

Null subject, null topics and topic prominence in Mandarin Chinese and beyond

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Abstract. Current analyses of null subject (*pro* drop) and null object make crucial reference to the null topic. The null topic in turn is claimed to be linked to the so-called *topic prominence* and *discourse configurationality* of Chinese. The present paper takes as starting point the result obtained in Paul & Whitman (to appear) that neither topic prominence nor discourse configurationality constitute typological parameters. Against this backdrop, null subjects and null topics are examined and shown not to be homogeneous across languages. As a result, these two phenomena cannot be used as binary features in the classification of languages.

1. Introduction

This article examines recent analyses of the null subject and the null topic which appeal to *topic prominence* and *discourse configurationality* as central typological properties of Chinese. These analyses are shown to be problematic for two reasons.

First, neither *topic prominence* nor *discourse configurationality* constitute typological features on a par with e.g. “agglutinating” or “tonal” taken to classify whole languages (rather than specific subsystems or constructions). On the contrary, languages generally designated as topic prominent and/or discourse-configurational (Chinese, Japanese, Korean) display considerable differences with respect to the syntactic and semantic properties of the XPs situated in the sentence periphery above the subject (cf. Paul & Whitman (to appear) for extensive discussion). These differences are completely unexpected against the backdrop of the claim that these languages instantiate one and the same (topic-prominent) type.

Second, the phenomena null subject and null topic said to be tightly linked to topic prominence and discourse-configurationality are likewise heterogeneous across languages. In fact, these phenomena result from the interaction of independent derivational operations and do not represent primitive entities which in turn can be predicted on the basis of the presence or absence of another single property. This is clearly the case for the null subject (*pro* drop) (cf. Rouveret 2015: 232-237). Initially, *pro* drop was assumed to be possible for two opposite types of languages, *viz.* those with rich inflection (e.g. Romance languages) and those without any inflection at all (e.g. Chinese) (cf. Huang 1982: 348ff.). However, this approach glosses over the phenomenon of partial *pro* drop, where the null subject is possible only in certain tenses or for certain types of subjects. Likewise, a careful comparison between the null topics in Chinese and German demonstrates that different syntactic and semantic constraints are at play in each language.

Note that “null topic” here refers to a covert topic, on a par with the “null subject” referring to a covert subject; accordingly, “null topic” is not meant to denote an empty topic position. Furthermore, the term *topic* as it is used here refers to a constituent occupying the topic position (Spec,TopicP) to the left of the subject, i.e. in the sentence periphery. More precisely, the topic occupies the specifier position of *Topic Phrase*, a projection whose head (Topic^o) can optionally be realized by so-called pause particles (*ne*, *me*, *a* etc.) and selects as complement a TP or - in the case of multiple topics - another TopP (cf. Gasde & Paul 1996; Paul 2015, chapter 6). This syntactic definition of the topic must be distinguished from semantic definitions of topic as conveying given information (cf. among others Krifka 2007, Erteschik-Shir et al. 2013), where any XP within a sentence (TP) can be a topic. Unfortunately, many studies do not make this distinction. Erteschik-Shir et al. (2013)’s study

of what they call “topic drop” is a good example. They reject a cartographic approach to missing arguments as the result of topic drop in Russian and Hebrew. Upon closer scrutiny, however, it turns out that for them TP-internal object pronouns and their covert counterparts also count as (“continued”) topics, i.e. given information; which is clearly a semantic characterization. In fact, if one were to take into account the conception of null topic in semantically-based approaches, the heterogeneity of phenomena subsumed under the term *null topic* would increase even more.

The article is organized as follows. Section 2 introduces three recent studies, Jiang (2012, 2013), Yang (2014), Huang & Yang (2013), that appeal to topic prominence and discourse configurability (the latter in Miyagawa’s (2010) minimalist implementation). It subjects them to a careful scrutiny, in particular, it spells out in full detail the proposed derivation and examines the implications for the overall syntax of Chinese. This critical appraisal leads to the conclusion that the analyses proposed cannot be maintained. Section 3 investigates the null topic in German and questions the parallel postulated by Huang (1984) between null topics in German and Chinese. Section 4 discusses two diverging proposals concerning the empirical coverage of what counts as null topic in Chinese; this lack of consensus further enlarges the heterogeneity of phenomena covered by this term. Section 5 concludes the article. It highlights the untenability of parameters in general and that of parameters involving the null subject and the null topic, in particular.

2. Recent studies relying on the so-called topic prominence of Chinese

Recent studies (cf. Jiang Li 2012, 2013; Huang & Yang 2013, Barry C.-Y. Yang 2014) have revived interest in the “topic prominent” character of Chinese (cf. Li & Thompson 1976), sharing the assumption of a link between topic prominence and properties of the subject in Chinese. Jiang Li (2013) aims at deriving the preference for the subject to be specific and/or definite from a general ban on an empty topic position. By contrast, Barry C.-Y. Yang (2014) postulates that the systematic presence of the projection Topic Phrase makes null subjects (*pro*-drop) possible in Chinese; this is to solve the longstanding puzzle that despite the lack of agreement morphology (whose presence is claimed to license null subjects in Romance languages), Chinese nevertheless allows null subjects. Huang & Yang (2013) finally assign the status of binary features to both [null subject] and [null topic] and declare as topic prominent languages such as Chinese and Japanese which are marked positive for both: [+null subject], [+null topic].

