Clause-Internal Object Preposing: A Comparison Between Mandarin Chinese, English and Spanish

Jiahui Yang, University of Seville, Spain

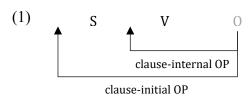
The current study mainly deals with clause-internal object preposing, which is permitted in Mandarin Chinese, but is banned in English and seems controversial in Spanish. The lack of universality of this phenomenon has prompted an exploration for a principled explanation. Guided by the theory of Feature Inheritance, it has been proposed in this paper that the preposed object in Mandarin Chinese has the status of topic and occupies the specifier position of TP alongside the subject, and that the different feature-inheritance patterns in English and Spanish, in addition to some restrictive conditions of multiple specifiers from the perspective of labelling, have caused the cross-linguistic variations.

Keywords: object preposing, feature inheritance, multiple specifiers, labelling

1 Introduction

The verbal communication involves the transmission of linguistic messages, in which process information is organised and packaged in a specific way by the sender in order to provide the receiver with implicit or explicit instructions on how to correctly process this information. To this end, the structural properties of a given sentence is regarded as a result of the necessity of accommodating the meaning of the sentence, and the structural alternations observed in human language is, to some extent, a reflection of information structure (IS).

The present article focuses on one of such alternations in word order, object preposing (OP), across three languages: Mandarin Chinese, English and Spanish. Under certain contexts, in these three VO languages, the object (without additional marking)¹ can appear to the left of the verb. Herein two possibilities may occur, as illustrated in (1): the object may be fronted either to the beginning of the clause (clause-initial OP) or to an intermediate position between the subject and the verb (clause-internal OP).



As observed in (2), both types of OP exist in Mandarin Chinese:

¹ Preverbal objects marked by additional markings in Mandarin Chinese (*ba*, *lian* 'even', *zhi* 'only', *dou* 'all', *ye* 'also', etc.) may have different properties. These constructions are left for further research and are not taken into consideration in the present article.

(2) Mandarin Chinese

- a. *Jiu* wo bu he le. liquor 1sG not drink COS 'I won't drink liquor anymore.' (adapted from Ernst & Wang 1995: 236)
- b. Women Gugong qu-guo le.
 1PL Imperial.Palace go-EXP COS
 'We've been to the Imperial Palace.' (adapted from Fan 1984, 29, quoted in Paul 2002: 697)

In English and Spanish, clause-initial OP is also permitted, as shown in (3a) and (4a), but clause-internal OP, by contrast, gives ungrammatical result in (Morden) English, and is presumably rare in Spanish (cf. Gili Gaya 1980: 83), as seen in (3b) and (4b).

(3) English

- a. The play John saw yesterday.
- b. *John the play saw yesterday. (adapted from Halliday 1967: 212)

(4) Spanish

- a. Una casa compró mi padre.
 - a house buy-PST.3SG my father
- b. *Mi padre una casa compró. my father a house buy-PST.3SG
 - 'A house my father bought.' (adapted from Gili Gaya 1980: 83)

In view of the correlation between word-order alternations and IS, it may be assumed that OP is present in response to particular discursive effects. To account for the contrast observed above between the three languages in a formal way, the current study adopts the theory of Feature Inheritance (FI) first proposed in Chomsky (2008),² which has been further developed in Jiménez-Fernández (2010; 2011), Jiménez-Fernández & Miyagawa (2014) and Miyagawa (2010), among others. Whitin this framework, both the φ - and discourse(δ)-features are claimed to be originated in C and inherited by T in some languages but retained in C in some others. The valuation of the uninterpretable φ - and δ -features can be followed by the movement of the goal into the projection of the probe.³

The rest of the article is organised as follows. § 2 revises the discursive and syntactic properties of the preposed object in Mandarin Chinese, based on which a feature-inheritance approach to clause-internal OP can be proposed. Within the same framework, § 3 addresses the absence of this phenomenon in English and its legitimacy in Spanish, and it is argued that the same approach may account for both cases, with the implication of some restrictions of multiple specifiers in these two languages. In order to further capture the essence of their difference from Mandarin Chinese, § 4 analyses the correlation between unique labelling and multiple specifiers, with reference to the approach explored in Epstein et al. (2020). Finally, § 5 concludes the whole paper.

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² A similar approach has been explored in Miyagawa (2005).

³ In line with Miyagawa (2010) and Yang (2023), such a movement is assumed to occur if and only if there is no other more economic alterative to preserve the functional relation established between the probe and the goal.

2 Clause-internal OP in Mandarin Chinese

2.1 Functions of the preposed object in the discourse

It has been suggested earlier that word-order alternations are the reflection of IS; if so, clause-internal OP is expected to give rise to a certain special discursive interpretation of the object. Indeed, Tsai (1994) claims that a post-subject object in Chinese obligatorily yields a contrastive construal:

- (5) a. Wo zhe-pian lunwen xihuan,*(na-pian lunwen bu xihuan).

 1SG this-CLF paper like that-CLF paper not like

 'This paper, I like, but that paper, I don't.'
 - lunwen yingfu, *(liang-pian jiu b. Wo yi-pian kevi bu xing le). handle two-CLF not capable 1s_G one-CLF paper can then COS 'One paper, I can handle, but two papers, I am not capable (of handling).' (adapted from Tsai 1994: 138)

In addition, since the preposed object in (5b) seems to be construed as indefinite and cardinal, Tsai (1994) further argues that it is in effect a focus. Basically in a similar vein, Ernst and Wang (1995), Shyu (1995), Gasde (1998) and Zhang (2000) also consider the post-subject object to be (contrastive) focus. Nevertheless, a closer look at constructions such as the ones in (5) will make the focus status of the pre-verbal object somewhat dubious. To begin with, the preposed object cannot be used to introduce a direct rejection to another alternative in contexts like the following one:

- (6) A: *Tingshuo Zhangsan mai-le diannao*. hear.of zhangsan buy-PFV computer 'I've heard that Zhangsan bought a computer'
 - B: *Bu, Zhangsan mai-le shouji*. no zhangsan buy-PFV mobile.phone 'No, Zhangsan bought a mobile phone.'
 - B': #Bu, Zhangsan shouji mai-le. no zhangsan mobile.phone buy-PFV

In this conversation, speaker B replies to A that what Zhangsan bought was a mobile phone instead of a computer, in which case the DP object *shouji* 'mobile phone' functions as a direct rejection to *diannao* 'computer', the other alternative introduced into the discourse by speaker A. As can be noticed by comparing the preposed and in-situ versions of the reply, the CF object must stay in the canonical post-verbal position and preposing it to a pre-verbal position turns out to be infelicitous.

Following L. Xu (2001, 2017), I would like to argue that the clause-internal preposed object in Mandarin Chinese has the status of topic, instead of focus.

(7) A: Zhangsan chi shucai ma? Zhangsan eat vegetable Q 'Does Zhangsan eat vegetables?' B: Zhangsan huacai bu chi, xilanhua chi.
Zhangsan cauliflower not eat broccoli eat
'Cauliflower, Zhangsan doesn't eat, but broccoli, he does.'

As shown in (7), the two preposed objects *huacai* 'cauliflower' and *xilanhua* 'broccoli' respectively introduce an answer to subquestion inferred from the big question raised by speaker A, namely 'does Zhangsan eat cauliflower?' and 'does Zhangsan eat broccoli?'. Therefore, the function of the preposed objects in (7) is to evoke a pair of oppositional propositions, which, according to Frascarelli & Hinterhölzl (2007), corresponds to the use of Contrastive Topic (CT).

On the other hand, not all preposed objects require contrastive readings, for example:

- (8) A: Zhe-pian lunwen ni du de zenmeyang le? this-CLF paper 2SG read-finish DE how COS 'How are you doing with this paper?'
 - B: Wo zhe-pian lunwen du-wan le. 1SG this-CLF paper read-finish COS 'This paper, I've finished reading.'

