Null Subjects and the Extension Requirement[*]

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Abstract

I argue that grammatical licensing of null subjects in the sense of identification and/or recoverability (regardless of whether the null subject is referential *pro*, *PRO*, or a bound variable; Chomsky 1981, 1982; Rizzi 1986; Jaeggli and Safir 1989; Borer 1986; Landau 2004; Holmberg 2005, among others) is a *necessary* but not *a sufficient condition* for a null subject to be grammatical. I will show that contrary to the widely held assumptions *pro* does not move to Spec,TP, thus it cannot satisfy an EPP-like requirement. For a structure containing a null subject to be grammatical, some syntactic material other than the subject *must satisfy the extension requirement*. If this is correct, we expect to find languages where null subjects are grammatical only in some syntactic environments but not in others, regardless of the recoverability of the null subject. Such languages are indeed attested.

1 Introduction

1.1 Puzzle

Old French is a null subject language. Interestingly, the distribution of null subjects differs in matrix and embedded clauses (Adams, 1987, 1988; Roberts, 1993; Hirschbuhler, 1995). In a matrix clause a null subject is grammatical only if stylistic fronting occurs, as seen in as in (1) (Roberts 1993: 124 (74)).[1]

(1) *Stylistic fronting licenses null subjects:*
a. Tresqu'en la mer cunquist la tere altaigne
until the sea conquered.3MS the land high
'He conquered the high land all the way to the sea' (*Roland*, 1.3.)

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[1] Examples in this section are not always presented as minimal pairs. The reason is unavailability of the data.

b. Aprés conquist Orenge la cité
after conquered.3MS Orenge the city
'Afterwards he conquered the city of Orange' (*Le Charroi de Nîmes*, 1.7)

c. Or fait senblant con s'ele plore
now makes.3FS seem if-she cries
'Now she pretends to cry' (*Tristan*, 1.8)

d. Por vos sui en prison misse
for you am.1S in prison put
'I have been put in prison for you' (*Aucassin et Nicolette*, v, 1.20)

In an embedded clause, a null subject is grammatical even in verb-initial clauses, as seen in (2) (Roberts, 1993, p. 134, (88))[2]. Stylistic fronting in embedded clauses is optional, as in (3) (Roberts, 1993, p. 135, (89)).[3]

(2) *In embedded clause, a null subject is licensed in V1:*
a. Je sui le sire a cui volez parler
I am the lord to whom wish.2sg to-speak
' 'I am the lord to whom you wish to speak' (*Aymeri de Narbonne*, L. Demaison (ed.), Société des Anciens Textes Français, Paris 1887, 4041)

b. L'espee dont s'estoit ocis
the-sword by-which himself-was killed
'The sword which he killed himself with' (*La Chastelaine de Vergi*, F. Whitehead (ed.), Manchaster University Press 1944, 913)

c. Ainz que m'en aille en France
before that go.3MS to France
'Before I leave for France' (*Aymeri de Narbonne*, L. Demaison (ed.), Société des Anciens Textes Français, Paris 1887, 204)

d. Quant vit le roi
when sees the king
'When he sees the king' (*Aymeri de Narbonne*, L. Demaison (ed.), Société des Anciens Textes Français, Paris 1887, 702)

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[2] Old French, like Icelandic, licenses both V1 and V2 in non-bridge complements.

[3] For further discussion of embedded V1 sentences in the relation to licensing null subjects see Adams (1988); Hirschbuhler (1990, 1995, among others).

(3) *In embedded clauses, Stylistic fronting is optional:*

a. Por l'esperance qu'an lui ont, …
for the-hope which-in him have.3pl
'For the hope which they have in him,…' (*Ch. lyon* 4013, Tobler: T8, p. 10)

b. Et si ne sait que faire puisse
and so not knows what to-do can.3MS
'And so he doesn't know what he can do' (*Guillaume* 528, cited in Moignet 1973: 228)

It is not obvious where the asymmetry between matrix and embedded clauses comes from. The basic word order in Old French matrix clauses is V2 (Einhorn, 1974; Foulet, 1982; Vanelli and Benincà, 1986; Adams, 1987; Roberts, 1993, among many others). Null subjects in matrix clauses are licensed only if something overtly moves to the preverbal position. Thus, the matrix situation in Old French is parallel to Stylistic fronting (Stylistic inversion) attested in other Romance and Germanic languages (Kayne and Pollock, 1978; Maling, 1980/1990; Holmberg, 2000, among many others). This is surprising under the view that there is a covert pronominal element (*pro*) in Spec,TP (Chomsky, 1981, 1982; Rizzi, 1980, 1986, among others). If there is a *pro*, the EPP requirement of the clause should be already satisfied and no further movement should be necessary. This seems to be the case in the embedded environment: no Stylistic fronting is necessary as *pro* already extended the structure.