2.1. Jiang Li (2012, 2013)

Jiang (2012: §3.6.1, 213-224; 2013) intends to answer the question why nominal expressions of the form ‘quantifier classifier noun’ (Q CL N) are only allowed as subjects when receiving a specific interpretation with identifiable individuals, but not under a pure quantificational interpretation.¹

¹ This observation does not hold to the extent claimed by Jiang (2012). In sentences where both the subject and the object involve Quantifier Phrases (QP) of the form ‘Q CL N’, a subject QP is perfectly acceptable under a purely quantity-denoting reading, i.e. without referring to specific individuals (cf. Li Linding 1986, ch. 21). Jiang (2013) cites examples of this type, but considers them as involving “generic” NPs.

(i) Sān ge nǚshēng kěyǐ táiqǐ yī jià gāngqín (Jiang Li 2013: 6, (21c), cited from Li 1998)
 3 CL girl can lift.up 1 CL piano
 ‘Three girls can lift up one piano.’

In other words, (1b) is perfectly acceptable when the object is quantified as well:

(ii) Sān ge xuéshēng chī-le yī ge dàngāo
 3 CL student eat-PERF 1 CL cake
 ‘Three students ate one cake.’

(1a) Sān ge háizi zài lóu shàng zuò zuòyè ne.²
 3 CL kid at floor on do homework SFP
 ‘Three (specific) kids are doing homework upstairs.’

(1b) ??Sān ge xuéshēng chī-le dàngāo.
 3 CL student eat-PERF cake
 Intended reading: ‘Three students ate the cake.’
 (Jiang 2013: 8, (31a), citing an example from Audrey Y.-H. Li 1997)

Based on her thesis (Jiang 2012), which does not show any difference between QPs of the form ‘Q CL N’ and number constructions in non-classifier languages, Jiang concludes that the observed constraint cannot lie within the nominal expressions themselves, but must be derivable from the overall syntax of Chinese. According to Jiang (2013), the property at stake is the topic prominence of Chinese which is said to be incompatible with an empty topic position (cf. (2b)). In the absence of any other XP (e.g. an adjunct NP) in the topic position (cf. (2c)), she therefore postulates obligatory subject-to-topic movement (cf. (2a)), with the additional stipulation that the topic position is reserved for specific/definite XPs only.³

(2a) [_{TopP} XP_i [_{IP} t_i [_{vP} [_{VP} V]]]] (Jiang 2013: 13, (45a-c) ; her labels and bracketing)

(2b) *_{TopP} ∅ [_{IP} XP [_{vP} [_{VP} V]]]]

(2c) [_{TopP} XP [_{IP} (YP) [_{vP} [_{VP} V]]]]

This produces the desired result of exclusively specific/definite subject NPs in sentence-initial position, because only nominal expressions referring to individuals can raise to Topic Phrase, given the specificity/definiteness requirement for this projection (cf. (3a)). By contrast, non-specific, i.e. purely quantity denoting QPs are banned from the topic position (cf. (3b)), resulting in an empty topic position (cf. (3c)). Since this is claimed by Jiang (2013) not be allowed in topic prominent languages such as Chinese, sentences with a quantity denoting subject are said to be unacceptable:

(3a) [_{TopP} [Sān ge háizi]_[+specific] [_{IP} t_i [_{vP} [_{VP} zài lóu shàng zuò zuòyè]]] ne]
 3 CL kid at floor on do homework SFP
 ‘Three (specific) kids are doing homework upstairs.’

(3b) *_{TopP} [Sān ge xuéshēng]_[-specific] [_{IP} t_i [_{vP} [_{VP} chī-le dàngāo]]]]
 3 CL student eat-PERF cake
 (Intended reading: ‘Three students ate the cake.’)

² The following abbreviations are used in glossing examples: CL classifier; EXP experiential aspect; NEG negation; PERF perfective aspect; PL plural (e.g. 3PL = 3rd person plural); SG singular; SUB subordinator.

³ Again, this glosses over a number of well-known facts, *inter alia* the acceptability in the topic position of purely quantity-denoting ‘Q CL N’ phrases (cf. (i) from Dylan Tsai 1994: 138):

(i) Yī piàn lùnwén, wǒ hái kěyǐ yǐngfu, (liǎng piàn, nà jiù tài duō le)
 1 CL paper 1SG still can handle 2 CL that then too much SFP
 ‘One paper, I still can handle (two papers, that’s too much).’

More generally, as soon as adjunct XPs (including clauses) in topic position are taken into account, the stipulation of a specificity/definiteness requirement for XPs in the topic position is shown to be incorrect (cf. Paul 2015, ch. 6 for further discussion).

Romance languages) that null subjects are “identified” by the rich subject agreement morphology on the verb (cf. Taraldsen 1978 for the origin of this idea; for more recent treatments, cf. among others Holmberg & Roberts 2013, Rouveret 2015: ch. 6.8 and references therein).

(6) Zhāngsān/tāmen lái -le ma? *pro* lái -le.
 Zhangsan/3PL come-PERF SFP come-PERF
 ‘Has Zhangsan/Have they come? Zhangsan has/they have come.’

(7a) Sono arrivati Maria e Paolo? Sì, *pro* sono arrivati.
 be.3PL arrived.3PL Maria and Paolo yes be.3PL arrived.3PL
 ‘Have Maria and Paolo arrived? Yes, [they] have arrived.’

(7b) È arrivato Paolo? Sì, *pro* è arrivato.
 be.3SG arrived.3SG Paolo yes be.3SG arrived.3SG
 ‘Has Paolo arrived? Yes, [he] has arrived.’

Barry C.-Y. Yang (2014) correctly points out that the difficulties of how to account for the null subject in Chinese increase within the *Minimalist Program* (MP) (cf. Chomsky 1995 and subsequent works), where *inter alia* the status of *pro* itself is highly problematic. In fact, the mechanism within the *Principles and Parameters* Model available for languages with a rich agreement morphology to recover the grammatical features of *pro* as a pronoun which is simply not spelt out is no longer feasible in the MP, either (cf. Rouveret (2015, ch. 6.8) for further discussion).

