
 Yi guo liang jun, qi shei kan zhi?
 one nation two ruler then who tolerate 3
 ‘If the nation had two rulers, who would tolerate this?’

The approach to nominal licensing based on Labeling receives support from the asymmetrical behavior exhibited by internal and external argument subjects in terms of their possible surface positions. External argument subjects are required to surface in preverbal position even when they are indefinite. I assume that the movement is obligatory because the subject does not share a feature with its sister *vP* in its base position and therefore cannot undergo Labeling with it. Consequently, the subject must move to [Spec, CP] where it can share a case feature.

- (13) a. 溫人之周。 (Hanfeizi 22)
 Wen ren zhi Zhou.
 Wen person go Zhou
 ‘A person of Wen went to the Zhou capital.’
- b. 人問其故。 (Zuozhuan, Huan 6)
 Ren wen qi gu.
 person ask 3.GEN reason
 ‘Someone asked the reason.’

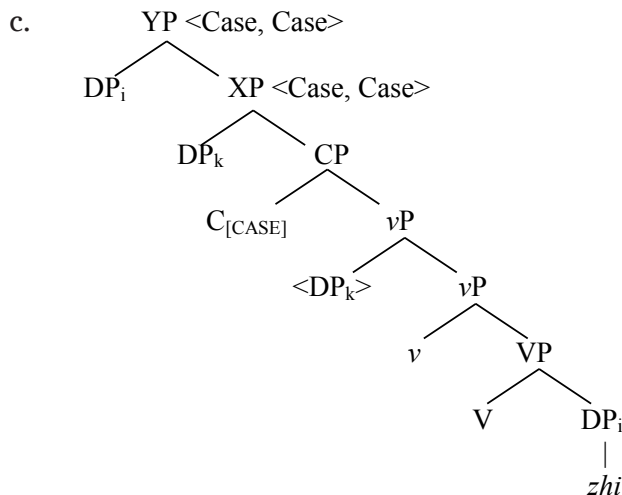
In contrast, indefinite internal argument subjects, like pivots of existential verbs, do not move to [Spec, CP]. Like objects in transitive clauses, these are sister to the verb, and since the verb is a head, it can project a label without sharing features with its sister. Objects and indefinite theme subjects can therefore value case under c-command with *v* or C and do not need to occupy a case position in order for Labeling to take place. An anonymous reviewer asks why indefinite theme arguments do not – in fact cannot – move out of VP to

value case. I assume that this is because they must be in the scope of the existential verb in order for their existence to be asserted. In other words, they must be interpreted within the domain of Existential Closure (Diesing 1992).

- (14) 有出者，有居者。 (Zuozhuan, Xiang 26)
 You chu zhe, you ju zhe.
 exist leave DET exist stay DET
 ‘There were those who left and those who remained.’

Turning now to LAC topicalization, objects do not move to the left periphery; a topic is base generated in clause-initial position and resumed by a pronoun within the clause. I propose that this is because DP movement is licensed by case feature sharing in the landing site. Since the subject must be licensed by the case feature on C/T, the object is unable to move into this phase. Consequently, an object topic can only be base generated in the left periphery and resumed by a pronoun in VP.

- (15) a. 是二氏者，吾亦聞之。 (Zuozhuan, Zhao 29)
 [Shi er shi zhe]_i wu yi wen zhi_i.
 DEM two clan DET 1 also hear 3
 ‘As for these two clans, I have also heard of them.’
- b. 彌與紇，吾皆愛之。 (Zuozhuan, Xiang 23)
 [Mi yu He]_i wu jie ai zhi_i.
 Mi and He 1 all love 3
 ‘As for Mi and He, I love both of them.’



However, the presence of a base generated topic in the left periphery introduces a problem for my analysis of movement and DP licensing, given my proposal that only one DP can only undergo Labeling by sharing its case feature with C. Since the subject shares its case feature with C in order to value nominative case, the topic necessarily occupies a position where it cannot undergo Labeling with its sister. I propose that this problem is solved by coindexation with the resumptive pronoun in VP. This allows the topic to be identified with an argument position in the clause. I suggest that this coindexation then serves the same purpose as morphological case-marking on Saito’s (2016) analysis of Labeling. Specifically, these topics are also invisible to the Labeling Algorithm, so the <Case, Case> label is projected from the lower XP projection.

Evidence that the topic is base generated in its surface position comes from the fact that the resumptive pronoun can surface inside islands. (16a) shows the resumptive pronoun as a possessor in the object DP. In (16b), the pronoun is the subject inside a relative clause. Incidentally, embedded subjects are also unable to be topicalized over the matrix subject. (16c) shows that such a topic must also be resumed by a pronoun in embedded subject position. Note that the embedded clause in (16c) is nominalized, so the subject has genitive case.

- (16) a. 大夫逆於竟者，執其手而與之言。 (Zuozhuan, Xiang 26)
 [Dafu ni yu jing zhe]_i e_k zhi qi_i
 officer arrive at border DET take 3.GEN
 shou er yu zhi_i yan.
 hand CONJ with 3 speak
 ‘[A feudal officer who arrived at the border]_i, (he_k) took his_i hand and spoke with him_i.’
- b. 未始有別者，其所謂是未嘗是。 (Lü Shi Chunqiu 1.3)
 [Wei shi you bie zhe]_i qi_i
 not.yet begin have distinction DET 3.GEN
 suo wei shi wei chang shi.
 OP say right not.yet ever right
 ‘People who have never made distinctions, what they say is right has never been right.’
- c. 萬鍾之祿，吾知其富於屠羊之利也。 (Zhuangzi 3.6)
 [Wan zhong zhi lu]_i wu zhi qi_i
 10,000 zhong GEN salary 1 know 3.GEN
 fu yu tu yang zhi li ye.
 rich than butcher sheep GEN profit COP
 ‘A salary of 10,000 zhong, I know that it is more valuable than the profit of a sheep butcher.’

I assume that LAC base generated topics are parallel to hanging topics in languages like Italian, which have been argued to be base generated in their surface positions rather than being moved from inside the clause (Cinque 1977; 1990; Benincà & Poletto 2004; Frascarelli 2000; 2004; and others). Base generated topics in Italian, unlike moved topics, must be resumed by a pronoun, are not subject to island constraints, and do not show connectivity effects with other elements in the clause. The hanging topic in (17a) is resumed by a clitic pronoun. It also surfaces as a bare DP without the preposition that would be required if the argument surfaced within the TP. The left dislocated topic in (17b) must have the preposition, and the clitic pronoun is optional. The obligatoriness of overt marking of the moved DP – especially in the absence of resumption – may also be related to Labeling, since the preposition helps to identify the moved object in the same way that case marking does in Japanese.⁶

⁶ This proposal also extends naturally to languages in which hanging topics are marked with “default” case (Schütze 2001). Schütze cites Grohmann (2000) in showing that German (like Italian) has both left dislocated topics and base generated hanging topics. However, topics in German are case marked, in addition to being resumed by pronouns. What is interesting in regard to my proposal is that, while left dislocated topics must match the case of their resumptive pronouns, hanging topics allow case mismatches. Schütze proposes that hanging topics are not assigned case in the syntax; rather, they are spelled out with that language’s default morphological case form post syntactically. Thus, even though these topics are ultimately marked with a morphological case, this case is not present in the syntax, so it is not relevant for Labeling. Thus, coindexation with the resumptive pronoun must be the mechanism that makes the topic invisible to the Labeling Algorithm.

- (17) *Italian* (Benincà & Poletto 2004: 64)
- a. Mario, non ne parla più nessuno.
Mario not of-him talks anymore nobody
'Mario, nobody talks of him anymore.'
- b. Di Mario, non (ne) parla più nessuno.
of Mario not of-him talks anymore nobody
'Of Mario, nobody talks of him anymore.'

My proposal that coindexation between a base generated topic and a resumptive pronoun makes the topic invisible to the LA in the same way as overt case marking does in Saito's analysis can also be extended to bare adjoined arguments identified with grammatical functions in so-called "pronominal argument" languages (Jelinek 1984). Nominal phrases denoting subjects and objects in such languages are not case marked and also do not occupy designated positions in the clause. According to Baker (1996), they are adjoined in positions in the periphery of the clause and licensed through coindexation with pronominal agreement markers base generated in argument positions within the clause.

- (18) *Mohawk* (Baker 1996: 130)
- a. Sak rake-núhwe'-s.
Sak MASC.SG.SUBJ/1SG.OBJ-like-HAB
'Sak likes me.'
- b. Sak ri-núhwe'-s.
Sak 1SG.SUBJ/MASC.SG.OBJ-like-HAB
'I like Sak.'