1.2 Proposal

I argue that the Old French pattern suggests that something overt must be merged to satisfy the extension requirement, and consequently, there is no *pro* in Spec,TP satisfying this condition.

Even though the extension requirement is close to the EPP, it is less restricted than, for example, the EPP in English: In an Old French matrix clause the extension requirement is satisfied by a fronted XP, in an embedded clause merge of C suffices. I will call this EPP-like condition *T-Extension Requirement* (TER), (4). I generalize this observation about Old French and argue that *pro* never moves to Spec,TP. Consequently, for a null subject to be licensed, something else must satisfy the TER.

(4) *T-Extension Requirement on Null Subjects*

A null subject is grammatically licensed only if Merge(T, α) is followed by Merge(T', β), where T' is a projection of T.

For ease of exposition, I refer to T as the locus of the TER but languages may differ in this respect. I also assume that languages differ in what counts as a legitimate extension: some require an XP in Spec,TP or head movement to T (Alexiadou and Anagnostopoulou, 1998; Holmberg, 2000); other languages combine both strategies, including extension by C (Bury, 2003; Kučerová, 2005; Frascarelli, 2007; Jouitteau, 2007). Irespectively of what the language specific TER is, a null subject is licensed only if TER is satisfied.

Before I proceed to further evidence supporting the argument that *pro* does not move to Spec,TP, a clarification is needed: this paper does not address the question of licensing conditions of null subject. It means, I will have nothing to say about why, for example, English does not have null subjects. The sole purpose of the paper is to argue that if a language has grammatical means to license a null subject, it may do so only if the TER is satisfied.[4]

1.3 Further evidence

The proposal crucially lies on the assumption that *pro* never moves to TP. Old French provides syntactic evidence in favour of this assumption. An independent support for *pro* being low in the structure comes from possessive pronoun coindexing in Czech (see also Cardinaletti 1995 for Italian).

In Czech possessive pronouns may be coindexed with a c-commanding DP, as in (5).[5] If there is, however, another DP intervening between the pronoun and its potential binder the coreference possibility disappears. This can be seen in (6): In a

[4] For the conditions of licensing null subjects, see Taraldsen (1978); Rizzi (1980, 1986); Borer (1986); Jaeggli and Safir (1989); Vainikka and Levy (1999); Landau (2004); Holmberg (2005); Neeleman and Szendrői (2007); Holmberg et al. (To appear, among others).

[5] In Czech, elements bound by a Nominative subject usually appear in a reflexive form. There is, however, a possibility to use non-reflexive pronouns as well. In the examples in the main text I use non-reflexive pronouns because reflexive pronouns have very different binding properties from non-reflexive pronouns. For example, reflexive pronouns do not require to be c-commanded by their antecedent. Thus they cannot be used for positional tests. (To be more precise, reflexive pronouns must be c-commanded by their antecedent only if the antecedent is a Dative subject. Unfortunately, in Czech, Dative subjects do not undergo raising, the crucial test for determining the position of the binder.)

raising construction with a non-argumental Dative in the matrix clause, the raised subject corefers with the object inside of the infinitival clause.[6]

(5) *Coreference: the basic case:*
a. Petr$_i$ vešel do jeho$_i$ pokoje.
Petr.Nom entered in his room
'Petr entered his room.'

b. Marie$_j$ vešla do jejího$_j$ pokoje.
Marie.Nom entered in her room
'Marie entered her room.'

(6) *Coreference across an intervener:*
a. Petr$_i$ se zdál Marii$_j$ vejít do jeho$_{*i/j}$ pokoje.
Petr.Nom REFL seemed Marie.Dat enter.INF in his room
Petr seemed to Marie to enter his room.'

