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Making sense of silence: finiteness and the (OC) PRO vs. *pro* distinction

Commentary on Kissock (2013)

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Abstract In this commentary paper, I discuss and further develop three points raised in Kissock (2013). First, I focus on Kissock's proposal that all instances of null subject in Telugu are *pro* rather than OC PRO. I argue that such a claim must be re-evaluated in light of the idea that (OC) PRO and *pro* are not primitives: they both *happen* to be silent on the surface, but what crucially distinguishes them is that the former is always a bound-variable anaphor, whereas the latter can refer deictically. Thus, the claim that a language lacks OC PRO reduces to a question about whether obligatorily bound variables are capable of being silent. The second part of the paper looks at whether there might be evidence for a lurking OC PRO in Telugu after all. To this end, I take a closer look at complements embedded under the verb *prajatninč*- (roughly translated as "try") and also investigate new evidence from clauses embedded under *modalu*- ("begin"), the latter showing that the subject of these clauses bears the classic fingerprint of OC PRO. The third and final part of the paper expands on a minor point in Kissock's paper involving non-finite clauses in Telugu, a subject *pro*-drop language, that allow both overt non-coreferent, and null coreferent subjects. Kissock assumes that the possibility of an overt non-coreferent subject automatically entails the possibility of a *pro* subject and argues, on this basis, that the null subjects in these clauses are *pro*, not PRO. I propose that Kissock's assumption is not an innocuous one to make and argue, on the strength of comparable examples from a range of languages, that subject *pro*-drop is restricted in non-finite clauses for independent reasons. Thus, the availability of an overt, non-coreferent subject in non-finite clauses doesn't entail that of a *pro* subject.

Keywords Finiteness · OC PRO · *pro*(-drop) · Agreement · Tense · Coreference · Variable-binding · Anaphor vs. pronoun · Silence

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1 Introduction

Kissock's paper "Evidence for 'finiteness' in Telugu" (this volume) addresses two main theoretical issues based on primary empirical evidence from the Dravidian language Telugu:

(i) The nature of the null subject in putatively "non-finite" clauses
(ii) The nature and expression of clausal finiteness

With respect to the first point, Kissock investigates the behavior of null subjects in embedded clauses in Telugu, including those that would traditionally be classified as "non-finite," such as the clausal complement of a TRY-class predicate, with a view to testing whether they manifest the classic fingerprint of obligatorily controlled (OC) PRO.

Based on the behavior of these null subjects with respect to standard diagnostics for OC PRO, such as sloppy readings under VP-ellipsis and coreference with an obligatory *de se* interpretation, she concludes, however, that the null subjects in Telugu are not OC PRO, but rather the null pronoun conventionally labelled *pro*. In other words, she argues that there is no evidence that Telugu has structures involving obligatory control.

With respect to the second point, Kissock concludes on the strength of an examination of a range of clauses in both matrix and embedded position in Telugu that there are no discernible surface distinctions between embedded and matrix clauses. In other words, matrix as well as embedded clauses (including those traditionally classed as "non-finite") are indistinguishable on the surface, both being typically uninflected for agreement and typically inflected for tense. This lack of overt morphological distinction is interesting in itself because it demonstrates not only that, in some languages, finiteness might simply have no overt reflex (a conclusion incidentally already suggested by the lack of infinitival marking in languages like Greek and Romanian, see Iatridou 1993; Landau 2004) but also that finiteness may target something more abstract than the presence or absence of specific tense and agreement features. Based on such data, Kissock concludes that finiteness in Telugu must be defined in an abstract semantic sense, specifically in terms of (temporal, modal or other) anchoring to an utterance-context, as discussed in Bianchi (2003). Such a conclusion is, incidentally, also consistent with her proposal, earlier in the paper, that Telugu clauses are always structurally headed by C, which is typically treated as the locus for such anchoring (see, for instance, Rizzi 1997; Speas and Tenny 2003; Bianchi 2003, and also McFadden 2013; Ramchand 2013; Amritavalli 2013). In this commentary on Kissock's paper, I will focus on the first of Kissock's points against the backdrop of clausal finiteness. The discussion is roughly divided in three parts. In the first part of the paper, I will look a bit more closely at what it means to claim that a null DP is OC PRO vs. *pro*, arguing in particular the importance of keeping the morphophonological properties of these elements distinct from their syntactic and semantic ones and honing in, in the process, on the core distinction between OC PRO and *pro*. In the second part of the discussion, I will closely examine some of the specific theoretical conclusions that Kissock draws from the Telugu data, and propose that there is in fact reason to treat some of the null subjects

in Telugu as OC PRO rather than *pro*. To this end, I will also present new data from the language involving temporal properties of clauses embedded under *prajatninč-* ('try'), and PRO-like subjects in clauses embedded under *modalupeṭṭu* ('begin').

The third part of my commentary picks up on a relatively minor point in Kissock's paper—one that, nevertheless, has important consequences for the PRO vs. *pro* debate. This has to do with the apparent free variation, observed in Sundaresan and McFadden (2009), between an overt embedded subject (referentially disjoint from the matrix) and an OC PRO subject, in clausal non-finite adjuncts in Tamil and languages like it. As the authors and also Kissock point out, the fact that the null variant bears the hallmarks of OC PRO, rather than *pro*, is quite surprising: specifically, given that the overt embedded subject may be referentially disjoint from the matrix, we expect its null variant also to be able to refer deictically. Put another way, we expect a *pro* subject to be possible since it normally alternates with overt deictic DPs, when, in fact, various diagnostics show that a null subject in such clauses always behaves like OC PRO. In this paper, I explore the aspects of this puzzle in some detail, arguing in particular for the following: first, that the null subject is indeed OC PRO and not merely a coreferent *pro* "masquerading" as OC PRO (as Kissock suggests) and second that, for independent reasons, *pro*-drop of a DP in agreement position is either impossible or severely restricted in non-finite clauses. Support for the latter conclusion comes from a wide variety of unrelated and typologically diverse *pro*-drop languages ranging from Romanian, Spanish and Italian to Japanese, Korean, Greek, Hindi, and Czech.

2 Getting to the heart of the PRO vs. *pro* distinction

In this section, I look a bit closer at the nature of the distinction between OC PRO and *pro*. I start with a brief historical background on the kinds of data that motivated a distinction between two underlying classes of null (subject) pro-forms. In the process we will see, as Kissock also points out, that a distinction between the two is obscured by the failure of a series of familiar diagnostics to reliably identify two non-overlapping classes of null element. However, I will depart from Kissock in affirming that there is, nevertheless, a real divide between the types of element that PRO and *pro* instantiate. In particular, OC PRO is an anaphor, requiring an antecedent in the syntax and functioning always like a bound variable in the semantics, whereas *pro* is a pronoun that can be referentially free. That they both then also happen to be morphophonologically null is logically orthogonal. Focussing too much on their silence is, I will argue, in part what has led to the confusion with respect to their inherent nature. Empirical support for keeping separate the referential and morphophonological properties of OC PRO comes from instances, in many languages, of subjects that can profitably be analyzed as overt instantiations of OC PRO.

2.1 A brief history of (OC) PRO vs. *pro*

In a language like English which has no *pro*-drop to begin with, there is only one sort of null subject—the obligatorily anaphoric subject of a prototypically "non-finite"

clause, labelled PRO. However, broader investigation beyond English has brought to light a diverse array of languages like Spanish, Italian, Hungarian, Romanian, Hindi, Czech, Greek, Japanese, and Chinese, which were observed to allow *pro*-drop. The element called *pro* was also morphophonologically null and seemed to be able occur in subject as well as object position in languages with rich agreement (Taraldsen 1978; Jaeggli and Safir 1989a). However, while the canonical syntactic distribution of *pro* seemed to automatically set it apart from the canonical instances of PRO, there were instances where it was difficult to distinguish one from the other. For instance, Chinese, despite being a language with no overt agreement, seemed to allow *pro*-drop Huang (1984, 1989) in apparent contradiction of the rich-agreement hypothesis. It was also recognized that, given the lack of overt tense and agreement in Chinese clause structure, an obvious metric for distinguishing *pro* and PRO was lost or, at least, undermined. As such, Huang (citations above) actually proposes a generalized theory of control which does away with the idea that *pro* and PRO are two separate primitives. Borer (1989) is another attempt to collapse the distinction between PRO and *pro* on grounds of theoretical economy: arguing that the GB idea of a separate "control module" responsible for the distribution of PRO seemed costly and redundant, Borer proposes that there is only a single null element that appears in both "finite" and "non-finite" clauses, and that any systematic differences in behavior between the two "follow from independent principles, and not from the properties of the null pronominal itself" (Borer 1989:69). More recently, Holmberg et al. (2009) show that there is a special construction in three areally distinct partial *pro*-drop constructions languages—Brazilian Portuguese, Finnish, and Marathi. This construction involves a null "finite" subject (which would thus appear to be *pro*) which, however, seems to be controlled by a higher syntactic antecedent just in case this null subject is 3rd-person and definite. Such phenomena again challenge our core conceptions of what is PRO and what *pro*, and whether it makes sense to distinguish the two at an underlying (i.e. featural) level.