In (8), speaker B answers a question raised by A concerning the progress in his/her reading of a paper. In contrast with the example (5), here the pre-verbal object does not evoke any contrastiveness, but instead represents an entity familiar to both speakers. Moreover, putting a nuclear stress on the preposed object gives an infelicitous result in this context:

- (9) A: Zhe-pian lunwen ni du de zenmeyang le? this-CLF paper 2sG read-finish DE how COS 'How are you doing with this paper?'
 - B: #Wo zhe-pian lunwen du-wan le.

 1SG this-CLF paper read-finish COS

 'This paper, I've finished reading.'

In this sense, the clause-internal preposed object in (8) is more likely to be a Given (or Familiar) Topic (GT) as defined in Frascarelli & Hinterhölzl (2007).

However, as pointed out by an anonymous reviewer, some authors contend that two structural positions for preposed object can be identified in Mandarin Chinese, which may suggest two distinct types of clause-internal OP. One of the main arguments comes from the distribution of the preposed object in relation to a modal:

- (10) a. Zhangsan hui chi nage pingguo. Zhangsan will eat that apple 'Zhangsan will eat that apple.'
 - b. Zhangsan nage pingguo hui chi. Zhangsan that apple will eat 'That apple, Zhangsan will eat.'
 - c. Zhangsan nage pingguo hui chi, zhege pingguo bu hui. Zhangsan that apple will eat this apple not will 'Zhangsan will eat that apple but not this one.'

d. Zhangsan hui nage pingguo chi *(zhege pingguo bu chi). Zhangsan will that apple eat this apple not eat 'Zhangsan will eat that apple *(but not this one).'

Examples (10b-d) all involve the preposing of the object, and it is noticed that the object *nage pingguo* 'that apple' can either precede or follow the modal *hui* 'will', though with some difference in its interpretation. As shown by (10b) and (10c), when the object precedes the modal, it can optionally have a contrastive reading, but when the object is preposed to a position after the modal, as shown in (10d), the contrastive context becomes obligatory.

The contrast shown in (10b-d) seems to suggest that an internal-topic object is preposed to a higher position within the clause, while an object with contrastive reading can optionally occupy a lower position. However, I will argue against this assumption based on the following two reasons. First, the clause-internal object in sentences such as (10d) cannot be used to reject an alternative introduced into the discourse by the other speaker:

- (11) A: Wo juede Zhangsan hui chi zhege pingguo.

 1SG think Zhangsan will eat this apple
 'I think Zhangsan will eat this apple'
 - Zhangsan hui B: #*Bu*, nage pingguo chi, zhege pingguo bu chi. Zhangsan will that apple this apple not eat no eat (int.) 'Zhangsan will eat that apple, but not this one.'

The infelicity of B's answer suggests that the pre-verbal object is unlikely to be a Contrastive Focus. At the same time, constructions of this kind cannot be used to answer a subquestion inferred from a bigger question raised by the other speaker:

- (12) A: Zhangsan hui chi zhexie shuiguo ma? Zhangsan will eat these fruits Q 'Will Zhangsan eat these fruits?'
 - B: #Zhangsan hui pingguo chi, lizi bu chi. Zhangsan will apple eat pear not eat
 - B': Zhangsan pingguo hui chi, lizi bu hui. Zhangsan apple will eat pear not will 'Apples, Zhangsan will eat, but pears, he won't.'

In contrast with (12B'), the sentence in (12B) where the object follows the modal cannot be considered felicitous, which shows that the pre-verbal object in (12B) is different from the one in (12B'). In fact, (12B) might be used to answer a more generic question such as 'what will Zhangsan do?'. This suggests that the whole construal that follows the modal might be an embedded clause serving as the Information Focus of the sentence, with the pre-verbal object occupying the initial position in the lower clause. Consider the following example with the lower clause having explicit subjects:

(13)[CP Zhangsan hui [CP zuoye Lisi fancai Wangwu bang ti ta zuo, Zhangsan will homework Lisi for 3sg food Wangwu help do shao.]] ta cook 3sg 'Zhangsan will be like this: the homework, Lisi does it for him, and the food, Wangwu cooks it for him.'

Therefore, in conformity with the initial affirmation that word-order alternations are the reflection of IS, it might be claimed that an object preposed to clause-internal position in Mandarin Chinese can serve as a (contrastive or given) topic.

2.2 A-movement properties of the clause-internal preposed object

The A-movement analysis of the preverbal object is supported by several independent pieces of evidence noted in Qu (1994) and Shyu (1995). To begin with, clause-internal OP can ameliorate Weak Crossover (WCO) effects:

(14)a. **Wo* bei [youguai ta_i de ren] pian-zou-le [meige haizi]_i. 1s_G by abduct DE person cheat-away-PFV every child 3SG Wo [meige haizi]_i dou bei [vouguai tai de ren] pian-zou-le b. every child by abduct DE person cheat-away-PFV 1s_G 3sg (lit.) 'I was affected by every child (of mine) being kidnapped by the person who abducted him.' (adapted from Shyu 1995: 107)

As noted by Shyu (1995), the pronoun inside the DP cannot be bound by a post-verbal QP in (14a) but can be bound by a preposed QP in (14b). It is typically assumed that a quantified expression undergoes covert movement at LF (Quantifier Raising) to clause-initial position (May 1978), creating an operator-variable relation. Therefore, in (14a) the raised QP binds both the pronoun *ta* 's/he' and the lower copy of *meige haizi* 'every child', giving rise to WCO. However, according to Frank et al. (1996), A-movement arguably bleeds WCO, because it is capable of licensing binding of the pronoun by the quantifier, which is not possible with A'-movement. This explains why the pre-verbal QP in (14b) can be coindexed with the pronoun without any problem, and it suggests that the preposing of the QP object in (14b) is an A-movement.

Another characteristic A-movement is the optionality of reconstruction, in contrast with the obligatory reconstruction shown by A'-movement (cf. Lebeaux 1988; 2009; Chomsky 1993; 1995; Fox 1999; Takahashi & Hulsey 2009). Constructions with clause-internal OP in Mandarin Chinese exhibit this property as well:

**Wo* [Zhangsan_i-de (15)a. jiao ta_i na-zou-le shu]. 1sg 1et 3sg take-away-PFV Zhangsan-POSS book b. Wo [Zhangsan_i-de shu_j jiao ta_i na-zou-le Zhangsan-POSS book let 3sg take-away-PFV 'I let him to take away Zhangsan's book.' (adapted from Shyu 1995: 106)

In sentence (15a), the R-expression *Zhangsan* is c-commanded by the pronoun *ta* 'him', so the coindexation between the two would violate Condition C of Binding Theory, i.e., that an R-expression must be free. But if the object that contains *Zhangsan* is preposed to the left of the

verb, as is the case in (15b), the binding relation is remedied, which means that the moved object is interpreted in the target position, that is, no reconstruction occurs.

The third piece of evidence comes from bounded dependency, which has been treated as one of the core differences that set A- and A'-movement apart (cf. Chomsky 1973; 1977; 1981). Since an A-moved element cannot use the edge of CP (which is an A'-position) as an escape hatch to cross finite clause boundaries (Ban on Improper Movement), A-movement generally exhibits locality properties. Clause-internal OP in Mandarin Chinese conforms with such restrictions, as well.

(16)a. Wo renwei [CP ta [zhe-ben yijing kan-wan-le shu_i alreadyread-finish-PFV think he this-CLF book 1s_G b. **Wo* [CP zhe-ben shu]_i renwei [ta yijing kan-wan-le book think he already read-finish-PFV 1s_G this-CLF 'I think that he has already finished reading this book.' (adapted from Qu 1994: 90)

While in sentence (16a) the object *zhe-ben shu* 'this book' can be preposed to an intermediate position within the embedded finite clause, moving the object out of the lower CP to the left of the matrix verb gives an ungrammatical result, as shown in (16b). This means that clause-initernal OP is subject to locality restrictions, which is indicative of being A-movement.

Considering the A-properties and the topic status of the preposed object in Mandarin Chinese, there seems to exist a correlation between the syntactic position of the object and its discursive functions, which might be captured in the theory of Feature Inheritance.