One possible MP-compatible approach to null subjects in both types of languages, with rich agreement morphology and without, is described in Holmberg & Roberts (2013). In Romance languages (excluding non *pro*-drop French here), Tense has an unvalued [D] feature associated with definiteness, in addition to the phi-features. These features are valued when the interpretable phi-features of the pronominal subject (itself a feature matrix) in SpecvP are copied onto T via the operation *Agree*. In languages such as Chinese or Japanese, by contrast, T is said to lack phi features as well as the [D] feature. This implies that the subject itself can likewise lack these features. The subject can be characterized as an anaphoric element that is specified for [N] only and interpreted contextually. According to Holmberg & Roberts (2013), this predicts the possibility of both definite null subjects and “generic”, i.e. non-referential null subjects in Chinese, the latter lacking the feature [D] as well.⁴ The important ingredient in Holmberg & Roberts’ (2013) account is the lack of any agreement relation between T and the subject in Chinese-type *pro*-drop languages. In this respect, they adopt and reformulate in terms of features Huang’s (1982) original idea that Chinese allows null subjects precisely due to the total lack of any inflectional morphology.

If we now turn to Barry C.-Y. Yang’s (2014) account of null subjects in Chinese, we see that T in Chinese does bear a [D] feature, inherited from C. More precisely, C bears a “[uTop] or EPP/D- feature [...] due to the topic prominence property in Chinese” (Yang 2014: 203).⁵

⁴ For the existence of non-referential, i.e. generic subjects corresponding to English *one*, cf. Niina Ning Zhang (2016), who also discusses the conditions under which this generic subject must be null. Given that Huang (1989: 193) abandoned the distinction between PRO and *pro*, a generic null subject can be analyzed as a non-referential *pro* rather than as a PRO with arbitrary reference, as in Huang (1982: 370-372).

(i) [Zài zhèlǐ *pro* néng miǎnfèi tíng chē] shì dàjiā dōu zhīdao de shì
 at here can free park car be everybody all know SUB matter
 ‘That one can park here for free is something everybody knows.’

⁵ Yang (2014) does not explain his indecision between [uTop], EPP and [D] feature as responsible for topic prominence. As will become clear in the discussion, the equation between these features is not unproblematic.

Furthermore, Yang (2014: 241-243) basically implements Miyagawa's approach (2010) where phi-feature agreement depends on whether the language in question is a discourse-configurational (DC) language (in the sense of É. Kiss 1995) or not. In non-DC languages, T inherits its phi-features from the phase head C; T probes into the ν P domain to find a matching goal (i.e. the subject DP) with which it establishes an Agree relation; the EPP-feature on T triggers movement of the subject DP to SpecTP. In DC-languages such as Japanese, by contrast, the features on T that enter into the Agree-relation with a Goal in the ν P domain are not phi-features, but topic/focus features; the latter are inherited from C, as in non-DC phi-feature agreement languages. As a consequence, movement triggered by topic/focus features remains TP-internal in Japanese according to Miyagawa and does not target the C domain.⁶ In Chinese, by contrast, topicalization does involve CP, i.e. the sentence periphery, as witnessed by the fact that in contrast to Japanese [TP O [ν P S_{object} V NEG]], the subject in Chinese can never be in the scope of negation when the object is fronted over the subject:⁷

- (8) [TopP [Nà běn shū]_i, měi ge rén dōu méi kàn -guo ti (Yang 2014: 242, (34))
 that CL book every CL person all NEG read-EXP
 'That book, everyone didn't read [it].' (every > not; *not > every)
 => 'That book, nobody read it.' [my translation, WP]

Although Miyagawa (2010: 46ff.) himself seems to consider Chinese as a phi-feature agreement language that is *not* a DC language, Yang (2014) nevertheless applies Miyagawa's (2010) scenario for DC languages to Chinese. (For general problems related to the use of *discourse configurationality* and *topic prominence* as typological parameters, cf. Paul &

⁶ According to Miyagawa (2010: 75) the subject may or may not be under the scope of negation in the sequence 'O S V Neg' in Japanese, hence the need for two analyses: (i) [TP O [ν P S_{object} V NEG]] where object fronting is seen as A-movement to SpecTP and the subject occurs in a ν P-internal position, hence in the scope of negation; (ii) O [TP S [ν P t_S t_{object} V NEG]] with the subject in SpecTP, i.e. outside the scope of negation, and the object in the periphery above the subject.

⁷ Although I fully agree with Yang's (2014) analysis of (8), Ko's (2005) "anchoring" test he appeals to as supplementary evidence does not work. According to Ko (2005), an object fronted to the left of downward entailing subjects such as 'nobody' and 'few people' is located in the left periphery, given the non-topicalizability of 'nobody' and 'few people' in Chinese:

- (i) [Nà běn shū]_i [_{IP} hěnrshǎo-rén / méiyǒu-rén méi dú -guo ti]]
 that CL book few -people/nobody not read-EXP
 'That book, few people/nobody haven't read [it].'