Such languages are difficult to account for in the approaches to Labeling put forth by Chomsky (2013; 2015) and Saito (2016). Specifically, since referential nominals do not occupy fixed positions in the clause but are rather adjoined, it cannot be assumed that they move to specific licensing positions where they share features with their sisters. And since they are not overtly case marked, Saito's analysis does not allow them to be ignored by the Labeling Algorithm. So I propose that the coindexation between the referential nominal and the pronominal agreement marker serves the same function as morphological case marking. Given this function, an extension of Saito's analysis allows them to be invisible to the Labeling Algorithm. In the same way, I propose that topics adjoined to CP in LAC can also be identified with argument positions in the clause via coindexation and that this coindexation makes them invisible to the Labeling Algorithm.

The lack of topic movement in LAC may also be related to the lack of null object pronouns. Although LAC is a null subject language, null objects are not allowed, even in the absence of an overt topic in the left periphery of the clause. The subject in the answer in (19) is null, but the object is an overt pronoun.

- (19) Q: 君饋之粟，則受之乎？
Jun kui zhi su, ze _ shou zhi hu?
lord give 3 grain then (he) receive 3 Q
'If his lord gives him grain, then should (he) take it?'
- A: 受之。
_ shou zhi.
(he) receive 3
'Yes, (he) should.'
- (Mencius 10)

On one view of null pronominalization in Chinese, this asymmetry can be attributed to the lack of movement derived topicalization in LAC. In contrast to LAC, modern Mandarin allows both null subjects and null objects. Huang (1984) proposes that null subjects and objects have a different status, which can be seen by their distribution in embedded clauses. A null embedded subject can refer to the matrix subject, but this is not possible for a null object, as shown in (20a) and (20b), respectively. Huang further shows that if a topic appears to the left of the matrix subject, the null embedded object naturally refers to this topic, as can be seen in (20c).

(20) *Mandarin*

- a. Huang (1984: 537)
 張三說不認識李四。
 Zhangsan_i shuo [___{i/k} bu renshi Lisi].
 Zhangsan say not know Lisi
 ‘Zhangsan said that (he) did not know Lisi.’
- b. Huang (1984: 537)
 張三說李四不認識。
 Zhangsan_i shuo [Lisi bu renshi ___{k/*i}].
 Zhangsan say Lisi not know
 ‘Zhangsan said that Lisi did not know (him).’
- c. Huang (1984: 542)
 那個人，張三說李四不認識。
 Neige ren_k Zhangsan_i shuo [Lisi bu renshi ___{k/*i}].
 that man Zhangsan say Lisi not know
 ‘That man, Zhangsan said that Lisi did not know (him).’

Huang (1984) concludes that while null subjects can be analyzed as *pro*, null categories in object position are traces of moved topics. This same analysis can be extended to LAC. The difference between LAC and modern Mandarin is that the variable in object position in LAC cannot be a null category, because LAC does not permit topic movement of an object over the subject. Instead, the resumptive pronoun functions as the variable in object position.

Though accounting for diachronic change is beyond the scope of the current paper, a note is in order regarding the fact that Modern Mandarin differs from LAC in allowing topic movement over the subject, as shown in section 1.

(21) *Mandarin* (Huang et al. 2009: 199)

- a. 我很喜歡音樂。
 Wo hen xihuan yinyue.
 I very like music
 ‘I like music.’
- b. 音樂，我很喜歡。
 Yinyue, wo hen xihuan __.
 music I very like
 ‘Music, I like.’

My approach to Labeling does not immediately predict this to be possible, since there is no obvious morphological marking on topics in Modern Mandarin. However, there is

evidence that a topic feature may participate in Labeling in Modern Mandarin. Although LAC allows indefinite subjects in clause-initial position, as shown in (13) above, Modern Mandarin does not. As in LAC, an indefinite unaccusative subject whose existence is being asserted remains in its base position in VP, as in (22a). But if the subject moves to preverbal position, it must be interpreted as definite or generic, as indicated by the translation of (22b).

(22) *Mandarin* (Zeng 2009: 319)

- a. 來電報了。
Lai dianbao le.
come telegram ASP
'A telegram arrived.'
- b. 電報來了。
Dianbao lai le.
telegram come ASP
'The telegram arrived.'

I suggest here that a change may have taken place after the LAC period, which resulted in the addition of a definiteness feature to the case feature responsible for DP movement. I propose that, although a topic feature by itself is insufficient for the purposes of Labeling, the combination of these two features does provide sufficient identification to allow two DPs to undergo Labeling in the C/TP layer.⁷

In this section, I showed how the lack of object topicalization over the subject in LAC can be accounted for by positing that DP movement in LAC was licensed solely by sharing of a case feature. In the next section, I show how this proposal accounts for movement in *wh*-questions and focus constructions. In particular, although objects can be dislocated, they always target DP licensing positions within the *v*P phase.

4 Short object movement

In the previous section, I proposed that DP movement in LAC is licensed by case feature sharing. As a result, only the subject is able to move to the C/TP layer when it values nominative case, thereby preventing objects from undergoing movement to a topic position in the left periphery. Non-subject topics can only be base generated there and coindexed with a pronoun in the clause.

In this section, I discuss movement of interrogative and focused constituents and show that this movement likewise is licensed by case feature sharing. Consequently, interrogative and focused objects cannot move into the CP phase, but can only target the edge of *v*P, where they can share a case feature with *v*.

4.1 *Wh*-questions

First, I examine *wh*-questions. Modern Sinitic languages are all *wh*-in-situ and do not have movement of *wh*-phrases to [Spec, CP].

⁷ Erlewine (2018) proposes a similar analysis for multiple DP movements in Toba Batak. Toba Batak, like many other Austronesian languages, historically exhibited strict locality among DPs in dislocation. Just as in LAC, an object could not move over a subject with nominative case. However, the subject/object movement asymmetry breaks down when both of these have a discourse-related feature like focus. Erlewine proposes that a probe consisting of both [D] and [FOC] components can probe twice, moving first the subject and then the object.

- (23) *Mandarin*
 你買了甚麼？
 Ni mai-le **sheme**?
 you buy-ASP what
 ‘What did you buy?’

However, a type of *wh*-movement can clearly be observed in LAC. VP-internal interrogative phrases move to a position preceding the verb but following the subject.

- (24) a. 吾誰欺？欺天乎？ (Analects 9)
 Wu **shei** [_{VP} qi t_{shei}]? Qi tian hu?
 I who deceive deceive Heaven Q
 ‘Who do I deceive? Do I deceive Heaven?’
- b. 天下之父歸之，其子焉往？ (Mencius 7)
 Tianxia zhi fu gui zhi, qi zi **yan** [_{VP} wang t_{yan}]?
 world GEN father settle here 3.GEN son where go
 ‘If the fathers of the world settled here, where would their sons go?’

It can also be demonstrated that the object *wh*-landing site is not in the C/TP layer. Object *wh*-phrases clearly target a different position from subject *wh*-phrases. Subject *wh*-phrases move to a position preceding the temporal adverb *jiang* ‘will’, as in (25a), and the focus adverb *du* ‘alone’, as in (25b).

- (25) a. 誰將治之？ (Yanzi Chunqui, Neipian Jianshang13)
 Shei **jiang** zhi zhi?
 who will govern 3
 ‘Who will govern them?’
- b. 誰獨且無師乎？ (Zhuangzi 1.2)
 Shei **du** qie wu shi hu?
 who alone then not.have standard Q
 ‘Who alone, then, does not have standards?’

In contrast, object *wh*-phrases follow these adverbs.

- (26) a. 我將何求？ (Zuozhuan, Xi 28)
 Wo **jiang** he qiu?
 1 will what ask.for
 ‘What will we ask for?’
- b. 先生獨何以說吾君乎？ (Zhuangzi 2.11)
 Xiansheng **du** he yi yue wu jun hu?
 sir (you) alone what with please 1 lord Q
 ‘How were you alone able to please my lord?’

Interestingly, adjunct *wh*-words are able to precede such adverbs, which is straightforwardly accounted for if object *wh*-movement is related to case. Objects can only move to positions where they can share a case feature, so they cannot move into the C/TP layer, given that the subject shares the case there. But adjuncts do not need to be licensed in this way, so they can occupy the CP phase freely.

- (27) a. 我奚獨不可以然？ (Mozi 45)
 Wo xi **du** bu ke yi ran?
 I why alone not can consider correct
 ‘Why am I alone not capable of being considered correct?’
- b. 何必罪居者？ (Guoyu, Jin 4)
 He **bi** zui ju zhe?
 what necessarily blame reside DET
 ‘Why must (one) blame the residents?’