As Kissock (2013) herself points out, additional empirical issues with respect to PRO have come to light such that nearly every single property that was originally supposed to define PRO has since been called into question:

(i) Borer (1989), Szabolcsi (2009), Barbosa (2009) have argued that there are structures in Korean, Hungarian, Italian, and European Portuguese where a non-finite subject with the bound-variable properties of OC PRO can be overtly represented—suggesting that PRO need not always be null.
(ii) Landau (2000, 2004) has argued that languages like Greek and Romanian, which lack a "true" infinitive, seem capable of allowing control into finite clauses—suggesting that OC PRO doesn't always have to be the subject of a "non-finite" clause (or, at least, that the concept of finiteness must be defined differently).
(iii) Polinsky and Potsdam (2002), among others, have shown that languages like Tsez seem to exhibit "backward control"—a complex clause-structure where two subjects are obligatorily coindexed, but it is the higher one that is obligatorily null—forcing us to rethink the structural conditions under which PRO is licensed.
(iv) Sigurðsson (1991, 2008) has presented evidence from floating quantifiers in Icelandic to show that, contrary to the Minimalist idea that PRO has a special "null

Case," this element actually seems capable of bearing structural nominative and inherent dative case, just like other DPs. Similarly, Landau (2008) demonstrates, on the basis of structures involving secondary predicates, that OC PRO in Russian may bear dative case.

(v) Wurmbrand (2001) has argued that, at least for some clausal structures originally classified as "control" infinitives in German and other languages, there is reason to think that there is no subject to begin with because the structure is truncated at the VP level. For these clauses then, the control effect is just that—an effect due to independent properties of the embedded structure.

2.2 What lies at the heart: a syntactico-semantic distinction between PRO and *pro*

The discussion above has shown that syntactic and morphological diagnostics for the PRO vs. *pro* distinction are frustratingly unreliable. A possible conclusion from this state of affairs, which indeed Kissock seems open to, would be that this is because there *is* no underlying distinction between these classes of element. In this case, it would indeed make sense, from the perspectives of both acquisition and theoretical parsimony, to eliminate what might be nothing more than an artificial dichotomy and invoke a single class of null pro-form (e.g. *pro*), as Kissock suggests. A different logical possibility, however, would be to claim that there is a real distinction between these two pro-forms: what is lacking, in Telugu and many other languages, is the morphophonological *evidence* for the distinction.

Interestingly, this analytical state of affairs parallels the situation that Kissock describes for finiteness in Telugu, a language in which traditional morphological clues in terms of overt marking for tense, agreement and nominative case seem to fail to satisfactorily distinguish "finite" clauses from "non-finite" ones. A possible conclusion from this would be that a "finite" vs. "non-finite" distinction is simply not a useful one to make for Telugu. However, there is another possibility—one that Kissock ultimately adopts—which is that what this language lacks is not an underlying distinction between these categories but merely a consistent morphophonological realization of their differences. In other words, two broad classes of clause do exist in this language, but they are distinguished more abstractly, specifically by means of whether and how they are syntactico-semantically anchored to the utterance context (where "anchoring" is defined in the sense of Bianchi (2003), Sigurðsson (2004), Ritter and Wiltschko (2009), among others).

Returning to the case of the OC PRO vs. *pro* distinction, clear evidence in the literature suggests that there *is* a deep and robust semantic distinction between the two, despite the lack of reliable morphosyntactic "clues" on the surface, a point that is generally acknowledged in the literature. There is widespread disagreement as to how the properties of PRO should be formally derived, with for instance the series of papers authored by Landau and others (Landau 2000, 2004, 2013; Bobaljik and Landau 2009) proposing that PRO should be analyzed as a silent pro-form, and the other influential strand of analyses spearheaded by Hornstein (Hornstein 1999, 2000; Boeckx et al. 2010) arguing that it should be analyzed as a trace/copy of a certain kind of A-movement. Nevertheless, there is general consensus across both types of approaches that the element labelled PRO is underlyingly distinct from that labelled

pro. In particular, OC PRO delineates an element with an obligatorily bound-variable semantics which, moreover, requires a syntactic antecedent ("controller"), whereas *pro* denotes one that can refer deictically. I will adopt this view, while not taking sides on the (ongoing) control as movement debate, which is orthogonal to my concerns here.

Following Landau (2013), we can identify the following signature for OC PRO:

THE OC SIGNATURE—(Landau 2013:33):
In a control construction [... X_i ...[S PRO$_i$ ...]...], where X controls the PRO subject of the clause S:

a. The controller(s) X must be (a) co-dependent(s) [argument or adjunct] of S.
b. PRO (or part of it) [this caveat subsumes cases of partial control as a subspecies of OC] must be interpreted as a bound variable.

Note, crucially, that the definition above is neutral with respect to whether OC PRO is an A-trace/copy or a distinct anaphoric DP or, indeed, whether it is a semantic variable that is not syntactically projected at all (as argued by Wurmbrand (2001) and others for certain instances of restructuring)—and is thus compatible with all of these theoretical analyses.

The following diagnostics allow us to identify OC PRO by targetting its status as an anaphor that is obligatorily anteceded in the syntax and variable-bound at LF:

(i) The availability of a sloppy reading—and the unavailability of a strict reading—for the null subject under *v*P ellipsis (Lebeaux 1985).
(ii) Obligatory coreference with a syntactically represented antecedent.
(iii) Obligatory *de se* interpretation of the null element with respect to this antecedent, if the control predicate is attitudinal (Chierchia 1989).

In contrast, *pro* can refer deictically. As such, there are fewer syntactico-semantic restrictions on its reference and distribution than on OC PRO's. Thus:

(i) It may be accidentally coreferent with a syntactic antecedent but, crucially, is not obligatorily so.
(ii) It can yield both strict and sloppy readings under *v*P ellipsis.
(iii) While compatible with a *de se* interpretation, it is not interpreted obligatorily *de se*; i.e. it can be interpreted both *de se* and *de re*.

To be fair, Kissock does address semantic diagnostics such as these in the course of her investigation of embedded null subjects in Telugu, concluding that they fail to evince positive evidence for OC PRO in the clause types that she examines. However, she also includes morphophonological properties of OC PRO as part of the series of diagnostics.

I will return in Sect. 3 to the question of whether there is evidence for OC PRO in Telugu, after all, based on new data. However, even if it turns out that Kissock is correct in claiming that Telugu doesn't have an OC PRO, it is important to be clear about the scope of this result, given the characterization of the PRO vs. *pro* distinction above. Such a result does not necessarily entail the lack of a certain kind of syntactico-semantic *primitive*, but would involve a claim about the shape of a certain type of

element. More concretely, Kissock's conclusion is not one about the lack of bound-variable anaphora in Telugu, but about a particular morphophonological instantiation (specifically null) of such anaphora in a particular class of syntactic positions in this language. Against such a background, the conclusion that Telugu lacks OC PRO takes on a very different complexion. Rather than PRO coming "at a cost to the lexicon and to the acquirer in terms of abstractness of representation" (Kissock 2013), bound-variables (being universal) come for free. What must be acquired are the language specific details of their syntactic representation and morphophonological realization.