(Bracketing, glossing and translation as in Yang's (2014: 243) example (35))

However, the impossibility of topicalizing *méi yǒu rén* and *hěn shǎo (yǒu) rén* has nothing to do with their semantics, but is due to the simple fact that neither *méi yǒu rén* 'there is not anybody' > 'nobody' nor *hěn shǎo (yǒu) rén* 'there are very few people' > 'few people' are (topicalizable) DPs. On the contrary, both involve the existential verb *yǒu* 'have, exist' whose unique internal argument is merged ν P-internally, hence their well-known unacceptability in object position (cf. Lü Shuxiang 1965, Lü Shuxiang et al. 2000: 480):

- (ii) Tā yǒu hěn duō yáchǐ / *hěn shǎo yáchǐ
 3SG have very much tooth/ very little tooth

'He has many teeth (/few teeth).' (adapted from Liu Danqing 2011: 104, (35))

In other words, *méi yǒu rén* and *hěn shǎo (yǒu) rén* cannot be topicalized because they involve a clause, i.e. syntactically speaking, *hěn shǎo (yǒu) rén* is *not* on a par with the DP *hěn duō rén* 'many people'. The consequence of this is the exact opposite of Ko's (2005) claim, i.e. the position of the fronted object in (iii) can precisely *not* be simply read off the surface sequence, there being no explicit subject (in Spec,TP). Instead, the topic position for *nà běn shū* must be inferred from general principles of Chinese syntax:

- (iii) [TopP [Nà běn shū]_i [TP méi [ν P yǒu rén méi dú -guo ti]]]
 that CL book NEG have person NEG read-EXP

'That book, there is nobody who hasn't read it.'

As in English, *dú-guo* 'read' is included in the secondary predicate for *rén* whose precise internal structure cannot be discussed here for reasons of space.

Whitman (to appear)). More precisely, Yang (2014) postulates that it is the uninterpretable [uTop]/EPP/D feature on C that licenses null subjects in Chinese.⁸ In addition, Yang (2014: 239, 243) posits a correlation between CP as the domain associated with the “speaker force” and the specificity/definiteness requirement for overt and covert subjects, via the alleged specificity/definiteness requirement for topics. (But cf. Paul 2002; 2005; 2015, ch. 6 for extensive evidence against the idea that TP-internal and TP-external TopP are reserved for definite XPs).

One way to check this [uTop] feature is to merge an XP (here *Zhāngsān*) in TopP itself. The null subject behaves on a par with an overt pronoun and is coindexed with the topic.

- (9) Zhāngsān_i a, [xǔduō [CP e_i xiě] de shū] dōu hěn chànghǎo
 Zhangsan TOP many write DE book all very sell.well
 ‘Zhangsan_i, many books that [he_i] writes sell well.’
 (Yang 2014: 231, (7a); his glosses and bracketing)

In the absence of an XP in TopP, the C-head probes downward. The null subject *pro*, said to be endowed with a [D] feature, raises and checks the [uTop]/EPP feature on C:

- (10) [CP C_[uTop] [IP *pro*.....] (Yang 2014: 244; (38))⁹

The assumption that the null subject (or its [D] feature) is attracted to CP/TopP if the latter is empty plays a crucial role in explaining the contrast in (11a) - (11b) below:

- (11a) Zhāngsān_i shuō [e_{i/j} méi dú -guo yǔyánxué] (Yang 2014: 245, (41a-b);
 Zhangsan say NEG study-EXP linguistics his bracketing)
 ‘Zhangsan_i said [he_{i/j}] hadn’t studied linguistics before.’
- (11b) Zhāngsān_i shuō yǔyánxué [e_{i/*j} méi dú -guo]
 Zhangsan say linguistics NEG study-EXP
 ‘Zhangsan_i said [he_{i/*j}] hadn’t studied linguistics before.’

According to Yang (2014: 245), the null subject in (11b) cannot have any other reference than *Zhangsan*, because movement of the null subject to the matrix CP/TopP is prevented by the “intervening” object DP *yǔyánxué* ‘linguistics’ in the TopP of the complement clause:¹⁰

- (12) *[CP₁ ↑ C_[uTop] ... [CP₂ TopicP [IP *pro*.....]]]

⁸ Yang’s (2014: 243, (36)) assumption that Top° always bears a [uTop] feature is problematic, because it requires that every constituent to be merged in SpecTopP carries a [iTop] feature in order to check the [uTop] feature. Given that nearly any XP (including adverbs and clauses) can occur in SpecTopP (cf. Paul 2015, ch.6), this implies that the majority of XPs in the lexicon would have [iTop] in their feature matrix. It is not spelt out at all what happens to that [iTop] feature when the XP does not occupy the topic position and how to avoid for the derivation to crash if the XP is in a focus position incompatible with [iTop].

⁹ In Yang (2014), both *e* and *pro* represent a null subject. (10) is supposed to illustrate the checking of the EPP feature, here noted as [uTop] on C, by raising of *pro*. In general, though, only overt XPs can check the EPP feature. This sheds further doubt on the equivalence between EPP, [uTop] and [D] features.

¹⁰ Note that in Beck (1996) it is quantifiers that intervene, not “ordinary” DPs such as *yǔyánxué* ‘linguistics’. Accordingly, the “intervention effect” postulated for (11b) is not uncontroversial.

However, this raises the question of how the [uTop] feature on C is checked when the null subject does not raise to C. In other words, the very *acceptability* of (11a-b) under co-indexation of the embedded null subject with the matrix subject is completely unexpected; both sentences should have crashed under this parsing, because *pro* has *not* raised to the matrix TopP/CP and as a result, the uninterpretable [uTop] feature remains unchecked:

(13a) (*) [CP₁ C_[uTop]] [TP Zhāngsān_i shuō [_i méi dú -guo yǔyánxué] (= (11a))
 Zhangsan say NEG study-EXP linguistics
 ‘Zhangsan_i said [he_i] hadn’t studied linguistics before.’