Finally, though subject interrogative pronouns move to a position which is higher than the landing site of object *wh*-movement, the subject landing site is also clearly not [Spec, CP], as I pointed out in section 3. These subjects follow not only topics but also certain adverbs, like the modal adverb *qi*. Note that the topics in clause-initial position in (28a–b) are semantically related to the interrogative pronouns in subject position, specifying the sets over which the interrogative pronouns quantify. I therefore assume that the topics are coindexed with the *wh*-words, which makes the topics invisible to the Labeling Algorithm.⁸

- (28) a. 人誰不死？ (Zuozhuan, Zhao 2)
 Ren_i shei_i bu si?
 person who not die
 ‘As for people, who does not die?’
- b. 晉大夫其誰先亡？ (Zuozhuan, Xiang 14)
 [Jin dafu]_i qi shei_i xian wang?
 Jin official MOD who first ruin
 ‘(Of) the Jin officials, who would be the first to be ruined?’

As observed in section 3, subjects with presupposed reference must precede such adverbs like *qi*.

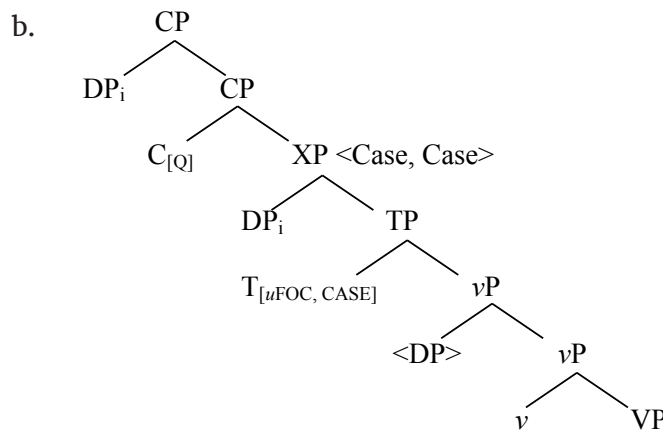
- (29) 民其謂我何？ (Zuozhuan, Huan 6)
 Min qi wei wo he?
 people MOD speak 1 what
 ‘What will the people say of me?’

The asymmetry between subject and object *wh*-positions is easily accounted for if subjects move to the C/TP layer, while objects remain in the *v*P. I first present the analysis of subject *wh*-questions. As noted above, the subject clearly does not occupy [Spec, CP] when it is a *wh*-word. I propose that this is because C-T Inheritance has taken place, and this is a consequence of the nature of the feature motivating the movement. Specifically, I propose that *wh*-movement is triggered by an uninterpretable focus feature. I follow Aldridge

⁸ An anonymous reviewer asks whether topics can be resumed by pronouns in subject position. This is generally not possible, and I assume that this is because subjects can move directly to the left periphery, where they can be interpreted as topics, as I proposed in section 3. Therefore, resumption is not necessary with subject topics. However, a topic can be coindexed with an overt subject which is focused in [Spec, TP], as in (28). I assume that a focused subject can (and must) be overtly realized in [Spec, TP] because this is where its focus feature is checked. The difference in the information status of the topic and the focused subject, then, allows the two to co-occur in a single clause, one as a topic and the other in the focus position in [Spec, TP].

(2018) in proposing that if a phase head enters the derivation with both an interpretable and uninterpretable feature, the uninterpretable feature is inherited by a lower head.⁹ This is because uninterpretable features act as probes and begin seeking goals to agree with as soon as they enter the derivation, as per standard assumptions since Chomsky (1993). Consequently, movement driven by uninterpretable probes will target positions lower than phase heads with interpretable features like [Q]. In the following example, C is merged with an interpretable [Q] feature and an uninterpretable [uFOC] feature, in addition to the case feature required to license the subject. The [Q] feature is retained on C, while [uFOC] is inherited by T. As an interrogative pronoun, the subject has an interpretable [FOC] feature, so it must move to [Spec, TP] in order to check the [uFOC] feature there. However, the subject must also be able to value case in its landing site. This is because nominative case does not have a morphological reflex in LAC, so the subject must be able to share its case feature with its sister in order for the case to be valued. Therefore, I propose that the case feature must also be inherited by T [uFOC] so the subject can be licensed. A topic, if present, is adjoined to CP, as proposed for topics in section 3.

- (30) a. 晉大夫其誰先亡？ (Zuozhuan, Xiang 14)
 Jin dafu qi shei xian wang?
 Jin official MOD who first ruin
 ‘(Of) the Jin officials, who would be the first to be ruined?’



As for why the focus feature itself is unable to label the TP, I propose that this is because of the lack of morphological marking for this feature. Consequently, the focus feature must be bundled together with the case feature in order to license *wh*-movement of a DP.

LAC also lacks evidence that [Q] features can be shared for the purposes of Labeling. Consequently, *wh*-subjects do not move to [Spec, CP] to check the [Q] feature there. Initial evidence comes from reconstructions of Old Chinese interrogative pronouns. Wang (1958) reconstructs Old Chinese interrogative pronouns as belonging to three distinct classes. The *wh*-words in (31a), beginning with the consonant [ʃ-], are claimed to refer to persons. Those in (31b), with the initial consonant [ɣ-], are claimed to refer to things. And those in (31c), which lack a consonantal onset, are claimed to refer to locations. The italicized transcriptions are the pronunciations of these words in modern Mandarin.

⁹ This analysis builds on Richards’ (2007; 2012) proposal that unvalued features must be spelled out in the domain of the phase head. Aldridge (2018) proposes that uninterpretable features which do not seek a value are also inherited under certain circumstances, though they need not be spelled out in the domain of the phase. This is because the feature is checked and deleted in the Syntactic Component, so it can remain in the derivation until the next phase without transferring an uninterpretable feature to the Interfaces.

Consequently, LAC seems then to divide interrogative pronouns into subclasses on the basis of lexical category, possibly [D], [N], and [P], respectively, rather than identifying all of these pronouns morphologically as interrogative.¹⁰

- (31) *Old Chinese interrogative pronoun reconstructions* (Wang 1958)
- a. [ʒ-] series: 誰 *shei* [*ʒǐwəi] ‘who’, 孰 *shu* [*ʒǐwəuk] ‘which’
 - b. [ɣ-] series: 何 *he* [*ɣa] ‘what’, 奚 *xi* [*ɣǐe] ‘what’
 - c. [0-] series: 惡 *wu* [*a] ‘where’, 安 *an* [*an] ‘where’, 焉 *yan* [*ʔian] ‘where’

Additional evidence that LAC interrogative pronouns specifically lack [Q] features comes from Aldridge’s (2010) observation that these pronouns are not found only in interrogative contexts but are indefinites, whose interpretation varies according to other conditions in the clause. This is also true for Modern Mandarin. As demonstrated by Cheng (1991), Li (1992), Aoun & Li (1993; 2003), Tsai (1994), Lin (1998; 2004), among many others, the interpretation of *wh*-indefinites in Modern Mandarin is determined by being in the scope of an operator. The pronoun *shenme* receives the interrogative interpretation ‘what’ when it is c-commanded by an interrogative operator in the CP layer, as in (32a). In the scope of negation, the same pronoun is interpreted as a negative polarity item, as in (32b). And in a conditional clause, the pronoun becomes an indefinite, as in (32c).

- (32) *Mandarin*
- a. 你買了甚麼？
Ni mai-le **sheme**?
you buy-PFV what
‘What did you buy?’
 - b. 我沒買甚麼。
Wo mei you mai **sheme**.
I not have buy what
‘I did not buy anything.’
 - c. 要是誰欺負你，就跟我說！
Yaoshi **shei** qifu ni, jiu gen wo shuo!
if who bully you then with me say
‘If *someone* bullies you, let me know.’

The same is true in LAC. If an interrogative pronoun surfaces in the scope of negation, it receives a negative polarity interpretation, as in (33a), and in a conditional clause like (33b) it has an indefinite interpretation.

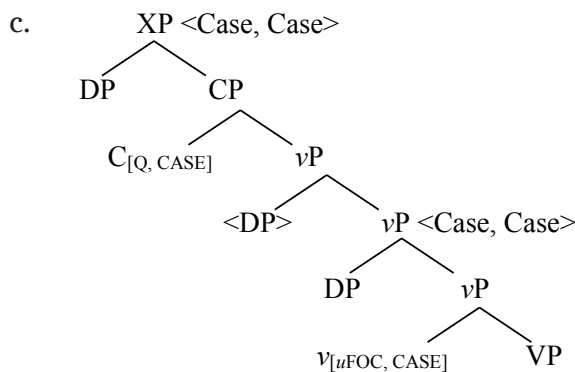
- (33) a. 何不樹之於無何有之鄉？ (Zhuangzi 1.1)
He bu shu zhi yu [wu he you zhi xiang]?
why not plant it in not.exist what exist GEN place
‘Why don’t you plant it in a place where there isn’t *anything*.’
- b. 誰之不如，可以求之。 (Guoyu, Jin 6)
[Shei zhi bu ru], keyi qiu zhi.
who GEN not compare can follow 3
‘If you don’t measure up to *someone*, you can follow him.’