2.3 The importance of severing nullness from coreference

Further support for this last point and for the assertion that the defining feature of OC PRO is its status as an obligatorily bound variable, with its morphophonological silence being strictly orthogonal, comes from languages that seem to allow an overt variant of PRO (see also Livitz (2011) for data and discussion). As Sundaresan and McFadden (2009) discuss, the non-finite complement of "try" cannot take a non-coreferent subject in Tamil, as in many other languages. However, the non-finite subject of a TRY-class complement may be an overt pro-form just in case it is contrastively focussed (Sundaresan 2010). It can additionally be shown that the overt subject in (1b), as well as the silent one in the minimally varying (1a), always behaves like a bound variable and yields only a sloppy reading for the embedded subject under clausal ellipsis, as in (1c):

(1) TAMIL (C)OVERT "CONTROL": *try*-CLASS COMPLEMENT

a. Raman$_i$ [EC$_{\{i,*j\}}$ saadatt-æ saappiɖ-æ paar-tt-aan].
Raman EC rice-ACC eat-INF try-PST-3MSG
'Raman tried [EC$_{\{i,*j\}}$ to eat the rice].'

b. Raman$_i$ [taan$_{\{i,*j\}}$ saadatt-æ saappiɖ-æ paar-tt-aan].
Raman ANAPH[NOM.SG] rice-ACC eat-INF try-PST-3MSG
'Raman$_i$ made an attempt [for himself$_{\{i,*j\}}$ to eat the rice].' (rough translation)

c. Raman$_i$ [EC$_{\{i,*j\}}$/taan$_{\{i,*j\}}$ sa:datt-æ sa:ppiɖ-a paar-tt-aan].
Raman$_i$ EC/ANAPH[NOM.SG] rice-ACC eat-INF try-PST-3MSG.
Krishnan-um ku:ɖæ.
Krishnan.NOM-CONJ also.
'Raman tried to eat the rice. Krishnan also.'
SLOPPY READING ✔: "Krishnan$_i$ also tried for Krishnan$_i$ to eat the rice."
STRICT READING ✘: 'Krishnan$_i$ also tried for Raman$_j$ to eat the rice.'

That an overt non-coreferent subject is possible in a TRY-class complement which typically does not allow a non-coreferent subject (overt or null), suggests that the relevant condition for the embedded subject of such a complement is not morphophonological nullness but obligatory coreference with a superordinate subject. In recent years, significant additional crosslinguistic support for this idea has emerged from a series of languages like Hungarian, Italian, Brazilian Portuguese, and Russian. For instance, Szabolcsi (2009) presents detailed evidence from Hungarian and Italian to

show that an overt coreferent pronoun is able to surface as the subject of a non-finite clause in place of a null PRO just in case it is contrastively focussed. Crucially, this overt pronoun furthermore "acts as a variable bound by the matrix subject; moreover it has the same *de se* interpretation that [subject-]controlled PRO classically receives" (Szabolcsi 2009:2). Consider the following Hungarian example as illustration of this point:

(2) Senki nem akart csak ö leül-ni.
nobody not wanted[3SG] only he/she sit-INF
'Nobody wanted it to be the case that only he/she takes a seat.'
CONTEXT: A group of friends are in a crowded bus and there is only one available seat.

In (2), the complement of the matrix control verb *akart* (WANTED) is an infinitival clause, this status marked by the verbal suffix *ni*. However, the (focussed) embedded subject, despite bearing the conventional fingerprint of OC PRO—being obligatorily coreferent with the matrix subject *senki* (nobody), and interpreted obligatorily *de se*—is morphophonologically overt. Barbosa (2009) presents strikingly parallel examples from European Portuguese and uses scope diagnostics with respect to the focussed DP *só ele* (ONLY HE) to show, furthermore, that in structures like (3), the focussed pro-form *ele* is the embedded subject, with the matrix subject being the null element *pro*. Here again, just like in (2), the embedded subject is obligatorily coreferent with the matrix *pro* subject and interpreted obligatorily *de se* with respect to it:

(3) (EUROPEAN) PORTUGUESE
Decidiu ir ao mercado só ele.
decided to-go to the-market only he
'He is the only one who decided to go to the market.'
STRUCTURE: [pro_i decided [$_{CP}$ only he$_{\{i,*j\}}$ to go to the market]]

Such data present clear evidence that the overt subject in such sentences shares properties with OC PRO rather than *pro*. On a broader analytic level, they demonstrate that the syntactico-semantic properties of the elements we are labelling PRO and *pro* must be kept strictly separate from their morphophonological ones. OC PRO manifests obligatory bound-variable effects whereas *pro* can refer deictically: both these pro-forms happen to be morphophonologically null, but in theory, and given the appropriate grammatical conditions, morphophonologically overt pro-forms with parallel interpretations can appear in positions corresponding to either.

3 Is there a lurking OC PRO in Telugu?

The discussion above has shown that the lack of reliable morphophonological evidence for OC PRO in a given language should not so easily be taken to mean that it doesn't exist at an underlying level in the grammar. In this spirit, I propose that we take a closer look at complex Telugu structures with a view to seeing whether there is indeed evidence for a lurking OC PRO.

3.1 Temporal clues from 'try'-class complements in Telugu

Crucial evidence for Kissock's claim that Telugu lacks OC PRO comes from possibilities for the embedded subject in the clausal complement of *prajatninč* ('try') in this language. These are illustrated in the Telugu structures below:[1]

(4) [EC$_i$/Avanu$_i$ po:ʈi: gelav-aɖa:niki] Sridhar$_i$ prajatninʧ-a:-ɖu.
EC/He.NOM race.ACC win-INF.DAT Sridhar.NOM try-PST-3MSG
'Sridhar$_i$ tried [$_{CP}$ EC$_i$ to win the race].'

(5) [Ne:nu po:ʈi: gelav-aɖa:niki] Sridhar prajatninʧ-a:-ɖu.
I.NOM race.ACC win-INF.DAT Sridhar.NOM try-PST-3MSG
'Sridhar tried [$_{CP}$ for me to win the race].'
Lit: 'Sridhar tried I win my race.'

The examples above show that the embedded subject may either be null and coreferent with the matrix or overt with the possibility of being non-coreferent. The possibility that the embedded subject may be overt is not particularly surprising: as we just saw, subjects that are the equivalent of overt PRO may occur in non-finite subject position, including in the complement of TRY-class verbs, in a number of languages. What *is* surprising is that this overt subject may be referentially disjoint from the matrix, as in (5). Although alternation between an overt non-coreferent and null coreferent subject is evidenced in other types of non-finite clauses (e.g. in purposive and temporal non-finite adjuncts and WANT-class complements in Tamil, Malayalam, Sinhala, Middle English and other languages, as discussed in Sundaresan and McFadden (2009)) they do not generally obtain in TRY-class complements where the only possible subject typically manifests the fingerprint of OC PRO. The possibility of sentences like (5) could thus be taken, as Kissock does, to suggest that Telugu lacks OC PRO.

A different possible conclusion, however, would be that *prajatninču* in Telugu doesn't have the same syntactico-semantics of "try" that is denoted by verbs like *try* in English and *paar* in Tamil. Rather, it might mean something slightly different, perhaps something more like "make an attempt." Observe that, although "make an attempt" and "try" in English seem to have closely related meanings, the properties of embedded subjects in their clausal complements vary significantly. While the subject of the clause selected by 'try' must be obligatorily coreferent with the matrix, the subject embedded under 'make an attempt' may be referentially independent:

(6) Sue$_i$ made an attempt [$_{CP}$ EC$_{\{i,*j\}}$/for John to win the prize].

(7) Sue$_i$ tried [$_{CP}$ EC$_{\{i,*j\}}$/*for John to win the prize].

Preliminary empirical support for the idea that *prajatninč-* might mean something different from "try" comes from the observation that the "non-finite" complements under *prajatninč-* in Telugu display strikingly different temporal behavior from TRY-class complements in English and Tamil.

[1] Unless otherwise indicated, all the Telugu data presented here are original native-speaker data.

The observation that control infinitives have unrealized tense can be traced back to Stowell (1982). However, even within the broad class of control infinitives, it has been noted that some infinitives behave quite differently from others with respect to their temporal properties (Karttunen 1971; Landau 2000). For instance, WANT-class control complements in English and Tamil can be future-oriented with respect to the matrix clause; however, TRY-class complements in English, Tamil and other languages "do not allow temporal modifiers referring to a time different from the matrix event time, and can only receive a simultaneous interpretation" (Wurmbrand 2011). This is illustrated by the Tamil examples below (note that the corresponding English translations show the same grammaticality patterns as the original Tamil examples):

(8) 'TRY'-CLASS COMPLEMENTS IN ENGLISH AND TAMIL:

Ne:ttikki Raman$_i$ [EC$_{\{i,*j\}}$ (*na:ɭeikki) tu:ŋg-æ] paar-tt-aan.
yesterday Raman[NOM] EC (*tomorrow) sleep-INF try-PST-3MSG

'Yesterday Raman$_i$ tried [EC$_{\{i,*j\}}$ to sleep (*tomorrow)].'

