The OC/NC distinction in Telugu

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1 Introduction

One of the more prevalent, yet often implicit, assumptions in the the study of control is that non-finite complement clauses should always exhibit OC (obligatory control) across languages. Telugu has two types of non-finite complement clauses - gerunds, headed by the nominalizing morpheme *-aDam*, and true infinitives, where embedded verbs show up as bare verb stems. I show that Telugu has an OC/NC (non-control) split in non-finite complement clauses - some gerunds and infinitives are OC, while other gerunds and infinitives are NC, depending solely on the choice of matrix verb. Crucially, there is no clear structural difference between OC non-finite complements and NC non-finite complements - in both cases, the gerunds and infinitives look the same morphologically and act the same syntactically.

I argue from these facts that existing syntactic accounts of control, which often place a large burden on the structure of the complement clause in explaining whether or not OC will occur in a given sentence, are only partway adequate for Telugu, where the burden is largely on the choice of matrix verb. While I adopt a version of McFadden & Sundaresan's (2018) UPro analysis, I tweak the implementation to capture the Telugu facts, placing the OC-inducing probe on matrix v (which selects the matrix verb) the instead of on the controller itself.

The paper is structured as follows: Section 2 considers previous work on Telugu control (Kissock, 2014; Sundaresan, 2014), clarifying and adding observations to their results to come up with new, more complete generalizations about the distribution of Telugu OC. Section 3 makes a careful argument about why such a distribution is problematic for some modern syntactic accounts of control, introducing new data which show that even subtler diagnostics for structural difference fail to demonstrate a clear distinction between OC and NC non-finite complements. Section 4 proposes a simple solution based on the McFadden & Sundaresan account which much better accounts for the Telugu facts presented. Finally, Section 5 concludes.

2 Does Telugu even *have* OC? Cleaning up a messy empirical landscape

The main (and to my knowledge, only) previous work on subject complement control in Telugu comes in the form of two articles in the same issue of *NLLT* in 2014 - the second (Sundaresan 2014) a direct response to the first (Kissock 2014). The conclusions of these two papers are somewhat contradictory and incomplete - Kissock argues that Telugu lacks

control altogether, while Sundaresan argues that in fact Telugu does show evidence of control. My aim in this section is to show that both scholars are correct about the data they present, and that the right conclusion is somewhere in the middle - *i.e.,* that Telugu *does* have obligatory subject complement control, but that its distribution is quite unexpected given established cross-linguistic tendencies.

2.1 Background

In order to better evaluate the examples which follow, some background on Telugu argument structure and case is needed. Telugu is largely a nominative-accusative language:

(1) నేను ఆ కుక్కని చూసాను.
nenu aa kukka-ni cuus-aa-nu
1sg.pro.nom that dog.obl-acc see-pst-1sg
'I saw that dog.'

Like many other South Asian languages, Telugu nouns have two separate stem forms - one which appears in the nominative, and the other (known as the oblique) which appears in all other cases. The nominative case in Telugu does not have an overt case marker. The accusative morpheme, *-ni*, is a DOM marker - while it is obligatory on animate direct objects, it is optional (and in elicitation contexts, often dispreferred) on inanimate direct objects.

(2) నేను బల్ల(ని) చూసాను.
nenu balla-(ni) cuus-aa-nu
1sg.pro.nom table.obl-(acc) see-pst-1sg
'I saw a table.'

In this paper, I gloss non-DOM-marked direct objects as noun.acc. There are also some verbs (often experiencer or psych verbs) which take dative subjects and nominative objects:

(3) నాకు ఇది నచ్చింది.
naa-ku idi nacc-in-di
1sg.pro.obl-dat this.nom like-pst.3sg.nm-3sg.nm
'I liked this.'

As we will see below, certain instances of both types of verbs will be candidates for control. One more piece of essential background involves the structure of gerunds, which in Telugu are the most productive way to form non-finite complement clauses. Gerunds in Telugu feature the characteristic nominalizing suffix *-aDam*.

