

C-T Inheritance and Relativization in Late Archaic Chinese

This paper proposes an analysis of the subject/non-subject relativization asymmetry in Late Archaic Chinese (LAC). The primary focus is the non-subject relativization marker SUO, which surfaces between the subject and the VP within the relative clause. This marker does not appear in subject relative clauses. I propose that the difference between subject and non-subject relatives in LAC is in the number of projections in the C/TP layer. If only the subject undergoes movement, it targets the specifier of an amalgamated C/T head. In other words, C-T Inheritance does not take place. This is the case in unmarked declarative clauses and also in subject relative clauses. But if both the subject and a non-subject undergo movement, then Inheritance takes place, the subject moving to [Spec, TP] and the other constituent moving to [Spec, CP]. This is the situation in non-subject relative clauses, since both the subject and an operator must undergo movement. In order to account for the appearance of the marker SUO in non-subject relative clauses, I propose that this morpheme is spelled out on T which has separated from C, in other words the T which has been inherited from C/T. In this way, my analysis accounts for the position of SUO and also the fact that it surfaces in non-subject but not subject relative clauses.

1. Introduction

This paper proposes an analysis of the asymmetry between subject and non-subject relativization in Late Archaic Chinese (LAC; 5th – 3rd centuries BCE). When the gap in the relative clause is the subject, the clause is followed by the determiner 者 *zhě*, as in (1a). But when the gap is a non-subject argument or adjunct, then the relativizing morpheme 所 *suǒ* appears between the embedded subject and VP, as in (1b).

- (1) a. 夫執輿者為誰? (Lúnyǔ, Wéizǐ)
 [DP Fú — zhí yú zhě] wéi shéi?
 DEM control carriage DET COP who
 ‘Who is that one driving the carriage?’
- b. 其北陵，文王之所避風雨也。 (Zuǒzhuàn, Xī 32)
 Qí běi líng [Wén Wáng zhī suǒ [bì fēng yǔ —]] yě.
 3.GEN north hill Wen king GEN SUO escape wind rain STAT
 ‘The north hill is [where the (Zhou) king Wen took shelter from the storm].’

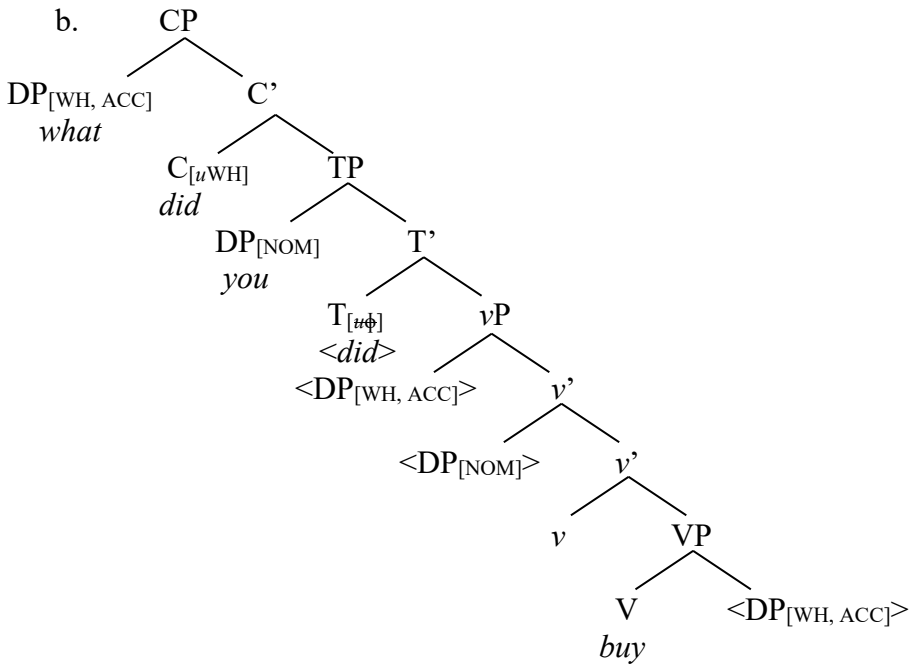
Descriptively, I propose that the difference between the two types of relative clause lies in whether only the subject undergoes movement or whether both the subject and another constituent move to the C/TP layer. In (1a), the subject itself is the only constituent which undergoes movement. But in (1b), a locative constituent moves to [Spec, CP], while the subject moves to [Spec, TP]. In theoretical terms, I propose that when the subject is the only constituent to undergo movement, it moves to an undivided [Spec, C/TP]. But when the subject and a lower constituent both undergo movement, C and T divide into two projections, the subject moving to [Spec, TP], and the other constituent moving to [Spec, CP]. In other words, the division between the TP and CP projections is the result of feature inheritance (Chomsky 2008), which will be discussed in detail in the following section. As for the different marking in relative clauses, I propose that ZHE heads a determiner projection which selects the relative CP, while SUO is inserted in T in relative clauses after T has split off from C.

1. Theoretical Framework

While previous work within the Minimalist Program (e.g. Chomsky 1995, 2000, 2001) assumed that the finite T(ense) head universally enters the derivation with an unvalued agreement feature [*u*φ] which attracts the subject DP to its specifier and copies the person, number, and gender features of that argument, Chomsky (2008) proposes that T is not an independent functional head at the time it first enters the

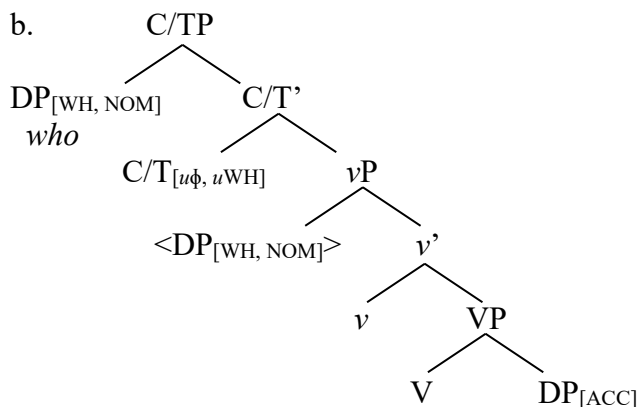
derivation. Rather, it is merged as part of an amalgamated C/T head, which subsequently undergoes an operation referred to as “C-T Inheritance”, with the result that the $[u\phi]$ feature is passed to T, while features relating to A'-movement, e.g. focus or interrogative features, are retained on the C head. With this division of the A and A' feature sets, the $[u\phi]$ on T searches for the closest DP, which is the subject, copies its agreement features, case licenses this DP, and forces it to move to [Spec, TP]. The A' features remaining on C then attract constituents with matching features like [WH], [FOC], etc. The following example is a *wh*-question. The non-interrogative subject DP moves to [Spec, TP], while the object *wh*-word is attracted to [Spec, CP].

(2) a. What did you buy?



However, more recent work has proposed that the operation of C-T Inheritance may not universally apply. In other words, it has been proposed that direct subject movement to [Spec, CP] takes place under certain conditions (Ouali 2006; Goto 2011; Legate 2011, 2014; Gallego 2014; Erlewine 2016, 2018; Aldridge 2018, 2019; and others). Even in English, Inheritance seems to be obviated if all features entering the derivation on C/T are checked by a single DP, and the argument checking these features moves directly to [Spec, C/TP]. This can be observed in subject *wh*-questions in English.

(3) a. Who bought that?



In contrast to non-subject questions, it is not obligatory for an auxiliary to surface between the subject and the rest of the clause. This is easily accounted for if C and T do not split. Assuming that *do* support reflects

the movement of T to C, no such movement takes place if the two heads occupy the same position, as pointed out by Legate (2011).

The analysis in this paper builds on Aldridge (2019), who proposes that nominative case in LAC is typically not inherited by T but is valued by the amalgamated C/T. Consequently, the subject moves directly to the phase edge in examples like (4).

- (4) 民其謂我何？ (Zuǒzhuàn, Huán 6)
 [C/TP Mín [C/T' qí [vP t_{SUBJ} wèi wǒ hé]]]?
 people MOD speak me what
 ‘What will the people say of me?’ (Based on Aldridge 2019: 8)

I take Aldridge (2019) as my starting point but propose that Inheritance does take place when more than one constituent needs to be licensed outside of vP. In this way, my analysis of LAC relative clauses is essentially the same as the analysis of A'-movement in English sketched in (2) and (3). If only the subject undergoes movement, then C and T do not divide. But in non-subject relative clauses, two landing sites are required outside vP, forcing C-T Inheritance to take place. As for the marking in LAC relative clauses, this paper focuses on the non-subject relative marker SUO and proposes that it surfaces as a reflex of C-T Inheritance, as I discuss below.

For the specific implementation of C-T Inheritance, this proposal assumes the structure building approach taken by Gallego (2014). Specifically, C and T are considered to be merged as a single lexical item whose probe(s) begin searching for goals as soon as they enter the derivation. A division between C and T is the result of movement, T being the trace of moved C. The first goal to enter into Agree with the C(/T) head checks its features, and if any probe(s) remain on C(/T), this head undergoes movement and projects a new structural layer in its landing site. Consequently, the earliest Agree relations are realized with the lowest copies of C(/T), which means concretely that the subject will typically occupy the first specifier projected by a copy of C(/T). On this view, (2a) would be derived in the following way. Traces are indicated by angle brackets. First, the subject moves to [Spec, CP] in order to value the ϕ -feature there and receive nominative case, as shown in (5a). In (5b), C moves and remerges with the first CP projection. This is because the C head still has an uninterpretable feature to check with the object *wh*-word. This *wh*-word then undergoes Agree with the higher C head and moves to its specifier, yielding the structure in (5c). The ordering of Agree relations falls out naturally on the basis of c-command relations, since the base position of the subject is higher than all other arguments in the clause. This in turn straightforwardly derives the A/A' divide, since A'-movements will necessarily take place later than licensing of the subject.

- (5) a. [CP you [C' C [vP <you> buy what]]]?
 b. [CP C [CP you [C' <C> [vP <you> buy what]]]]
 c. [CP what [C' C [CP you [C' <C> [vP <you> buy <what>]]]]]?

I will assume this approach to the division between C and T, since it provides a straightforward analysis of the position of the non-subject relativizing morpheme SUO, as I discuss in section 4. Specifically, I propose that there must be two CP projections in non-subject relative clauses, one to host the subject and one to host the moving operator. SUO is the spell out of the trace of relativizing C.

In the following section, I briefly summarize the analysis of subject and topic movement landing sites in LAC matrix clauses. This is intended to demonstrate that two CP projections are needed under certain conditions. Section 4 turns to relative clauses.