(9) 'TRY'-CLASS COMPLEMENTS IN ENGLISH AND TAMIL:

Ne:ttikki Raman$_i$-ukku [EC$_{\{i,*j\}}$ na:ɭeikki tu:ŋg-æ] ve:ɳɖ-um.
yesterday Raman-DAT EC tomorrow sleep-INF want-PST-3NSG

'Yesterday Raman$_i$ wanted [$_{CP}$ EC$_{\{i,*j\}}$ to sleep tomorrow].'

Wurmbrand (2001, 2007) relates this inability of TRY-class complements in English and other languages to vary in tense from their matrix to the original Chierchia (1989) idea that these complements are somehow more dependent or anaphoric on the matrix clause than WANT-class complements. Wurmbrand proposes, furthermore, a syntactic correlate of this idea, claiming that TRY-class complements are structurally smaller or "truncated" compared to WANT-class complements, corresponding to TPs with a covertly pronounced embedded subject, rather than CPs. The obligatory coreference and *de se* interpretation of the embedded subject with respect to the matrix in such cases are a direct function of how this truncated syntactic structure is interpreted at LF, as Wurmbrand shows. Thus, there appears to be a systematic syntactico-semantic connection between the underlying lexical-conceptual semantics of verbs like English *try* and Tamil *paar* and the temporal behavior of clausal complements in their scope.

Turning now to Telugu, it is immediately apparent that complements of *prajatninču* behave quite differently from those given in (8) above. Specifically, it appears that the Telugu complements can indeed host a modifier whose temporal reference varies from that denoted by the matrix, as shown below:

(10) Ne:nu$_i$ [$_{CP}$ EC$_{\{i,*j\}}$/Sridhar pooʈʈi reepu gelava-ɖa:n-iki
I$_i$.NOM EC$_{\{i,*j\}}$/Sridhar race.ACC tomorrow win-INF.DAT-DAT]
ninna prajatninč-aa-nu.
yesterday try-PST-1SG
Lit: 'I$_i$ tried yesterday [$_{CP}$ EC$_{\{i,*j\}}$/Sridhar to win the race tomorrow].'

More in depth research must be undertaken to clarify the full scope and details of these patterns. But I take the possibility of temporally independent complements as in (10) turned up in this preliminary study to suggest that *prajatninčču* in Telugu has an underlyingly different denotation from "try." If this is correct, then the possibility of an overt non-coreferent subject in the clausal complement it selects is not that surprising after all. It also does constitute evidence *against* obligatory control in Telugu—just a lack of evidence in favor from one verb. For evidence in favor we must turn to a different verb.

3.2 *modalupeṭṭu*-: Telugu verb with obligatory control complement

Potential preliminary evidence for OC PRO in Telugu comes from a different type of propositional verb. This verb, *modalu-peṭṭu* (BEGIN/START), seems to only allow a null subject in its clausal complement. Furthermore, this null subject is obligatorily coreferent with the matrix and yields only sloppy readings under *v*P ellipsis.[2] In other words, it bears the classic fingerprint of OC PRO. I present the relevant results below:

(11) ONLY OBLIGATORILY COREFERENT NULL SUBJECT POSSIBLE:

a. Ne:nu$_i$ [EC$_{\{i,*j\}}$ po:ṭi: gelav-aḍam] modalupeṭṭee-nu.
I[NOM.SG] EC race[ACC.SG] win-INF begin-PST-1SG
'I began [$_{CP}$ EC$_{\{i,*j\}}$ to win the race].'

b. *Ne:nu$_i$ [Sridhar$_j$ po:ṭi: gelav-aḍam] modalupeṭṭee-nu.
I[NOM.SG] Sridhar race[ACC.SG] win-INF begin-PST-1SG
Lit: '*I$_i$ began [$_{CP}$ Sridhar$_j$ to win the race].'

(12) ONLY SLOPPY READING OF EMBEDDED NULL SUBJECT POSSIBLE UNDER ELLIPSIS:

a. Ne:nu$_i$ [EC$_{\{i,*j\}}$ po:ṭi: gelav-aḍam] modalupeṭṭee-nu.
I[NOM.SG] EC race[ACC.SG] win-INF begin-PST-1SG.
Anand$_k$ ku:ḍa:
Anand[NOM] also.
SLOPPY READING: ✔'I$_i$ began [$_{CP}$ EC$_{\{i,*j\}}$ to win the race]. Anand$_k$ also began [$_{CP}$ EC$_{\{k,*i,*j\}}$ to win the race].'
STRICT READING: ✘'I$_i$ began [$_{CP}$ EC$_{\{i,*j\}}$ to win the race]. Anand$_k$ also began [$_{CP}$ EC$_i$ to win the race].'

[2] Another standard diagnostic for OC PRO has to do with showing that it is interpreted obligatorily *de se* relative to its antecedent. However, a *de se* vs. *de re* distinction only arises in the scope of an attitude predicate. Under the scope of non-attitude predicates like *modalu* ('begin'), the relevant semantic entailments necessary to bring about a *de se* reading are absent and "de se and de re readings will collapse into one" (Chierchia 1989:17). Since it doesn't even make sense to talk in terms of a *de se* vs. *de re* distinctions for control complements of 'begin', this diagnostic is not included in the discussion. Thanks to Hazel Pearson (p.c.) for clarification on this point.

(13) EMBEDDED CLAUSE NOT TEMPORALLY INDEPENDENT:

a. *Ne:nu$_i$ [EC$_{\{i,*j\}}$ poo$\underline{t}$i: reepu gelava-$\underline{d}$am] ninna
I[NOM] EC race[ACC.SG] tomorrow win-INF-DAT] yesterday
modalupe$\underline{tt}$-ee-nu.
begin-PST-1SG

Lit: '*I began yesterday [EC$_{\{i,*j\}}$ to win the race tomorrow].'

This data suggests that *modalupe$\underline{tt}$u* is a verb that only selects an obligatorily controlled PRO subject in its clausal complement.

However, there is an alternative possibility, particularly with 'begin'-type verbs, namely that *modalupe$\underline{tt}$u* is a raising predicate, in which case the patterns above could be accounted for without having to invoke the presence of an OC PRO subject. As Bobaljik and Landau (2009) show for Icelandic, one diagnostic that will help distinguish the two analytic options is to see whether inherent case that would be assigned by the embedded verb, but not by the matrix verb, is present on the matrix subject. The reasoning behind this test is as follows. In a raising structure, the assumption is that the matrix subject, at some early point in the derivation, occupies the embedded subject position; thus if, as the embedded subject, it receives quirky case, it is expected to retain this case in matrix subject position as well, since one of the defining properties of quirky case is that it is retained under A-movement. In a classic control configuration, on the other hand, the matrix subject is directly (i.e. externally-)merged in matrix subject position. As such any quirky case assigned by the embedded verb will not affect the matrix subject in any way, since the latter never enters into a local relationship with the former. Testing this diagnostic with Telugu (which does have quirky subjects) shows that *modalupe$\underline{tt}$u* ("begin") in Telugu is actually ambiguous in status: there are structures where the matrix subject displays the quirky dative case that it would have been assigned by the embedded verb and there are others where the matrix subject surfaces with structural nominative case, despite co-occurring with an embedded verb that assigns a quirky dative to its clausemate subject. This is illustrated below:[3]

(14) Sridhar$_i$-ki [$_{TP}$ ~~Sridhar$_i$-ki~~ bhayam u$\underline{n}\underline{d}$adam] modalupe$\underline{tt}$-in-di.
Sridhar$_i$-DAT fear.NOM having begin-PST-3NSG
(RAISING)
'Sridhar started being afraid.'
Lit: 'Having fear began for Sridhar.'

(15) Sridhar$_i$ [$_{CP}$ EC$_{\{i,*j\}}$ bhayam u$\underline{n}\underline{d}$adam] modalupe$\underline{tt}$-ee-$\underline{d}$u.
Sridhar.NOM EC$_{\{i,j\}}$ fear.NOM having begin-PST-3MSG
(SUBJECT CONTROL)
'Sridhar$_i$ started [$_{CP}$ EC$_{\{i,*j\}}$ being afraid].'

[3] Kissock (2013) suggests that, in (14), *Sridhar-ki* doesn't actually raise into the matrix clause, but remains in the embedded clause, which itself functions as the matrix subject. For present purposes, this distinction doesn't matter. All that is relevant is that, as its case-marking shows, *Sridhar-ki* is in fact introduced in the embedded clause, unlike in (15), where *Sridhar* is introduced in the matrix clause and seems to control an empty embedded subject.