2.3 Feature inheritance and multiple specifiers

As briefly mentioned previously, Feature Inheritance (FI) assumes that both the ϕ - and δ -features are originated in C, and that one or both of them can be inherited by T from C, according to the configuration of different languages. An important consequence of such a mechanism is that it offers a straightforward explanation of why the basic sentence pattern is shown to be subject-predicate in some languages, but topic-comment (or focus-presupposition) in some others (cf. Li & Thompson 1976): depending on which type of features are inherited by T, the uninterpretable features on this functional head may get valued by the relevant interpretable features carried by either the subject or the topic/focus (or both).

Therefore, the topic status and A-properties of the clause-internal preposed object in Mandarin Chinese are concomitants of each other, and closely related to the δ -feature inheritance. Given this consideration, sentence (2b), repeated below in (17), would be derived in the following manner.

Suppose the object *Gugong* 'Imperial Palace' enters the Numeration with an interpretable [+Topic]-feature, and T inherits an unvalued δ -feature from C in Mandarin Chinese, T would become an active probe that searches for a suitable goal in its c-command domain, which locates the DP topic; the δ -feature on T gets valued by the [+Topic]-feature of the object, and finally the latter moves to unite with the probe at [Spec,TP]. One piece of evidence that supports this proposal is the position occupied by the clause-internal topic object relative to negation.

(18)a. Wo (**bu*) *jiu* bu he le. liquor not drink 1s_G not COS 'I won't drink liquor anymore.' (adapted from Ernst & Wang 1995: 236) (*mei/meiyou) huoche mei(you) gan-shang. 3sg train not chase-up 'He didn't catch the train.' (adapted from Fan 1984, 29, quoted in Paul 2002: 697)

Despite the long-standing disagreement among linguists over the syntactic positions of the two negative markers bu and mei(you) in Mandarin Chinese, they are generally assumed to be located in the periphery of vP (cf. Wang 1965; Yeh 1992; Ernst 1995) or in a position higher than vP (presumably heads a NegP, cf. Cheng & Li 1991; Chiu 1993; D. Xu 1997, or in [Spec,AuxP], cf. Ernst 1995). So, the fact that the preposed object must precede the negative markers in (18) suggests that the object probably occupies a position higher than vP, which is supposed to be, at the same time, an A-position as discussed earlier. This makes [Spec,TP] the ideal position for the preposed object to target.

If it is true that the clause-internal topic object occupies [Spec,TP], one may immediately wonder where the clause-initial subject is situated, given that the specifier of TP is traditionally assumed to be occupies by the subject. In this respect, I would like to argue that both the subject and the clause-internal preposed object are in [Spec,TP], which means that they are multiple specifiers of TP in this case.⁴

(19)
$$\left[CP \right] TP S O \left[T' V \dots \right]$$

One argument in favour of this idea comes from the root phenomenon, which is typically observed when a certain structure is restricted to root clauses and root-like indirect discourse embeddings (RIDEs) (Emonds 1970; 1976; 2004). Structures of this kind are called Root Transformations (RTs). In Mandarin Chinese, constructions involving a clause-initial Hanging

(i) Zhangsan zongshi/changchang wenti bu jiejue, liu gei bieren chuli. Zhangsan always/often problem not solve leave to other.people handle 'Zhangsan always/often fails to solve problems and leaves them to other people.'

The intervening adverb in (i) appears to contradict the hypothesis that the clause-internal object and the subject are multiple specifiers of TP. However, the previous analysis for the post-modal object can be applied here, as well. Sentence (i) can be used to answer a question like 'what does Zhangsan always/often do?', which suggests that the entire construction after the adverb has the status of the Information Focus. Furthermore, it is observed that the frequency adverbs can be followed by an embedded clause with explicit subjects:

(ii) [CP Zhangsan zongshi/changchang [CP zuoye Lisi ti ta zuo, fancai Wangwu bang Zhangsan always/often homework Lisi for 3SG do food Wangwu help ta shao.]]
3SG cook

'Zhangsan is always/often like this: the homework, Lisi does it for him, and the food, Wangwu cooks it for him.'

Therefore, the post-adverb object in sentences such as (i) might be regarded as a clause-initial preposed object situated within an embedded clause, which does not really constitute a counterexample to the current proposal.

⁴ One reviewer notes that frequency adverbs such as *zongshi* 'always' and *changchang* 'often' can precede the preposed object in Mandarin Chinese:

Topic (Benincà 2001; Benincà & Poletto 2004; Badan 2007; Badan & Del Gobbo 2011) are RTs, and they are incompatible with matrix verbs such as *fouren* 'deny':⁵

- (20) a. Zhangsan fouren [tamen gei Lisi qu mai dongxi]. Zhangsan deny 3PL for Lisi go buy thing 'Zhangsan denies that they go to buy things for Lisi.'
 - b. *Zhangsan fouren [Lisi, tamen gei ta qu mai dongxi].

 Zhangsan deny Lisi 3PL for 3SG go buy thing

As observed in (20), when the complement clause of the verb *fouren* 'deny' is headed by *Lisi*, which serves as a Hanging Topic, the sentence becomes ungrammatical. Following Haegeman (2006; 2010) and Jiménez-Fernández & Miyagawa (2014), I assume that root phenomenon is due to the competition for the same position between the element heading the embedded clause and an event operator, which exists in the CP area of a non-RIDE clause. Such an operator presumably needs to move to [Spec,CP], blocking any other elements that targets the same position. If a clause-initial Hanging Topic in Mandarin Chinese exists in [Spec,CP], the root phenomenon shown in (20) would be expected.

By contrast, clauses with an internal preposed object in Mandarin Chinese can be perfectly embedded by a verb that requires RTs:

a. Zhangsan fouren [tamen (21)Gudong le]. qu-guo Zhangsan deny 3PL go-EXP Imperial.Palace COS b. Zhangsan fouren [tamen Gugong le]. qu-guo Imperial.Palace Zhangsan deny 3PL go-EXP COS 'Zhangsan denies that they've been to the Imperial Palace.'

The grammatical result in (21b) shows that clause-internal OP constructions in Mandarin Chinese are not RTs, which, in line the previous analysis of competition, suggests that the embedded subject in (21b) does not occupy [Spec,CP]. Moreover, the consistency of (21a) and (21b) implies that the two embedded subjects are all situated in the typical subject position, that is, [Spec,TP].

On the other hand, according to Jiménez-Fernández (2011), the concept of Equidistance in Chomsky (1998) may also be understood in an inverted way: not only terms of the edge of HP are equidistant from probe P, but terms of the edge of HP are also equidistant from goal G. This suggests that when HP has more than one specifier, a moving category can freely choose between these edge positions. From this perspective, if the subject and the pre-verbal object in Mandarin Chinese are indeed multiple specifiers of TP, their free relative ordering would be expected. This is easily borne out by the fact that a topicalised object can either follow or precede the subject in Mandarin Chinese:

(22) A: Wo zuotian mai-le ji-ben xiaoshuo.

1SG yesterday buy-PFV several-CLF novel
'Yesterday I bought several novels.'

⁵ According to Hooper & Thompson (1973), predicates can be classified into five classes based on their semantic and syntactic properties. While some of these classes are found to be compatible with RTs, the others are not. Consequently, complement clauses of verbs that are incompatible with RTs, such as 'deny' are considered non-RIDEs.

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B: Wo
           zhe
                  ji-ben
                                  xiaoshuo
                                             hen
                                                     xihuan.
           this
                                                     like
    1sg
                   several-CLF
                                  novel
                                              very
B': Zhe
           ii-ben
                                                     xihuan.
                          xiaoshuo
                                     wo
                                              hen
   this
           several-CLF
                          novel
                                      1s<sub>G</sub>
                                              very
                                                     like
    'These novels, I like a lot.'
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In (22), speaker B(') makes a comment about *zhe ji-ben xiaoshuo* 'these novels', which are claimed to have be bought by speaker A the other day. Therefore, the DP object in the reply sentence represents a given entity in the discourse which speaker B(') talks about, that is, a Given Topic. As shown by (22B) and (22B'), the object can be situated on either side of the subject, as predicted by equidistance between multiple specifiers.