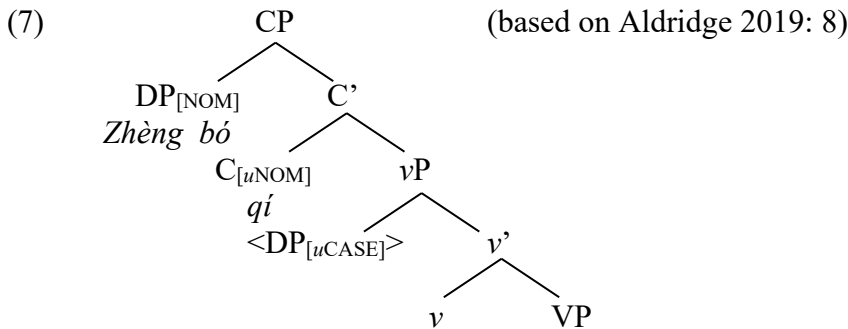
3. Two vP-external positions in LAC

In this section, I show that, as in English, there were either one or two DP positions outside of vP in LAC, depending on the number of constituents needing to be licensed there. First, subjects typically moved to a unique [Spec, CP]. But in subject focus and object topic constructions, a second CP layer is projected, with the result that the subject occupies the lower of these two, and the higher [Spec, CP] is then made available for a topic. Aldridge (2019) presents evidence for these two positions by first showing that unfocused,

typically definite, subjects precede the modal 其 *qí*, while focused subjects follow this modal. (6a, b) show definite subjects preceding *qí*.

- (6) a. 晉其亡乎！ (Zuǒzhuàn, Zhao 29)
 Jìn **qí** wáng hū!
 Jin MOD end EMPH
 ‘Jin is about to collapse!’
 b. 民其謂我何？ (Zuǒzhuàn, Huán 6)
 Mín **qí** wèi wǒ hé?
 people MOD speak me what
 ‘What will the people say of me?’

Aldridge (2019) proposes an analysis along the following lines for subject movement and nominative case valuation in LAC. The subject DP undergoes movement to the edge of the phase in order to value its case feature. As a modal, I assume that the *qí* occupies the C head position.

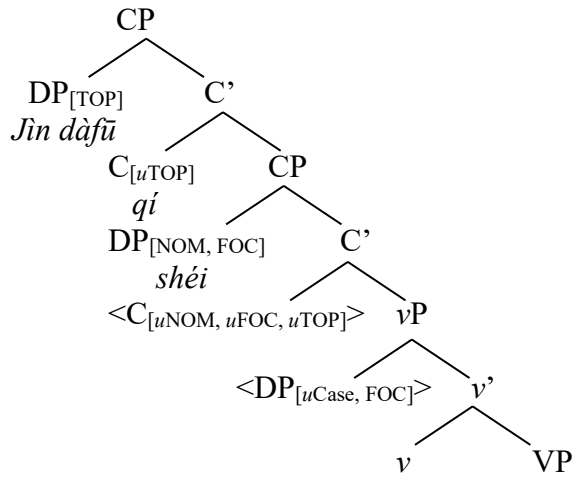


In contrast, (8a) shows that focused constituents functioning as subjects follow the modal *qí*. (8a) additionally shows that topics precede *qí*. This topic denotes a set of which the subject is a part in the terms of Li & Thompson (1981). Badan & del Gobo (2010, 2015) treat this type of topic as an ‘aboutness’ topic. Aboutness topics must be base generated in a high position in the left periphery, which I assume to be the highest [Spec, CP]. Note that there is no gap position in the clause from which they could have moved. (8b) shows a focused referential subject. This subject also occurs in a lower position than a topic. The low position is also suggested by the preceding focus marker 唯 *wéi*.

- (8) a. 晉大夫其誰先亡？ (Zuǒzhuàn, Xiāng 14)
 Jìn dàfū **qí** shéi xiān wáng?
 Jin official MOD who first disappear
 ‘(Of) the Jin officials, who would be the first to disappear?’
 b. 諸侯唯我事晉。 (Zuǒzhuàn, Dìng 6)
 Zhūhóu **wéi** wǒ shì Jìn.
 feudal.lord FOC we serve Jin
 ‘Of the feudal lords, only we serve the Jin.’

As can be seen in the preceding examples, the modal *qí* and the focus marker *wéi* surface between the topic and the focused subject. Since these elements, together with topics, precede the subject, I assume that they occupy a higher position than the subjects in (8). Aldridge (2019) proposes that focused subjects occupy [Spec, TP]. Nominative case is also passed to T via feature inheritance. See also Miyagawa (2010, 2017) and Jiménez-Fernández and Miyagawa (2014) for proposals that A’-features can be inherited by T in some languages. This leaves [Spec, CP] available for a topic. On the Gallego (2014) that I adopt, the focused subject occupies the lower of two CP projections. The modal *qí* and the focus copula *wéi* are merged in the higher of the two C heads, i.e. the one that is not a trace. The topic then occupies the higher [Spec, CP].

(9)

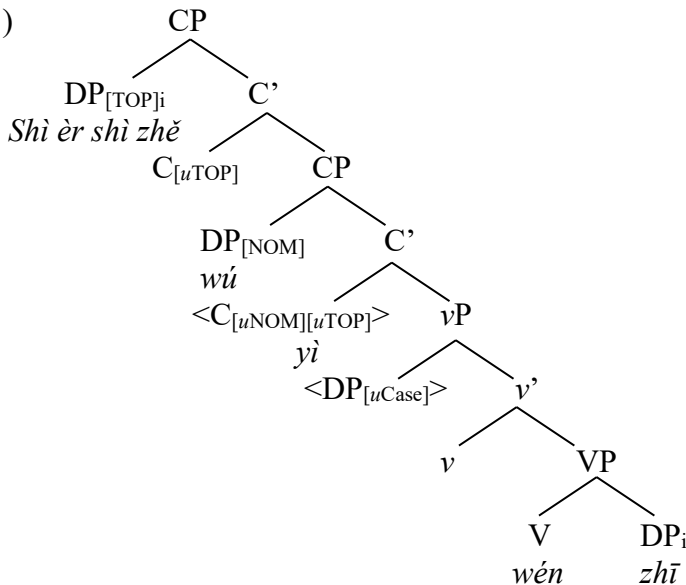


Object topics can also precede the subject, regardless of whether the latter is focused. Object topics are also base generated in the left periphery, as evidenced by the fact that they are resumed by pronouns, the third person object pronoun 之 *zhī* in (10a, b) and the dative pronoun 焉 *yān* in (10c).

- (10) a. 是二氏者，吾亦聞之。 (Zuǒzhuàn, Zhāo 29)
 [Shì èr shì zhě]_i wú yì wén **zhī**_i.
 DEM two clan DET I also hear 3.OBJ
 ‘As for these two clans, I have also heard of them.’
- b. 彌與紇，吾皆愛之。 (Zuǒzhuàn, Xiāng 23)
 [Mí yǔ Hé]_i wú jiē ài **zhī**_i.
 Mi and He I all love 3.OBJ
 ‘As for Mi and He, I love both of them.’
- c. 晉國天下莫強焉。 (Mèngzǐ, Liáng Huìwáng 1)
 [Jìn Guó]_i Tiānxià mò qiáng **yān**_i.
 Jin nation world none strong 3.DAT
 ‘The Jin nation, no one in the world is stronger than them.’

Aldridge (2019) analyzes object topics as occupying a position adjoined to CP, but there is no principled reason that they cannot occupy the higher of two [Spec, CP] positions, so this is what I assume. The subject is licensed first in the lower [Spec, CP]. (11) shows the derivation for (10a).

(11)



This section has shown that there are potentially two DP positions outside of *vP* in LAC, one for the subject and another for a topic. In the next section, I will propose that these two positions are also utilized in non-subject relative clauses. In subject relatives, the operator is the subject and moves to a unique [Spec, CP], while in non-subject relatives, a second CP layer is projected. The subject moves to the first [Spec, CP], while the non-subject operator moves to the higher [Spec, CP]. When two CP layers are projected, the lower of the two C heads is occupied by the non-subject relative clause marker SUO. In this way, the Gallego (2014) approach to C-T Inheritance provides a straightforward explanation for why SUO appears in non-subject relatives but not subject relatives.

4. Relative clause asymmetry

This section accounts for the two types of relative clause. As discussed in section 1, subject relatives are marked by just the clause-final determiner ZHE, while non-subject relatives are marked by clause-medial SUO.

- (12) a. 夫執輿者為誰？ (Lúnyǔ, Wéizǐ)
 [DP Fú zhí yú zhě] wéi shéi?
 DEM control carriage DET COP who
 ‘Who is that one driving the carriage?’
 b. 其北陵，文王之所避風雨也。 (Zuǒzhuàn, Xī 32)
 Qí běi líng [Wén Wáng zhī suǒ [bì fēng yǔ __]] yě.
 3.GEN north hill Wen king GEN SUO escape wind rain STAT
 ‘The north hill is [where the (Zhou) king Wen took shelter from the storm].’

The question to be considered in this section is why there are different marking strategies for subject and object relativization. I will propose that SUO appears when another constituent moves over the subject. This forces a second CP layer to be projected. SUO is then realized on the trace of relativizing C. If only the subject undergoes movement, then there will be just one CP layer, and SUO does not appear.

For subject relative clauses, I assume the basic proposal put forth by Aldridge (2009, 2016) with some minor revision. First, Aldridge (2009) argues that ZHE is a type of determiner, because it can select nominal categories.

- (13) a. 夫二人者，魯國社稷之臣也。 (Zuozhuan, Cheng 16)
 [[NP Fú èr rén] zhě], Lǔguó shèjì zhī chén yě.
 DEM two person DET Lu nation GEN minister STAT
 ‘These two men (will become) ministers of Lu at the national level.’
 b. 曰時五者來備，各以其敘，庶草蕃蕪。 (Shangshu, Hongfan)
 Yuē [shí wǔ zhě] lái bèi, gè yǐ qí xù
 say DEM five DET come provide each APPL 3.GEN turn
 shù cǎo fánwú
 DEM plant flourish
 ‘If these five (elements) have been provided, and each in their turn, then the plants will flourish.’

Aldridge (2009) proposes that ZHE is a *n*, occupying a position on the nominal spine lower than the D head. Among the evidence for this is the fact that ZHE is located in a lower position than a possessor. The possessor is clearly located outside the constituent headed by ZHE, because it is this entire constituent which is possessed. Assuming that possessors occupy the DP layer, it is reasonable to place ZHE in a lower position on the DP spine, which Aldridge (2009) takes to be *n*.

- (14) a. 晉之從政者新，未能行令。 (Zuozhan, Xuan 12)
 [DP Jìn zhī [nP [CP cóng zhèng] zhě]] xīn
 Jìn GEN exercise power DET new

wèi néng xíng lìng.
not.yet can execute order

‘The commander of the Jin (forces) is new; (he) is not able to have his orders carried out.’

- b. 王之為都者，臣知五人焉。 (Mencius, Gongsun Chou 2)

[_{DP} Wáng **zhī** [_{NP} [_{CP} wéi dū] **zhě**]]
king GEN govern province DET
chén zhī wǔ rén yān.
I know five person 3.DAT

‘Of your majesty’s provincial governors, I know five.’