For our current purposes, the structure in (14), though interesting in its own right, is not relevant. What is important is that *modalupeṭṭu* can function as a subject control verb. This is shown by the fact that, in (15), the matrix subject surfaces with structural nominative case (not the inherent dative case that one might expect it to be assigned by *uṇḍadam*) and triggers agreement on the matrix verb.

Given this possibility, we can now return to the sentences given in (11a)–(13a). The possibility of an alternation between an overt non-coreferent subject and a covert coreferent one in a prototypical "non-finite" clause itself tells us nothing about whether the null subject variant is OC PRO or *pro*. However, the lack of such a possibility—specifically, the unavailability of the overt non-coreferent subject option which is manifested in the clausal complement of *modalupeṭṭu*—is suggestive. This fact, in conjunction with the obligatory bound-variable behavior of the null subject in these structures, is suggestive of the presence of OC PRO. The lack of temporal independence of the embedded clause in such structures with respect to the matrix additionally supports this conclusion. More extensive research must be undertaken to examine these and other propositional predicates in Telugu before a definitive conclusion is reached, but this preliminary evidence suggests that the question of whether there is OC PRO (i.e. a null bound variable) in Telugu is still very much an open one.

4 The puzzling nature of the OC PRO vs. non-coreferent overt subject alternation

In this section, I turn to a different puzzle, namely that having to do with the apparent impossibility of a *pro* subject in clauses where an overt non-coreferent subject is otherwise possible. What results instead is the apparent free variation between an overt non-coreferent subject and a null obligatorily coreferent one in certain non-finite clauses, as in the following minimal pair involving purposive non-finite adjuncts in Tamil (Sundaresan and McFadden 2009, examples reformatted):

(16) [EC$_{i/*j}$ poori porikk-æ] Raman$_i$ maavŭ vaangi-n-aan.
EC poori.ACC fry-INF Raman[NOM] flour[ACC] buy-PST-3MSG
'Raman$_i$ bought flour [EC$_{\{i,*j\}}$ to fry pooris].'

(17) [Vasu$_i$ poori porikk-æ] Raman$_i$ maavŭ
Vasu[NOM] poori[ACC] fry-INF Raman[NOM] flour[ACC]
vaangi-n-aan.
buy-PST-3MSG
'Raman$_j$ bought flour [for Vasu$_i$ to fry pooris].'

Based on tests showing that the null subject variant in sentences like (16) is obligatorily coreferent and interpreted obligatorily *de se* with respect to the matrix and obviates WCO effects, Sundaresan and McFadden (2009) conclude that it always constitutes OC PRO. But this conclusion paves the way for another puzzle. If, as the possibility of sentences like (17) shows, a non-coreferent reading is possible for a non-finite subject as long as it is overt, why should it be putatively blocked if the

subject is silent? Put another way, why is *pro*-drop of the overt subject *Vasu* in (17) apparently impossible?

In this section, I explore the nature of this puzzle in some detail, arguing in particular for the following:

(i) Coreference between the embedded and matrix subjects in sentences like (16) in Tamil is not merely the pragmatically unmarked choice (as Kissock suggests for their Telugu equivalents) but is really obligatory.
(ii) By extension, the mere possibility of subject alternation, like that illustrated in (16)–(17) for Tamil, does not necessarily mean (for any language) that the null alternant is *pro* rather than OC PRO.
(iii) Turning next to the question of why *pro*-drop is impossible in sentences like (16), I argue, based on supporting evidence from a wide range of subject *pro*-drop languages, that this is not an anomalous tendency at all but arises, rather, due to orthogonal restrictions on *pro*-drop in this syntactic environment.

4.1 Obligatory vs. pragmatically unmarked coreference

While conceding that null subjects, even those of the Telugu embedded complement and adjunct clauses discussed in her paper, often do seem to be coreferent with their matrix subjects or objects, Kissock argues that the availability of such coreference is ultimately not a reliable diagnostic for distinguishing *pro* from OC PRO. Her argument is that, even if the null element were underlyingly deictic (*pro*), there would be independent factors that encourage (if not actually enforce) coreference with an antecedent in the pragmatically unmarked case. Specifically, she proposes, the pragmatically default reading for a null element is coreference, since referential contrastiveness requires focus which would, in turn, enforce overtness. Using phonologically reduced pronominal forms in English as analogous to a phonologically empty form like *pro*, she argues that coreference with a syntactic antecedent seems to be the unmarked interpretation of such pronouns as well. Thus, she states, the phonologically reduced form *ɛni* 'and he' in the sentence below is interpreted as coreferent with the matrix subject *John*, as is indicated by the referential indices (Kissock 2013:ex. 34):

(18) John$_i$ went to the store ɛni$_{\{i,*j\}}$ bought the bread you wanted.

She goes on to clarify, crucially, that the point is not that such coreference is required. Rather, she states, the phonologically reduced (or, in the case of *pro*, null) element cannot be referentially contrastive or emphatic in any way. "Therefore," she concludes, "if the null subjects of these clauses are, indeed, *pro*, we would expect them to behave exactly as they do."

This is an interesting point and one that is worth exploring further, which I will do in this section on the strength of data drawn from a number of *pro*-drop languages. Kissock is indeed accurate in claiming that, if a pro-form is contrastively focussed or emphasized, it can no longer be phonologically null. However, I will argue that her further conclusion—that this phonologically null subject is necessarily *pro* rather than OC PRO—is not warranted. Rather, a *pro* subject is ruled out, in such structures, on independent grounds.

First of all, as the discussion in Sect. 2.3 shows, overt non-finite subjects that manifest the syntactico-semantic fingerprint of OC PRO are attested in a number of languages like Tamil, Hungarian, and European Portuguese. Thus, Kissock's point above about the pragmatic conditions that may regulate the pronounceability of a coreferent pro-form is entirely orthogonal to the question of whether this null pro-form is OC PRO or *pro*. The second part of Kissock's argument is that coreference between an embedded null subject and a superordinate one is not conclusive proof that the null subject is OC PRO, since such coreference would, in fact, be the pragmatically unmarked choice even if the null variant were *pro*. I show below that, at least for the case of subject alternation in Tamil, coreference between an embedded and matrix subject is syntactico-semantically enforced, and is not (merely) a pragmatically unmarked choice. This, in turn, illustrates that the null subject in sentences like (16) denotes an element that is referentially anaphoric (in the syntax and semantics)—i.e. that it corresponds to the element labelled OC PRO, not *pro*.

If the coreference between the embedded null subject and the matrix were indeed pragmatically motivated, we would expect that it could be pragmatically obviated—e.g. by tweaking the discourse conditions accordingly. However, at least for the Tamil cases discussed in Sundaresan and McFadden (2009), such obviation is not possible. Rather, for these sentences, coreference between embedded and matrix subjects is really obligatory, regardless of the nature of the discourse context.

To drive this point home, I have set up below a discourse-context that is especially conducive to a non-coreferent reading of the embedded null subject:

SCENARIO: *Maya is so busy with her new job, she is never home these days. Yesterday was no exception: Maya was locked up in her office from morning till night trying to get work done.*

(19) [$_{CP}$ Ne:ttikki EC$_{\{i,*j\}}$ office-læ naa:ɭmuɻukkæ ve:læ-sejj-æ]
yesterday EC office-LOC all.day work-do-INF
Tara-vŭkkŭ innikki ore: talævali.
Tara-DAT today such headache
'[$_{CP}$ Having EC$_{\{i,*j\}}$ worked in the office all day yesterday], Tara$_i$ has such a headache today!'

The salient discourse referent is Maya, whereas the syntactic referent is someone else, namely Tara. If the nullness of the subject in (19) were indeed a pragmatic effect, as Kissock suggests, we might expect that it could refer to Maya, especially given the discourse salience of this entity. However, the reference of the embedded subject in this scenario is completely unaffected by the identity of the most salient discourse referent: it can and must, still, refer to the entity denoted by the matrix syntactic subject *Tara* and cannot refer to that denoted by *Maya*. As such, the utterance in (19) actually sounds a bit odd under the given scenario, since the discourse-context sets up the expectation that the utterance will be about Maya.