Based on these considerations, it seems plausible to argue that the clause-internal preposed object in Mandarin Chinese is a topic that undergoes A-movement to [Spec,TP], which is related to the inheritance of the relevant δ -feature from C to T. In the next section, the problem of clause-internal OP in English and Spanish will be analysed.

3 Contrast with English and Spanish

3.1 Absence of clause-internal OP in English

In Modern English,⁶ a sentence with a S-O-V word order such as the one in (3b), repeated below in (23b), is generally considered to be unacceptable. By contrast, to prepose an object in English, the only possible position is to the left of the subject, as shown in (23a).

- (23) a. The play John saw yesterday.
 - b. *John the play saw yesterday. (adapted from Halliday 1967: 212)

In the previous analysis of Mandarin Chinese, it has been proposed that the clause-internal object undergoes preposing to [Spec,TP] after the δ -feature inherited by T from C gets evaluated by the [+Topic]-feature carried by the object. Then, it is worth asking what has prevented the same process from taking place in English. A natural guess would be that, if no agreement occurs between T and the object, there is no motive for the object to be preposed to [Spec,TP]. I will argue next that this is exactly the situation of English predicted by FI.

According to recent research on language typology from the perspective of FI (see, among others, Jiménez-Fernández 2010; 2020; Jiménez-Fernández & Miyagawa 2014; Miyagawa 2010; 2017), English is classified among those so-called *agreement-prominent* languages, as opposed to the *discourse-prominent* ones. In the first type of languages, the δ -features, instead of being passed down to T, are typically retained in C. The evidence for such an affirmation may come from the fact that English topicalisation shows a series of A'-properties, for example:

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⁶ Setting aside the problem of the exact process of word-order change in the history of English, it is virtually undisputed on a statistical basis that the OV word order found in Old English was gradually driven out during its development to Early Middle English (cf. Fries 1940; Bean 1983; Trips 2002). Due to the synchronic nature of the contrastive analysis that is being carried out here, only data in Modern English are brought into discussion. Henceforth, with *English* I always refer to Morden English.

- (24) Obligatory reconstruction
 - a. Himself_i, Johni likes i
 - b. *Himself_i likes John_i. (adapted from Weisler 1986: 339)
- (25) Unbounded dependency [This book]_i, Kim thinks Sandy criticised ___i. (adapted from Hukari & Levine 1991: 98)
- (26) Parasitic gap licensing [Those books]_i, Alex picked ____i up yesterday [only to throw ____i away later]. (van Urk 2017: 533)

The contrast between (24a) and (24b) shows that, for the anaphor to be correctly bound by the pronoun, the topicalised anaphor must be interpreted in its pre-movement position, which means that reconstruction is obligatory in this case. Sentence (25) demonstrates that the topicalised element may cross tensed clause boundaries, that is, it is not subject to locality constraint. Obligatory reconstruction and unbounded dependency are considered to be characteristic of A'-movement, as already mentioned in § 2.2. When it comes to sentence (26), parasitic gaps have been standardly assumed to be licensed by A'-movement (see, among others, Chomsky 1982; Engdahl 1983; É. Kiss 1986; Nissenbaum 2000; J. Lin 2005; van Urk 2017), so again, it evidence that the topic sits in an A'-position.

To be sure, these properties can only demonstrate that English topics do not occupy [Spec,TP], but do not directly prove that they are in [Spec,CP]. Recalling that previously, the absence of root phenomenon has been used as a piece of evidence to argue that [Spec,TP] is the only suitable position for the subject to occupy in Mandarin Chinese, here the same analysis may be used to show that English topics are most probably in [Spec,CP]:

- (27) a. Bill warned us that [flights to Chicago we should try to avoid].
 - b. *A warning that [flights to Chicago travellers should avoid] will soon be posted. (Jiménez-Fernández & Miyagawa 2014: 277)

As observed in (27), when topicalisation occurs in embedded clauses in English, it is only compatible with RIDEs such as the one in (27a), but cannot be used in non-RIDEs such as in (27b).⁷ If the previous competition-based analysis is on the right track, it may be concluded that the topicalised element occupies the same position, [Spec,CP], as the event operator. Accordingly, the δ -feature valuation occurs in CP in English.

On the other hand, being an agreement-prominent language, English is supposed to pass the unvalued ϕ -features from C to T, which are valued by the ϕ -features carried by the subject. This coincides with the fact that English subjects generally occupy [Spec,TP], which, alongside the feature-inheritance pattern depicted above, provides a straightforward explanation for the absence post-subject object in English:

⁷ According to Emonds (2004), the complement clause of a noun is not root-like.

Nevertheless, acknowledging that English topicalisation targets the [Spec,CP], one may still wonder, then, why the subject in (3a) cannot be further topicalised and hence moves to the specifier position of C as well, crossing the fronted object, as is shown in (28c). This would suggest a scenario of multiple specifiers similar to the case of Mandarin Chinese (but the latter involves multiple specifiers of T instead of C). Apparently, English does not allow this, which may indicate some restrictions of multiple specifiers. This problem shall be discussed shortly afterwards.

3.2 Multiple topics in Spanish

In the previous analysis, the absence of clause-internal OP in English has been assumed to be the result of the δ -feature retention in C in this language. Following the same line of thinking, it should be expected that in a scenario where there is C-to-T δ -feature inheritance, clause-internal OP would be permitted. However, in Spanish, a language claimed to have discourse-prominent properties (cf. Jiménez-Fernández 2010; Jiménez-Fernández & Miyagawa 2014), clause-internal OP is traditionally considered to be quite marginal (cf. Gili Gaya 1980), contrary to the expectation.

We may start by asking if it is true that Spanish bans the object from appearing in a clause-internal position, given the fact that this language has been claimed to have a rather flexible word order. To this end, an acceptability judgement test was conducted in the current study with a total of 117 native speakers of Peninsular Spanish (see Appendix of the paper for details). The test has included six sentences in which the object appears between the subject and the verb, along with the necessary context to interpret the object as an instance of either Aboutness-shift Topic (AT), Contrastive Topic (CT), Given Topic (GT), 8 Negative Fronting (NF), Contrastive Focus (CF) or Scalar Focus (SF). The informants were asked to rate the level of acceptability of each sentence on a scale of 1 to 5, with 1 the lowest and 5 the highest rating. The result has been summarised in table 1, where it can be noticed that, in general, clause-internal OP in Spanish has shown relatively low acceptability among the native speakers, 9 and none of the sentences has been considered to be perfectly construed.

Table 1: Test results of the acceptability of clause-internal OP in Spanish

Acceptability level	Percentage (%) of informants					
	AT	CT	GT	NF	CF	SF
1	17.95	2.56	18.80	29.06	37.61	26.50
2	43.59	23.08	34.19	42.74	35.04	33.33
3	3.42	8.55	10.26	8.55	10.26	14.53
4	21.37	27.35	23.93	14.53	14.53	14.53
5	13.68	38.46	12.82	5.13	2.56	11.11
Average acceptability (out of 5)	2.69	3.76	2.78	2.24	2.09	2.50

However, recent research on multiple topics in Spanish seems to suggest the opposite. Jiménez-Fernández (2011) points out that multiple (familiar or given) topics in languages such as

⁸ The topic typology is adopted from Frascarelli & Hinterhölzl (2007) and Bianchi & Frascarelli (2010).

⁹ However, the sentence with a preposed object which is interpreted as CT seems to be relatively more acceptable than the others, with an average acceptability rate of 3.76 (out of 5). This interesting finding may suggest some peculiar properties of CF in Spanish, which will be left for further research.

Spanish (as well as Romanian and Turkish) is not subject to any specific ordering, as shown in the following sentences:

- (29) a. Ángela entregó la tesis en el Departamento el jueves.

 Angela submit-PST.3SG the thesis in the Department the Thursday
 - b. Ángela, la tesis, en el Departamento la entregó el jueves.