¹⁰ See also Aldridge (2017) for a similar proposal that Tagalog lacks [Q] features and that movement of DPs is licensed entirely by case or a [D] feature. Also similar to LAC, Tagalog exhibits strict locality among DPs in all types of movement.

Further evidence that a *wh*-word does not undergo movement in order to check a [Q] feature comes from object *wh*-words, since these move only as far as a clause-medial position, which is clearly not the scope position in the CP layer. A final argument comes from focus constructions involving referential subjects. As I show in the following subsection, these also move to [Spec, TP], so it is reasonable to assume that both focus and *wh*-movement involve checking of a focus feature, though this feature cannot label the landing site due to the lack of morphological marking.

Turning now to object *wh*-questions, Aldridge (2010) proposes that this movement targets the edge of *vP*, below the surface position of the subject and the position of temporal adverbs, as in (34a). The clause-medial landing site is straightforwardly accounted for on my analysis. On the assumption that *v* is the source of accusative case, movement of a DP to the edge of *vP* allows the object to occupy a position where it is licensed. As in the case of subject *wh*-movement, I assume that movement of object interrogative pronouns is likewise licensed by a combination of case and [*u*FOC] features. However, Inheritance need not take place in this case, since the *v* does not have any other features, so the focus feature can be checked in the edge of the *vP* phase.¹¹ Inheritance likewise does not take place in the CP layer, as evidenced by the high position of the referential subject, which precedes the modal *qi* in (34b). This is predicted by my analysis, since the focus feature is merged on *v* and not in the CP layer. Consequently, I assume that the subject moves to [Spec, CP], as it does in declarative clauses.

- (34) a. 我將何求？ (Zuozhuan, Xi 28)
 Wo **jiang** he qiu?
 1 will what ask.for
 ‘What will we ask for?’
- b. 禍將作矣，吾其何得？ (Zuozhuan, Xiang 28)
 Huo jiang zuo yi, wu **qi** he de?
 disaster will occur ASP 1 MOD what obtain
 ‘Disaster is in the making. What would we gain?’



The proposal that a case feature is also part of the motivation for object *wh*-movement comes from examples like the following, which show the existence of strict locality in the movement of *vP*-internal DPs. When the VP contains two objects, as in (35a, b), and an interrogative pronoun is the lower of the two, then the pronoun is unable to front. I take this as evidence that movement to the edge of *vP* is also mediated by a case feature, since

¹¹ Note that Inheritance is also not forced by Richards’ (2007; 2012) proposal that newly valued features must be spelled immediately. [*u*FOC] is uninterpretable but it does not seek a value.

the lower object is not able to move over the higher one.¹² Movement in ECM/raising-to-object constructions illustrates the same point, as shown in (35c). The embedded subject can move to the ν P layer in the matrix clause. But I have found no examples in which an object *wh*-word moves from an embedded clause over the embedded subject.

- (35) a. 國謂君何? (Zuozhuan, Xi 15)
 Guo [wei jun he]?
 nation call lord what
 ‘How does the nation speak of our lord?’
- b. 先后其謂我何? (Zuozhuan, Xi 24)
 Xian hou qi [wei wo he]?
 father mother MOD call me what
 ‘How will my father and mother (lit. the former king and queen) speak of me?’
- c. 若子死，將誰使代子? (Hanfeizi 22)
 Ruo zi si, jiang [_{ν P} shei ... [_{ν} [_{uFOC}] shi [_{TP} t_{shei} dai zi]]]?
 if you die will who make replace you
 ‘If you die, then who shall (I) have replace you?’

In this subsection, I accounted for the asymmetry between subject and object *wh*-movement by showing that each of these movements targets a different phase. This is accounted for if DP movement is licensed by a case feature. Consequently, only one DP can move into a given phase, subjects moving to the C/TP layer and objects remaining within the ν P. In the next subsection, I show that focused referential objects also undergo movement but likewise do not vacate the ν P phase.

4.2 Focus constructions

In LAC identificational focus constructions, the focused constituent undergoes movement to a position following a copula, either the affirmative focus copula *wei* ‘be only’ or the negative copula *fei* ‘not be’. For subjects, this position is in the C/TP layer, but focused objects remain in the ν P, moving to a position where they can value case. I first examine subject focus constructions and then contrast them with object focus constructions.

The following examples show that a focused subject can appear in clause-initial position or be preceded by a topic, as in (36a). The topic in (36a) is construed with the subject. It specifies the set of alternatives that the focused subject is contrasted with.¹³ The focused subject in (36b) precedes a modal auxiliary, and the focused subject in (36c) precedes a marker of negation.

¹² An anonymous reviewer asks how Labeling takes place within a VP containing two internal arguments like (35a, b). The potential problem is that if both objects are located in the VP, then the higher object occupies a specifier position where it does not share features with its sister. However, this problem disappears if the two objects are base generated in a “low” applicative phrase (along the lines of Pykkänen 2002). The theme object is then labeled together with the Appl head, while the goal can move from the specifier of ApplP to a case position internal to ν P, as I propose for focused objects in the next subsection. The reader is referred to Paul & Whitman (2010) for an applicative-based approach to double object constructions in Modern Mandarin. I save detailed investigation of this construction in LAC for future research.

¹³ It may be wondered how this topic does not introduce a problem for the Labeling Algorithm, since both the topic and the subject are referential DPs. I suggest that coindexation between the topic and subject still obtains in examples like this because of the semantic relationship between them. According to Li and Thompson (1981), a topic can be construed with the subject in Chinese if the two are in a “part-whole” relation. In other words, the topic denotes a superset of which the subject expresses a subset. Since the two are construed with a single set of referents, I assume that they can be coindexed.

- (36) a. 諸侯唯我事晉。 (Zuozhuan, Ding 6)
 Zhuhou **wei** wo shi Jin.
 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。 (Analects 4)
 Wei ren zhe **neng** hao ren, **neng** wu ren.
 only.be virtuous DET can like person can dislike person
 ‘Only one who is virtuous is capable of liking someone or disliking someone.’
- c. 鄭人皆喜，唯子產不順。 (Zuozhuan, Xiang 8)
 Zheng ren jie xi, wei Zichan **bu** shun.
 Zheng person all glad only.be Zichan not agree
 ‘The people of Zheng were all glad; only Zichan disagreed.’

Turning to object focus constructions, there are two characteristics which distinguish these from subject focus constructions. First, the focused object must be overtly marked. In (37a), the object is followed by the particle *zhi*, and in (37b) it is followed by the pronoun *shi*.

- (37) a. 吾唯子之怨。 (Zuozhuan, Wen 7)
 Wu wei zi **zhi** yuan __.
 I be.only you GEN resent
 ‘I will resent only you.’
- b. 今王非越是圖。 (Guoyu 19; from Meisterernst 2010: 79)
 Jin wang fei Yue **shi** tu __.
 now king not.be Yue DEM plan
 ‘Now, it is not Yue that the king is concerned with.’

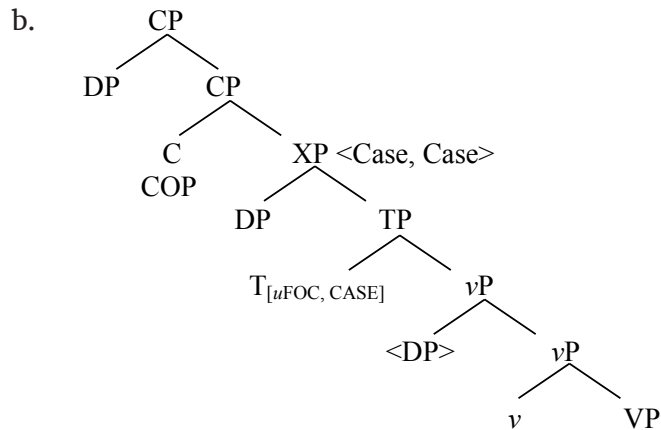
The second fact is that an object focused with a copula immediately precedes the verb. As observed by Meisterernst (2010), neither negation nor a modal can intervene between the focused object and the verb. (38a) shows that the copula in the object focus construction can be preceded by both negation and the temporal adverb *jiang* ‘will’. Note that the subject is also marked as a topic with the particle 也 *ye*, which is optional but not required for grammaticality. As can be seen in (38b), subjects always precede the adverb *jiang*, even when they are focused. Clearly, then, focused objects occupy a lower position than focused subjects, and this position is deeply embedded inside the *vP* phase.