We are now in a position to make the following prediction: If *pro* stays in its base position we expect to find a contrast between a *pro*-drop and an overt subject in raising constructions with a non-argumental Dative. If *pro* stays in Spec,vP, its coreference possibilities should not be affected by a non-argumental Dative (which is presumably adjoined to vP). Thus, there should be a difference between the

[6] The following examples are here as a control. If the intervening Dative is not present, the subject corefers with the argument in the infinitival clause, as in (i). This is an unusual type of intervention but as we can see in (ii), the pattern is further supported by the fact that the Dative DP may also act as a binder.

(i) Petr$_i$ se zdál vejít do jeho$_i$ pokoje.
Petr.Nom REFL seemed enter in his room
'Petr seemed to enter his room.'

(ii) Petr se zdál Marii$_i$ vejít do jejího$_i$ pokoje.
Petr.Nom REFL seemed Marie.Dat enter in her room
'Petr seemed to Marie to enter her room.'

We can informally generalize the pattern as follows:
(iii) In Czech, a non-reflexive possessive pronoun may be bound only by its closest potential antecedent.

structure with an overt subject and the *pro*-drop structure. The prediction is borne out as seen in (7).[7]

(7) *Coreference across an intervener is possible with a pro-subject:*

a. Zdál se Marii vejít do jeho pokoje.
seemed-he REFL Marie.Dat enter.INF in his room
'He seemed to Marie to enter his room.'

b. [seemed [to-Marie [**pro** to-enter his room]]]

If the difference in coreference is caused by the structural position of the subject, we predict that if the subject does not move to Spec, TP and the TEC is satisfied, for example, by an adverb, the overt subject should be able to bind the direct object. This is indeed correct, as seen in(8).

(8) *If the overt subject stays low, the Dative does not intervene:*

a. Včera se zdál Marii Petr vejít do jeho pokoje.
yesterday REFL seemed Marie.Dat Petr.Nom enter.INF in his room
'Petr seemed to Marie to enter his room.'

b. [yesterday seemed [to-Marie [**Petr** to-enter his room]]]

So far I have only shown that *pro* may stay low but not that it *must* stay low.[8] If *pro* must stay low we expect that it should block coreference of the Dative DP into the complement clause. As we can see in (9), this prediction is borne out.

(9) *pro blocks coreference of the Dative DP into the complement clause:*

a. * Zdál se Marii vejít do jejího pokoje.
seemed-he REFL Marie.Dat enter.INF in her room
'He seemed to Marie to enter his room.'

b. [seemed [**to-Marie** [pro to-enter his room]]]

The coreference facts show that there is an independent reason why *pro* does not satisfy the TER in Czech.[9]

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[7] The form *zdát se* is ambiguous between a raising verb 'seem' and a psych verb 'dream'. The coreference in (6-a) is possible under the psych reading.

[8] I would like to thank to Klaus Abels, p.c., for pointing out this consequence to me.

[9] The argument presented here implies that covert elements never move. This goes directly against the claim made in Chomsky (1995, p. 166ff). Chomsky and Lasnik argue that under certain conditions PRO moves from a non-Case position to a Case position. They give the following example (theirs (309)):

(i) we never expect [PRO to be found *t*]

To summarize, the Czech pronominal data provides further evidence for the argument that *pro* never moves to Spec, TP. As a consequence for the TER to be satisfied, something else than the subject must merge with T'.

If the relation of the TER and null subjects is on the right track, we expect to find languages in which null subjects are licensed only in some syntactic environments but not in others. The rest of the paper examines such predictions.

2 Verb movement dependency

Alexiadou and Anagnostopoulou (1998) observed that in some languages verb movement to T is sufficient to satisfy the EPP. No further extension is necessary. Taking their proposal in its face value, it follows that if a language has obligatory verb movement to T, it should allow null subjects in any syntactic environment.[10] This prediction is borne out for instance in Romance languages, Turkish, or Japanese (Alexiadou and Anagnostopoulou 1998; Kornfilt 1984; Belletti 1990; Barbosa 1995; Koizumi 2000; Vermeulen 2008, among others). As to these languages, the current proposal has nothing to say beyond the proposal of Alexiadou and Anagnostopoulou (1998).

If a language employs head movement to T only in some tense but not in other, the TER predicts that a null subject should be possible only in the tense that employs movement to T (unless the TER is satisfied by other means). This prediction is borne out as well: A language which exemplifies such a pattern is Modern Hebrew.

In Modern Hebrew a verb moves to T only in Past and Future (Shlonsky 1997, To appear). Correspondingly, a null subject in matrix clauses is possible only in Past and Future, not in Present (Borer 1980, 1983; Doron 1983; Shlonsky 1987), as in (10).