(4) గెలవడం
gelav-aDam
win-nmlz
'winning'

Gerunds can never co-occur with any TAM or agreement morphology, meaning that they are non-finite:

(5) **Gerunds cannot take verbal morphology**

Category	Example
Tense	*gelic-aa-aDam 'won-ing'
Modals	*gelav-aali-aDam 'must-win-ing'
Participles	*gelic-ina-aDam 'having-won-ing'
Agreement	*gelava-ø-nu-aDam 'I-won't-win-ing'

As would be expected for a nominalizing suffix, *-aDam* can host both plural and case morphology[1]:

(6) **Gerunds can take nominal morphology**

Category	Example
Plural	gelav-aDaa-lu 'winnings'
Case	gelav-aDaani-ki 'in order to win'

This shows that we can and should fruitfully think of these complement clauses as nominalizations along the lines of English *-ing* gerunds.

2.2 Kissock 2014: Gerund complements in Telugu are not controlled

In her 2014 paper, Madelyn Kissock argues that Telugu lacks the phenomenon of control altogether. She observes that even under canonically OC verbs like *try* (*prayatnincu* in Telugu), gerund complement clauses can optionally have overt, disjoint subjects, and that furthermore, these subjects must be in the nominative case[2]:

(7) **Telugu *try* can have overt disjoint embedded subjects**

a. శ్రీధర్ అన్నం తినడం ప్రయత్నించాడు.
Sridhar$_i$ [EC$_i$ annam tin-aDam] prayatninc-aa-Du
Sridhar.nom [EC rice.acc eat-nmlz.acc] try-pst-3sg.m
'Sridhar tried to eat food.'

b. పల్లవి శ్రీధర్ ఆమె డ్రెస్ వేసుకోవడం
Pallavi$_i$ [Sridhar$_j$ tana dress veesu-koo-aDam]
Pallavi.nom [Sridhar.nom her dress.acc put-kun-nmlz.acc]
ప్రయత్నించింది.
prayatninc-in-di
try-pst.3sg.nm-3sg.nm
'Pallavi tried for Sridhar to put on her dress.'

[1] Like other nouns ending in *-am*, *-aDam* has an oblique in *-aani* as well as a special allomorph appearing before the plural suffix *-lu*.

[2] For now, I gloss null subjects as EC (empty category) to avoid making any unnecessary theoretical commitments as to the status of null subjects in Telugu too early on. I come back to this question in Section 4.

Kissock draws from traditional Case-based analyses of control (Chomsky & Lasnik, 1993) which tie the occurrence of pro in non-finite clauses to the non-finite T head not being able to assign nominative case. If this tight connection between nominative case and finiteness is universal, then gerund complements in Telugu are actually finite clauses, meaning that there is no such thing as syntactically non-finite complementation in Telugu and thus no control, either. Kissock further supports her conclusion by showing that sentences with matrix verb *try* or *aashincu* 'hope' allow *de re* readings of the null embedded subject, given the right context:

(8) శ్రీధర్ బహుమతి గెలవడం ఆశించాడు
Sridhar$_i$ [EC$_i$ bahumati gelav-aDam] aashinc-aa-Du
Sridhar.nom [EC prize.acc win-nmlz.acc] hope-pst-3sg.m
'Sridhar hoped to win the prize.'

In a situation where Sridhar is not aware that the person he hopes will win the prize is in fact himself, Kissock's consultants judged the above sentence as true. Following the reasoning of the diagnostic, this provides evidence that a bound variable reading of the null subject is not obligatory, and thus that OC (obligatory control) is not present. The final diagnostic that Kissock uses is that of sloppy readings under ellipsis. She finds that the predicates *try* and *ishTam* 'to like' both allow strict readings under ellipsis (I give the example with *like* to illustrate):

(9) పల్లవికి తన డ్రెస్ వేసుకోవడం ఇష్టం. శ్రీధర్కి కూడ.
Pallavi-ki [EC tana dress veesu-koo-aDam] ishTam. Sridhar-ki kuuDa.
Pallavi.obl-dat [EC her dress put-kun-nmlz.acc] like. Sridhar.obl-dat too.
'Pallavi likes to put on her dress. Sridhar does too.'