 Angela the thesis in the Department CL submit-PST.3SG the Thursday
 - c. La tesis, en el Departamento, la entregó Ángela el jueves. the thesis in the Department CL submit-PST.3SG Angela the Thursday
 - d. La tesis, Ángela, la entregó en el Departamento el jueves. the thesis Angela CL submit-PST.3SG in the Department the Thursday 'Angela submitted her thesis in the Department on Thursday.' (Jiménez-Fernández 2011: 11)

In view of the lack of a strict order for the preposed topics, theoretically it would be totally acceptable to have a topicalised object that follows the topicalised subject in Spanish, which is exactly the case of (29b). Furthermore, Jiménez-Fernández (2011) argues that all the multiple given topics in (29) are in the specifier positions of T, hence a multiple-specifier scenario as has been assumed for clause-internal OP in Mandarin Chinese.

Therefore, Jiménez-Fernández's (2011) analysis seems contradictory to the traditional assumption and to the result of the previous acceptability judgement test. But what is implied here may not be a simple right-or-wrong issue. Comparing the construction in (29b) and the previously claimed ungrammatical result in (4b), an interesting observation is that in the first a PP intercalates between the preposed object and the verb, but there is no extra element between the two in the second. Later it will be shown that the PP is indeed obligatorily required for the object to be able to appear in a post-subject position in Spanish. Actually, Jiménez-Fernández's (2011) analysis coincides with the previous discussion presented in this paper about the presence or absence of clause-internal OP in Mandarin Chinese and English, in that this phenomenon is assumed to be correlated with the possibility of having multiple specifiers in these languages. But until now, the reason for this mechanism to apply to only part of the constructions in some languages has not been discussed in detail. In the next section, an analysis grounded on Epstein et al.'s (2020) approach to multiple-specifier configurations with respect to unique labelling will be presented, in the hope of providing a principled explanation for the differences in clause-internal OP between the three languages.

4 Unique labelling and multiple specifiers

4.1 *Uniqueness of labelling in Epstein et al. (2020)*

Epstein et al. (2020) propose that the presence of multiple specifiers depends on whether a unique label can be identified for the syntactic object (SO). Labelling is a mechanism that identifies the properties of non-minimal projections in a Merge-based system. Chomsky (2013) claims that the mechanism of labelling is an instance of minimal search (MS). The simplest case would be the Head-Complement configuration. Suppose SO = {H, XP}, where H is a head (minimal projection) and XP is not, ¹⁰ MS may locate H and take it as the label of SO, because

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¹⁰ The notations are used here only for representational reasons.

H is a LI and carries the relevant categorial feature but XP is itself a set and cannot serve as a categorial identifier.

Things become a bit more complicated when it comes to configurations that involve a specifier. Given SO = {XP, YP}, both set members are non-lexical items, so neither of them qualifies as the categorial identifier; if MS looks into XP and YP, two heads can be located respectively, i.e., X and Y. In consequence, for SO to be properly labelled, either (i) one of the heads needs to be rendered invisible to MS (e.g., by raising XP or YP to a higher position), or (ii) X and Y should have something in common and their shared property is located by MS and taken to be the label of SO (cf. Chomsky 2013: 43).

The same labelling strategies, especially the one in (ii), have been adopted by Epstein et al. (2020) to account for multiple-specifier configurations. A concrete example can be found in Japanese:

(30) Bunmeikoku-ga dansei-ga heikin-zyumyoo-ga mizika-i. civilised.country-NOM male-NOM average-life.span-NOM short-PRS 'It is in civilised countries that male's average life span is short.' (Kuno 1973, quoted in Saito 2016: 3)

(31) SO =
$$\{\{N_1, \alpha\}, \{\{N_2, \beta\}, \{\{N_3, \gamma\}, \{T, \epsilon\}\}\}\}\}$$

In a schematic way, (30) may have the structure in (31). To determine the label of SO, Epstein et al. (2020) argue that the four heads, N₁, N₂, N₃ and T, are all located by MS,¹¹ and it is the valuation of the nominative Case on every N by T that counts as the kind of shared property mentioned in (ii), and it identifies the label of SO as u(nvalued)Case-v(aluing)Tense.

But clearly, there still remains the question why such a mechanism cannot apply to all languages for multiple specifiers to appear in them. For example, in English it is not possible to have multiple subjects in a finite clause. To account for the absence of multiple specifiers in some languages such as English, Epstein et al. (2020) propose that labelling is based on the premise of unique identification, in the sense that one and only one valuing head is located by MS in every feature-valuation process.

In (31), the uniqueness condition has been met, because only one head (T) is located by MS to value the Case on N_1 , N_2 and N_3 , respectively. As suggested by Zwart (1997), the only way for multiple specifiers to be allowed is to have a head entering into multiple licensing (feature-valuation) relations, which is exactly what T has done in (31). However, according to Epstein et al. (2020), what differentiates English from Japanese is the fact that English T bears a set of unvalued φ -features (which are inherited from C according to the previous discussion), so if there were several nominal heads in the specifier positions of TP, they would all be located by MS as potential valuing heads since all of them carry φ -features. This would violate the uniqueness condition mentioned above, so that SO would not be correctly labelled.

As for the reason that Japanese is able to circumvent this problem, Epstein et al. (2020) leave the question open with three possible explanations, and one of them is the lack of unvalued ϕ -features in Japanese. But from the perspective of the current theoretical framework, I would like to argue that it is not the case that Japanese does not have unvalued ϕ -features, but

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¹¹ Epstein et al. (2020: 4) proposes that MS operates in an optimal way in that it finds the target(s) via the shortest possible path, and "the path of α is the set of all SOs of which α is a term.... the path of α is shorter than the path of β iff the path of α is a proper subset of that of β ". However, in this case there is no proper subset relation between the path of the four heads, so they are equally *shortest*, and the four heads are all located by MS.

that they are retained by C, hence not present on T (cf. Miyagawa 2005; 2010; 2017; Jiménez-Fernández & Miyagawa 2014).

Based on Epstein et al.'s (2020) analysis, let us reconsider the presence and absence of clause-internal OP in the three languages, which has been attributed to the different feature-inheritance patterns in them, and to the possibility of having multiple specifiers in the relevant constructions. It is worth nothing that in accordance with the current theoretical framework, the goal moves into the probe to preserve the functional relation established between them, which means that before the structure in (31) is formed, the feature-valuation process has already been done; from this perspective, labelling is a reflection, but not direct result of the valuing relation between the two heads. However, the essence of uniqueness of labelling stays the same.

4.2 Labelling in clause-internal OP

It has been argued in § 2 that in Mandarin Chinese, the preposed object has the status of topic and it is probed by T, which inherits an unvalued δ-feature from C, so it ends up moving to [Spec,TP]. On the other hand, the subject in Chinese clause-internal-OP constructions is shown to occupy [Spec,TP] as well, which suggests a case of multiple specifiers in TP, whose schematic structure may be represented as follows (where N_S and N_O represent the head of the subject and object nominal phrases, respectively):

(32) SO =
$$\{\{N_S, \alpha\}, \{\{N_O, \beta\}, \{T, \gamma\}\}\}$$

According to Epstein et al. (2020), SO must receive a unique label in (32), for which MS locates three heads, namely N_S , N_O and T. Since T inherits an unvalued δ -feature from C, which is valued by the [+Topic]-feature carried by N_O , N_O and T can be considered to share the δ -property. When it comes to N_S , as argued by many, typically in the Double Topicalisation hypothesis (DT) (L. Xu & Langendoen 1985; Lee 1986; Tang 1990; J.-W. Lin 1992), the subject that precedes the preposed object in Mandarin Chinese is also considered to be a topic. From this perspective, N_S may carry the same [+Topic]-feature as N_O . As such, by analogy with Epstein et al.'s (2020) analysis of multiple specifiers in Japanese, the valuation of the δ -feature on T by the other two heads would be taken as the label for SO, which may be put as ν 0.

An immediate problem of this analysis is the apparent violation of the uniqueness condition of labelling, given that two heads, N_S and N_O , have participated in valuing the δ -feature on T. However, I would like to argue that such a non-one-to-one valuation may be tolerated here, because different from the case of multiple valuing heads of φ -features, the valuing feature ([+Topic]) carried by N_S and N_O is exactly the same, so although both of them are involved in the valuing relation, SO may still be given a unique label, that is, u δ -vTop.