The obligatory coreference of the embedded null subject with the matrix in the sentence above indicates that it has the properties of a variably bound anaphor, i.e. that it is representative of OC PRO, rather than *pro*. Intriguingly, however, if the embedded subject of the adjunct non-finite clause in (19) is overt, non-coreference is possible:

SCENARIO: *Tara, a workaholic works very hard in general and yesterday was no exception: Tara was in the office all day. This isn't such good news for Maya, Tara's secretary, since it means that she in turn is given a lot of work to do!*

(20) [$_{CP}$ Ne:ttikki Tara$_i$ office-læ naa:ɭmuɻukka ve:læ-sejj-æ]
yesterday Tara office-LOC all-day work-do-INF
Maya$_i$-vŭkkŭ innikki ore: talævali.
Maya-DAT today such headache
'Tara$_i$ having worked in the office all day yesterday, Maya$_j$ has such a headache today!'

The fact that subject coreference in these sentences cannot be lessened or eliminated by pragmatic means shows that it is not pragmatically motivated, but has to do with the syntactico-semantic nature and representation of these structures. While this says nothing about the correct analysis for the null subject in the types of Telugu sentences Kissock discusses, it does show that the mere fact of an alternation between overt non-coreferent and covert coreferent subjects does not suffice for us to claim that the latter is *pro* rather than OC PRO.

4.2 The finiteness/*pro*-drop restriction

But if the null subject variant of the embedded clause in sentences like Tamil (16) always behaves like OC PRO rather than *pro*, as claimed above, we have a new puzzle on our hands: specifically, given that a non-finite subject may be non-coreferent as long as it is overt (see again the sentence in (17)), why should this become putatively impossible once it is null?

In this section, I present evidence from a variety of subject *pro*-drop languages, both related and unrelated, such as Spanish, Italian, Romanian, Hungarian, Hindi, and Japanese.[4] This evidence shows that subject *pro*-drop is either severely restricted or entirely impossible in clauses that look non-finite, crucially even if an overt referentially disjoint subject is licit in that position. To the extent that this is a crosslinguistically robust tendency, this in turn suggests that the impossibility of *pro* might be reflective of some deeper grammatical principle. Toward the end of this exposition, I offer some initial speculation about the possible theoretical motivation for such a restriction, and also discuss potential exceptions to it from Czech and Korean.

[4]All the data and concomitant grammaticality judgments presented here are original, and are based on detailed discussions with the native-speaker informants named in the Acknowledgments.

4.2.1 Empirical evidence for the non-finite pro-drop restriction

Let us start the discussion with Spanish, a language that displays full subject *pro*-drop. Although Spanish disallows overt non-coreferent subjects in fully uninflected (i.e. the classic "non-finite") clausal complements, such subjects are permitted in clausal adjuncts and gerundivals with the concomitant presence of an overt prepositional or adverbial complementizer. These same clauses can also take a null embedded subject, yielding minimal pairs like the following:

(21) OVERT AND NULL "NON-FINITE" SUBJECTS IN SPANISH:

a. [$_{CP}$ A-l mostra-r María$_i$ los primeros síntomas de la gripe],
At-the show-INF María$_i$ the first symptoms of the flu,
Carlos$_j$ se vacun-ó.
Carlos$_j$ ANAPH vaccinate-PST
'[$_{CP}$ (With) Maria$_i$ showing the first symptoms of flu], Carlos$_j$ got vaccinated.'

b. [$_{CP}$ A-l mostra-r EC$_{\{i,*j\}}$] los primeros síntomas de la gripe,
At-the show-INF EC$_{\{i,*j\}}$ the first symptoms of the flu,
Carlos$_i$ se vacun-ó.
Carlos$_i$ ANAPH vaccinate-3SG.PST
'[EC$_{\{i,*j\}}$ showing the first symptoms of flu], Carlos got vaccinated.'

In (21a), the embedded and matrix subjects, being proper-names, are trivially non-coreferent. Furthermore, the embedded clauses in these structures may be classified as "non-finite" in the sense that their embedded verbs lack tense and agreement: thus, (21a) involves an instance of a non-coreferent overt subject in an embedded non-finite clause.

Crucially for the purposes of the current discussion, if this overt non-coreferent non-finite subject is replaced with a null subject, as in (21b), the resulting sentential interpretation is quite different. The null subject in (21b) is obligatorily coreferent with the matrix subject. Furthermore, such coreference is not (or not merely) a pragmatic effect: setting up a context favoring a non-coreferent interpretation of the embedded subject in (21b) simply renders the sentence pragmatically marked—just as in the case of Tamil (19), above. For instance, even if a non-coreferent entity (e.g. *María*) were added to the sentence in (21b) above as a hanging topic, coreference between the embedded null subject and *María* would not be possible, as demonstrated below:

(22) Según María$_j$, [a-l mostra-r EC$_{\{i,*j,*k\}}$] los primeros síntomas
According.to María, at-the show-INF EC$_{\{i,*j,*k\}}$ the first symptoms
de la gripe, Carlos$_i$ se vacun-ó.
of the flu, Carlos$_i$ ANAPH vaccinate-PST
'According to Maria$_j$, (with Carlos$_i$) showing the first symptoms of flu, Carlos$_i$ got vaccinated.'

Crucially, furthermore, the sentence in (21b) doesn't instantiate accidental coreference of matrix and embedded subjects: rather, it really looks like the embedded null subject in this sentence must be variable-bound. This is illustrated below:

(23) SCENARIO: *Carlos is a doctor and all the doctors in his hospital have to undergo compulsory testing for the flu before flu season. These tests, which become anonymized, are then analyzed by random doctors in the hospital. Carlos actually ends up analyzing his own sample, unknowingly, and finds out that this sample has flu symptoms. So he decides to get vaccinated, just to be safe, because someone in the hospital probably has the virus.*

Under the scenario described in (23), the sentence in (24) is judged quite odd, showing that the interpretation of this sentence is not that Carlos got vaccinated because *someone* in his hospital had the flu: rather, Carlos has to know that he is indeed this person. I.e. the embedded null subject must be interpreted obligatorily *de se* with respect to the matrix:

(24) [$_{CP}$ A-l mostra-r EC$_{\{i,*j\}}$] los primeros síntomas de la gripe, Carlos$_i$
At-the show-INF EC$_{\{i,*j\}}$ the first symptoms of the flu, Carlos$_i$
se vacun-ó
ANAPH vaccinate-PST
'Showing the first symptoms of flu, Carlos got vaccinated.'

Another diagnostic for bound-variable behavior is, of course, the unavailability of a strict reading under *v*P ellipsis. As a cautionary note, however, it should be borne in mind that, since the structure in (21b) involves a clausal adjunct and not a clausal complement, it is in theory possible that the embedded adjunct is not even present in the elided *v*P.[5] In other words, there are two ways to elide the second sentence in (25) below:

(25) John, being forgetful, always leaves his cell-phone at home. Sue as well.
READING 1: Sue ~~[$_{vP}$ always leaves her cell-phone at home]~~ as well.
READING 2: Sue$_i$ ~~[$_{vP}$ [$_{CP}$ EC$_i$ being forgetful] always leaves her cell-phone at home]~~ as well.

Crucially, for our purposes, READING 1 above is compatible with both strict and sloppy interpretations of the embedded subject: i.e. the subject of the elided embedded sentence could denote either John or Mary.[6] However, if we are right about the embedded null subject being a bound-variable, we expect READING 2 to only have a sloppy interpretation given that the elided string contains the null subject.

This prediction is borne out. Once the ambiguity between READING 1 and READING 2 is controlled for by eliding only part of the adjunct clause, the judgments become clear. The embedded null subject in the elided clause in (26) below can, as expected, only have a sloppy interpretation:

[5]Thanks to Thomas McFadden (2013) for bringing this important point to my attention.

[6]Interestingly, even in this case, the sloppy interpretation is more easily available than the strict one in the languages considered here, perhaps because of pragmatic conditioning.

(26) SLOPPY READING UNDER CLAUSAL ELLIPSIS—SPANISH:

Al mostrar los primeros síntomas de la gripe el año pasado,
At-the show-INF the first symptoms of the flu the year past,
Carlos se vacun-ó, y el año siguiente, (entonces) María
Carlos ANAPH vaccinate-PST, and the year following, (then) María
también.
too

'$EC_{\{i,*j\}}$ showing the first symptoms of the flu last year, $Carlos_i$ then got vaccinated. And [$_{CP}$ $EC_{\{j,*i\}}$ ~~showing the first symptoms of the flu~~ this year], $María_j$ (then) did too.'
SLOPPY READING: ✔ And once María showed the first symptoms of the flu this year, then María got vaccinated too.
STRICT READING: ✘ And once Carlos showed the first symptoms of the flu (presumably again) this year, then María got vaccinated too.