Kissock's consultants had two possible readings of the second sentence in the example. The first was one in which Sridhar likes putting his own dress on (the only one possible in English), and the second was one in which what Sridhar likes is Pallavi putting a dress on. Based on these three diagnostics, Kissock concludes that Telugu is a language entirely without obligatory control.

2.3 Sundaresan 2014: Wait, but some gerund complements *are* controlled!

In a response to Kissock's paper, Sandhya Sundaresan cites data which weaken Kissock's generalization that Telugu lacks control altogether. First, Sundaresan notes that Kissock's consultants had difficulty getting disjoint readings when the embedded subject of gerund complement is null:

(10) శ్రీధర్ పోటి గెలవడానికి ప్రయత్నించాడు.
Sridhar$_i$ [EC$_{i,??j}$ pooTi gelav-aDaani-ki] prayatninc-aa-Du
Sridhar.nom [EC competition.acc win-nmlz.obl-dat] try-pst-3sg.m
'Sridhar tried to win the competition.'

While Kissock puts this down to pragmatics, arguing that the meaning of verbs like *try* make it more likely for the embedded subject and the matrix subject to be co-referent, Sundaresan argues that this preference is in fact a requirement and that this is preliminary evidence that, at least when the embedded subject is null, there is obligatory control in Telugu. The second argument that Sundaresan makes that Telugu does in fact show evidence of OC is based on evidence from the behavior of the aspectual verb *modalupeTTu* 'to begin', which Kissock does not consider. Sundaresan notes that gerund complements under this verb show telltale signs of obligatory control. In the following example (Sundaresan's (11a)) , the null subject of the gerund complement in the sentence below does not have a free interpretation - it must refer to the subject of the matrix clause:

(11) నేను పోటి గెలవడం మొదలుపెట్టాను.
nenu$_i$ [EC$_{i,*j}$ pooTi gelav-aDam] modalupeTT-aa-nu
I.nom [EC competition.acc win-nmlz.acc] begin-pst-3sg.m
'I began to win the competition.'

Unlike Kissock's examples, an overt, disjoint embedded subject is impossible under this matrix verb (Sundaresan's (11b)):

(12) *నేను శ్రీధర్ పోటి గెలవడం మొదలుపెట్టాను.
*nenu$_i$ [Sridhar$_j$ pooTi gelav-aDam] modalupeTT-aa-nu
I.nom [Sridhar.nom competition.acc win-nmlz.acc] begin-pst-3sg.m
Attempted: 'I began for Sridhar to win the competition.'

Beyond this, Sundaresan also shows that, unlike the examples from Kissock's paper, *begin* also passes other traditional diagnostics for control. For example, *begin* only allows sloppy readings under ellipsis:

(13) నేను పోటి గెలవడం మొదలుపెట్టాను. ఆనంద్
nenu$_i$ [EC$_{i,*j}$ pooTi gelav-aDam] modalupeTT-aa-nu. aanand
I.nom [EC competition.acc win-nmlz.acc] begin-pst-3sg.m Anand.nom
కూడ.
kuuDa.
too
'I began to win the competition. Anand did too.'

The sentence above can only mean that Anand also began to win the competition, not that Anand began for me to win the competition. Sundaresan concludes from the evidence of this verb that Telugu exhibits OC, contrary to Kissock's conclusions.

2.4 Both gerund and infinitival complements can be either controlled or non-controlled

To recap, Kissock (2014) claims that Telugu does not have OC in non-finite complement clauses, showing that verbs such as *try*, *hope*, and *like* consistently fail standard diagnostics for control. Sundaresan (2014), on the other hand, shows that the aspectual verb *begin*

passes standard diagnostics for control while questioning some of how Kissock chooses to interpret her data, to the end of arguing that Telugu does show evidence of OC in non-finite complement clauses.

2.4.1 Gerund complements

So, what gives? Which scholar is correct? Does Telugu have OC, or not? If it does, what is its distribution? The current investigation takes these questions as its starting point. Empirically, I find that both Kissock and Sundaresan's data hold up - my consultants' judgements largely corroborate both of their generalizations about the status of control in gerund complements. Certain verbs, including *hope* and *like* (I contribute *decide*, *plan*, and *enjoy*) do not trigger OC in their gerund complements, even when the embedded subject is null. On the other hand, certain verbs, including *begin* (I contribute *quit* and *know how to*), do trigger OC in their gerund complements.