(10) a. (ani) dibarti / (ata) dibarta
(I) talked.1sg (you) talked.2sg
'I/you talked.'

Note, however, that it is not clear whether the two positions are related by movement. First, under the Agree theory, Case checking per se cannot motivate movement (if there is any Case in syntax at all, cf. Marantz 1991). Second, it has been disputed that passivization involves movement (McCawley 1970; Bresnan 1978).

[10] As long as other conditions on *pro* licensing are satisfied. If the licensing conditions are not satisfied, verb movement *per se* is not sufficient for a null subject to be grammatical, as for instance in French.

b. (ani) adaber / (ata) tedaber
(I) will-talk.1sg (you) will-talk.2sg
'I/you will talk.' (from Landau 2004, p. 815, (1))
c. *(ani) medaber / *(ata) medaber
talk.1sg you talk.2sg
'I/you talk.'

The Modern Hebrew situation is more complex in that null subjects are dependent not only on Tense but also on Person: Null subjects are licensed only in 1st and 2nd person, not in 3rd, as seen in (11).

(11) *Null subjects are licensed only in 1st and 2nd person of Past and Future* (from Landau 2004:815(1)):

a. (ani) dibarti / (ata) dibarta / *(hu) diber
(I) talked.1sg (you) talked.2sg *(he) talked.3sg
'I/you/he talked.'
b. (ani) adaber / (ata) tedaber / *(hu) yedaber
(I) will-talk.1sg (you) will-talk.2sg *(he) will-talk.3sg
'I/you/he will talk.'
c. *(ani / ata / hu) medaber
(*I you he) talks
'I/you/he talk(s).'

In the following subsections I will argue that the Hebrew pattern follows straightforwardly from the TER. Furthermore, if the TER is the relevant condition, we predict that (i) null subjects may be allowed if the structure is further extended, and (ii) null subjects are disallowed in case the relevant extension is missing. As we will see, both predictions are borne out.

2.1 A note on Present

For the TER to be satisfied, something must extend T. As we have seen, this condition is trivially satisfied if a language has obligatory verb movement to T. Languages, however, may have optional movement to T,[11] or different Tenses may have very different clausal architecture. The latter is the case of Modern Hebrew.

[11] This is for example the case of Czech: *pro*-drop in Czech is always licensed if the verb moves to T but another extension is required if the verb does not move to T. See Kučerová (2005) for further discussion.

Modern Hebrew, as well as various Arabic dialects, does not have a Present tense inflected verb. The so called Benoni form which is traditionally translated as Present tense is not a verbal form but it is a deverbal adjectival form.[12] Present tense thus patterns with nominal clauses which in Hebrew lack an overt copula as well.

The crucial difference between Present, on the one hand, and Past and Future on the other hand, is manifested by their overt morphology. The Benoni form contains only consonants of the root and the very same form functions as the active participle as well. In contrast, both Past and Future are formed by an extra consonantal morpheme: Past belongs to the so called suffixal conjugation and Future to the so called prefixal conjugation. In both cases, the extra morpheme seem to be an overt realization of a functional head the verb moves to.[13] Examples of the relevant forms are given in (12).

(12) *Forms of 'to sew'* (from Shlonsky 1997: 9–10 (1-12), (1-14))

	Present	Past	Future
1sg	tofer	tafar-ti	ʔe-tfor
2sg.M	tofer	tafar-ta	ti-tfor
2sg.F	tofer	tafar-t	ti-tfər-i
3sg.M	tofer	tafar	yi-tfor
3sg.F	tofer	tafr-a	ti-tfor
1pl	tofer	tafar-nu	ni-tfor
2pl.M	tofer	tafar-tem	ti-tfər-u
2pl.F	tofer	tafar-ten	ti-tfor-na
3pl.M	tofer	tafr-u	yi-tfər-u
3pl.F	tofer	tafr-u	ti-tfor-na

[12] Modern Hebrew differs from Arabic in that in Hebrew Benoni appears without any overt auxiliary, while in Arabic presence of an auxiliary is obligatory.