The discussion surrounding the Spanish examples above shows that the null subject variant in sentences like (21b) behaves like an obligatorily bound variable (corresponding to OC PRO) rather than like a deictic pronoun (corresponding to *pro*), crucially even in cases where a deictic overt subject is licit (cf. (21)). This is especially striking given that Spanish does allow subject *pro*-drop from tensed and agreeing (i.e. prototypically "finite") clauses. We can, indeed, demonstrate that if the adjunct clause used in these examples is inflected for these features, non-coreferent *pro*-drop again becomes possible. In the sentences in (27) and (28) below, the embedded null subjects are in fully tensed and agreeing *that*-CPs. Crucially, the null subject in (27) can refer to either the matrix subject *Carlos* or to any other discourse-salient entity (like e.g. María), as notationally indicated by the referential subscripts on the null embedded subject. In other words, this subject behaves like *pro* and not OC PRO:

(27) $Carlos_i$ pens-ó/dij-ó [$_{CP}$ que $María_j$ mostra-ba los
$Carlos_i$ think-3SG.PST/say-3SG.PST [$_{CP}$ that $María_j$ show.3SG-IMPF the
primeros síntomas de la gripe].
first symptoms of the flu]
'$Carlos_i$ thought/said [$_{CP}$ $María_j$ was showing the first symptoms of the flu].'

(28) $Carlos_i$ pens-ó/dij-ó [$_{CP}$ que $EC_{i,j}$ mostra-ba los primeros
$Carlos_i$ think-PST/say-PST [$_{CP}$ that $EC_{i,j}$ show.3SG-IMPF the first
síntomas de la gripe].
symptoms of the flu]
'$Carlos_i$ thought/said [$_{CP}$ $EC_{i,j}$ was showing the first symptoms of the flu].'

The discussion of Spanish above demonstrates the following:

(i) In Spanish, a DP may be *pro*-dropped in subject position.
(ii) In certain non-finite clauses, overt as well as null subjects are licit.

(iii) However, in these clauses, the null subject is OC PRO, not *pro*.
(iv) In other words, subject *pro*-drop appears to be impossible in such syntactic environments.

Interestingly, these conclusions are reinforced across a wide range of typologically and genetically diverse languages, suggesting that they represent a deep and robust generalization about the relationship between *pro*-drop and finiteness.

Below, I present data from Italian, Hindi, Hungarian, Romanian, and Japanese, all of which support the conclusions based on the Spanish data above. These languages have been singled out because they allow subject *pro*-drop and also have non-finite clauses that can take either an overt and non-coreferent subject or a null one, just like in Spanish. Each of the examples given below consists of three types of sentences: (a) represents a sentence with an overt non-coreferent subject in a "non-finite" adjunct or complement clause; (b) varies minimally from (a) in that the embedded subject is null and is, furthermore, obligatorily coreferent with the matrix; the (c) sentences are built up around a more "finite" form of the embedded verb than those in (a) and (b), and show that subject *pro*-drop is indeed attested in clauses that look more finite.

(29) Italian:

a. "NON-FINITE" ADJUNCT: OVERT SUBJECT:

Detestando Maria$_j$ il pesce, Gianni$_i$ compr-ó solo carne.
detest.GER Maria$_j$ the fish, Gianni$_i$ buy-3SG.PST only meat

'Maria$_j$ detesting the fish, Gianni$_i$ bought only meat.'

b. "NON-FINITE" ADJUNCT: NULL SUBJECT:

Detestando EC$_{\{i,*j\}}$ il pesce, Gianni$_j$ compr-ó solo carne.
detest.GER EC$_{\{i,*j\}}$ the fish, Gianni$_i$ buy-3SG.PST only meat

'EC$_{\{i,*j\}}$ detesting the fish Gianni$_i$ bought only meat.'

c. "FINITE" ADJUNCT: OVERT/NULL SUBJECTS:

Poiché Maria$_j$/EC$_{\{i,j\}}$ detest-ava il pesce, Gianni$_i$
Because Maria/EC$_{\{i,j\}}$ detest-3SG.IMPERF the fish, Gianni$_i$
compr-ó solo carne.
buy-3SG.PST only meat

'Because Maria$_i$/EC$_{\{i,j\}}$ the fish, Gianni$_i$ bought only meat.'

(30) Hindi:

a. "want"-CLASS COMPLEMENT: OVERT SUBJECT:

Ram$_i$ [$_{CP}$ Amit$_j$-kaa pizza khaa-naa] caah-taa hai.
Ram[NOM] Amit-GEN pizza eat-INF want-HAB be.PRES.3SG

'Ram wants [$_{CP}$ Amit to eat pizza].'

b. "want"-CLASS COMPLEMENT: NULL SUBJECT:

Ram$_i$ [$_{CP}$ EC$_{\{i,*j\}}$ pizza khaa-naa] caah-taa hai.
Ram[NOM] EC pizza eat-INF want-HAB be.PRES.3SG

'Ram$_i$ wants [$_{CP}$ EC$_{\{i,*j\}}$ to eat pizza].'

c. "FINITE" COMPLEMENT: OVERT/NULL SUBJECTS:

Ram$_i$-kaa kahaanaa hai [$_{CP}$ ki Amit-nee/EC$_{\{i,j\}}$ khaanaa
Ram[GEN] say be.PRES.3SG that Amit-ERG/EC$_{\{i,j\}}$ food
khaay-aa].
eat-PST.3SG

'Ram$_i$ says [$_{CP}$ that Amit$_j$//EC$_{\{i,j\}}$ ate the food].'

(31) Hungarian:

a. "NON-FINITE" CLAUSAL ADJUNCT: OVERT SUBJECT:

[$_{CP}$ Éva$_i$ zené-t hallgat-ván], Aladdin$_j$ könny-ebb-en
Éva music-ACC listen-PTC Aladdin easy-COMPARATIVE-ADV
ébred-t fel.
wake-PST.3SG up

'[$_{CP}$ (With) Éva$_i$ listening to music], Aladdin$_j$ woke up more easily.'

b. "NON-FINITE" CLAUSAL ADJUNCT: NULL SUBJECT:

[$_{CP}$ EC$_{\{i,*j\}}$ zené-t hallgat-ván], Aladdin$_i$
EC music-ACC listen-PTC Aladdin
könny-ebb-en ébred-t fel.
easy-COMPARATIVE-ADV wake-PST.3SG up

'[EC$_{\{i,*j\}}$Listening to music], Aladdin$_j$ woke up more easily.'

c. "FINITE" CLAUSAL ADJUNCT: NULL SUBJECT:

Mivel Éva$_i$/EC$_{\{i,j\}}$ zené-t hallgat-ott, Aladdin$_j$
Because Éva/EC music-ACC listen-PST.3SG, Aladdin
könny-ebb-en ébred-t fel.
easy-COMPARATIVE-ADV wake-PST.3SG up

'Because Éva$_j$/EC$_{\{i,j\}}$ listened to music, Aladdin$_i$ woke up more easily.'

(32) Romanian:

a. "NON-FINITE" CLAUSAL ADJUNCT: OVERT SUBJECT:

[$_{CP}$ Plecând Iulia$_i$ la cumpărături], Sebastian$_j$ a
leave.GER Iulia to shopping.PL, Sebastian have.IND.PRES.3SG
ieşit cu câinele afară.
go.out.PAST.PART with dog.the outside

'[$_{CP}$ With Iulia$_i$ going shopping], Sebastian$_j$ went out with the dog/took the dog out.'

b. "NON-FINITE" CLAUSAL ADJUNCT: NULL SUBJECT:

[Plecând EC$_{\{i,*j\}}$ la cumpărături], Sebastian$_i$ a ieşit cu câinele afară.
leave[GER] EC to shopping[PL], Sebastian have[IND.PRES.3SG] go.out[PAST.PART] with dog.the outside

'[With EC$_{\{i,*j\}}$ going shopping], Sebastian$_i$ went out with the dog/took the dog out.'

c. "FINITE" CLAUSAL ADJUNCT: OVERT/NULL SUBJECTS:

[Fiindcă Iulia$_j$/EC$_{\{i,j\}}$ a plecat la cumpărături], Sebastian$_i$ a ieşit cu căinele afară.
since Iulia/EC have.IND.PRES.3SG leave.PAST.PRT to shopping.PL, Sebastian have.IND.PRES.3.SG go.outPAST.PART with dog.the outside

'[Since Iulia$_j$/EC$_{\{i,*j\}}$ went shopping], Sebastian went out with the dog/took the dog out.'