So as not to bore the reader by showing the results of every diagnostic for every predicate considered, I summarize below my results, giving examples for those which were different from Kissock's or Sundaresan's. One crucial difference between my and both their results was that, given enough context, my consultants were in fact able to get disjoint readings for null embedded subjects of gerund complements under *naccu* 'enjoy' and *plan ceyyu* 'plan' (these same verbs, like those studied by Kissock, also allow overt disjoint embedded subjects):

(14) **Some verbs allow disjoint null embedded subjects in non-finite complements**

a. రాజేష్కి ఈదడం నచ్చింది.
Rajesh$_i$-ki [EC$_{i,j}$ iid-aDam] nacc-in-di
Rajesh.obl-dat [EC swim-nmlz.acc]
'Rajesh enjoyed (himself, someone else) swimming.'

b. రవి హవాయికి వెళ్లడానికి ప్లాన్ చేసాడు.
Ravi$_i$ [EC$_{i,j}$ Hawaii-ki vell-aDaani-ki] plan cees-aa-Du
Ravi.nom [EC Hawaii.obl-dat go-nmlz.obl-dat] plan do-pst-3sg.m
'Rajesh planned (for himself, for someone else) to go to Hawaii.'

I also use two additional diagnostics for obligatory control - the first is that of exhaustivity. There are certain verbs in Telugu, like *samaavesham ay* 'to gather', which require plural subjects:

(15) *రవి సమావేశం అయ్యాడు.
*Ravi samaavesham ayy-aa-Du
Ravi.nom group become-pst-3sg.m
Attempted: 'Ravi gathered.'

(16) వాళ్లు సమావేశం అయ్యారు.
vaaLLu samaavesham ayy-aa-ru
3pl.nom group become-pst-3pl.h

'They gathered.'

An (exhaustive) subject control predicate with a singular matrix subject should not allow non-finite embedding of such a verb, because if the null embedded subject must be co-referent with the matrix subject, the former is singular, which as we see results in ungrammaticality for verbs like *gather*. However, I find that under verbs like *enjoy* and *plan*, *gather* is fine even if the matrix subject is singular:

(17) రవి సమావేశం అవ్వడానికి ప్లాన్ చేసారు.
Ravi$_i$ [EC$_{i+j,j+k}$ samaavesham avv-aDaani-ki] plan ches-aa-ru
Ravi.nom [EC group become-nmlz.obl-dat] plan do-pst-3pl.h
'Ravi planned (for them) to gather.'

(18) రవికి సమావేశం అవ్వడం నచ్చింది.
Ravi$_i$-ki [EC$_{i+j,j+k}$ samaavesham avv-aDam] nacc-in-di
Ravi.obl-dat [EC group become-nmlz.nom] enjoy-pst-3sg.nm
'Ravi enjoyed (them) gathering.'

Interestingly, this diagnostic also shows that this set of predicates does not exhibit partial control. Telugu, in fact, does not appear to have any partial control predicates at all. The best candidates, propositional attitude predicates which take non-finite complements (Pearson, 2016), are all NC predicates in Telugu.

The final relevant diagnostic used in the current study was that of long-distance control (Landau, 2013). One property of obligatory subject control is that the controller must be the subject of the predicate which directly embeds the controlled clause. If the embedded null subject in question can be co-referent with a less local DP, then the matrix predicate in question is not an OC predicate. Applying this diagnostic to Telugu, I find that, again, sentences with *plan* are not restricted in this way:

(19) నాన్నకి ఆరుష్ హవాయి వెళ్లడానికి ప్లాన్
naanna$_i$-ki [Aarush$_j$ [EC$_{i,j}$ hawaii vell-aDaani-ki] plan
father.obl-dat [Aarush.nom [EC Hawaii go-nmlz.obl-dat] plan
చేస్తున్నాడు అని తెలిసింది.
ches-tu-unnaa-Du ani] telis-in-di.
do-prog-cop-3sg.m that] know-pst-3sg.nm
'Father came to know that Aarush was planning for (Aarush, Father) to go to Hawaii.'