However, definitive evidence that ZHE should be analyzed as a CP-external element and not as a relative complementizer comes from the fact that it can also occur in non-subject relatives. SUO in (15) marks this relative clause as containing a gap below the subject position. Consequently, ZHE cannot be merely a marker of subject relativization. Nor can it be a general relative complementizer, since it is not obligatory in SUO relatives. According to Aldridge (2009), it adds a sense of specificity. In the following discussion, I will further show that ZHE occupies a position outside of the relative clause.

- (15) 凡古今天下之所謂善者 (Xunzi 23)

[Fán [gǔ jīn [tiānxià zhī **suǒ** wèi __ shàn]] **zhě**]
generally old now world GEN SUO call good DET
‘generally, what the world refers to as “good”, both now and in the past’

However, I depart from Aldridge (2009, 2016) in one important respect. She stipulates that the embedded clause is a TP and not a full CP. Her main basis for this claim is the parallelism with the subphasal category NP that ZHE also can select. However, I assume with Kayne (1994), Bianchi (1999), and others that a determiner can select a full CP relative clause.

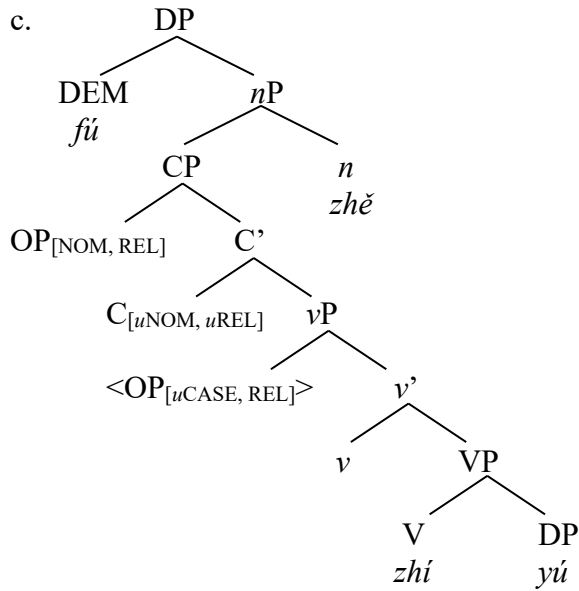
As relative clauses formed on ZHE are all headless, I assume that the moving constituent is a null operator. In subject relatives, the operator is base generated as the subject and raises to [Spec, CP] for case licensing. I further assume with Bianchi (1999) that relativizing C has a [*u*REL] feature, which attracts the operator. ZHE attaches to the CP in order to create a nominal category. The following examples show that the gap can be either an external or internal argument subject.

- (16) a. 夫執輿者為誰？ (Lúnyǔ, Wéizǐ)

[_{DP} Fú zhí yú **zhě**] wéi shéi?
DEM control carriage DET COP who
‘Who is that one driving the carriage?’

- b. 溺死者千有餘人。 (Lǚshì Chūnqiū 15.8)

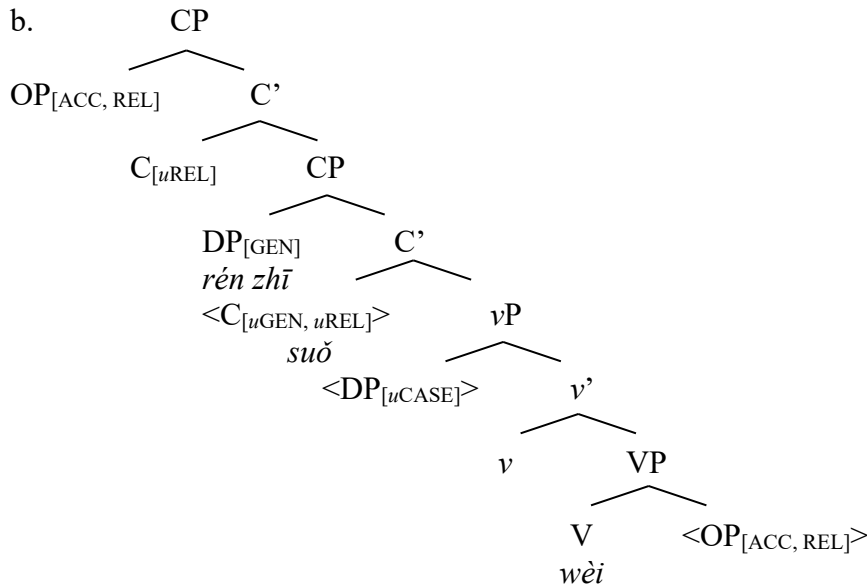
[_{DP} Nì sǐ **zhě**] qiān yǒu yú rén.
drown die DET 1000 have excess person
‘The ones who died by drowning numbered over 1,000.’



Note that the non-subject relative clause marker SUO never appears in subject relatives. I propose that this is because only one CP layer is projected in subject relatives. The subject is the operator, so only one position is required outside of vP. In non-subject relatives, however, the operator is base merged in a lower position, so both the subject and the operator need to undergo movement. Consequently, two [Spec, CP] positions are required. In SUO relatives, the subject must move to be licensed, and the operator must move to [Spec, CP] in order to form the relative clause. This means that C movement must take place in order to create two landing sites external to vP. The subject is attracted to the first (lower) [Spec, CP], and the operator moves to the higher [Spec, CP]. Gallego's (2014) implementation of C-T Inheritance offers a straightforward analysis of the appearance of SUO: SUO is spelled out as the trace of relative C. Note that subjects in non-subject relative clauses value genitive case rather than nominative, so relativizing C enters the derivation with this feature. This may indicate that non-subject relative clauses are nominalized, but the question of whether the CP is nominalized is not directly related to the derivation of the relative clause and the position of SUO, so I do not entertain it here.

(17) a. 人之所畏 (Lǎozǐ 20)

[rén zhī suǒ [VP wèi ____]]
 person GEN SUO fear
 'what people fear'



(17a) shows a SUO relative with a direct object gap. (18a) has a locative gap, and in (18b) the gap is an applied object.¹ This makes it clear that SUO appears in any relative clause in which the gap is a non-subject.

- (18) a. 其北陵，文王之所避風雨也。 (Zuǒzhuàn, Xī 32)
 Qí běi líng [Wén Wáng zhī **suǒ** [bì fēng yǔ __]] yě.
 3.GEN north hill Wen king GEN SUO escape wind rain STAT
 ‘The north hill is [where the (Zhou) king Wen took shelter from the storm].’
 b. 此昔吾先王之所以霸。 (Lǚshì Chunqiu 14.5)
 Cǐ [xí [wú xiān wáng] zhī **suǒ** yǐ __ bà].
 this past our former king GEN SUO APPL conquer
 ‘This is the means by which our former king was victorious in the past.’

One point does, however, need to be clarified in regard to the genitive case assigned in SUO relative clauses. In some cases, the case is not spelled out. Aldridge (2013) shows that the main basis for lack of genitive case-marking in SUO relatives is prosodic. Aldridge proposes that genitive case is inserted post-syntactically and is sensitive to the number of syllables in the phrase. Since pre-modern Chinese had a preference for four-syllable phrases, the overt genitive marking does not appear in (19b).

- (19) a. 子之所慎，齊戰疾。 (Analects 7)
 [Zǐ **zhī** suǒ shèn], zhāi zhàn jí.
 master GEN SUO care purification war illness
 ‘Those things which the master takes great care about are ritual purification, war, and illness.’
 b. 子所雅言，詩書執禮，皆雅言也。 (Analects 7)
 [Zǐ suǒ yǎ yán], shī shū zhí lǐ
 master SUO elegant speak Songs History perform Rites
 jiē yǎ yán yě.
 all elegant speak STAT
 ‘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.’

Since my proposal crucially rests on the position of SUO being the C head that hosts the subject in the relative clause, it is necessary to demonstrate that this is in fact its position. For this purpose, I adopt the argumentation in Aldridge (2013) that the surface position of SUO is T (in the current analysis, the trace of relative C). As Aldridge (2013) shows, SUO must precede other vP-external material like aspectual adverbs and subject-oriented quantifiers, as shown in (20a) and (20b), respectively.

- (20) a. 不以所已藏害所將受。 (Xunzi 21)
 Bù yǐ [suǒ yǐ cáng] hài suǒ **jiāng** shòu
 not APPL SUO already store harm SUO 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)
 Cǐ [tiānxià bǎixìng zhī suǒ **jiē** nán] yě.
 this world commoner GEN SUO all suffer STAT
 ‘This is something which commoners the world over all agonize over.’

There is also evidence that the subject must move to a licensing position from its base position inside vP, since derived subjects can occur in SUO relatives. (21) shows unaccusative constructions in which the gap is a locative constituent. Assuming that the subject licensing position is [Spec, TP] (or the lower [Spec, CP] on the current approach), the position for SUO can be no higher than T.

¹ The analysis of 以 yǐ as an applicative head or light verb is taken from Aldridge (2012). Djamouri and Paul (2021) propose that this YI is a resumptive pronoun. However, there is no independent evidence that LAC relative clauses could contain a resumptive pronoun. Consequently, I do not adopt this analysis.

- (21) a. 穀食之所生，舟車之所通 (Zhuangzi 2.10)
 [Gǔshí zhī **suǒ** [VP shēng __]], [zhōu chē zhī **suǒ** [VP tōng __]]
 grain GEN SUO grow boat cart GEN SUO pass
 ‘where grain grows and where boats and carts can pass’
- b. 風之所漂，不避貴賤美惡。 (Guanzi 64)
 [Fēng zhī **suǒ** [VP piāo __]], bù bì guì jiàn měi è.
 wind GEN SUO blow not avoid high low beautiful ugly
 ‘Where the wind blows does not exclude those of high status or those of low status, the beautiful or the ugly.’

It is also clear that the subject remains internal to TP (the lowest CP layer). This is shown by the fact that it follows temporal adverbs.