- (38) a. 是夫也，將不唯衛國之敗，其必始於未亡人。 (Zuozhuan, Cheng 14)
 Shi fu ye, **jiang** bu wei Wei Guo zhi bai, qi bi shi
 this man TOP will not only Wei nation GEN ruin MOD certainly begin
 yu wei wang ren.
 with not.yet dead person
 ‘As for this man, he will ruin not only the nation of Wei but will begin with me, the widow of his father.’
- b. 誰將治之？ (Yanzi Chunqui, Neipian Jianshang13)
 Shei **jiang** zhi zhi?
 who will govern them
 ‘Who will govern them?’

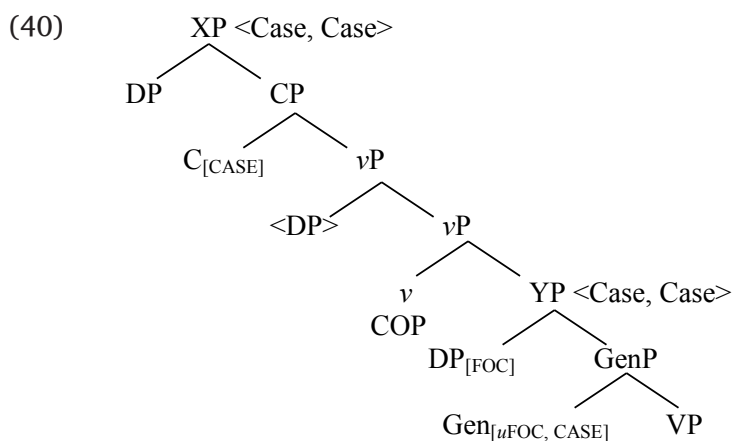
I first analyze subject focus constructions. I propose that the copula occupies a phase head. This is *C* in subject focus constructions and *v* in object focus constructions. Subject focus constructions, then, receive a similar analysis to subject *wh*-questions. Since the

copula occupies C, the [*u*FOC] feature, together with the case feature, is inherited by a lower head. A focused subject then moves to [Spec, TP], immediately following the copula. A topic can be adjoined above the focus copula, as per usual.

- (39) a. 諸侯唯我事晉。 (Zuozhuan, Ding 6)
 Zhuhou wei wo shi Jin.
 lord **only.be** 1 serve Jin
 ‘Of the feudal lords, only we serve the Jin.’



Object focus constructions are parallel to this, with the relevant derivation taking place inside the lower phase. The copula is merged in *v*, and the [*u*FOC] and case features are inherited by a lower head. Meisterernst (2010)¹⁴ analyzes object focus constructions as reduced cleft constructions in which the VP is nominalized. The *zhi* and *shi* markers head a nominal projection selecting the VP. This proposal explains the appearance of the marker *zhi*, which is otherwise employed as a genitive case marker in the language, as I discuss in the next section. I propose that the focused object moves to the specifier of this case projection, and *zhi* and *shi* spell out the genitive case feature.¹⁵



¹⁴ See also Ding (1983), who credits Ma (1898) with the original proposal that *shi* and *zhi* function as nominalizing subordinators in focus constructions.

¹⁵ Diachronically, both *zhi* and *shi* were genitive pronouns. I assume with Wang (1958), Huang (1988), Feng (1996), and Wei (1999) that *zhi* and *shi* were originally resumptive pronouns, specifically genitive pronouns in a nominalized clause in a cleft construction. By LAC, *zhi* had been reanalyzed as a genitive case marker, while *shi* continued to function solely as a pronoun. Its employment in the LAC focus construction, then, can be viewed as a retention of the earlier doubling strategy.

Finally, let me return to object *wh*-questions and clarify the differences between these and object focus constructions. First, *wh*-questions are not cleft constructions and do not employ a copula. Secondly, there is no reason to believe that the predicate in *wh*-questions is nominalized. This accounts for the lack of genitive case-marking. Finally, the landing site for *wh*-movement is higher than object focus movement. Object *wh*-words can precede negation, as in (41a), and subject control verbs, as in (41b, c). This is accounted for if Inheritance does not take place, and the interrogative object moves directly to the edge of *vP*.

- (41) a. 然則我何為乎？何不為乎？ (Zhuangzi 2.10)
 Ranze wo he wei hu? He bu wei __ hu?
 then I what do Q what not do Q
 ‘Then what should I do? What should I not do?’
- b. 公誰欲相？ (Lüshi Chunqiu 1.4)
 Gong shei yu xiang __ ?
 you who want appoint
 ‘Who do you want to appoint (as prime minister)?’
- c. 吾誰敢怨？ (Zuozhuan, Zhao 27)
 Wu shei gan yuan __ ?
 I who dare resent
 ‘Whom do I dare to resent?’

To summarize, in this and the preceding sections, I have shown that objects never move over a subject in LAC. Object topics are base generated in a clause-external position and resumed by pronouns in the clause. Interrogative and focused objects undergo movement to case licensing positions internal to *vP*. I proposed that this is because DP movement was licensed only by a case feature in LAC. Since only one DP can be licensed in this way per phase, only one DP can move to a specifier within a given phase.

The inability of an object to move over the subject presents a challenge, however, when such movement is actually required, as in the case of object relative clause formation. I propose in section 6 that non-subjects are in fact able to move into the C/TP layer but only when the subject checks genitive case and consequently does not need to value the nominative case feature on C. Since the subject does not need to check this case feature, it is still available for the object. Before presenting this analysis, I first present arguments in section 5 that LAC had a genitive case.

5 Case in LAC

The preceding two sections demonstrated that objects cannot move into the C/TP layer, because they cannot be licensed there. In section 6, I argue that it is possible for an object to move to the C/TP layer if the subject is licensed under *c*-command with genitive case. This leaves the case feature on C/T available for the object, allowing the object to move into the C/TP layer. Before discussing how genitive case valuation on the subject accounts for object relative clause formation in LAC, it is first necessary to demonstrate that LAC really does have a distinction between nominative and genitive case. I show in this section that although case distinctions cannot be clearly identified for first and second person pronouns, there is a distinct genitive case for third person pronouns and full DPs. I first show the lack of a clear case distinction in the first and second person pronouns.

Though modern Sinitic languages entirely lack morphological case, many linguists have debated whether a case distinction can be found in earlier Chinese (Ma 1898; Karlgren 1957; Wang 1958; Zhou 1959; Graham 1969; Zhou 1980; Lü 1982; Cui 1989; Zhao 1990; Hong 1991; 1996; Yang and He 1992; Sugita 1993; Pulleyblank 1995; and others). The difficulty lies in the fact that case distinctions are not found in all persons, being neutralized on first and second person pronouns. However, a distinct genitive case can be clearly observed on third person pronouns and full DPs.

I first summarize the syncretism in first and second person pronouns by using first person forms for illustration. The commonly used first person pronouns in LAC are *wo* and *wu*. There are two main differences between them, but neither of these is case. *Wu* is generally singular, as shown in (42a), while *wo* often has plural reference, referring to a social or political collective like a nation or an army, as in (42b). *Wu* also occasionally has plural reference but it does not have the collective sense found with *wo*. Both *wo* and *wu* function as possessors in the examples in (42).

- (42) a. 吾父之旗也。 (Zuozhuan, Ai 13)
Wu fu zhi qi ye.
 1 father GEN flag COP
 ‘(It) is my father’s standard.’
- b. 秋，師及齊師戰于乾時，我師敗績。 (Zuozhuan, Zhuang 9)
 Qiu shi ji Qi shi zhan yu Ganshi, **wo** shi baiji.
 fall army with Qi army fight in Ganshi 1 army defeat
 ‘In the fall, the army battled with the Qi army in Ganshi and our forces were defeated.’

The other difference is prosodic. *Wo* is frequently contrastively focused, as in (43a), while this is never the case for *wu*. In (43b), *wu* serves as the subject of the same predicate, the ability modal *neng*, but there is no contrast in this example.

- (43) a. 我能死，爾能報。 (Zuozhuan, Zhao 20)
Wo neng si, **er** neng bao.
 1 can die 2 can avenge
 ‘I can die; you can take revenge.’
- b. 吾能改矣。 (Zuozhuan, Xuan 9)
Wu neng gai yi.
 1 can change ASP
 ‘I can change.’