(13b) (*) [CP₁ C_[uTop]] [TP Zhāngsān_i shuō [CP₂ yǔyánxué_k [_i méi dú -guo t_k] (= (11b))
 Zhangsan say linguistics NEG study-EXP
 ‘Zhangsan_i said [he_{i/*j}] hadn’t studied linguistics before.’

While in (11b) the [uTop] feature of the embedded CP/TopP is checked by the moved DP *yǔyánxué* ‘linguistics’, the *matrix* CP/TopP in both (11a) and (11b) contains an unchecked [uTop] feature which should cause the derivation to crash; the absence/presence of *yǔyánxué* is *not* expected to make any difference under Yang’s account, contra to facts. Only the topic related reading for *pro* (cf. (14)) should lead to an acceptable sentence, because only in this case the matrix [uTop] feature is checked by movement of *pro*:

(14) [CP₁ *pro* C_[uTop]] [TP Zhāngsān_i shuō [_i méi dú -guo yǔyánxué]
 Zhangsan say NEG study-EXP linguistics
 ‘Zhangsan_i said [he_i] hadn’t studied linguistics before.’

All this shows that it is problematic to apply Miyagawa’s scenario for DC languages to Chinese. It is not feasible, either, as Yang (2014) does, to re-interpret Miyagawa’s (2010) topic/focus feature as an EPP feature and - in addition to T° - to endow C with an EPP feature as well. For the EPP feature on C requires either an overt XP or a covert pronoun in SpecTopP, i.e. the topic position can never remain empty.

Furthermore, even though according to Yang (2014) both an overt XP or a covert pronoun can check the [uTop]/EPP feature on C, elsewhere a null topic is *not* on a par with an overt topic, as evidenced by the obligatory co-indexation of the null subject with the topic if the latter is explicit (cf. (15b)) vs the “choice” in the other case (cf. (15a)):

(15a) Zhāngsān_i shuō [_{i/j} méi dú -guo yǔyánxué] (= (11a) above)
 Zhangsan say NEG study-EXP linguistics
 ‘Zhangsan_i said [he_{i/j}] hadn’t studied linguistics before.’

(15b) Lǐs_i, Zhāngsān_i shuō [_{e*}_{i/j} méi dú -guo yǔyánxué]
 Lisi Zhangsan say NEG study-EXP linguistics
 ‘Lisi_j, Zhangsan_i said [he_{*i/j}] hadn’t studied linguistics before.’

The co-indexation of the null subject with an overt topic in (15b) is obligatory for the simple reason that the “comment” sentence needs to be related to the topic; accordingly, an analysis of (15b) as ‘Lisi_j, Zhangsan_i said he_i hadn’t studied linguistics before.’ is rejected as non-sensical, the comment sentence not making any statement about the topic Lisi (also cf. Huang, Li and Li 2009: 210 for a similar reasoning). The same holds for (16):

- (16) Lìsì_i, Zhāngsān_i shuō yǔyánxué_k [*e**_{i/j} méi dú -guo t_k]
 Lisi Zhangsan say linguistics NEG study-EXP
 ‘Lisi_i, Zhangsan_i said [he*_{i/j}] hadn’t studied linguistics before.’

The contrast between (16) and (11b) shows that topicalization of the object DP *yǔyánxué* within the complement clause does not necessarily have a consequence on the matrix topic; the absence/presence of an overt XP in the matrix topic must be taken into account as well in the interpretation of the null subject in the clausal complement.

Yang’s (2014) positing a [uTop]/EPP feature on C in need of checking could in principle be “saved” for the case of coindexation between the embedded null subject and the matrix subject by raising the matrix subject into TopP:

- (17) [_{TopP} Zhāngsān_i [_{tuTopP}] [_{TP} t_i shuō [*e*_i méi dú-guo yǔyánxué]]] (= (11a) above)
 Zhangsan say NEG study-EXP linguistics
 ‘Zhangsan_i said [he_i] hadn’t studied linguistics before.’

It is not evident, however, whether the string-vacuous topicalization of the subject by default is desirable. In addition, subject-to-TopP raising would have to be excluded in cases of disjoint reference for the matrix and the embedded subject (cf. (18)), i.e. concerning subject-to-TopP raising, an overt and a covert topic would have the same effect and block raising:

- (18) [_{CP1} *pro*_j C [_{tuTopP}] [_{TP} Zhāngsān_i shuō [*e*_j méi dú -guo yǔyánxué]]] (= (14) above)
 Zhangsan say NEG study-EXP linguistics
 ‘Zhangsan_i said [he_j] hadn’t studied linguistics before.’

No such device to fill TopP is, however, possible in sentences with unaccusative verbs of the type illustrated in (19a-b) where the subject position is empty:

- (19a) Yǒu yī ge xuésheng lái zhǎo nǐ
 have 1 CL student come look.for 2SG
 ‘There was a student asking for you.’

- (19b) Lái kè le
 come guest SFP
 ‘Guests have come.’

To posit an *expletive* null subject here that raises to SpecTopP in order to check the [uTop]/EPP feature is not only incompatible with the overall syntax of Chinese, but is also untenable from a general theoretical point of view, where SpecTP is not projected in the case of a referential definite null subject. Instead, it is the feature matrix constituting the null pronoun that is copied from specvP onto the head T° itself. It would be highly implausible to postulate an unfilled SpecTP for unaccusative verbs.

To conclude, while the contrast in interpretation (and hence difference in structure) observed between (11a) and (11b) is real, the “intervention” account proposed by Yang (2014) where it is the fronted object in the complement clause that prevents the necessary raising of the null subject to TopP is too ad hoc and not borne out by the overall syntax of Chinese. This sheds doubt on the omnipresence of a [uTop]/D/EPP feature in the left periphery as licenser for the null subject in Chinese. Holmberg & Roberts’ (2013) approach to the null subject in Chinese is not satisfying either, because it basically reformulates in terms of features Huang’s (1982) initial idea that the complete lack of subject agreement morphology is at stake here.