- (22) a. 此昔吾先王之所以霸。 (Lüshi Chunqiu 14.5)
 Cǐ [xí [wú xiān wáng] zhī suǒ yǐ __ bà].
 this **past** our former king GEN SUO APPL 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)
 [Fán [gǔ jīn tiānxià zhī suǒ wèi __ shàn] zhě]
 generally old now world GEN SUO call good DET
 ‘generally, what the world refers to as “good”, both now and in the past’

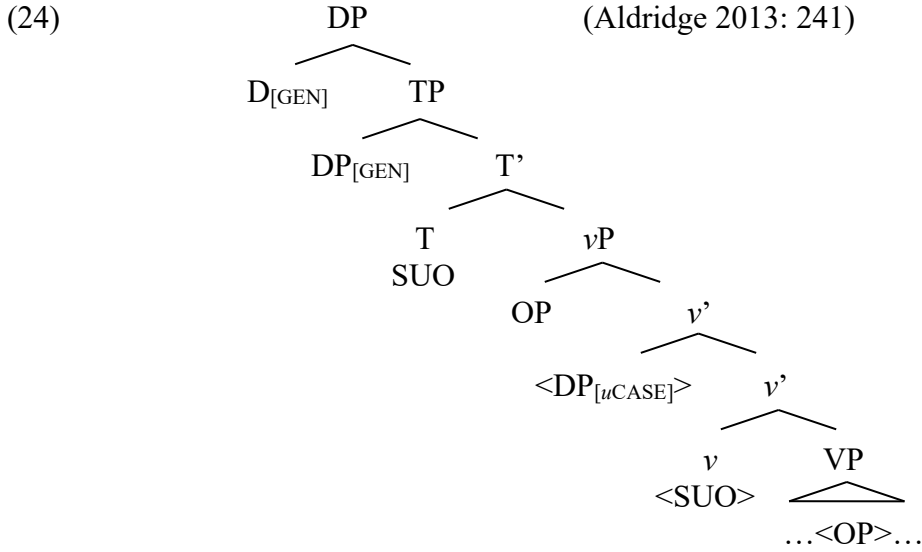
The relatively low position of the subject is also demonstrated by the following coordination examples. Two SUO relatives are coordinated to the exclusion of the determiner ZHE. This also suggests that ZHE is located outside of the relative CP.

- (23) a. 言之所不能論，意之所不能察致者，不期精粗焉。 (Zhuangzi 2.10)
 [[CP Yán zhī suǒ bù néng lùn __],
 word GEN SUO not can describe
 [CP yì zhī suǒ bù néng chá zhì __] **zhě**],
 intention GEN SUO not can examine bring DET
 bù qí jīng cū yān.
 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)
 Cǐ [[CP Shāng Jūn zhī suǒ yǐ __ chē-liè yú Qín] ér
 this Shang lord GEN SUO APPL cart-rip in Qin CONJ
 [CP Wú Qǐ zhī suǒ yǐ __ zhī-jiě yú Chǔ] **zhě**] yě.
 Wu Qi GEN SUO APPL limb-remove in Chu DET STAT
 ‘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).’

However, I do not adopt other aspects of Aldridge’s (2013) analysis. Aldridge (2013) focuses on the fact that subjects in SUO relatives value genitive case, proposing with Krause (2001), Hale (2002), Aygen (2002), Miyagawa (2008, 2011), and others that SUO relatives are reduced relatives with genitive subjects. As such, they do not project a CP layer. As for the function and position of SUO, Aldridge (2013) stipulates that SUO is base generated in *v* and attracts an operator to the edge of this phase,² from which position it can

² See also Jiang (2008), who proposes that SUO is the reflex of an EPP feature on *v* that enables movement from inside VP. This analysis also suffers from the problems I enumerate below.

be bound by the determiner or an external head.³ SUO then undergoes movement to its surface position in T. The subject moves to [Spec, TP], where it values genitive case with D under c-command.



The most obvious drawback of this analysis is the stipulation that SUO is base generated in *v*, when its surface position is clearly higher than this. Furthermore, it is hard to believe that operator movement from VP required the presence of SUO in *v*. If operator movement genuinely required this type of overt marking, then we would expect SUO to appear in other contexts in which A'-movement takes place from VP, such as object *wh*-questions. However, although there is non-subject *wh*-movement to a clause-medial position in LAC,⁴ there is no such marking; the interrogative pronoun seems to move freely. (25) shows that direct object, locative, and applied object interrogative pronouns surface between the subject and the VP in LAC. In other words, this is the same range of grammatical functions which can be gaps in SUO relative clauses. Yet, no SUO is required for their movement.

- (25) a. 吾誰欺？欺天乎？ (LAC: 5th C. BCE; *Analects*, Zihan)
 Wú shuí [v_P 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 [v_P 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?'
 c. 吾將何以遺子孫？ (Hanfeizi 34)
 Wú jiāng hé [v_P yǐ ___ [v_P yí zǐsūn]]?
 I will what APPL leave descendant
 'What will I leave my descendants?'

Additionally, subject relative clauses do not require overt marking in order to induce operator movement. As I showed above, subject relative clauses are marked only with the determiner ZHE; SUO never surfaces in subject relatives. Consequently, Aldridge (2013) has to assume that only operator movement in non-subject relatives requires overt marking by SUO.

Another problem with Aldridge's (2013) analysis in (24) is that the relative operator does not move to the edge of the relative clause. The analysis that I propose here does not suffer from this drawback, since the operator can move to the higher [Spec, CP]. I therefore do not adopt Aldridge's (2013) analysis of SUO relatives. I account for the genitive case on the subject by allowing for the possibility that these CPs are

³ Aldridge also proposes an analysis of headed relative clauses, though I do not consider these in this paper.

⁴ I assume with Aldridge (2010) that the landing site is the edge of vP.

nominalized. In this way, I am able to dispense with the Aldridge (2013) stipulation that SUO is base merged in *v*. I can also allow operator movement to take place freely in both subject and non-subject relative clauses. My analysis also better accounts for the position of SUO by having it mark the trace of relative C. This happens only and exactly in non-subject relatives, since it is only in this type of relative clause that C undergoes movement in order to project separate specifiers to host the relative operator and the subject, respectively. Thus, my analysis accounts directly for the surface position of SUO, as well as its function of distinguishing non-subject from subject relative clauses.

In sum, given the fact that SUO must surface in a position external to *v*P but within the relative CP and in a position following the subject, it is reasonable to analyze it as occupying the head of the projection hosting the subject, i.e. the lower copy of relative C. Given that the clause contains both a subject and a moving operator, it is reasonable to assume that there are two specifiers available to serve as landing sites. Secondly, the morpheme SUO, which only surfaces in non-subject relative clauses suggests a structural difference between subject and non-subject relatives. This can be accounted for by the number of CP layers. Specifically, it can be said that SUO is spelled out on relativizing C when it is the trace of movement, which takes place in non-subject relatives but not subject relatives, which have only one CP projection.

5. Other approaches

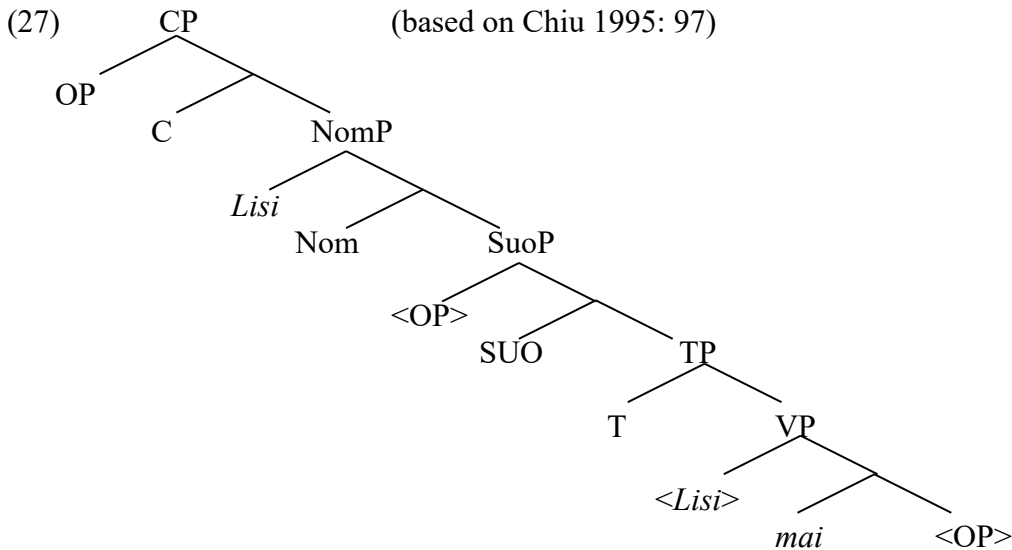
The main challenge presented by LAC relative clauses is in accounting for the subject/non-subject asymmetry. In this section, I survey other Generative approaches to this problem and show that they all depend on dubious stipulations. The arguments in sections 5.1 and 5.2 can also be found in Aldridge (2013). I add them here in order to present a complete picture of the literature.

5.1. Accusative case projection

As in LAC, SUO can also be used to create relative clauses on object position in modern Mandarin. The main difference is that the use of SUO is optional in the modern language. (26a) shows an object relative with SUO. (26b) shows that object relatives do not require the presence of SUO. (26c) shows that subject relatives cannot be marked by SUO.

- (26)
- a. [Lisi **suo** mai de] shu
 Lisi SUO buy DE book
 ‘book which Lisi bought’
 - b. [Lisi mai de] shu
 Lisi buy DE book
 ‘book which Lisi bought’
 - c. [(***suo**)mai shu de] ren
 SUO buy book DE person
 ‘person who bought a/the book’

In order to account for the subject/object asymmetry, Chiu (1993, 1995) proposes that operator movement from VP must land in [Spec, SuoP], which is an accusative case-checking position. SuoP is located outside of TP. The subject position for checking nominative case is located above SuoP.



One obvious problem with this analysis is that the accusative case-checking position is located above TP, which is unexpected if it is associated only with objects. Note that the subject also has to move to a higher subject position, skipping SuoP. This constitutes a locality violation, assuming that case-checking positions are all A-positions.

An empirical argument against this approach is the fact that SUO relatives can be formed on any VP-internal position, not just direct objects. As pointed out in section 4, a SUO relative can be formed on a locative constituent in an unaccusative clause. Assuming Burzio's (1986) generalization, accusative case is not expected to be available in this environment.

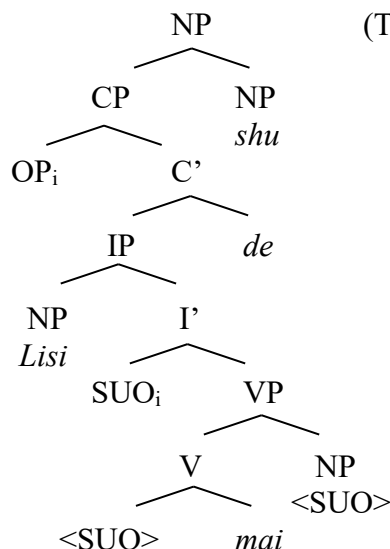
- (28) 穀食之所生，舟車之所通 (Zhuangzi 2.10)
 [Gǔshí zhī **suǒ** [VP shēng __]], [zhōu chē zhī **suǒ** [VP tōng __]]
 grain GEN SUO grow boat cart GEN SUO pass
 'where grain grows and where boats and carts can pass'

5.2. Clitic pronoun

Ting (2003, 2010) proposes that SUO in modern Mandarin is an A'-bound pronominal clitic. In other words, it is a resumptive pronoun bound by the operator in [Spec, CP]. It is base merged as the head of the object NP and undergoes long head movement (in the sense of Roberts 1994) to Infl, crossing the verb via excorporation. It is then bound by a null operator base merged in [Spec, CP] to form the relative clause.