Kennedy (1956) proposes that *wo* and *wu* were a single lexical item differing only in stress. *Wu* never occurs at the end of a phrase and is never followed by a pause, while this is frequently the case for *wo*. Consequently, *wo* is always used when the pronoun is stressed. *Wu* is also the form most commonly used as a possessor, since it occurs phrase-initially and not phrase-finally. *Wo* serves as a possessor only when it is stressed or has the collective plural reference. The alternation between *wo* and *wu* based on prosody is easily accounted for if we accept the reconstructions of Baxter and Sagart (2014). *Wo* is reconstructed as a heavy syllable *ŋʰɑjʔ, while *wu* is reconstructed as a light syllable *ŋʰɑ. See also Feng (2016: 242–243) on the relationship between syllable weight and stress in Archaic Chinese.

Interestingly, a similar pattern can be discerned in the second person pronouns, and this possibility is again mirrored in Baxter and Sagart's reconstructions. The potentially stressed and frequently plural form is a heavy syllable: 爾 *er* *nər?; while the unstressed, typically singular, form is a light syllable: 而 *er* *nə. And like the first person pronouns, their distribution does not seem to be determined by case. I leave exploration of the specific analysis of first and second person pronouns for future research. I assume for present purposes merely that the distinction between genitive and non-genitive case is neutralized on these forms. It is very clear, however, on third person DPs.

In contrast to first and second person pronouns, third person pronouns and full DPs do show a distinction between genitive and non-genitive case in LAC. First, there is no evidence for a prosodically based distribution of the type found with first and second person forms. The distribution of genitive third person forms instead seems to have a syntactic basis, being completely confined to use as possessors or subject position in nominalized embedded clauses. Furthermore, there is no phonological basis for positing a derivational relationship of the type just sketched for the first and second person forms. Both of the third person pronouns are light syllables. They share the same rime but differ in onset: *zhi* 3.NOM/ACC *tə and *qi* 3.GEN *gə. Furthermore, full nominal possessors and genitive subjects are marked with a syllabic case-marker *zhi*. In the following discussion, I trace the diachronic development of these forms and provide examples of their use in LAC.

It is generally claimed that Pre-Archaic Chinese (14th–11th C. BCE) did not have third person personal pronouns other than demonstratives (Zhou 1959; Wang 1958; Yang and He 1992; Djamouri 1999; Zhang 2001; Wei 2004). The demonstrative *zhi* commonly occurred in object position or functioned as a possessor in Pre-Archaic Chinese. Other demonstrative pronouns were used in subject position when the subject was focused. As this language was a null subject language (like LAC), subjects were overtly expressed only when stressed.

Zhi developed into a personal pronoun in the Early Archaic Chinese (10th–6th C. BCE), continuing to surface as object and possessor, while a second possessor form *qi* emerged (Zhou 1959; Wang 1958; Qian 2004). By the LAC period, *zhi* had ceased to function as a possessor, surfacing only in object position when used as a pronominal argument. LAC then had the following third person pronouns: *zhi* (nominative/accusative) and *qi* (genitive).

Turning now to examples, *zhi* could surface in object position, as in (44a), while unstressed subjects were null. A demonstrative surfaced when the subject was focused, as in (44b). It should not be assumed, however, that *zhi* could only value accusative case. This pronoun also surfaces as the complement of an existential verb, where I assume that it values nominative case with C under c-command. The pronoun in (44c) resumes a topic in clause-initial position.

- (44) a. 學而時習之，不亦說乎？ (Analects 1)
 Xue er shi [xi **zhi**], bu yi yue hu?
 study CONJ time practice 3 not also joy Q
 'To study and periodically practice something, is this not joyful?'
- b. 是所使夫百吏官人為也。 (Xunzi 11)
Shi [suo shi [TP [fu baili guanren] [VP wei e]]] ye.
 DEM OP make DEM clerk official do COP
 'This is something which one makes those clerks and officials do.'

- c. 臣弑其君者有之。 (Mencius 6)
 [Chen shi qi jun zhe]_i you zhi_i.
 minister assassinate 3.GEN lord DET exist 3
 ‘Ministers who assassinate their lords, these exist.’

(45a, b) show possessive third person forms. The pronominal form is shown in (45a). Full DP possessors were also marked with the case marker *zhi*. This marker is homophonous with the 3rd person object pronoun and shares the same diachronic origin as a demonstrative pronoun. This pronoun grammaticalized into a neutral (non-deictic) determiner (Djamouri 1999) and, as the head of DP, could function as either a pronoun in argument position or a genitive case marker for a DP in its specifier (Aldridge 2009).¹⁶

- (45) a. 其子焉往? (Mencius 7)
 Qi zi yan wang?
 3.GEN son where go
 ‘Where would their sons go?’
- b. 寡人之身 (Mencius 1)
 guaren zhi shen
 1 GEN body
 ‘my body’

And the next examples show genitive subjects of nominalized embedded clauses. These two examples are relative clauses.

- (46) a. 子之所慎，齊戰疾。 (Analects 7)
 [Zi zhi suo shen], zhai zhan ji.
 master GEN OP care purification war illness
 ‘Those things which the master takes great care about are ritual purification, war, and illness.’
- b. 其所由來 (Zuozhuan, Xi 7)
 qi suo you lai
 3.GEN OP from come
 ‘where it comes from’

An anonymous reviewer suggests that the genitive marker on full DP embedded subjects might have been optional, since there are a few examples in which this marker does not appear. But there is clear evidence that genitive marking was not in fact optional. In all texts of the LAC period, pronominal subjects in this environment obligatorily surfaced in their genitive forms. This can only be accounted for if valuation of the case in the syntax was obligatory. Occasional dropping of the genitive marker with full DPs, then, can be accounted for as a post-syntactic prosodic process, due to a stylistic preference to create four-syllable phrases, as in the following example.

¹⁶ See also Wang (1958), Zhou (1959), and Yue (1998) for additional discussion of the etymology and historical development of *zhi*.

- (47) 子所雅言，詩書執禮，皆雅言也。 (Analects 7)
 [Zi suo ya yan], Shi Shu zhi li jie ya yan ye.
 master OP elegant speak Songs History perform Rites all elegant speak COP
 ‘Those things which the master speaks of elegantly (in the standard language)
 are the *Book of Songs*, the *Book of History*, and performing the Rites. These are
 all spoken of in elegant tones.’

Furthermore, genitive case is found on subjects in a variety of other clause types which are uncontroversially nominalized in other languages, such as factives and complements of psych verbs.

- (48) a. 臣固知王之不忍也。 (Mencius 1)
 Chen gu zhi [wang zhi bu ren] ye.
 I already know king GEN not bare COP
 ‘I already knew Your Majesty would not be able to bare it.’
- b. 懼君威之不立。 (Zuozhuan, Ai 7)
 Ju [jun wei zhi bu li].
 fear lord image GEN not establish.
 ‘(I) fear that my lord’s reputation will not be firmly established.’

Parallel examples can be found in Turkish.

- (49) Turkish (Kornfilt 2007: 317)
- a. [Sen-in sınav-ı geç-tiğ-in]-i bil-iyor-um.
 you-GEN test-ACC pass-FIN-2SG-ACC know-PRES.PROG-1SG
 ‘I know that you passed the exam.’
- b. [Sen-in sınav-ı geç-me-n]-i isti-yor-um.
 you-GEN test-ACC pass-NFIN-2SG-ACC want-PRES.PROG-1SG
 ‘I want that you should pass the exam.’

Beginning with Lü (1982), Wang (1958; 1984), and Zhu (1983), many scholars have proposed that embedded clauses like (48) are nominalizations. However, this position is not universally accepted. The alternative approach typically analyzes the genitive case as a marker of subordination (Yang and He 1992; Deng 2015; Mei 2015; Tian & Xu 2016; Yang 2018; and others). However, such an analysis misses the parallel with genitive marking on possessors in noun phrases. It also ignores the crosslinguistic parallel between LAC and languages like Turkish. Furthermore, other types of embedded complement clause do not have genitive subjects. This is the case with assertive embedded clauses like the following. The embedded subjects surface in their bare nominative forms. Therefore, it is difficult to analyze genitive case as a general marker of clausal subordination.

- (50) a. 臣聞皋落氏將戰。 (Zuozhuan, Min 2)
 Chen wen [Gaoluo shi jiang zhan].
 I hear Gaoluo tribe will fight
 ‘I hear that the Gaoluo tribe is going to fight.’

- b. 以為士者正其言，必其行。 (Zhuangzi 3.7)
 Yiwei [shi zhe zheng qi yan, bi qi xing].
 think serve DET correct 3.GEN word certain 3.GEN behavior
 ‘... think that one who serves corrects his speech and acts with
 certainty.’