[13] A suggestive evidence that prefix *t<i>-* corresponds to a higher head comes from the following fact (Roni Katzir, p.c.): Modern Hebrew uses four distinct forms to express imperative:

(i) *Types of Hebrew imperatives (for 'to launder'):*

a. normative imperative: kabes

b. colloquial imperative: xabes

c. future form: **te**xabes/**tə**xabes

d. partially truncated future form: **t**xabes

The interesting fact is that only the prefixed forms (the future form and the partially truncated future form) may be combined with a subject and with negation. This suggests that the non-prefixed imperatives are formed by a smaller structure (roughly, a VP size), while the prefixed imperatives have been further extended.

For purposes of this paper I will assume that there is in fact no T merged in Present tense in Modern Hebrew.[14] Following Wurmbrand (To appear), I assume that functional projections are merged only if needed for semantic interpretation or if required for selectional purposes. There is no such need in case of Present tense as it has a default semantic interpretation.[15] Thus, the subject and the Benoni form enter a predicative relation without a T projection. Consequently, the case of Present is not covered by the TER and I will put it aside in the coming discussion. In contrast, Future and Past may license null subjects as the verb in Past and Future is able to extend T.

This of course does not mean that Present tense is always incompatible with T. If there is an independent reason for T to be merged, null subjects may be licensed in Present tense as well. This is the case of the so called *eyn*-negation. If *eyn*-negation extends the structure, a null subject becomes grammatical also in Present (Shlonsky, To appear), as seen in (13).

(13) a. *(ani) lomed
I study.1sg
'I study.'
b. (ani) eyn-eni lomed
I not-1sg study.1pl
'I don't study.'

2.2 Person dependency

The number of merged functional heads may differ among grammatical persons. If, for example, the structure of 3rd person is smaller than the structure of other persons, it may not be large enough to satisfy the TER, as the verb may move only to a lower structural position. In such a case, a null subject should not be possible for the corresponding person.

This prediction is borne out. While 1st and 2nd null subjects in Modern Hebrew are grammatical in a matrix clause (in Future and Past), as we have seen in (11), 3rd person null subjects are ungrammatical.[16]

[14] Shlonsky (Shlonsky 1997; To appear) suggests that the form is always selected by an auxiliary, in case of Present the auxiliary is null but sufficient to block movement to T.

[15] I simplify the matter by abstracting from Aspect, a crucial factor of tense interpretation in Semitic languages.

[16] According to Shlonsky, 3rd person are located on Num heads while 1st and 2nd person features are located on D-head. For independent reasons, a null subject cannot check the 3rd person feature.

The suggestive evidence that 3rd person morphology is formed by a smaller functional complex comes from morphology. In Modern Hebrew, presence of structurally higher functional material is manifested by consonantal morphemes on top of the basic three-consonantal cluster. While 1st and 2nd person are morphologically more complex, 3rd person is not.[17]

The lack of 3rd person null subjects could, of course, follow from other factors as well. If the difference in the structural complexity is overtly reflected in the complexity of morphological realization, then a theory which ties morphological richness to the availability of null subject licensing (for example, Jaeggli and Safir 1989) might do here as well. Furthermore, it has been argued that there is a relation between easier pragmatic recoverability of 1st and 2nd person subjects than 3rd person subjects: This pragmatic difference has been claimed to be responsible for the person asymmetry in null subject licensing (for instance, Ariel 1990).

Fortunately, these three theories make very different – and testable – predictions. If the problem with 3rd person null subjects is a matter of extension (not the richness of agreement or lesser degree of contextual recoverability), 3rd person null subject should be licensed if the structure is further extended. The richness-of-morphology theory, on the other hand, predicts that further extension should be irrelevant for null subject licensing. Finally, the pragmatic theory predicts that 3rd person null subject should be licensed if the antecedent is made salient (or highly accessible, to use Ariel's terminology). In the same time, it should be irrelevant whether the antecedent is introduced within the same structure or in the preceding clause.[18]

As we will see, only the predictions made by the extension theory are borne out: 3rd person null subjects are grammatical if the structure is further extended. I will present here two such cases: (i) licensing 3rd person null subject in matrix exclamative clauses, and (ii) licensing 3rd person null subjects in an embedded environment (Borer 1986; Landau 2004; Melnik 2007, among others). Without further extension a null subject cannot be licensed, thus disconfirming the predictions made by the richness-morphology theory and the pragmatic theory.

2.2.1 Licensing 3rd person null subjects in embedded clauses. In Hebrew, 3rd person subjects cannot be under normal circumstances dropped. According to

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[17] The overt morphology is related to Gender and Number only.