If *plan* had been a subject OC predicate in Telugu, its choice of controller would have been restricted to its own subject, 'Aarush'. The fact that the null subject of the gerund complement can also refer to the less local 'Father' means that this test, too, points to 'plan' not being an OC predicate in Telugu, even with a non-finite complement. To recap, it seems that the following must be true in Telugu:

(20) **(Certain) non-finite gerund complements in Telugu are NC.**

On the other hand, I was also able to confirm Sundaresan's observations about *modalupeTTu* 'to begin' and also to demonstrate that other verbs, including *maaneyyu* 'quit', *maricipoovu*

'to forget (implicative)', and *vaccu* 'know how to', also show the same behavior. Again, to avoid redundancy, I will avoid giving detailed explanations of the tests already run by Sundaresan, but I will show results for the exhaustivity and long-distance control tests, as above.

(21) ***quit* does not allow a non-exhaustive reading**

*రవి సమావేశం అవ్వడం మానేసడు.
*Ravi$_i$ [EC$_{i,*j}$ samaavesham avv-aDam] maanes-aa-Du
Ravi.nom [EC group become-nmlz.acc] quit-pst-3sg.m
Attempted: 'Ravi quit gathering.'

(22) ***begin* does not allow long-distance control**

మేరి జాన్ అన్నం తినడం మొదలుపెట్టాడు అని
Mary$_j$ [John$_i$ [EC$_{i,*j}$ annam tin-aDam] modalupeTT-aa-Du ani]
Mary.nom [John.nom [EC rice.acc eat-nmlz.acc] begin-pst-3sg.m that]
తెలుసుకుంది.
telusu-kun-di
know-kun-3sg.nm
'Mary realized that John started eating rice.'

The following is a table showing (a portion of) the results of the control diagnostic tests I ran on the relevant predicates in Telugu:

(23) **Control test results for gerund complements**

	disjoint overt	disjoint null	sloppy	exhaustive	long-distance
begin	pass	pass	pass	pass	pass
quit	pass	pass	pass	pass	N/A
forget	pass	pass	pass	pass	N/A
know how to$_{ger}$	pass	pass	pass	N/A	N/A
plan	fail	fail	fail	fail	fail
enjoy	fail	fail	fail	fail	N/A

While the results are somewhat incomplete, the data are at least very strongly suggestive of the following facts (to re-recap):

(24) **Non-finite gerund complements under certain Telugu predicates are NC.**

(25) **Non-finite gerund complements under certain Telugu predicates are OC.**

The next chunk of data extends this generalization to another class of non-finite complements in Telugu.

2.4.2 Infinitival complements

Another strategy for non-finite clausal complementation in Telugu, which neither Kissock nor Sundaresan consider, is what I am calling the *true infinitive*. These look like bare verb stems - this construction appears to be cognate to what is usually glossed as infinitive in other Dravidian languages (David, 1999).

(26) నాకు ఈదొస్తది.
naa-ku iid-ostadi
I.obl-dat swim.inf-know.how.to
'I know how to swim.'

The distribution of this construction is quite restricted - the vast majority of predicates, including the ones which take gerund complements, do not allow infinitival complements[3]:

(27) *నేను పని చెయ్యనాశిస్తున్నాను.
*nenu pani cheyyan-aashis-tunnaa-nu
1sg.nom work do.inf-hope-prog-1sg
Attempted: 'I am hoping to work.'

(28) *నేను పని చెయ్యమొదలుబెట్టాను.
*nenu pani cheyya-modalupeTT-aa-nu
1sg.nom work do.inf-begin-pst-1sg
Attempted: 'I began to work.'

Like gerund complements, infinitival complements cannot take any TAM or agreement morphology:

(29) **Gerunds cannot take verbal morphology**

Category	Example
Tense	*naa-ku iid-aa-ostadi 'I know how to have swum.'
Modals	*naa-ku iid-aali-ostadi 'I know how to have to swim.'
Participles	*naa-ku iid-ina-ostadi 'I know how to have swum.'
Agreement	*naa-ku iida-nu-ostadi 'I know how to I won't swim.'