Once again, a parallel can be found in Turkish. Assertive complement clauses are not nominalized and have nominative subjects.

- (51) Turkish (Kornfilt 2007: 310)
 [Ali sınav-ı geç-ecek] san-ıyor-um.
 Ali.NOM test-ACC pass-FUT believe-PRES.PROG-1SG
 ‘I believe Ali will pass the test.’

To summarize, it is clear that there is a morphological distinction between genitive and non-genitive case in the third-person paradigm in LAC. I therefore assume that genitive case is available for a DP to value in the syntax. In the next section, I turn to the syntactic role played by genitive case valuation – and its overt realization – in facilitating object extraction.

6 Non-subject relative clauses

In this section, I discuss movement of non-subjects to the C/TP layer in LAC. I showed in sections 3 and 4 that only the subject can move out of vP in matrix clauses. This is because DPs can only move to positions where they are licensed by sharing a case feature. Consequently, only one DP can surface in the edge of a given phase. In this section, I show that non-subjects are also able to move to the left periphery of a clause, but this is only possible when the clause is nominalized and the subject values genitive case. In the previous section, I showed that genitive case was morphologically distinguished from nominative and accusative case in LAC. In this section, I propose that the subject in a nominalized relative clause occupies [Spec, CP], as in root clauses, but it values genitive case with an external determiner under c-command. This then allows an operator to also move to the left periphery. I propose that both the subject and the operator move simultaneously into the C/TP layer, the subject targeting [Spec, CP] and the non-subject operator targeting [Spec, TP]. Movement of the object is possible, since the subject values genitive case with the external determiner. Consequently, the case feature on C/T is still available to check with the operator. The genitive case on the subject is also overtly marked, making the subject invisible to the Labeling Algorithm in its landing site, which is necessary since the subject does not share a feature with its sister.

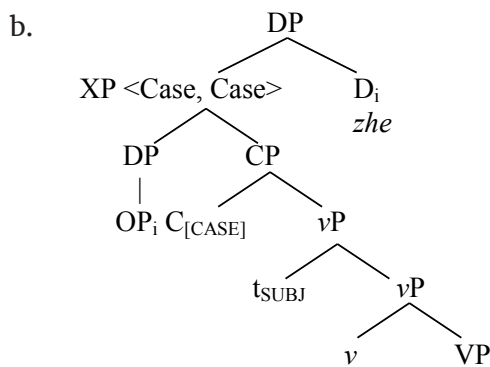
Before presenting the analysis of object relative clauses, I first briefly discuss subject relatives. As mentioned in section 1, LAC subject and object relative clauses have different structural properties. The vast majority of relative clauses in LAC are headless or internally headed. The subject/object asymmetry is also found in externally headed relatives, but for simplicity I limit the discussion here to those without an external head. The distinguishing characteristic of a subject relative clause is the determiner *zhe* following the embedded clause. (52a) and (52b) show extraction of the external argument in a transitive clause. An anonymous reviewer asks whether extraction of internal argument subjects in unaccusative constructions patterns with subject movement or object movement. (52c) shows that relativization on unaccusative subject position also employs the subject

relativization strategy, which helps to show that the DP which checks the case feature on C is the one which is extracted, regardless of its base position.

- (52) a. 欲戰者 (Zuozhuan, Cheng 6)
 [_{DP} [_{CP} e [_{VP} yu zhan]] zhe]
 desire fight DET
 ‘(those) who desire to fight’
- b. 夫執輿者為誰? (Analects 18)
 [_{DP} Fu [_{NP} [_{CP} e [_{VP} zhi yu]] zhe]] wei shei?
 DEM control carriage DET COP who
 ‘Who is the one driving the carriage?’
- c. 溺死者千有餘人。 (Lüshi Chunqiu 15.8)
 Ni si zhe qian you yu ren.
 drown die DET 1000 have excess person
 ‘The ones who died by drowning numbered over 1,000.’

Adapting the proposal of Aldridge (2009) to the approach I am developing in this paper, subject relatives can be analyzed as finite CPs selected by the determiner *zhe*. The operator, which is the embedded subject, moves to [Spec, CP] and checks the case feature on embedded C. In this position, it is bound by the determiner to form the relative clause.

- (53) a. 欲戰者 (Zuozhuan, Cheng 6)
 [_{DP} [_{CP} OP_i [_{VP} t_{OP} yu zhan]] zhe_i]
 desire fight DET
 ‘(those) who desire to fight’



Turning to non-subject relative clauses in LAC, these are distinguished from subject relatives in a number of ways. First is the appearance of the morpheme *suo* between the embedded subject and the VP. The embedded subject also surfaces with genitive case. The gap can be any VP-internal nominal position, e.g. a theme (54a) or a location in (54b).

- (54) a. 人之所畏 (Laozi 20)
 [ren zhi suo [_{VP} wei _]]
 person GEN OP fear
 ‘what people fear’

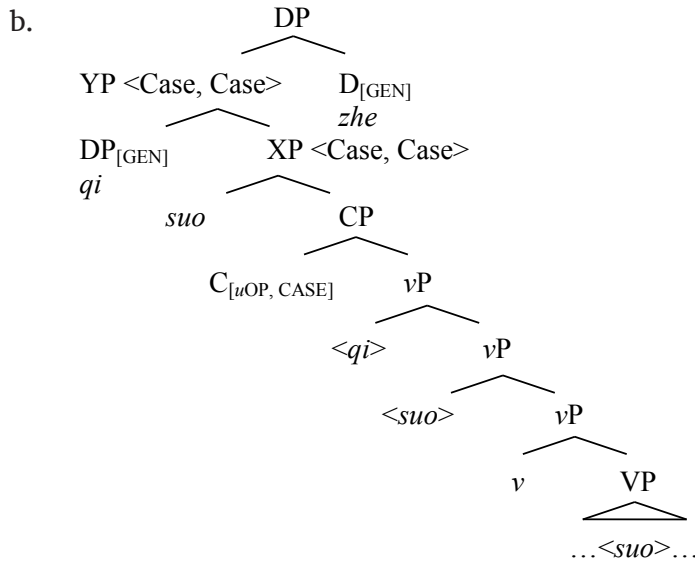
- b. 其北陵，文王之所避風雨也。 (Zuozhuan, Xi 32)
 Qi bei ling [Wen Wang zhi suo [bi feng yu _]] ye.
 3.GEN north hill Wen king GEN OP escape wind rain COP
 ‘The north hill is where the (Zhou) king Wen took shelter from the storm.’

Suo typically does not relativize on subject position, even in unaccusatives. The gaps in the following examples are locatives.

- (55) a. 穀食之所生，舟車之所通 (Zhuangzi 2.10)
 [gushi zhi suo [_{vp} sheng _]], [zhou che zhi suo [_{vp} tong _]]
 grain GEN OP grow boat cart GEN OP pass
 ‘where grain grows and where boats and carts can pass’
- b. 風之所漂，不避貴賤美惡。 (Guanzi 64)
 [Feng zhi suo [_{vp} piao _]], bu bi gui jian mei e.
 wind GEN OP blow not avoid high low beautiful ugly
 ‘Where the wing blows does not exclude those of high status or those of low status, the beautiful or the ugly.’

I propose the following analysis of non-subject relative clauses to account for these characteristics. This analysis is based on Aldridge (2013b) but restates part of that proposal in terms of the analysis developed in this paper. The presence of genitive case on the subject suggests very strongly that object relatives are nominalizations. See Krause (2001), Hale (2002), Aygen (2002), Miyagawa (2008; 2011), Kornfilt and Whitman (2012), and others for proposals that relative clauses with genitive subjects are nominalized in Altaic and various other languages. Aldridge (2013b) proposes that *suo* is a head merged in *v*, where it attracts a VP-internal operator to the edge of *vP*. Alternatively, it is possible to analyze *suo* as the operator itself, as per Huang (2014) and Huang and Roberts (2017), base generated in the edge of *vP* binding a gap inside VP. I propose that both the subject and the operator move to the left periphery. The C head enters the derivation with the case feature and also an uninterpretable [*uOP*] feature. Because both DPs originate in the *vP* layer, where they do not share a case feature with their sister, they must both undergo movement into the next phase in order to be licensed, which I assume they can do simultaneously. The object is attracted by the [*uOP*] feature and also must check C’s case feature in order to be licensed. This means that the subject does not check a feature with C, so its landing site cannot be labeled. However, after the determiner is merged, the subject is able to value genitive case with it under c-command. This also circumvents the problem of labeling the topmost layer of the CP, because genitive case is overly marked in LAC, so the subject will be ignored by the Labeling Algorithm, as per Saito’s (2016) analysis of the relationship between morphological case and Labeling. The determiner in (56a) is spelled out overtly as *zhe*. Non-subject relatives do not require overt determiners, as subject relatives do. The determiner surfaces overtly with a non-subject relative clause when the DP is definite or specific. But it does not bind an argument position in the clause.