Now let us turn to Spanish, where clause-internal OP has been shown to be controversial in § 3.2. According to the analysis of multiple topics in Jiménez-Fernández (2011), if clause-internal OP is indeed possible in this language, it would give rise to the same structure as in (32). Due to the discourse-prominent properties of Spanish, T also inherits an unvalued δ -feature from C, which can be valued by the [+Topic]-feature carried by N_S and N_O , so both of them can be considered to share the δ -property with T. Till this point, this is the same scenario as in Mandrin Chinese, and nothing should prevent Spanish from having multiple specifiers. However, it is worth noting that, according to Jiménez-Fernández (2011; 2020), Jiménez-Fernández & İşsever (2013) and Jiménez-Fernández & Miyagawa (2014), among others, T in

Spanish also inherits the unvalued ϕ -features from C (because Spanish is classified as both agreement- and discourse-prominent). To value these features, both N_S and N_O qualify as valuing heads as well, but this time, the uniqueness of labelling is violated, because the ϕ -features are lexically idiosyncratic. Therefore, SO fails to receive a unique label in this case. This explains why clause-internal OP is generally unacceptable for native speakers of (Peninsular) Spanish, as indicated in the test results in § 3.2.

At the same time, it has been mentioned previously that clause-internal-OP constructions seem to be rescued by intercalating a PP between the preposed object and the verb (cf. Jiménez-Fernández 2011). Such constructions would have a structure as sketched in (33):

(33) SO = {{
$$N_S, \alpha$$
}, {{ N_O, β }, {{ P, γ }, { T, ϵ }}}}

What happens is that, to determine the label for SO in (33), MS would locate the three aforementioned heads, N_S , N_O and T, as well as an extra head, P, which does not carry any ϕ -features. Consequently, the ϕ -property is no longer shared by all the heads and cannot contribute to the labelling; then, the only property the four may have in common is the δ -feature valuation, because T inherits an unvalued δ -feature from C, and N_S , N_O and P all carry the same [+Topic]-feature. In this way, the SO in (33) may be correctly labelled as $u\delta$ -vTop.

Finally, let us consider the case of English. The reason why clause-internal OP is not permitted in this language has been presented in § 3.1, which goes as follows: since the topicalised object has to move to [Spec,CP], whereas the subject occupies [Spec,TP], the topicalised object must precede the subject, for which clause-internal object turns out to be impossible. However, this analysis has left open the question why the subject cannot be further topicalised, moving across the fronted object, and become the second specifier of CP. In an imaginary scenario, where the subject is preposed to the left of the topicalised object in English, the resulting SO would have the following schematic structure:

(34) SO =
$$\{\{N_S, \alpha\}, \{\{N_O, \beta\}, \{C, \gamma\}\}\}$$

As mentioned earlier, the unvalued δ -feature is retained in C in English, and if both N_S and N_O carry a [+Topic]-feature, the three heads seemingly share the δ -property and labelling would have been possible. So, maybe the problem does not reside in the labelling of the SO corresponding to CP, but rather to somewhere lower in the tree: TP. Recalling that before the structure in (34), the subject agrees with T in ϕ -features (which are inherited from C) and raises to [Spec,TP], so the valuation of the ϕ -features on T by N_S is taken to be the label for TP, which in turn serves as the reflection of the agreement-relation between T and the subject. However, if the subject proceeded to be topicalised and move to [Spec,CP], N_S would no longer be properly contained in TP. In accordance with the aforementioned labelling strategy in (ii), there would be only one visible head, T, left for MS in TP, and this SO would be just labelled as T. This means that topicalising the subject in English would lead C_{HL} to lose track of the functional relation established between T and the subject. Consequently, it might be the case that the necessity of keeping a record of the subject-predicate relation prevents the subject from continuing to raise to a higher place. This analysis can provide a natural explanation for the impossibility of moving the subject across the topicalised object in English.

5 Conclusion

The current study set out to investigate the presence of clause-internal OP in Mandarin Chinese, its absence in English and its problematic status in Spanish. It has been shown that they can be accounted for in a unified way within the framework of the Feature Inheritance theory (Chomsky 2008).

Throughout the paper, it has been argued that the clause-internal preposed object in Mandarin Chinese occupies [Spec,TP], because T inherits an unvalued δ -feature from C which is valued by the [+Topic]-feature carried by the object. This claim has been supported by the topic readings shown by the clause-internal object and its A-properties.

By contrast, English does not permit clause-internal OP, because while its subject always occupy [Spec,TP], a topicalised object in English targets the CP area by virtue of the retention of the unvalued δ -feature in C. Moreover, the possibility of topicalising the subject over the preposed object has also been discarded, in view of the problem of losing track of the functional relation established between the subject and T.

In the case of Spanish, it has been shown that clause-internal OP constructions are quite marginal, though with certain exceptions. A tentative explanation has been explored in this paper based on the condition of unique labelling in multiple-specifier configurations. It has been argued that while the preposed object and the subject are multiple specifiers of TP in Mandarin Chinese, the same does not occur in Spanish because of the violation of uniqueness of labelling, except when some ϕ -less elements are intercalated between the subject and the object.

This study goes beyond a simple comparison of languages and delves into the underlying difference in information structure between Mandarin Chinese, English and Spanish, which has been examined from a holistic perspective by attesting to an interest correlation between feature inheritance, multiple specifiers and labelling.

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Abbreviations

1 = first person, 2= second person, 3 = third person, CL = clitic, CLF = classifier, COS = change of state, EXP = experiential, PFV = perfective, PL = plural, POSS = possessive, PRS = present, PST = past, Q = question particle, SG = singular

Appendix

Acceptability judgment test questionnaire

1 Instructions

Usted va a leer 6 textos cortos en español y después de cada uno, por favor juzgue el nivel de aceptabilidad del fragmento en negrita, dándole una puntuación entre 1 y 5, según las descripciones que se detallan a continuación: [You are going to read 6 short texts in Spanish and after each one, please judge the level of acceptability of the fragment in bold, grading it on a scale between 1 and 5, according to the descriptions below:]

- 1 = La oración me suena mal hecha y difícil de entender. [The sentence sounds poorly done and difficult to understand.]
- 2 = Aunque no está totalmente mal hecha, la oración suena relativamente rara. [Although not entirely ill-formed, the sentence sounds relatively strange.]
- 3 = No puedo decidirme. [I cannot decide.]
- 4 = La oración me suena bien, pero un poco forzada. [The sentence sounds OK to me, but a little stilted.]
- 5 = La oración me suena perfecta y natural. [The sentence sounds perfect and natural.]

2 Questions

- Q1: El plazo para la entrega del resumen es hasta el próximo lunes, pero **Juan el libro no lo ha leído todavía**. [The deadline for the summary is next Monday, but Juan hasn't read the book yet.]
- Q2: A: ¿Es Juan experto en lingüística? [Is Juan an expert in linguistics?] B: **Este hombre la sintaxis la conoce bien**, pero la morfología nunca la ha estudiado. [This man knows syntax well, but he has never studied morphology.]
- Q3: Juan tenía que coger un vuelo a Madrid a las seis y media de la mañana, pero se despertó a las seis y cuarto. Aunque corrió todo lo que pudo, al final **este chico el vuelo lo perdió**. [Juan had to catch a flight to Madrid at half past six in the morning, but he woke up at a quarter past six. Although he ran as fast as he could, in the end this boy missed his flight.]
- Q4: Juan ningún libro ha leído. [Juan hasn't read any books.]
- Q5: A: Dicen que Juan ha estudiado Física. [It is said that John has studied Physics.] B: No, **este hombre Química ha estudiado**, no Física. [No, this man studied Chemistry, not Physics.]
- Q6: ¡No me lo puedo creer! **Juan incluso este libro ha leído**. [I can't believe it! John has even read this book.]