[18] The pragmatic theory also predicts that if a language is a partial pro-drop language, using the terminology of Holmberg (2005), a null subject should be licensed for the [+speaker]/[+hearer] related persons but not for [–speaker]/[–hearer]. Even though many languages confirm to this prediction, Dryer (2008) reports that there are languages, for instance Dinka and Lamani, in which a null subject is possible for 3rd person but not for 1st or 2nd person.

Shlonsky (1997), this is because they fail to be licensed (i.e., identified) as *pro* for independent reasons. The fact that in Hebrew the 3rd person inflection cannot license a referential null pronominal element (*pro*) does not, however, mean that if the TEC is satisfied, another type of a pronominal element cannot be licensed. This is what seems to happen in Hebrew: In an embedded environment, a null subject is possible as long as there is another way to identify the missing subject. As has been extensively argued by Landau (2004) (contra Borer 1986, among others), null subjects in Hebrew are possible if they may be licensed by obligatory control, as in (14) (from Landau 2004). Thus, in environments in which obligatory control may take place (subjunctive complements), subjects may be always dropped as long as they may be controlled.[19]

(14) *Obligatory control into finite subjunctive complements:*
a. Rina himlica le-Gil še-*pro* ya'avod yoter kaše.
Rina recommended to-Gil that-pro will-work.3sg.M more hard
'Rina recommended to Gil that he would work harder.'
b. Hem kivu še-*pro* yelxu ha-bayta mukdam.
they hoped that-pro will-go.3pl home early
'They hoped to go home early.'

Interestingly, some verbs embed a null subjects complement in Past tense as well (Roni Katzir, p.c.), as seen in (15), putting into a question the assumption that control is the only way of licensing embedded null subjects.

(15) *Null subjects in Past tense complements:*
a. hu amar Se-higia
he say.Masc.Sg.Pst that-arrive.Masc.Sg.Pst
'He said that he had arrived'
b. hu hichir Se-hifsik le'aSen
he declare.Masc.Sg.Pst that-stop.Masc.Sg.Pst to-smoke
'He declared that he had stopped smoking.'

Furthermore, as discussed in Melnik (2007), there is a difference between complements and adjunct clauses. While complement clauses require obligatory control, adjunct clauses license non-obligatory control. As can be seen in (16) from Melnik (2007), in this type of structure 3rd person past tense allows for a null subject as well.

[19] Since obligatory control into finite complements is possible only if the complement is in future tense, we cannot test whether embedding may improve present tense null subjects.

(16) *Non-obligatory control in adjunct clauses:*

a. hu haya yoshev leyad-am kol ha-layla kshe-naflu le-mishkav…
he was.3sg.M sit next-to-them all the-night when-fell.3pl.M to-bed
'He would sit next to them all night when they were ill…' (Ha'aretz Corpus)

b. be-mixtav she-hefits bekerev ha-ovdim hoda la-hem beit ha-malon…
n-letter that-distributed.3sg.M among the-workers thanked.3sg.M to-them house the-hotel
'In a letter which it distributed among the workers, the hotel management thanked them…'

The Hebrew pattern is not unique: There are other partial pro-drop languages (borrowing the term from Holmberg 2005) that license some null subjects only in embedded clauses but not in matrix clauses, for example Finnish, Brazilian Portuguese, Russian, and Marathi (Vainikka and Levy, 1999; Matushansky, 1999; Holmberg, 2005; Barbosa, To appear; Holmberg et al., To appear, among others). The langauges differ in their strategies of identifying null subject: for example, Holmberg et al. (To appear) provide an interesting argument that there is a scale of types of control that license null subjects in partial pro-drop languages. But there seems to be other ways of null subject identification. For example, Matushansky (1999) argues that Russian embedded null subjects are variables and as such are dependent on the quantificational properties of its antecedent, as in (17) (from Matushansky 1999).

(17) *Embedded null subjects in Russian are variables:*

a. * Ivanov naboltal Mashke chto jedu v Moskvu
Ivanov blabbered.3sg.M Mashka.Dat go.Pres.1sg Comp to Moscow
'Ivanov blabbered to Mashka that I'm going to Moscow.'

b. Ivanov vsem naboltal chto jedu v Moskvu
Ivanov all.Dat blabbered.3sg.M go.Pres.1sg Comp to Moscow
'Ivanov blabbered to everyone that I'm going to Moscow.'