- (29) a. Lisi suo mai de shu
 Lisi SUO buy DE book
 'book which Lisi bought'

b. (Ting 2003: 129)



This analysis is intended to account for the surface position of SUO between the subject and VP. The cliticization approach also accounts for the restriction of SUO to non-subject relatives, since head-movement is permitted from the verb's complement position, but not from specifiers. Consequently, SUO relatives cannot be formed on subject position.

However, this analysis rests on the assumption that long head movement and excorporation take place, a proposal for which there is no independent evidence. There also is no evidence that SUO is a resumptive pronoun. LAC did employ resumptive pronouns in the case of object topicalization (as noted in section 3), but this pronoun is third person accusative 之 *zhī* or dative 焉 *yān*.

(30) a. 是二氏者，吾亦聞之。 (Zuǒzhuàn, Zhāo 29)

[Shì èr shì zhě]_i wú yì wén zhī.
DEM two clan DET I also hear 3.OBJ
'As for these two clans, I have also heard of them.'

b. 晉國天下莫強焉。 (Mèngzǐ, Liáng Huìwáng 1)

[Jìn Guó] Tiānxià mò qiáng yān.
Jin nation world none strong 3.DAT

'The Jin nation, no one in the world is stronger than them.'

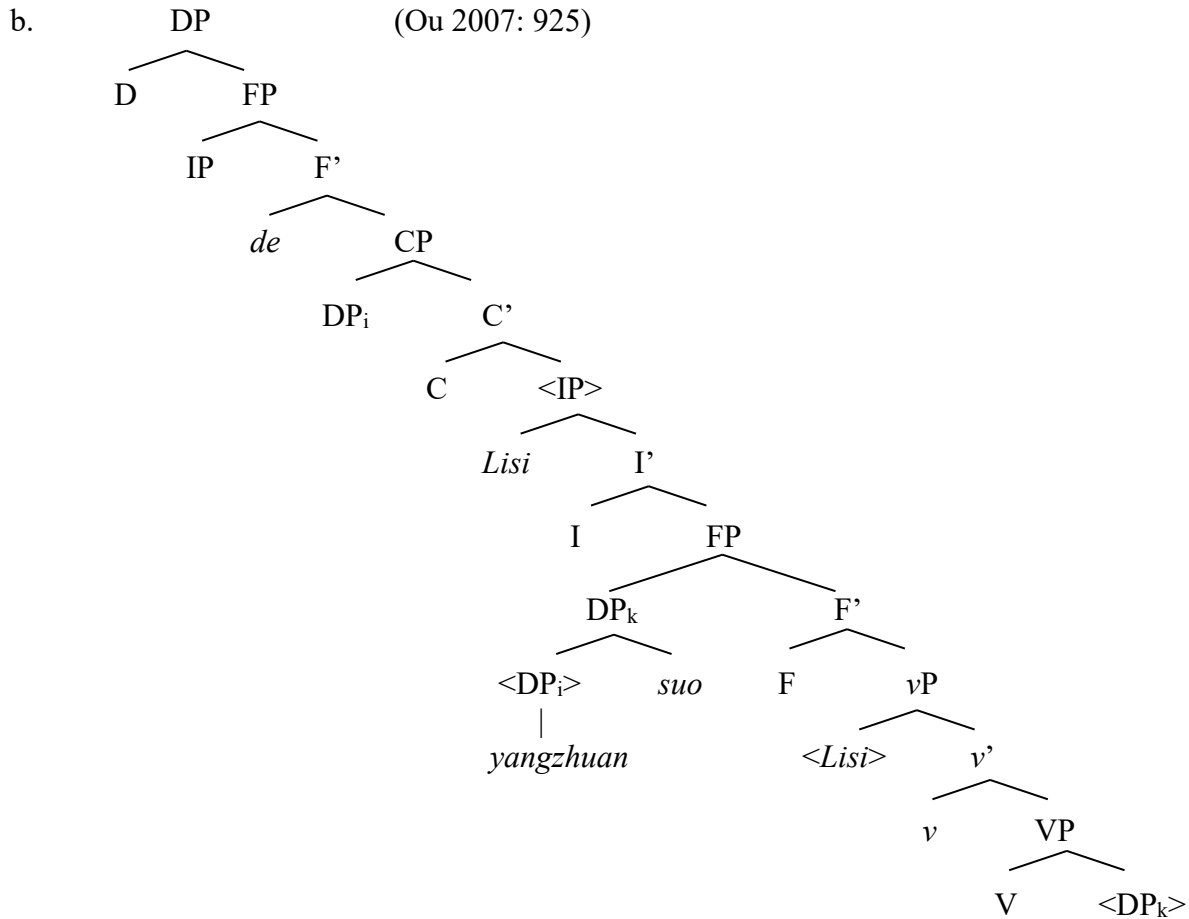
For LAC non-subject relatives, Ting (2005) proposes that SUO is a relative pronoun, i.e. the moving operator itself. In overt syntax, it undergoes long head movement to Infl, as in modern Mandarin. Then at LF, it moves further to C. Treating SUO as a relative pronoun is intended to account for its obligatoriness in non-subject relatives in LAC, since an operator is needed to form the relative clause. However, treating SUO as a relative pronoun encounters a problem, since it is not clear how the subject/non-subject asymmetry is derived in LAC relative clauses. To account for subject relatives, Ting proposes that these are derived through null operator movement. In order to block a null operator from being base generated in object position and forming a relative clause on this position, Ting (2005) stipulates that SUO is chosen instead because head movement is less costly than phrasal movement. However, this is a dubious move, given that the head movement she proposes is long head movement, requiring multiple steps and excorporation, another stipulation which lacks direct evidence. Furthermore, if the final landing site of SUO is C, then why can it not move to this position in overt syntax? In other words, its clause-internal position makes it highly unlikely that SUO is a relative pronoun. Given the discussion in this subsection, it is highly unlikely that SUO is either a resumptive pronoun or a relative pronoun.

5.3. Head-raising and stranding

Ou (2007) proposes a head raising analysis of relativization (Schachter 1973; Kayne 1994; Bianchi 1999, 2000) within the small clause structure proposed by Den Dikken and Singhapreecha (2004). She follows

Zwart (2002) in merging the head nominal together with SUO in argument position within VP. This cluster then moves to a clause-medial A'-position, [Spec, FP]. In this position, the head nominal splits off from the larger DP and moves to the embedded [Spec, CP]. Following this, the remnant IP fronts to the specifier of a higher [Spec, FP], which is a small clause projected by the linker *de*.

- (31) a. [Lisi suo xuan de] yangzhuang
 Lisi SUO choose LK dress
 'the dress(es) that Lisi chose'



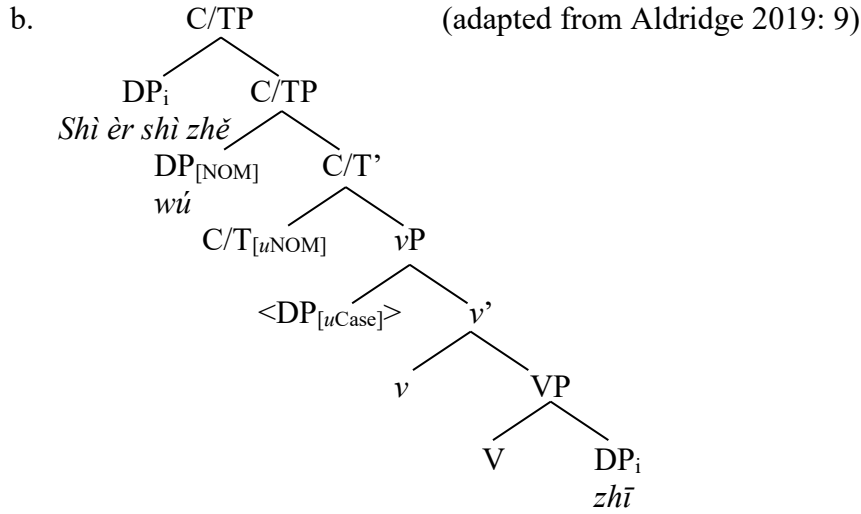
Ou claims that the clause-medial A'-position is generally available for clause-internal focused constituents and is therefore not a stipulation. She also shows that SUO has a function as an intensifier, making it compatible with a focus projection.

The subject/non-subject asymmetry is accounted for by proposing that SUO must be A'-bound and cannot be A-bound. If SUO were merged with the subject, it would be A-bound from [Spec, IP]. However, it is not in fact clear how this stipulation accounts for the subject/non-subject asymmetry. If the subject and SUO moved together to [Spec, IP], from where the subject moved on to [Spec, CP], SUO would be A'-bound by the subject. Therefore, SUO should be able to surface in both subject and non-subject relatives.

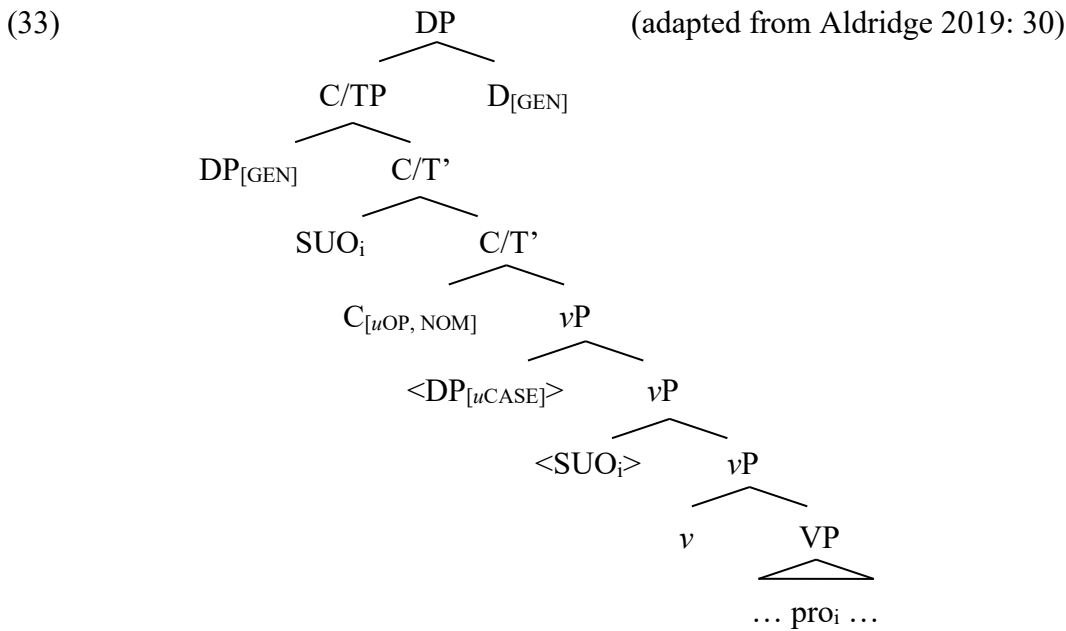
5.4. Nominative operator

Aldridge (2019) proposes that DPs in LAC could only move to positions where they could be case licensed. This analysis accounts for the fact that object topics did not undergo movement but were base merged in the left periphery and coindexed with a resumptive pronoun in argument position. The subject moves to [Spec, C/TP] to value nominative case, but since there is only one (nominative) case available in the C/TP layer, the topic must be base generated in an adjoined position as a hanging topic and resumed by a pronoun in the clause.