3 Test results

Figure 1: Results of the acceptability judgement test of clause-internal preposed object as Aboutness-shift Topic in Spanish

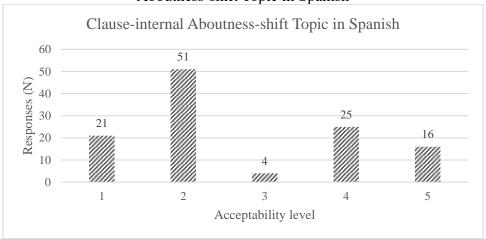


Figure 2: Results of the acceptability judgement test of clause-internal preposed object as Contrastive Topic in Spanish

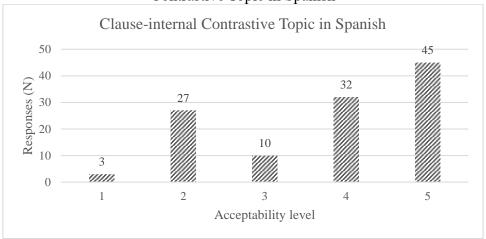


Figure 3: Results of the acceptability judgement test of clause-internal preposed object as Given Topic in Spanish

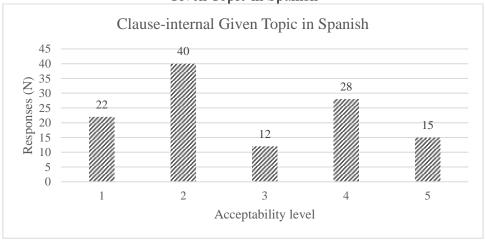


Figure 4: Results of the acceptability judgement test of clause-internal preposed object as Negative Fronting in Spanish

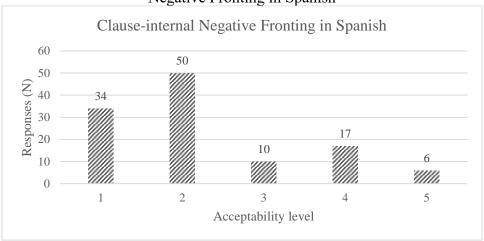


Figure 5: Results of the acceptability judgement test of clause-internal preposed object as Contrastive Focus in Spanish

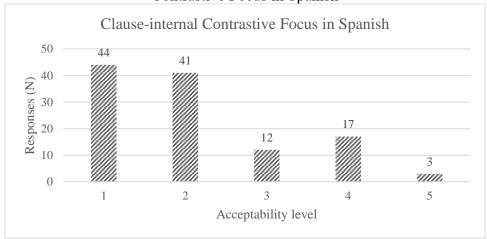
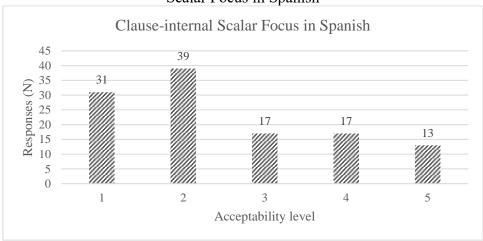


Figure 6: Results of the acceptability judgement test of clause-internal preposed object as Scalar Focus in Spanish



References

Badan, Linda. 2007. *High and Low Periphery: A Comparison Between Italian and Chinese*. Padova: Università degli Studi di Padova. (Doctoral dissertation.)

Badan, Linda & Del Gobbo, Francesca. 2011. On the Syntax of Topic and Focus in Chinese. In Paola Benincà & Nicola Munaro (eds.), *Mapping the Left Periphery*, 63–90. Oxford University Press. Bean, Marian C. 1983. *The development of word order patterns in Old English*. London: Croom Helm. Benincà, Paola. 2001. The position of Topic and Focus in the left periphery. In Guglielmo Cinque & Giampaolo Salvi (eds.), *Current Studies in Italian Syntax. Essays Offered to Lorenzo Renzi*, 39–64. Amsterdam: Elsevier-North Holland.

Benincà, Paola & Poletto, Cecilia. 2004. Topic, focus and V2: defining the CP sublayers. In Luigi Rizzi (ed.), *The structure of CP and IP: The Cartography of Syntactic Structures, Volume 2*, 52–75. Oxford: Oxford University Press.

Bianchi, Valentina & Frascarelli, Mara. 2010. Is Topic a Root Phenomenon? *Iberia* 2(1). 43–88.

- Cheng, Lisa L.S. & Li, Yafei. 1991. Double negation in Chinese and multi projections. (Paper presented at the Third North America Conference in Chinese Linguistics, Cornell University, Ithaca, 3–5 May 1991.)
- Chiu, Bonnie Hui-Chun. 1993. *The inflectional structure of Mandarin Chinese*. Los Angeles: University of California. (Doctoral dissertation.)
- Chomsky, Noam. 1973. Conditions on Transformations. In Morris Halle & Stephen R. Anderson & Paul Kiparsky (eds.), *A Festschrift for Morris Halle*, 232–285. New York: Holt, Rinehart and Winston.
- Chomsky, Noam. 1977. On *wh*-movement. In Peter Culicover & Thomas Wasow & Adrian Akmajian (eds.), *Formal syntax*, 71–132. New York: Academic Press.
- Chomsky, Noam. 1981. Lectures on government and binding: the Pisa lectures. Studies in generative grammar. Berlin & New York: Foris Publications.
- Chomsky, Noam. 1982. Some concepts and consequences of the theory of government and binding. Cambridge, MA: The MIT Press.
- Chomsky, Noam. 1993. A Minimalist Program for Linguistic Theory. In Ken Hale & Samuel Jay Keyser (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, 1–52. Cambridge, MA: The MIT Press.
- Chomsky, Noam. 1995. The Minimalist Program. Cambridge, MA: The MIT Press.
- Chomsky, Noam. 1998. Minimalist inquiries: the framework. Cambridge, MA: MITWPL.
- Chomsky, Noam. 2008. On Phases. In Robert Freidin & Carlos P Otero & Maria Luisa Zubizarreta (eds.), Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud, 132–166. Cambridge, MA: The MIT Press.
- Chomsky, Noam. 2013. Problems of projection. *Lingua* 130. 33–49. https://doi.org/10.1016/j.lingua.2012.12.003
- É. Kiss, Katalin. 1986. Parasitic Chains. *The Linguistic Review* 5(1). 41–74. https://doi.org/10.1515/tlir.1986.5.1.41
- Emonds, Joseph Embley. 1970. *Root and structure-preserving transformations*. Cambridge, MA: Massachusetts Institute of Technology. (Doctoral dissertation.)
- Emonds, Joseph Embley. 1976. A transformational approach to English syntax: root, structure-preserving, and local transformations. New York: Academic Press.
- Emonds, Joseph Embley. 2004. Unspecified Categories as the Key to Root Constructions. In David Adger & Cécile De Cat & George Tsoulas (eds.), *Peripheries*, Vol. 59, 75–120. Dordrecht: Springer Netherlands. https://doi.org/10.1007/1-4020-1910-6 4
- Engdahl, Elisabet. 1983. Parasitic Gaps. Linguistics and Philosophy 6(1). 5–34.
- Epstein, Samuel D. & Kitahara, Hisatsugu & Seely, T. Daniel. 2020. Unifying Labeling under Minimal Search in "Single-" and "Multiple-Specifier" Configurations. In Remo Nitschke & Damian Y. Romero Diaz & Gabriela De la Cruz-Sánchez & John W. W. Powell (eds.), *Coyote Papers 22: Proceedings of the Arizona Linguistics Circle 13*, 1–11 https://doi.org/10.4324/9780367343699-9
- Ernst, Thomas. 1995. Negation in Mandarin Chinese. *Natural Language and Linguistic Theory* 13(4). 665–707. https://doi.org/10.1007/BF00992855
- Ernst, Thomas & Wang, Chengchi. 1995. Object preposing in Mandarin Chinese. *Journal of East Asian Linguistics* 4(3). 235–260. https://doi.org/10.1007/BF01731510
- Fox, Danny. 1999. Reconstruction, Binding Theory, and the Interpretation of Chains. *Linguistic Inquiry* 30(2). 157–196. https://doi.org/10.1162/002438999554020
- Frank, Robert & Lee, Young-Suk & Rambow, Owen. 1996. Scrambling, reconstruction and subject binding. *Rivista Di Grammatica Generativa* 21. 67–106.
- Frascarelli, Mara & Hinterhölzl, Roland. 2007. Types of topics in German and Italian. In Kerstin Schwabe & Susanne Winkler (eds.), *On Information Structure, Meaning and Form: Generalizations across languages*, 87–116. Amsterdam: John Benjamins Publishing Company.