Crucially for our discussion, identifyability of null subjects is only one of the conditions that must be satisfied. I argue that there is an independent constraint that affects the syntactic distribution of null subjects across languages: the TER. It is this constraint that is primarily responsible for the asymmetry between matrix and embedded clauses.

2.2.2 Licensing 3rd person null subjects in exclamatives. We have seen already in and now in that the C head is able to license the TER. If this is so, then the TER

predicts that there should be more null subjects under complementizers than in matrix clauses without a complementizer, independently of whether the null subject clause is embedded under another clause or whether a matrix clause is introduced by a complementizer. In other words, the asymmetry should be in principle independent of the control properties of the matrix clause. This prediction is borne out as well.[20]

In Modern Hebrew, there is a class of matrix clauses introduced by an overt complementizer. This type of clause is underspecified for its illocutionary force and its interpretation is highly dependent on the context. What is crucial for our purposes though is that in such a structure 3rd person subjects may be null.[21] Examples are given in (18) (Roni Katzir, p.c.).

(18) *Matrix clauses extended by a complementizer license 3rd person null subjects:*

a. Se-yavo kvar
that-come.Masc.Sg.Fut already
'(Why isn't he here?) Let him come already.'

b. Se-yavo ve-nedaber
that-come.Masc.Sg.Fut and-talk.Pl.Pres.
'Let him come, and we'll talk (things over). [talking about someone who is not present at that point]'

The question is whether there is any control like relation in this type of structure as well. It has been argued (Katz and Postal, 1964; Ross, 1970; Truckenbrodt, 2006, among others) that illocutionary force comes from embedding under a covert illocutionary operator but it is less clear that there is any complex covert structure involved. I leave the question open for now. For our purposes it suffices to say that there is a direct relation between structure extension and null subjects licensing which is unexpected under other theories of null subject licensing.

2.3 Lack of movement

So far we have been looking at the possibility of improving null subjects in case further extension takes place. The TER, however, predicts that, if a null subject is licensed for a certain Tense because there is verb movement to T, then if the

[20] Old French provides another evidence for the claim that null subject licensing in embedded clauses is in principle independent of control.

[21] I thank to Danny Fox, p.c., for bringing the data to my attention.

movement is for whatever reason blocked the null subject should not be possible anymore. This prediction is borne out as well.

As we have seen in 2.1, in Modern Hebrew verbal morphology, extending functional head is realized by a consonantal morpheme. In Colloquial Hebrew the Future tense morpheme (glottal stop) can be dropped but then the subject cannot be null (Borer, 1989; Ritter, 1995), as seen in (19)–(20) (from Artstein 1999, (23)).

(19) *Standard Hebrew:*
(ani) ʔoxal et ha-banana
(I) will-eat Acc the-banana
'I will eat the banana'

(20) *Colloquial Hebrew:*
*(ani) yoxal et ha-banana
I will-eat Acc the-banana
'I will eat the banana'

I argue that the restriction on Colloquial Hebrew null subjects reflects the lack of higher verb movement: The null subject in (20) is not possible because the structure has not been extended and the TER has not been satisfied.

2.4 Summary

In this section I have examined various predictions made by the TER with respect to null subject licensing. I have shown that in the so called partial *pro*-drop languages licensing of null subjects crucially depends on the TER being satisfied. If there is no extension, a null subject cannot be licensed.

The presented case study was based on Modern Hebrew which allows for various types of null subject licensing. The reader may wonder whether there are other cases in which null subject licensing is crucially dependent on the size of the structure. One case to look at is null subject licensing in split ergative languages. Such data have been reported by Huang (1984). In Pashto, null subjects are licensed only in the Nominative-Accusative part of the pattern when the verb overtly agrees with the Nominative but not in the Ergative-Absolutive pattern when the verb does not agree with the subject.[22] According to Huang, this follows from the richness agreement hypothesis. However, this well may be a confound as the two case patterns differ in their verb movement properties as well (Marantz,

[22] Another language with this kind of distribution of null subject is Nias Silan (Brown, 2001).

1991; Bobaljik, 1993, among others). I am going to leave detangling the two hypothesis to further research.

3 Conclusion

I have argued that licensing or identification of null subjects is a necessary but not a sufficient condition for null subjects to be grammatical. The argument has been based on the observation that *pro* does not move to Spec,TP. As a consequence *pro* cannot satisfy an EPP-like requirement. For a null-subject structure to be grammatical, the structure must be extended by other structural means.

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