Unlike gerund complements, however, infinitival complements also cannot take any nominal morphology like plural or case marking:

(30) **Gerunds cannot take nominal morphology**

Category	Example
Plural	*naa-ku iida-lu-ostaayi 'I know how to swims.'
Case	*naa-ku iida-ku-ostadi 'I know how to for swimming.'

Thus, the infinitival clausal complementation structure is clearly distinct from gerund complementation. The former's lack of nominal morphology also shows that it has even less structure than the latter. Perhaps unexpectedly, then, we see the same OC/NC alternation for this set of predicates that we saw for gerunds - *-ostadi* 'know how to' passes our control diagnostics:

(31) ***-ostadi* 'know how to' does not allow disjoint embedded subjects**

[3]The status of the *-n-* in (27) is unclear - I consider it to be epenthesis to avoid vowel hiatus (we can see that in the following example, the consonant-initial matrix verb does not have the *-n-* before it), but the descriptive grammar (Krishnamurti & Gwynn, 1985) argues that it is part of an infinitive suffix *-an-*.

a. రాజేష్కు చెట్టు ఎక్కొస్తది.
Rajesh$_i$-ku [EC$_{i,*j}$ cheTTu ekk]-ostadi
Rajesh.obl-dat [/EC tree.acc climb.inf]-know.how.to
'Rajesh knows how to climb the tree.'

b. *రాజేష్కు శ్రీకర్ చెట్టు ఎక్కొస్తది.
*Rajesh$_i$-ku [Sreekar cheTTu ekk]-ostadi
Rajesh.obl-dat [Sreekar.nom tree.acc climb.inf]-know.how.to
Attempted: 'Rajesh knows how Sreekar to climb the tree.'

(32) ***-ostadi* does not allow strict readings under ellipsis**

రాజేష్కు చెట్టు ఎక్కొస్తది. రవికి కూడ.
Rajesh-ku [cheTTu ekk]-ostadi. Ravi-ki kuuDa.
Rajesh.obl-dat [tree.acc climb.inf]-know.how.to Ravi.obl-dat too
'Rajesh knows how to climb the tree. Ravi does, too.' (Only sloppy readings)

(33) ***-ostadi* has exhaustive co-reference between matrix and embedded subjects**

*రవికి గుంపు గూడొస్తది.
*Ravi-ki [gumpu guuD]-ostadi
Ravi.obl-dat [group gather.inf]-know.how.to
Attempted: 'Ravi knows how to gather.'

On the other hand, *-avasaramu ledu* 'not need' consistently fails them:

(34) ***-avasaramu ledu* 'to not need' does allow disjoint embedded subjects**

a. రాజేష్కు చెట్టు ఎక్కనవసరము లేదు.
Rajesh$_i$-ku [EC$_{i,j}$ cheTTu ekkan]-avasaramu ledu
Rajesh.obl-dat [EC tree.acc climb.inf]-need not
'Rajesh needs (himself, someone else) to climb the tree.'

b. రాజేష్కు శ్రీకర్ చెట్టు ఎక్కనవసరము లేదు.
Rajesh$_i$-ku [Sreekar cheTTu ekkan]-avasaramu ledu
Rajesh.obl-dat [Sreekar.nom tree.acc climb.inf]-need not
'Rajesh needs Sreekar to climb the tree.'

(35) ***-avasaramu ledu* does allow strict readings under ellipsis**

శ్రీకాంత్కు ఇక్కడనించి వెళ్లిపోనవసరము లేదు. అమీర్కు కూడ.
Srikanth-ku [ikkaDa-ninchi vellipoon]-avasaramu ledu. Amir-ku kuuDa.
Srikanth.obl-dat [here-from go.away.inf]-need not Amir.obl-dat too
'Srikanth doesn't need to go away from here. Amir doesn't, either.' (Strict and sloppy readings)

(36) ***-avasaramu ledu* does not require exhaustive co-reference between subjects**

రవికి గుంపు గూడనవసరము లేదు.
Ravi-ki [gumpu guuDan]-avasaramu ledu
Ravi.obl-dat [group gather.inf]-need not

'Ravi doesn't need to gather.'