- (56) a. 言者有言，其所言者特未定。 (Zhuangzi 1.2)
 Yan zhe you yan, [qi suo yan zhe] te wei ding.
 speak DET have speech they OP say DET but not uniform
 ‘Ones who speak have things to say, but what they have to say is not uniform.’



Evidence for movement of both the subject and the object *suo* into the C/TP layer comes from the fact that these elements must precede other *vP*-external material like aspectual/temporal adverbs and subject-oriented quantifiers, as shown in (57a) and (57b), respectively.

- (57) a. 不以所已藏害所將受。 (Xunzi 21)
 bu yi [suo yi cang] hai [suo jiang shou]
 not use OP already store harm OP will receive
 ‘to not use [what you already have] to harm [what you will receive]’
- b. 此天下百姓之所皆難也。 (Mozi 15)
 Ci [tianxia baixing zhi suo jie nan] ye.
 this world commoner GEN OP all suffer COP
 ‘This is something which commoners the world over all agonize over.’

There is also evidence that *suo* is base merged no higher than the edge of *vP*. *Suo* also appears in root clauses to license a gap in the VP in certain constructions. One such environment is existential clauses like the following. In this construction, *suo* never leaves the *vP*. Li (2018) analyzes the existential verb *you* as heading a *vP* which in turn selects a reduced clausal constituent consisting only of a *vP*. The base position of the subject and *suo* are both located in the lower *vP* edge. In this construction, *suo* never precedes the subject quantifier *jie* or aspectual markers, as seen in (58a) and (58b), respectively.

- (58) a. 人皆有所不為。 (Mengzi 14)
 Ren jie you suo bu wei.
 person all exist OP not do
 ‘All people have some things which they do not do.’
- b. 夫已有所簡矣。 (Zhuangzi 1.6)
 Fu yi you suo jian yi.
 DEM already exist OP thrifty PFV
 ‘Those (people) have already done it in a thrifty way.’

My analysis in turn accounts for the fact that *suo* cannot move out of *vP* in clausal contexts like those in (58). This is because it cannot be licensed in the C/TP layer there, because the subject moves to [Spec, CP] to check the case feature on C. This in turn is because this

is a matrix clause, so there is no external determiner to license the subject independently of the case feature on C.

It might be countered that the *suo* phrase in existential constructions is itself a relative clause, in other words a DP selected by the existential verb. This is highly unlikely, however, given the differences between this *suo* phrase and relative clauses formed on *suo*. First is the low position of *suo*. Secondly, an overt subject cannot appear inside the *suo* phrase in this construction. If this *suo* phrase were a relative clause, then it would potentially be able to project a DP layer which could license a subject.

My analysis also accounts for the fact that *suo* only forms relative clauses on VP-internal positions. Because *suo* is base merged in the vP layer, it can only be coindexed with a VP-internal argument. It may be wondered why *suo* is not base generated in argument position in VP. This is unlikely to be the case, because of the lack of locality restrictions observed inside the VP. In other words, it is possible for *suo* to be construed with any DP position within the VP. In (59), the gap construed with *suo* is the object in an embedded ECM clause, with the embedded subject intervening between the two. Consequently, *suo* relative clauses do not exhibit the same strict locality within VP observed for object *wh*-movement in (35) in section 4.1.

- (59) 是所使夫百吏官人為也。 (Xunzi 11)
 Shi [_{CP} **suo** [_{VP} shi [_{TP} [fu baili guanren] [_{VP} wei e]]]] ye.
 DEM OP make DEM clerk official do COP
 ‘This is something which one makes those clerks and officials do.’

One final point to note is that subjects in *suo* relatives are indeed located inside the embedded CP and do not move to [Spec, DP] to value their genitive case. First, a temporal adverb can precede the genitive subject. Miyagawa (2008) uses similar evidence to argue that genitive subjects in Japanese relative clauses likewise do not raise to [Spec, DP].

- (60) a. 此昔吾先王之所以霸。 (Lüshi Chunqiu 14.5)
 Ci [xi [wu xian wang] zhi suo yi _ ba].
 this **past** 1 former king GEN OP use conquer
 ‘This is the means by which our former king was victorious in the past.’
 b. 凡古今天下之所謂善者 (Xunzi 23)
 [fan [gu jin [tianxia zhi suo wei _ shan]] zhe]
 generally old now world GEN OP call good DET
 ‘generally, what the world refers to as “good”, both now and in the past’

Secondly, the genitive subject clearly occupies a position structurally lower than the external determiner *zhe*. As pointed out above, this determiner can be added to an object relative clause in order to make the nominal definite or specific. In the following examples, two object relative clauses are coordinated. One determiner follows both clauses, and both embedded subjects have genitive case.

- (61) a. 言之所不能論，意之所不能察致者，不期精粗焉。 (Zhuangzi 2.10)
 [[Yan zhi suo bu neng lun _], [yi zhi suo bu neng cha
 word GEN OP not can describe intention GEN OP not can examine
 zhi _] zhe], bu qi jing cu yan.
 bring DET not relate fine coarse there
 ‘That which words cannot describe and intentions cannot imagine is unrelated to coarseness or fineness.’

- b. 此商君之所以車裂于秦而吳起之所以肢解于楚者也。 (Hanfeizi 14)
 Ci [[Shang Jun zhi suo yi __ che-lie yu Qin] er [Wu Qi zhi suo
 this Shang lord GEN OP base cart-rip in Qin CONJ Wu Qi GEN OP
 yi __ zhi-jie yu Chu] zhe] ye.
 base limb-remove in Chu DET COP
 ‘This is the basis for why Lord Shang was executed (by being torn apart by
 moving carts) in Qin and Wu Qi was executed in Chu (by having his limbs
 removed).’

In this section, I have argued for an analysis of non-subject relativization which allows a non-subject operator to move to the C/TP layer in the embedded clause and check the case feature there. This is possible because the embedded subject values genitive case with the external determiner and consequently need not be licensed by or undergo Labeling with the embedded C.

7 Conclusion

In this paper, I proposed that several movement asymmetries between subjects and non-subjects in Late Archaic Chinese are accounted for by positing that DP movement in this language is licensed solely by sharing a case feature in the landing site. Specifically, sharing of a case feature is what labels the landing site for a dislocated nominal argument. Because only the case feature can license movement of a DP, only one DP can move into a given phase, with the result that subjects move to [Spec, CP], but objects can generally move no higher than the edge of vP . This proposal accounts for the requirement that object topics be resumed by pronouns in VP. I also extended this analysis to focus constructions and showed that, although focused and interrogative objects undergo dislocation, they never vacate the vP .

In order for a constituent other than the subject to move to the C/TP layer, the subject has to be licensed independently of the case feature on C/T. Thus, non-subject relative clauses are nominalized, which allows the subject to value genitive case with an external determiner. Because genitive case is overtly marked in LAC, the genitive subject is invisible to the Labeling Algorithm, so it can occupy a position where it does not share a feature with its sister. This leaves the case feature on C/T in the embedded clause available to be shared with the object.

In section 2, I also suggested an underlying explanation for why DP movement is licensed solely by checking a case feature in some languages. I proposed that features which can be shared for the purposes of Labeling typically must have an overt morphological reflex. However, in languages with highly impoverished nominal morphology, case features can be shared for this purpose. This is because, beginning with Chomsky’s (1981) adoption of the Case Filter, it is standardly assumed that DPs require licensing in all clause types in all languages. This in turn affords a fundamental and essential role to DP licensing. In other words, if no other feature is available for labeling the positions occupied by nominal arguments (due to the lack of overt realization), then case features can serve this purpose. This in turn yields languages like LAC in which case positions are the only syntactic positions which can serve as landing sites for DP movement.

Abbreviations

1 = first person; 2 = second person; 3 = third person; ACC = accusative; ASP = aspect; CONJ = conjunction; COP = copula; DEM = demonstrative; DET = determiner; FIN = finite; FUT = future; GEN = genitive; HAB = habitual; MASC = masculine; MOD = modal; NOM = nominative; NFIN = nonfinite; OBJ = object; OP = operator; PAST = past tense;

PFV = perfective; PRES = present tense; PROG = progressive aspect; Q = question particle; SG = singular; SUBJ = subject; TOP = topic.

Competing Interests

The author has no competing interests to declare.

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