- (32) a. 是二氏者，吾亦聞之。 (Zuǒzhuàn, Zhāo 29)
 [Shì èr shì zhě]_i wú yì wén zhī_i.
 DEM two clan DET I also hear 3.OBJ
 ‘As for these two clans, I have also heard of them.’



For non-subject relative clauses, Aldridge (2019) capitalizes on the fact that the subject values genitive case. This allows the nominative case feature on C/T to be valued with the relative operator. Aldridge follows Huang (2015) and Huang and Roberts (2017) in analyzing SUO as the operator, which is base merged in the edge of vP and binds a variable inside VP. She then proposes that both the subject and the operator SUO move to the C/TP layer. SUO checks nominative case with C/T, while the subject values genitive case with an external D head under c-command.



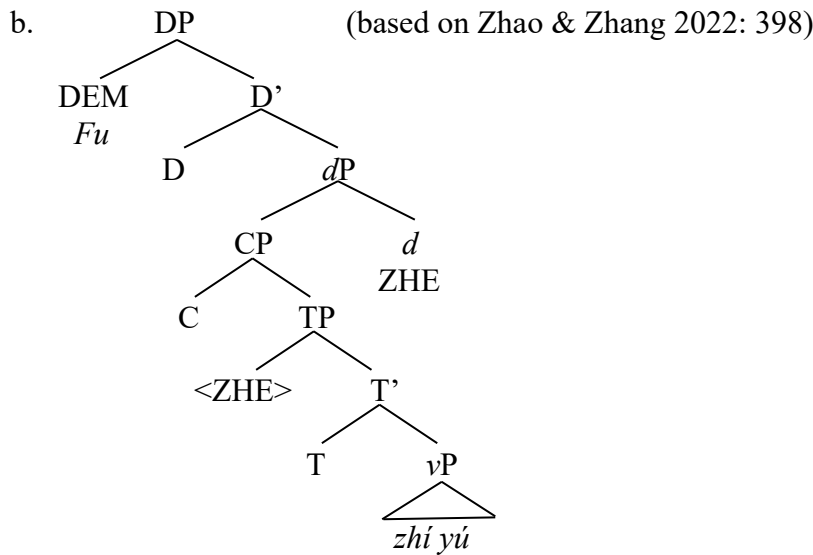
This analysis provides a straightforward account of why subjects in non-subject relatives value genitive case and connects this requirement to the ability of a non-subject to undergo movement. There are many languages in which subjects in object relative clauses value genitive case, e.g. the Uto-Aztecan language Yaqui (Krause 2001, Gonzáles 2012), Cuzco Quechua (Krause 2001, Hastings 2004, Muysken 2011, Cole & Hermon 2011), most Altaic languages, like Turkish (Hankamer & Knecht 1976; Dede 1978; Kornfilt 1997, 2007, 2008; Krause 2001, Aygen 2002; Hale 2002; Cagri 2005), and some Tibeto-Burman languages like Apatani (Krause 2001).

However, there is a serious problem with this analysis. If SUO can be a relative operator itself, then there is no way to prevent it from having this function in subject relative clauses, but SUO is never attested in subject relatives; SUO only surfaces in non-subject relative clauses.

5.5. Subject and object relative pronouns

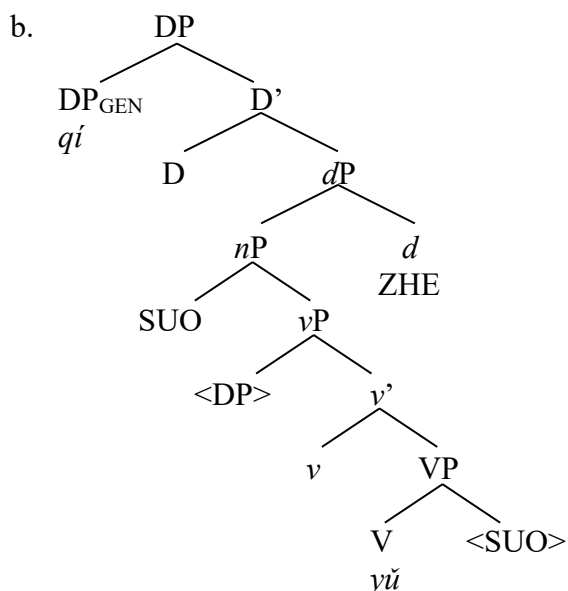
Zhao & Zhang (2022) analyze both ZHE and SUO as relative pronouns. In subject relatives, ZHE is a subject relative pronoun base-generated in subject position, where it values nominative case in the relative clause. The relative clause is derived through the movement of ZHE to the edge of CP. They analyze ZHE as a weak determiner, very like Aldridge's (2009) analysis of ZHE as *n*, except that they take ZHE to be *d*. They assume Cecchetto and Donati's (2015) approach to Labeling such that a moving constituent that is an X^0 -level category can determine the label of the phrase projected after movement. Consequently, after ZHE moves to the edge of CP, it projects the label *dP*.

- (34) a. 夫執輿者為誰？ (Lúnyǔ, Wéizǐ)
 Fú zhí yú zhě wéi shéi?
 DEM control carriage DET COP who
 'Who is that one driving the carriage?'



For non-subject relative clauses, SUO is analyzed as an object pronoun with accusative or oblique case. The relative clause is derived through movement of SUO to the edge of *vP*. SUO is analyzed as a *n*, so it projects the label *nP* after movement. Zhao and Zhang justify this claim, since SUO grammaticalized from a noun meaning 'place'. Finally, the subject receives genitive case by moving to [Spec, DP].

- (35) a. 其所與者，天所廢也。 (Zuozhuan, Zhao 22; Zhao & Zhang 2022: 403)
 Qí suǒ yǔ zhě, tiān suǒ fèi yě.
 3.GEN SUO be.close.to DET Heaven SUO abandon STAT
 'The people he is close to are all those who have been abandoned by Heaven.'



There are a couple of clear problems with this analysis. First, the subject/non-subject asymmetry is just stipulated. There is no way to guarantee that ZHE is always base merged as a subject, while SUO is always a non-subject. Secondly, this analysis of SUO relatives predicts the wrong constituency. As I showed in section 4, ZHE is located in a position structurally higher than the genitive subject. This is shown by the fact that SUO relatives can be coordinated to the exclusion of ZHE, clearly demonstrating that the genitive subject does not move out of the relative clause.

(36) 此商君之所以車裂于秦而吳起之所以肢解于楚者也。 (Hanfeizi 14)

Cǐ	[[	Shāng	Jūn	zhī	suǒ	yǐ	__	chē-liè	yú	Qín]	ér
this		Shang	lord	GEN	SUO	APPL		cart-rip	in	Qin	CONJ
[Wú	Qǐ	zhī	suǒ	yǐ	__	zhī-jǐě		yú	Chǔ]	zhě]	yě.
Wu	Qi	GEN	SUO	APPL		limb-remove		in	Chu	DET	STAT

‘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).’

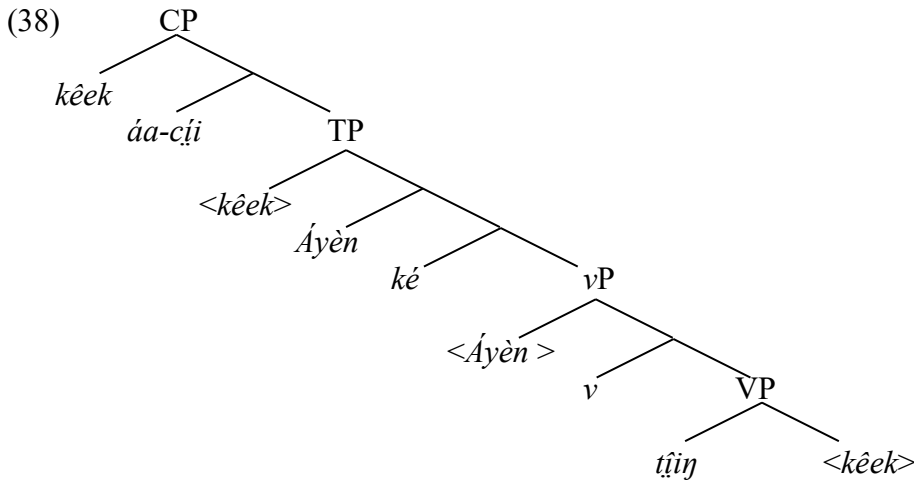
This section has summarized several previous approaches to subject and non-subject relative clauses in LAC and shown all of them to have problems. In particular, the restriction of SUO to non-subject relatives is merely a stipulation in all of them. This contrasts with my analysis, since the difference between subject and non-subject relatives is accounted for on the basis of how many projections there are in the CP layer. In other words, there is only one CP layer in subject relatives, since only the subject needs to occupy this projection. But non-subject relatives require C to undergo movement, creating two separate CP projections. Given the empirical evidence discussed in section 4, SUO clearly occupies the T (trace of relative C) position. Analyzing SUO as the trace of relative C accounts for its distribution without stipulation. So the only difference between LAC relativization and English A'-movement is whether the trace of C needs to be spelled out. In the following section, I discuss two other languages that require marking in the same syntactic position when an object moves over the subject.

6. T-marking for object movement over the subject

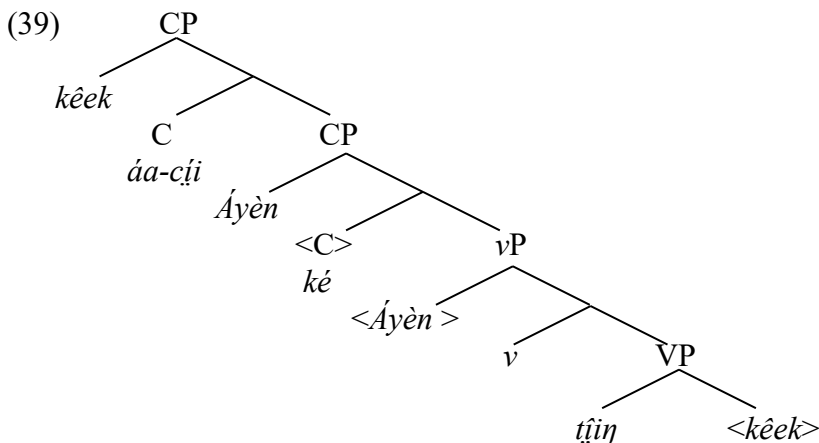
Keine and Zeijlstra (to appear) also propose an analysis which is similar to mine in that T spells out overtly when movement takes place across the subject in some languages. One of the languages they consider is the Nilotic language Dinka. Dinka is a V2 language in which a phrasal constituent surfaces in clause-initial [Spec, CP]. This constituent can be a subject or a non-subject. If it is a non-subject, then special marking appears on the verb, e.g. the “object voice” marking in (37a). When a plural non-subject is fronted, the marker *ké* appears in clause-medial position, as in (37a). No marker appears when the subject is fronted, as in (37b).