- Fries, Charles C. 1940. On the Development of the Structural Use of Word-Order in Modern English. Language 16(3). 199–208. https://doi.org/10.2307/409055
- Gasde, Horst-Dieter. 1998. Topics, Foci and Sentence Structure in Mandarin Chinese. *STUF Language Typology and Universals* 51(1). 43–94. https://doi.org/10.1524/stuf.1998.51.1.43
- Gili Gaya, Samuel. 1980. Curso superior de sintaxis española. Barcelona: Biblograf.
- Haegeman, Liliane M.V. 2006. Conditionals, factives and the left periphery. *Lingua* 116(10). 1651–1669. https://doi.org/10.1016/j.lingua.2005.03.014
- Haegeman, Liliane M.V. 2010. The internal syntax of adverbial clauses. *Lingua* 120(3). 628–648. https://doi.org/10.1016/j.lingua.2008.07.007
- Halliday, M.A.K. 1967. Notes on transitivity and theme in English: Part 2. *Journal of Linguistics* 3(2). 199–244. https://doi.org/10.1017/S0022226700016613
- Hooper, Joan B. & Thompson, Sandra A. 1973. On the Applicability of Root Transformations. *Linguistic Inquiry* 4(4). 465–497.
- Hukari, Thomas E. & Levine, Robert D. 1991. On the disunity of unbounded dependency constructions. *Natural Language and Linguistic Theory* 9(1). 97–144. https://doi.org/10.1007/BF00133327
- Jiménez-Fernández, Ángel L. 2010. Discourse-agreement features, phasal C and the edge: a minimalist approach. *Revista Diacrítica* 24(1). 25–48.
- Jiménez-Fernández, Ángel L. 2011. On the order of multiple topics and discourse-feature inheritance. *Dilbilim Araştırmaları* (1). 5–32.
- Jiménez-Fernández, Ángel L. 2020. Syntax-Information Structure Interactions in the Sentential, Verbal and Nominal Peripheries. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Jiménez-Fernández, Ángel L. & Miyagawa, Shigeru. 2014. A feature-inheritance approach to root phenomena and parametric variation. *Lingua* 145. 276–302. https://doi.org/10.1016/j.lingua.2014.04.008
- Jiménez-Fernández, Ángel L. & Spyropoulos, Vassilios. 2013. Feature Inheritance, vP Phases and the Information Structure of Small Clauses. *Studia Linguistica* 67(2). 185–224. https://doi.org/10.1111/stul.12013
- Lebeaux, David. 1988. Language acquisition and the form of grammar. Amherst: University of Massachusetts Amherst. (Doctoral dissertation.)
- Lebeaux, David. 2009. Where does binding theory apply? Cambridge, MA: The MIT Press.
- Lee, Thomas Hun-Tak. 1986. Studies on Quantification in Chinese. Dissertation Abstracts International, A: The Humanities and Social Sciences. Los Angeles, California: University of California, Los Angeles. (Doctoral dissertation.)
- Li, Charles N. & Thompson, Sandra A. 1976. Subject and Topic: A New Typology of Language. In Charles N. Li (ed.), *Subject and Topic*, 475–490. New York: Academic Press.
- Lin, Jonah. 2005. Does Wh-in-Situ License Parasitic Gaps? *Linguistic Inquiry* 36(2). 298–302.
- Lin, Jo-Wang. 1992. The syntax of zenmeyang 'how' and weishenme 'why' in Mandarin Chinese. Journal of East Asian Linguistics 1(3). 293–331. https://doi.org/10.1007/bf00130555
- May, Robert Carlen. 1978. *The grammar of quantification*. Cambridge, MA: Massachusetts Institute of Technology. (Doctoral dissertation.)
- Miyagawa, Shigeru. 2005. On the EPP. In Martha McGinnis & Norvin Richards (eds.), *Perspectives on Phases*, Vol. 49, 201–236. Cambridge, MA: MITWPL.
- Miyagawa, Shigeru. 2010. Why Agree? Why Move? Unifying Agreement-Based and Discourse-Configurational Languages. Cambridge, MA: The MIT Press.
- Miyagawa, Shigeru. 2017. *Agreement Beyond Phi*. Cambridge, MA: The MIT Press. https://doi.org/10.7551/mitpress/10958.001.0001
- Nissenbaum, Jonathan W. 2000. *Investigations of covert phrase movement*. Cambridge, MA: Massachusetts Institute of Technology. (Doctoral dissertation.)
- Paul, Waltraud. 2002. Sentence-internal Topics in Mandarin Chinese: The Case of Object Preposing. Language and Linguistics 3(4). 695–714.

- Qu, Yanfeng. 1994. *Object noun phrase dislocation in Mandarin Chinese*. Vancouver: University of British Columbia. (Doctoral dissertation.)
- Saito, Mamoru. 2016. (A) Case for labeling: labeling in languages without φ-feature agreement. *The Linguistic Review* 33(1). 129–175. https://doi.org/10.1515/tlr-2015-0017
- Shyu, Shu-ing. 1995. *The syntax of focus and topic in Mandarin Chinese*. Los Angeles: University of Southern California. (Doctoral dissertation.)
- Takahashi, Shoichi & Hulsey, Sarah. 2009. Wholesale Late Merger: Beyond the A/Ā Distinction. *Linguistic Inquiry* 40(3). 387–426. https://doi.org/10.1162/ling.2009.40.3.387
- Tang, Chih-Chen Jane. 1990. *Chinese phrase structure and the extended X'-theory*. Ithaca, NY: Cornell University. (Doctoral dissertation.)
- Trips, Carola. 2002. From OV to VO in early Middle English. Amsterdam: John Benjamins Pub.
- Tsai, Wei-Tien. 1994. *On economizing the theory of A-bar dependencies*. Cambridge, MA: Massachusetts Institute of Technology. (Doctoral dissertation.)
- van Urk, Coppe. 2017. Why A-movement does not license parasitic gaps. In Claire Halpert & Hadas Kotek & Coppe van Urk (eds.), *A Pesky Set: Papers for David Pesetsky*, 533–542. Cambridge, MA: MITWPL.
- Wang, William S.Y. 1965. Two Aspect Markers in Mandarin. *Language* 41(3). 457–470. https://doi.org/10.2307/411788
- Weisler, Steven. 1986. On Reconstruction. *University of Massachusetts Occasional Papers in Linguistics* 11. 331–347.
- Xu, Ding. 1997. Functional categories in Mandarin Chinese. Leiden: Leiden University. (Doctoral dissertation.)
- Xu, Liejiong & Langendoen, D. Terence. 1985. Topic Structures in Chinese. *Language* 61(1). 1–27. https://doi.org/10.2307/413419
- Yang, Jiahui. 2023. Discourse-Feature-Driven Movement in Spanish and the Revised PGU. *Studia Linguistica* 77(2). 333–367. https://doi.org/10.1111/stul.12210
- Yeh, Ling-Hsia. 1992. On sentential negation in Chinese. (Unpublished manuscript, University of Massachusetts at Amherst, Amherst.)
- Zhang, Ning. 2000. Object shift in Mandarin Chinese. Journal of Chinese Linguistics 28(2). 201–246.
- Zwart, Jan-Wouter. 1997. Transitive expletive constructions and the evidence supporting the Multiple Specifier Hypothesis. In Werner Abraham & Elly van Gelderen (eds.), *German: Syntactic Problems Problematic Syntax*, 105–134. Tübingen: Max Niemeyer. https://doi.org/10.1515/9783110914726-007

Jiahui Yang
University of Seville
English Language Department
C/ Palos de la Frontera, s/n, 41004, Seville, Spain
E-mail: jiayan6@alum.us.es

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