However, as we will see in the next section, this assumption does not do justice to the null subject phenomenon cross-linguistically, in particular the phenomenon of partial *pro* drop.

2.3. C.-T. James Huang (1984) and Huang & Yang (2013)

Huang & Yang's (2013) main claim is that topic prominence is a typological property dividing languages into those that are topic prominent and those that are not. They propose to derive the class membership of a given language from two other properties presented as binary features, *viz.* [\pm subject *pro* drop] and [\pm null topic]; a language that is both [+subject *pro* drop] and [+null topic] is considered to be topic prominent:

- (20a) [+subject *pro* drop], [-null topic]: Italian, Spanish
- (20b) [+subject *pro* drop], [+null topic]: Chinese, Japanese
- (20c) [-subject *pro* drop], [-null topic]: English, French
- (20d) [-subject *pro* drop], [+null topic]: German

Their starting point is the assumption made in Huang (1984: 550, 557) that independent sentences in topic prominent languages such as Chinese always contain a topic (overt or covert). “Topic prominence” is crucial here because it allows to posit ‘topic-comment’ sentences as “basic form”. Huang & Yang (2013) mainly motivate the null topic in Chinese with the interpretation of a null object in embedded contexts, which cannot take a TP-internal argument as antecedent, but must refer to an implicit discourse referent. In these cases, the null topic behaves on a par with an overt topic such as *nèi ge rén* ‘that person’ in (21):

- (21) [_{TopP} {[_{DP} *nèi ge rén*]_i / [_e]}] [_{TP} *Zhāngsān*_j *shuō* [_{Li}_s_i_k *bù* *rènshi* *t*_i/*_j/*_k]]
 that CL person Zhangsan say Lisi NEG know
 ‘[That person]_i/∅_i Zhangsan_j said that Lisi_k doesn’t know him_i/*_j/*_k.’

For subject *pro* drop, i.e. the null subject, they basically provide the same analysis as Yang (2014) with a null topic as crucial ingredient. Accordingly, the same objections as those discussed in the preceding section apply here as well.

More importantly, their conception of the null subject as a *binary* feature, which allows null subjects only for the “extremes”, i.e. for languages with either “rich” inflection or none at all, but not for the intermediary cases such as English or French, does not bear further scrutiny. It glosses over the existence of partial *pro* drop attested in languages with subject agreement such as Russian, Hebrew, Finnish and Brazilian Portuguese. In Hebrew e.g. null subjects are only possible in the present and the future tense. Finnish and Brazilian Portuguese allow *pro* drop for non-referential subjects only (corresponding to English *one*) (cf. Rouveret 2015, ch. 6.8 for further discussion). The binary character of the feature “null subject” essential for Huang & Yang’s (2013) purpose can simply not capture the phenomenon of partial *pro* drop attested for a variety of languages. In fact, as demonstrated by Rouveret (2015: 237-238), *pro* itself is not a primitive entity at all, but the descriptive term for an object resulting from the interaction of independent operations such as feature checking, Agree, non spell-out of the lower copy in a chain etc.

Concerning the second feature, i.e. the null topic, it might at first sight come as a surprise that German is mentioned in (20d). However, already back in the 1980’s, C.-T. James Huang (1984) introduced German into the discussion, because “German fills a gap” in the four-slot classification (20) obtained from the two binary features, subject *pro* drop and null topic: “German appears to be an example of the fourth type: a zero topic but non-*pro*-drop language. It thus provides important evidence for our theory by filling an otherwise peculiar gap in the proposed typological scheme.” (Huang 1984: 549; Huang & Yang 2013: 1).

However, as to be discussed in the section immediately below, the null topic in German cannot be treated on par with that in Chinese

Finally, a closer look at the classification in (20) reveals a major methodological problem. While (20) is supposed to show the factors determining the possibility of a null topic across languages as a consequence of topic prominence, the null topic itself, i.e. the very phenomenon to be predicted on the basis of (20), serves at the same time as a feature in (20).

3. (Null) Topics in German

As is well-known, German is a *verb second* (V2) language, i.e. the inflected verb always occupies the second position in main clauses. The position preceding the verb must be spelt out, which can be done by any XP (argument and adjunct) (cf. (22a-c)). Given that the inflected verb is assumed to have raised to the head Comp above TP, the XP to its left occurs in the periphery above the “core” sentence itself (TP), hence the analysis of this *forefield* position as topic position. Since topicalization in German is not associated with any specific informational properties (cf. among others Grewendorf 2005: 36), but can affect all sorts of XPs, the requirement of overtly realizing the topic position must be of a syntactic nature (cf. (23a)). It is therefore captured by the EPP-feature (akin to the requirement for the subject position to be filled, as evidenced by expletive subjects).

(22a) [CP Dieses Gerücht [Comp habe] [TP ich gestern zum ersten Mal gehört]]
 this_{ACC} rumour have 1SG yesterday for first time heard
 ‘I heard this rumour for the first time yesterday.’

(22b) [CP Gestern [Comp habe] [TP ich dieses Gerücht zum ersten Mal gehört]]
 yesterday have 1SG this_{ACC} rumour for first time heard
 ‘Yesterday I heard this rumour for the first time.’

(22c) [CP Zum ersten Mal [Comp habe] [TP ich dieses Gerücht gestern gehört]]
 for first time have 1SG this_{ACC} rumour yesterday heard
 ‘For the first time I heard this rumour yesterday from my secretary.’