(33) Japanese:

a. "NON-FINITE" PURPOSE ADJUNCT: OVERT SUBJECT:

[$_{CP}$ John-ga$_j$ piza-o taberu yooni] Mary-wa$_i$ tomato-o kat-ta.
John-NOM pizza-ACC eat[INF] PURP Mary-TOP tomato-ACC buy-PST

'Mary$_i$ bought tomatoes [$_{CP}$ for John$_j$ to eat pizza].'

b. "NON-FINITE" PURPOSE ADJUNCT: NULL SUBJECT:

[$_{CP}$ EC$_{\{i,*j\}}$ piza-o taberu tameni] Mary$_i$-wa tomato-o kat-ta.
EC pizza-acc eat.INF PURP Mary-TOP tomato-ACC buy-PST

'Mary$_i$ bought tomatoes [EC$_{\{i,*j\}}$ to eat pizza].'

c. "FINITE" ADJUNCT CLAUSE: OVERT/NULL SUBJECTS:

[$_{CP}$ John$_i$-ga/EC$_{\{i,j\}}$ piza-o taberu daroo kara] Mary$_j$-wa tomato-o kat-ta.
John[NOM]/EC pizza-ACC eat will since Mary-TOP tomato-ACC buy-PST

'Mary$_j$ bought tomatoes [since John$_i$/EC$_{\{i,j\}}$ will eat pizza].'

Testing the null subject variants (i.e. the (b) sentences) in these languages against *de se*/*de re* and sloppy vs. strict diagnostics shows that these behave like obligatorily bound variables (corresponding to OC PRO) and not like deictic pronouns (corresponding to *pro*). In the interest of perspicuity, I do not go through these diagnostics

individually for each language. The results from Spanish and the other languages discussed above show that, at least for these languages, the following restriction seems to hold:

(34) **The Finiteness/*pro*-drop Restriction:**
Subject *pro*-drop is restricted in prototypically non-finite clauses (in languages with subject agreement).

What is the potential theoretical motivation for (34)? One possibility is that this might just be another instance covered by the rich agreement hypothesis for *pro*-drop licensing, termed Taraldsen's Generalization (Taraldsen 1978, and others), namely the descriptive generalization that *pro*-drop is licensed in languages which have agreement that is rich enough to allow information about the reference of the silent/"dropped" argument to be recovered. Although Taraldsen's Generalization was originally formulated as a way to capture parametric variation between *pro*-drop and non-*pro*-drop languages, it could, in theory, be exploited to capture syntactico-semantic restrictions on *pro*-drop within a particular *pro*-drop language. Indeed, Huang (1984) discusses a language where exactly such intra-language variation in *pro*-drop appears to be manifested as a function of language-internal differences in agreement paradigms. This is Pashto, an Iranian language with a split ergative system: it has nominative-accusative agreement in the present but displays an ergative agreement system in the past, with subject agreement if the verb is intransitive, and object agreement if the verb is transitive. Crucially, only subject *pro*-drop obtains with a transitive verb in the present (since, here, the verb shows subject agreement), but when the transitive verb is in the past and is marked for object-agreement, only object *pro*-drop is possible. Data such as these point to a direct connection between agreement and the licensing of *pro*-drop in specific syntactic positions.

At the same time, work in the intervening years has turned up numerous "counter-examples" to Taraldsen's Generalization. For instance, languages like Chinese, Japanese, and Malayalam lack morphological agreement entirely, yet allow *pro*-drop (see e.g. the contributions in Jaeggli and Safir 1989b; Biberauer et al. 2010 for discussions and references). Yet other languages like Finnish, Marathi and Brazilian Portuguese allow partial *pro*-drop (Holmberg et al. 2009) which is licensed under specialized conditions such as whether the nominal is controlled by a syntactic antecedent, and whether it has a specific or generic interpretation. Such crosslinguistic variation forces us to re-evaluate the nature of the correlation between *pro*-drop and agreement, as encapsulated in Taraldsen's Generalization. For instance, the licensing of *pro*-drop in languages which don't overtly mark agreement may be taken to suggest that the relevant regulating condition for *pro*-drop is not the overt marking, but the underlying (i.e. featural) representation, of agreement; another possibility is to argue that these languages have a different sort of *pro*-drop altogether, one which is not subject to Taraldsen's Generalization for principled reasons (see e.g. Neeleman and Szendrői 2007 for one recent version of this idea and discussion of previous proposals along similar lines). The choice between these and any other theoretical solutions must, as always in a scientific enterprise, be decided on empirical grounds. For instance, espousing the first option would minimally require proof that, despite the lack of surface agreement-marking, Japanese, Chinese, and Malayalam do involve underlying agreement; choosing the second theoretical option would predict that *pro*-drop

in these languages should exhibit additional properties which distinguish it from *pro*-drop in languages with agreement marking. The patterns pertaining to partial *pro*-drop—regardless of how this is conditioned—indicate that Taraldsen's Generalization might be a necessary but not a sufficient condition for the licensing of *pro*-drop in such languages (see again Jaeggli and Safir 1989a; Neeleman and Szendrői 2007; Biberauer et al. 2010, and the literature cited there for extensive discussion of these and related points).

The results of the preliminary empirical survey discussed in this paper also reveal some apparent exceptions to the restriction given in (34). The *pro*-drop restriction outlined here doesn't seem to be straightforwardly extendable to some other *pro*-drop languages: Czech, Korean, and Greek are three other languages that were tested here which, however, don't seem to show obligatory coreference effects for a null "non-finite" subject. Kissock (2013) also presents examples from Telugu involving null *pro* subjects in untensed clauses, as does Biswas (2013) for certain participial clauses in Bangla. At this juncture, it is unclear why this should be the case or how to analyze the patterns in these languages: indeed, to even determine whether such patterns are to be treated as exceptions to the rule or whether they merely don't satisfy the input conditions for the restriction in the first place, we need to be able to state the *pro*-drop-finiteness restriction more formally than it has been here. What *is* clear, and what I hope to have argued conclusively is that, contrary to what Kissock suggests, the existence of a *pro* subject variant in non-finite clauses that allow overt non-coreferent subjects cannot be taken for granted. Rather, as described in (34) above, *pro*-drop appears to be either impossible or radically restricted in prototypically "non-finite" clauses in many *pro*-drop languages. In such clauses, the null subject clearly displays the fingerprint of OC PRO, and not of *pro*.

5 Conclusion

The fundamental difficulty with PRO and *pro* is that they are both silent. As such, these elements do not wear their properties on their sleeve and cannot be distinguished from one another on the basis of morphological clues. Kissock's paper has presented important evidence from the understudied language Telugu which challenges the idea that OC PRO is a universal primitive that must be a part of the vocabulary of every language and also questions the reliability of using its presence as a diagnostic for finiteness.

This commentary on Kissock's paper has aimed to show that the lack of obvious differences between OC PRO and *pro* in a particular language does not mean that we should give up the distinction for that language altogether, but that we should look deeper, at the abstract features behind the silence. This, in fact, parallels the strategy that Kissock herself adopts in her paper for evidence of a finiteness distinction in Telugu. In particular I argue that, at its heart, the distinction between OC PRO and *pro* targets deep semantic differences in their possibilities for reference: in particular, OC PRO must always be variable bound whereas *pro* can refer deictically. Thus, Kissock's claim that Telugu lacks OC PRO is not a claim about the absence of a particular primitive in this language but merely one about the surface realization of bound-variable

anaphora in designated syntactic environments. This said, I have also presented new evidence suggesting that Telugu does indeed have OC PRO though, perhaps, as suggested by Kissock's findings, in a much more restricted series of contexts than in more familiar languages.

I have then gone on to examine an intriguing puzzle raised by a relatively minor point in Kissock's paper—one that, nevertheless, has important consequences for the PRO vs. *pro* distinction, namely: why is subject *pro*-drop apparently impossible in non-finite clauses even when an overt deictic subject is licit? Based on a preliminary examination of a range of subject *pro*-drop languages, I show that this may be a crosslinguistically robust empirical generalization, hence indicative of a deeper correlation between the availability of subject *pro*-drop and the finiteness of the clause. Thus, contrary to Kissock's suggestion, the availability of an overt deictic subject in a particular clause type does not automatically entail the availability of a *pro* variant for that subject. While the theoretical motivations behind this restriction are still unclear, the fact of its existence (at least in some languages) shows that there is a lot more we need to understand about the relationship between clausal finiteness, subject reference, and silence.

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