- (37) a. Kêek áa-cîi Áyèn ké tîiŋ.
 them 3PL-PFV.OV Ayen.GEN PL see.NFIN
 ‘Them, Ayen has seen.’ (Van Urk 2018: 947)
- b. Ròòor áa-cé (*ké) yîin tîiŋ.
 men 3PL-PFV PL you see.NFIN
 ‘The men have seen you.’ (Van Urk 2018: 950)

Keine and Zeijlstra’s analysis is directed at the distribution of *ké*. They propose that this marker is spelled out on T when non-subject movement takes place. Specifically, this marker is the reflex of the feature attracting the moving constituent. In other words, TP is an intermediate landing site for non-subject movement. They first propose with Aldridge (2004, 2008), Coon et al. (2021), and Branan and Erlewine (2024) that even A’-movement attracts only the closest DP in some languages. This means that a non-subject may not move directly over the subject. Instead, this moving constituent needs to first move to a position where it is the closest DP to the probe attracting it. Keine and Zeijlstra propose that the movement involves “leapfrogging” over the subject in [Spec, TP] to an outer specifier of this projection. Dinka *ké* is then the spell out of the feature forcing the leapfrogging movement. Keine and Zeijlstra propose for Dinka that this is a ϕ -feature, since the appearance of *ké* is sensitive to the plurality of the moving constituent. They propose that T carries both [*uD*] and [*u* ϕ] features. [*uD*] probes first and moves the subject to [Spec, TP]. [*u* ϕ] probes next and moves the object to T’s outer specifier. T spells out as *ké* if the moving object is plural.



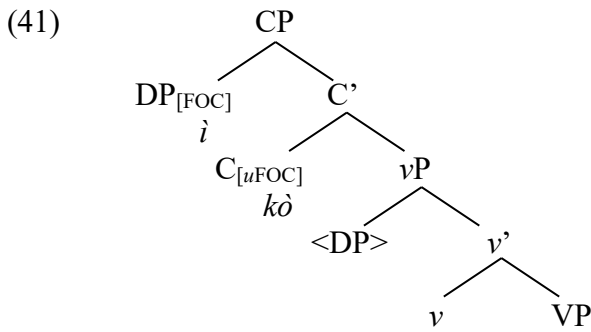
My analysis can also account for the distribution of *ké*, but in a simpler and more principled way. Specifically, my analysis does not require the intermediate movement through the edge of TP; object movement targets [Spec, CP] directly. On my approach, *ké* is simply spelled out as the trace of C after C has undergone movement in order to create the landing site for the object. Note that if only the subject moves from vP, C will not undergo movement and therefore will not leave a trace, so *ké* will also not appear.



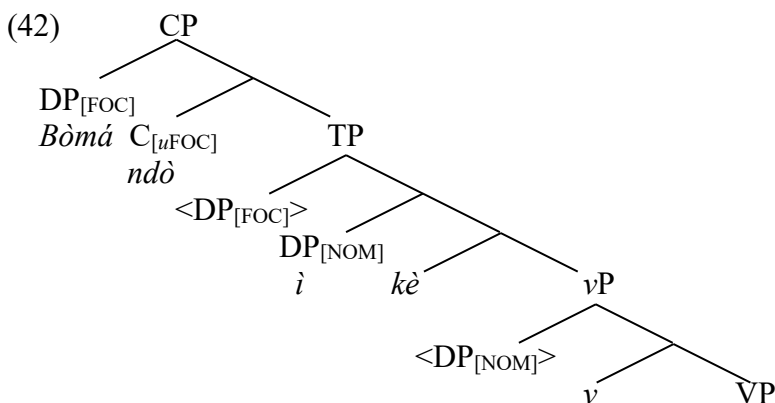
Another language they analyze is Defaka. This language has a complex system for marking focus movement. Note first that no special marking is found if focus movement does not take place, as in (40a). If the subject undergoes focus movement, the focus marker *kò* appears, as in (40b). If the object undergoes focus movement, this marker is *ndò*. Additionally, the marker *kè* attaches to the verbal complex.

- (40) a. *ì Bòmá ésé-kà-rè*
 I Boma see-FUT-NEG
 ‘I will not see Boma.’
 b. *ì kò Bòmá ésé-kà-rè*
 I FOC.SUBJ Boma see-FUT-NEG
 ‘I will not see Boma.’
 c. *Bòmá ndò ì ésé-kà-rè-kè*
 Boma FOC I see-FUT-NEG
 ‘I will not see *Boma*.’ (Bennett et al. 2012: 294)

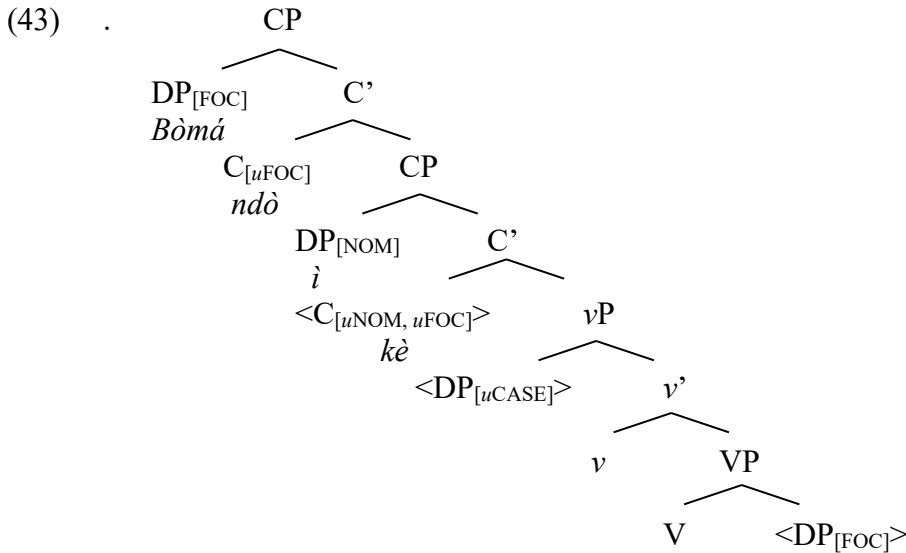
The Keine and Zeijlstra approach to subject focus movement and marking is similar to the approach I adopt in this paper. They follow Bennett et al. (2012) in proposing that the position for the subject is conflated with [Spec, CP] when their contents are identical, i.e. when subject focus movement takes place. On my approach, this amounts to saying that there is only one CP projection. The position for the subject focus marker *kò* is then C which forms a single-member chain.



For non-subject focus movement, Keine and Zeijlstra adopt the “leapfrogging” approach introduced for Dinka. The focused object moves first to the outer specifier of TP. The position for *kè* is the T which has attracted this constituent to its outer specifier. *Ndò* spells out focused C that is not conflated with the subject position.



Note, that my analysis again accounts for these facts in a simpler way. The focused object moves directly to the higher [Spec, CP]. The non-subject focus marker *ndò* is the spell out of the higher copy of *C_[uFOC]*, i.e. *C* which c-commands a copy of itself. On the other hand, *kè* spells out the trace of *C_[uFOC]*.



In sum, this section has shown that some other languages provide evidence that T (or a lower copy of C) is spelled out overtly if a non-subject undergoes movement over the subject. But the analysis of this phenomenon put forth in the current paper is more parsimonious than the one proposed by Keine and Zeijlstra (to appear), since it does not require the extra step of movement to an outer specifier of TP. The moving object can directly target [Spec, CP].

7. Conclusion

This paper has proposed an analysis of the subject/non-subject relativization asymmetry in Late Archaic Chinese (LAC). I paid particular attention to the non-subject relativization marker SUO, which surfaces between the subject and the VP within the relative clause. I proposed an analysis of the syntactic position and function of SUO by analyzing it as the trace of relativizing C. Specifically, non-subject relatives require two movement landing sites outside of vP, one to license the subject and one for the operator moving over the subject from within VP. I adopted the Gallego (2014) approach to C-T Inheritance that treats T as the trace of C. Specifically, only one projection of CP is needed if only the subject undergoes movement. But C will move and remerge with this first CP if a second [Spec, CP] is required for another moving constituent. The subject/non-subject relativization asymmetry in LAC then corresponds to the number of projections of CP. In subject relatives, there is only one CP layer, since only the subject undergoes movement. But there will be two projections of CP when a non-subject position is relativized on. I showed that the surface position of SUO corresponds exactly to the trace position of the moved C. By spelling out SUO as the trace of relativizing C, it is possible to account for the surface position of SUO, as well as the fact that it only appears in non-subject relative clauses. This is because there is a trace of relativizing C only when C must move to create a landing site for a non-subject constituent. This analysis then allows LAC relative clauses to be analyzed in a way parallel to more familiar languages like English, by allowing operator movement to take place freely from any argument position. The only difference is that non-subject relatives have to be marked in LAC. However, I also showed that there are other languages that have a similar type of marking in the same structural position when object movement takes place, providing additional support for my analysis of SUO as marking the trace of relativizing C.

References

- Aldridge, Edith. 2004. *Ergativity and Word Order in Austronesian Languages*. Ithaca, NY: Cornell University. (Doctoral dissertation.)
- Aldridge, Edith. 2008. Generative Approaches to Ergativity. *Language and Linguistics Compass: Syntax and Morphology* 2(5). 966–995.
- Aldridge, Edith. 2009. Old Chinese determiner *zhe*. In Crisma, Paola & Longobardi, Giuseppe (eds.), *Historical syntax and linguistic theory*, 233–248. Oxford: Oxford University Press.