In the absence of any other XP occupying the topic position, German requires an expletive *es* ‘it’ in impersonal passives (cf. Grewendorf 1995: 1312). This *es* ‘it’ is clearly a placeholder for TopP (cf. (23a)), not an expletive subject *es* ‘it’ as with weather verbs (cf. (25a-b)); unlike the “weather” *es* subject, which is obligatory irrespective of its position (TP-external or TP-internal, cf. (25a-b)), the expletive topic *es* is unacceptable in the TP-*internal* (subject) position (cf. (23b), (24)):

(23a) [CP *(ES_{topic}) wurde [TP gestern getanzt]]
 it became yesterday danced
 ‘It was danced yesterday.’

(23b) [CP [Topic Gestern] wurde [TP (*es_{topic}) getanzt]]
 yesterday became it danced
 ‘Yesterday it was danced.’

(24) Ich glaube, [CP [C dass] [TP (*es_{topic}) gestern getanzt wurde]]
 1SG believe that it yesterday danced became
 ‘I believe that yesterday it was danced.’

(25a) [CP ES_{subject} hat [TP heute noch nicht geregnet]]
 it has today yet not rained
 ‘Today it hasn’t rained yet.’

(25b) [CP [Topic Heute] hat [TP *(es_{subject}) noch nicht geregnet]]
 today has it yet not rained
 ‘Today it hasn’t rained yet.’

Given the V2 character of German main clauses, a null topic is easily discernible, which was another motivation for Huang (1984) to include German:

(26a) [CP [Topic Den letzten Roman von Fred Vargas] kann ich dir wirklich empfehlen]
 the_{ACC} last novel by Fred Vargas can 1SG you_{DAT} really recommend
 A: ‘I can really recommend to you the latest novel by Fred Vargas.’

(26b) [CP [Topic Den /Ø] [C' habe [TP ich schon längst gelesen]]]
 the_{ACC} have 1SG already long.ago read
 B: ‘I have already read it a long time ago.’

The null topic as illustrated in (26b), (27a) was already observed by Ross (1982) who called it *pronoun zap*; it is clearly different from the null subject (*pro*-drop), which is not possible in German (cf. (27b)):

(27a) (Ich) habe den schon längst gelesen
 1SG have the_{ACC} already long.ago read

(27b) Den habe *(ich) schon längst gelesen
 the_{ACC} have I already long.ago read
 ‘I have already read it a long time ago.’

Importantly, the null topic in German is only licit when the topic position coincides with the sentence-initial position; accordingly, in a left dislocation structure the D-pronoun (*den* in (28a)) cannot be omitted, because the preverbal *forefield* position is preceded by the projection hosting the left-dislocated constituent:

(28a) [TopP Den Roman von FV, [FinP *(den) [Fin° habe] [TP ich schon längst gelesen]]]¹¹
 the_{ACC} novel by FV the_{ACC} have I already long.ago read
 ‘The novel by Fred Vargas, I have already read it a long time ago.’

(28b) Ich habe *(den) schon längst gelesen
 I have the_{ACC} already long.ago read
 ‘I have already read it a long time ago.’

(28a-b), where *den* is obligatory likewise illustrate the non-existence of a null object as a topic-bound variable in German, in contrast to Chinese (cf. (21) above). This holds irrespective of whether the topic is overt (cf. (28a)) or potentially covert (cf. (28b)). This demonstrates that the parallel established by Huang (1984: 548) between the German null topic qua *pronoun zap* of D-pronouns and Chinese null topics only holds to a certain degree.

¹¹ Applying Rizzi’s (1997, 2004) split CP to German, Grewendorf (2002) identifies the forefield position as SpecFinP, and the left dislocation position as TopP.

To recap the results of the two preceding sections, the null topic as such is not a unitary phenomenon and can therefore not serve as a feature to classify languages in (20). The same holds for the feature subject *pro*-drop in (20), which in some languages is generalized (e.g. Chinese, Italian etc.), but in others is only partial, i.e. confined to certain tenses and/or limited to non-referential subjects only. As a result, the cross-classification in (20) is highly problematic, because neither null topic nor subject *pro*-drop involve a homogeneous set of phenomena.

4. Further differences between null topic in German and Chinese

In addition to the differences observed above between the null topic in German and the null topic in Chinese, there seems to be no consensus which phenomena should be subsumed under this label within Chinese, either.

Huang (1984: 549; (55)) assumes null topics for both moved and *in situ* topics, the latter involving null topics in a “topic chain” (in the sense of Tsao Feng-Fu 1979):

- (29) [Zhōngguó, dìfāng hěn dà]. [e, rénkǒu hěn duō]. [e, tǔdì hěn féiwò].
 China place very big population very many land very fertile
 [e, qìhòu yě hěn hǎo]. [e, wǒmen dōu hěn xǐhuān].
 climate too very good we all very like
 ‘(As for) China, (its) land area is very large. (Its) population is very big .
 (Its) land is very fertile. (Its) climate is also very good. We all like (it).’
 (with Huang’s indication of empty categories, bracketing and glosses)

By contrast, Huang & Yang (2013: 9-10) restrict null topics to “movement” structures, by which they refer to the cases where the co-indexation of the null subject with a null topic is derived by raising of *pro* to CP/TopP:

- (30) [_{CP1} *pro*_j C_[+Top]] [_{TP} Zhāngsān_i shuō [e_j méi dú -guo yǔyánxué] (= (14) above)
 Zhangsan say NEG study-EXP linguistics
 ‘Zhangsan_i said [he_j] hadn’t studied linguistics before.’

Importantly, when a null subject is located in an island, it can only be coindexed with an overt topic (cf. (31a)). It cannot be understood as referring to a null topic, i.e. an implicit discourse referent (cf. (31b)) and the sentence is simply unacceptable. This contrast is interpreted by Huang & Yang (2013) as demonstrating the island sensitivity of *pro* raising, hence the postulate that a null topic can only be “created” by move (i.e. internal merge).

- (31a) Zhāngsān_i a, [_{DP} xǔduō [_{CP} e_i xiě] de shū] dōu hěn chànghǎo (= (9))
 Zhangsan TOP many write DE book all very sell.well
 ‘Zhangsan_i, many books that [he_i] writes sell well.’

- (31b) * [_{DP} xǔduō [_{CP} e_i xiě] de shū] dōu hěn chànghǎo
 many write DE book all very sell.well

In other words; according to Huang & Yang (2013), null topics are precisely excluded for what Chafe (1976) called “Chinese style topics”. This seems somewhat counter-intuitive, given that null topics are supposed to be correlated with “topic prominence”, for which in turn (overt) base-generated topics are examples *par excellence*.

At first sight, German seems to confirm Huang & Yang’s (2013) assumption that null topics should not be posited for *in situ* topics (cf. (33)), but only for moved topics:

- (32a) Und jetzt brauche ich Olivenöl.
and now need 1SG olive.oil
A: ‘And now I need olive oil.’
- (32b) {Olivenöl_i / Das_i / Ø} habe ich nicht t_i.
olive.oil the_{ACC} have 1SG not
B: ‘(Olive oil), I don’t have any.’
- (33a) Raubvögel kennt Peter nur Bussarde.
birds.of.prey knows Peter only buzzard
‘As for birds of prey, Peter only knows buzzards.’
- (33b) {Raubvögel/*Ø} kenne ich auch nur Bussarde.
birds.of.prey know 1SG also only buzzard
‘As for birds of prey, I only know buzzards, too.’

(32b) illustrates *pronoun zapping*. The *in situ* topic DP ‘birds of prey’ in (33), however, cannot be omitted; the DP denotes the superset with respect to a TP-internal DP as subset and thus illustrates the standard example of an *in-situ* “Chinese style” *inclusive* topic such as *Shuǐguǒ, wǒ zuì xǐhuān mángguǒ* ‘As for fruit, I prefer mangos’.

By contrast, the *in situ* topic in so-called “split topicalization” does allow for a null topic. (For evidence against a derivation of the topic via movement from a TP-internal DP, cf. Fanselow & Ćavar 2002, Ott 2015).

- (34) A: Und jetzt brauche ich Olivenöl. B: {Olivenöl/ Ø} habe ich keines mehr
and now need 1SG olive.oil olive.oil have 1SG none more
A: ‘And now I need olive oil.’ B: ‘I have none left.’

Unlike the modifying quantifier *kein* ‘no’, *keines* ‘none’ is a DP, hence unacceptable as modifier preceding a DP (cf. (35)); the same holds for *welche* ‘some’ in (36).

- (35) Ich habe {kein Olivenöl /*keines Olivenöl} mehr.
1SG have none olive.oil / none olive.oil more
‘I don’t have any olive oil left.’
- (36a) Äpfel kannst du dir gerne welche mitnehmen
apples can you_{NOM} you_{DAT} gladly some take.away
- (36b) Du kannst dir gerne (*welche) Äpfel mitnehmen
you_{NOM} can you_{DAT} gladly some apples take.away
‘You can take some apples for yourself without any problems.’
(N.B. [DP *welche Äpfel*] = ‘which apples’, not ‘some apples’)

As a result, in German, both *in situ* and moved topics can be null topics. Note, though, that the *in situ* null topic in German involves a type that is different from the “Chinese style” *in situ* null topic illustrated in (29).

5. Conclusion

This article has provided extensive evidence for the fact that neither the null subject nor the null topic are unitary phenomena; as a result, they cannot in turn be used as parameters deriving typological properties such as topic prominence.

The conception of the null subject as a *binary* feature, which allows null subjects only for the “extremes”, i.e. for languages with either “rich” inflection or none at all, but not for the intermediary cases such as English or French, is simply incompatible with the phenomenon of partial *pro* drop observed for many languages with subject agreement such as Russian, Hebrew, Finnish and Brazilian Portuguese. In addition, from a minimalist perspective, the null subject is in any case not a primitive entity of the grammar.

The null topic covers quite a range of heterogeneous facts as well. It cannot be generalized to all German V2 sentences, nor can it be postulated “across the board” for all sentences in Chinese. It is not a homogeneous phenomenon cross-linguistically, either, as the comparison between German and Chinese shows: expletive topic *es* in German; null topics for *in situ* and moved topics in German, but (possibly) only for moved topics in Chinese. Accordingly, null topic cannot serve as a parameter, either. It is not on par with traditional typological features (such as “tonal”, “agglutinating” etc.) exhaustively classifying entire languages. This result straightforwardly challenges Huang (1984) and Huang & Yang (2013) who claim that [\pm null topic] and [\pm subject *pro* drop] serve as parameters dividing languages into four groups, where the class of so-called “topic-prominent” languages is characterized by the combination [+ null topic] and [+ *pro* drop]. In fact, as argued for by Paul & Whitman (to appear), *topic prominence* is an epiphenomenon, given that a detailed analysis of the left periphery in so-called topic prominent languages (Chinese, Japanese, Korean) reveals important differences among these languages. Last but not least, the main goal of parameters, *viz* to capture typological generalizations and to integrate them into the grammar, has been shown to be on the wrong track (cf. Newmeyer 2005, Whitman 2008, Boeckx 2014). Typological generalizations cannot be acquired by the child, hence are not principles of UG.

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