- Aldridge, Edith. 2010. Clause-internal Wh-movement in Archaic Chinese. *Journal of East Asian Linguistics* 19(1). 1–36.
- Aldridge, Edith. 2012. PPs and applicatives in Late Archaic Chinese. *Studies in Chinese Linguistics* 33(3). 139–164.
- Aldridge, Edith. 2013. Object Relative Clauses in Archaic Chinese. *Canadian Journal of Linguistics* 58(2). 239–265.
- Aldridge, Edith. 2016. Relativization and DP structure in Late Archaic Chinese. In Ting, Pang-Hsin & Cheung, Hung-Nin Samuel & Tang, Sze-Wing & Chin, Andy (eds.), *New Horizons in the Study of Chinese Languages: Dialectology, Grammar, and Philology*, 429–446. Hong Kong: T.T. Ng Chinese Language Research Center, Institute of Chinese Studies, The Chinese University of Hong Kong.
- Aldridge, Edith. 2018. C-T Inheritance and the Left Periphery in Old Japanese. *Glossa* 3(1). 1–22. DOI: <http://doi.org/10.5334/gjgl.254>
- Aldridge, Edith. 2019. Subject/non-subject movement asymmetries in Late Archaic Chinese. *Glossa* 4(1). 1–38. (Article 115.)
- Aygen, N. Gulsat. 2002. *Finiteness, Case and Clausal Architecture*. Cambridge, MA: Harvard University. (Doctoral dissertation.)
- Badan, Linda & Gobo, Francesca del. 2015. The even-construction and the low periphery in Mandarin Chinese. In Tsai, Wei-Tien Dylan (ed.), *The Cartography of Chinese Syntax* (The Cartography of Syntactic Structures, vol. 11), 33–74. Oxford & New York: Oxford University Press.
- Badan, Linda & Gobo, Francesca del. 2010. On the syntax of topic and focus in Chinese. In Benincà, Paola & Munaro, Nicola (eds.), *Mapping of the Left Periphery* (The Cartography of Syntactic Structures, vol. 5), 63–90. Oxford & New York: Oxford University Press.
- Bennett, Wm. G. & Akinlabi, Akinbiyi & Connell, Bruce. 2012. Two subject asymmetries in Defaka focus constructions. In Choi, Jaehoon & Hogue, E. Alan & Punske, Jeffrey & Tat, Deniz & Schertz, Jessamyn & Alex (eds.), *Proceedings of the 29th West Coast Conference on Formal Linguistics (WCCFL 29)*, 294–302. Somerville, MA: Cascadilla Proceedings Project.
- Bianchi, Valentia. 1999. *Consequences of Antisymmetry: Headed relative clauses*. Berlin: Mouton de Gruyter.
- Bianchi, Valentina. 2000. The raising analysis of relative clauses: a reply to Borsley. *Linguistic Inquiry* 31(1). 123–140.
- Branan, Kenyon & Erlewine, Michael Yoshitaka. 2024. Ā-probing for the closest DP. *Linguistic Inquiry* 55. 375–401.
- Burzio, Luigi. 1986. *Italian syntax: A Government-Binding approach*. Dordrecht: Reidel.
- Cagri, İlhan Merih. 2005. *Minimality and Turkish relative clauses*. College Park: University of Maryland. (Doctoral dissertation.)
- Cecchetto, Carlo & Donati, Caterina. 2015. *(Re)Labeling*. Cambridge, MA: MIT Press.
- Chiu, Bonnie. 1993. *The inflectional structure of Mandarin Chinese*. Los Angeles: University of California. (Doctoral dissertation.)
- Chiu, Bonnie. 1995. An object projection in Mandarin Chinese. *Journal of East Asian Linguistics* 4. 77–117.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2000. Minimalist Inquiries. In Martin et al., (eds.), *Step by Step: Essays in Minimalist Syntax in Honor of Howard Lasnik*, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by Phase. In Kenstowicz (ed.), *Ken Hale: A Life in Language*, 1–52. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2008. On phases. *Foundational Issues in Linguistic Theory: Essays in Honor of J-R. Vergnaud*. Cambridge, MA: MIT Press.
- Cole, Peter & Hermon, Gabriella. 2011. Nominalization and case assignment in Quechua. *Lingua* 121. 1225–1251.
- Coon, Jessica & Baier, Nico & Levin, Theodore. 2021. Mayan Agent Focus and the Ergative Extraction Constraint: Facts and fictions revisited. *Language* 97. 269–332.
- Dede, Müşerref. 1978. Why should Turkish relativization distinguish between subject and non-subject head nouns? In Jaeger, Jeri J. & Woodbury, Anthony C. & Ackerman, Farrell & Chiarello, Christine &

- Gensler, Orin D. & Kingston, John & Sweetser, Eve E. & Thompson, Henry & Whistler, Kenneth W. (eds.), *Proceedings of the 4th annual meeting of the Berkeley Linguistics Society*, 67–77.
- Dikken, Marcel den & Singhapreecha, Pornsiri. 2004. Complex noun phrases and linkers. *Syntax* 7(1). 1–54.
- Djamouri, Redouane & Paul, Waltraud. 2021. Clitic pronouns in Archaic Chinese. *Journal of Historical Linguistics* 11(1). 60–101.
- Erlewine, Michael Yoshitaka. 2016. Multiple extraction and voice in Toba Batak. In Nomoto, Hiroki & Miyauchi, Takuya & Shiohara, Asako (eds.), *The Proceedings of the 23th Meeting of the Austronesian Formal Linguistics Association*, 81–95. Canberra: Asia-Pacific Linguistics.
- Erlewine, Michael Yoshitaka. 2018. Extraction and licensing in Toba Batak. *Language* 93(4). 662–697.
- Gallego, Angel J. 2014. Deriving featuring inheritance from the copy theory of movement. *The Linguistic Review* 31(1). 41–71.
- González, Albert Álvares. 2012. Relative clauses and nominalizations in Yaqui. In Comrie, Bernard & Estrada-Fernández, Zarina (eds.), *Relative Clauses in Languages of the Americas: A typological overview*, 67–95. Amsterdam & Philadelphia: John Benjamins.
- Goto, Nobu. 2011. Feature Inheritance: Its affects on Agree, Move, and Delete. Sendai: Tohoku Gakuin University. (Doctoral dissertation.)
- Hale, Ken. 2002. On the Dagur object relative: Some comparative notes. *Journal of East Asian Linguistics* 11. 109–122.
- Hankamer, Jorge & Knecht, Laura. 1976. The role of the subject/non-subject distinction in determining the choice of relative clause participle in Turkish. *NELS* 4. 123–135.
- Hastings, Rachel. 2004. *The Syntax and Semantics of Relativization and Quantification: The case of Quechua*. Ithaca, NY: Cornell University. (Doctoral dissertation.)
- Huang, C.T. James. 2015. On syntactic analyticity and parametric theory. In Li, Audrey & Simpson, Andrew & Tsai, Dylan (eds.), *Chinese Syntax in a Cross-Linguistic Perspective*, 1–48. Oxford: Oxford University Press.
- Huang, C.T. James & Roberts, Ian. 2016. Principles and parameters of Universal Grammar. *The Oxford Handbook of Universal Grammar*, 307–354. Oxford: Oxford University Press.
- Keine, Stefan & Zeijlstra, Hedda. To appear. Clause-internal successive cyclicity: Phasality or DP intervention. *Natural Language and Linguistic Theory*.
- Kornfilt, Jaklin. 1997. On the Syntax and Morphology of Relative Clauses in Turkish. In İmer, Kamile & Kocaman, Ahmet & Özsoy, Sumru (eds.), *Dilbilim Araştırmaları* [Linguistic investigations], 24–51. Ankara: Keçiçek Yayınları.
- Kornfilt, Jaklin. 2007. Verbal and nominalized finite clauses in Turkish. In Nikolaeva, Irina (ed.), *Finiteness: Theoretical and empirical foundations*, 305–332. New York: Oxford University Press.
- Kornfilt, Jaklin. 2008. Subject case and Agr in two types of Turkic RCs. In Ulutaş, Suleyman & Boeckx, Cedric (eds.), *Proceedings of WAFL* 4. 145–168. Cambridge: MITWPL.
- Jiang, L. Julie. 2008. *SUO in Chinese and phase edges*. Ms., University of Hawaii.
https://lijuliejiang.com/wp-content/uploads/2017/06/jiang-2008-suo_in_chinese_and_phase_edges.pdf
 (accessed 2024/1/7)
- Jiménez-Fernández, Á. L., & Miyagawa, S. 2014. A feature-inheritance approach to root phenomena and parametric variation. *Lingua* 145. 276–302.
- Kayne, Richard. 1994. *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.
- Krause, Cornelia. 2001. *On Reduced Relatives with Genitive Subjects*. Cambridge: MIT. (Doctoral dissertation.)
- Legate, Julie. 2011. Under-Inheritance. *Paper presented at the 42nd Annual Meeting of the North East Linguistic Society (NELS-42)*, University of Toronto.
- Legate, Julie. 2014. *Voice and v: Lessons from Acehnese*. Cambridge, MA: MIT Press.
- Li, Charles N. & Thompson, Sandra A. 1981. *Mandarin Chinese: A functional reference grammar*. Berkeley: University of California Press.
- Miyagawa, Shigeru. 2008. Genitive subjects in Altaic. In Boeckx, Cedric & Ulutas, Suleyman (eds.), *Proceedings of the 4th Workshop on Formal Altaic Linguistics (WAFL-4)*, 181–198. Cambridge, MA: MIT Working Papers in Linguistics.

- Miyagawa, Shigeru. 2010. *Why move? Why agree? Unifying agreement-based and discourse-configurational languages*. Cambridge, MA: MIT Press.
- Miyagawa, Shigeru. 2011. Genitive subjects in Altaic and specification of phase. *Lingua* 121. 1265–1282.
- Miyagawa, Shigeru. 2017. *Agreement Beyond Phi*. Cambridge, MA: MIT Press.
- Muysken, Pieter. 2011. Relative clauses in Ecuadorian Quechua. In van Gijn, Rik & Haude, Katharina & Muysken, Pieter (eds.), *Subordination in Native South-American Languages*, 251–266. John Benjamins, Amsterdam/Philadelphia.
- Ou, Tzu-Shan. 2007. *Suo* Relative Clauses in Mandarin Chinese. *Language and Linguistics* 8(4). 913–937.
- Ouali, Hamid. 2006. On C-to-T ϕ -transfer: The nature of agreement and anti-agreement in Berber. In D'Alessandro, Roberta & Fischer, Susann & Hrafnbjargarson, Gunnar Hrafn (eds.), *Agreement Restrictions*, 159–180. Berlin: Mouton de Gruyter.
- Roberts, Ian. 1994. Two types of head movement in Romance. In Lightfoot, David & Hornstein, Norbert (eds.), *Verb Movement*, 207–242. Cambridge: Cambridge University Press.
- Schachter, Paul. 1973. Focus and relativization. *Language* 49. 19–46.
- Ting, Jen. 2003. The nature of the particle SUO in Mandarin Chinese. *Journal of East Asian Linguistics* 12. 121–139.
- Ting, Jen. 2005. On the syntax of the SUO construction in Classical Chinese. *Journal of Chinese Linguistics* 33. 233–267.
- Ting, Jen. 2010. On the climbing of the particle SUO in Mandarin Chinese and its implications for the theory of clitic placement. *The Linguistic Review* 27(4). 449–483.
- Van Urk, Coppe. 2018. Pronoun copying in Dinka Bor and the Copy Theory of Movement. *Natural Language and Linguistic Theory* 36. 937–990.
- Zhao, Chen & Zhang, Futong. 2022. Relative clauses in Archaic Chinese. *Journal of Chinese Linguistics* 50(2). 385–418.
- Zwart, Jan-Wouter. 2002. Issues relating to a derivational theory of binding. In Epstein, Samuel David & Seely, T. Daniel (eds.), *Derivation and Explanation in the Minimalist Program*, 269–304. Malden: Blackwell.