To now re-re-recap, we have identified four different types of predicates with respect to type of non-finite complementation and the presence of OC vs. NC:

(37) **Non-finite complement-taking predicates in Telugu**

	Gerunds	Infinitives
OC	*begin, quit...*	*know how to*
NC	*enjoy, plan...*	*not need*

2.4.3 Finite complementation in Telugu

So far I have only considered Telugu sentences with non-finite (gerund or infinitival) clausal complements, and only exhaustive OC and NC. This subsection fills out the paradigm with a short discussion of finite complementation in Telugu.

The main strategy for finite complementation in Telugu is through the complementizer *ani*, which is derived from the verb *anu* 'say'. Finite complements in Telugu include fully inflected verbs, with TAM and agreement marking licit and required inside of these clauses:

(38) నేను నువ్వు చదువుతున్నావు అని వాడికి చెప్పాను.
nenu [nuvvu chaduvu-*(tu)-*(unnaa)-*(vu) ani] vaaDi-ki chepp-aa-nu
I.nom [you.sg.nom read-prog-cop-2sg that] he.obl-dat tell-pst-1sg
'I told him that you are reading.'

These complements, though they can have null subjects, never show obligatory co-reference or bound-variable readings between any matrix arguments and aforementioned null subjects:

(39) [$EC_{i,j}$ ఆ పని చేసాడు అని] రవి$_i$ చెప్పాడు.
[$EC_{i,j}$ aa pani cees-aa Du ani] ravi$_i$ cepp-aa-Du
[EC that work.acc do-pst-3sg.m that] Ravi.nom say-pst-3sg.m
'Ravi said that he$_{i,j}$ did that work.'

Thus, though the expected correlation between non-finiteness and OC clearly does not hold for Telugu, the corresponding correlation between finiteness and non-control does.

3 Existing accounts of the OC/NC split

Most modern syntactic accounts of control derive the difference between exhaustive OC and NC from a difference in the syntactic structure of the two types of complement clauses. This is because in the languages that the control literature has studied best, there is a very strong correlation between morphological finiteness and NC. For example, in English, non-finite complements with null subjects are *always* OC, while finite complements 1) can never have null subjects and 2) are always NC:

(40) John$_i$ tried $EC_{i,*j}$ to open the door.

(41) John$_i$ remembered EC$_{i,*j}$/him$_{*i,j}$ opening the door.

(42) John$_i$ remembered that *EC/he$_{i,j}$ opened the door.

I begin this section by discussing how this finiteness-OC correlation is cashed out in a variety of accounts of control (Chomsky/Lasnik, Landau 2004, McFadden & Sundaresan 2018) and evaluating their abilities to explain the Telugu generalizations.

3.1 Chomsky/Lasnik - NC clauses are those that have nominative subjects

Based on paradigms like the English one given above, Chomsky and Lasnik point out that in English, nominative subjects and null subjects are totally mutually exclusive - where one is licensed, the other is ungrammatical. Thus, they argue, null subjects in English are an instance of the special lexical item PRO - an obligatorily bound, obligatorily null pronoun which only occurs in non-finite clauses, where nominative cannot be assigned. When PRO is in the right structural relationship with an overt subject (e.g., the subject position of a complement clause), it is obligatorily bound by and co-referent with that overt subject. Thus, NC clauses are finite, because finite complements are where PRO is not licensed, while all non-finite complements with null subjects are OC, because all null subjects are PRO and PRO is obligatorily bound.

This type of account is a non-starter for Telugu, as noted by Kissock (2014) and Sundaresan (2014), as well as by Sundaresan (2010) for the related language Tamil. Firstly, null subjects have a much wider distribution in Telugu than they do in English - matrix, finite clauses, too, can be subjectless:

(43) ఇది తిన్నాను.
EC idi tinn-aa-nu
EC this.acc eat-pst-1sg
'I ate this.'

The canonical way to get around this, of course, is to claim that null subjects in finite clauses of pro-drop languages like Telugu are actually a different lexical item, *pro*, which can be assigned nominative case. This leaves us room to say that null subjects of *non-finite* clauses, even in pro-drop languages, are still PRO. However, even in non-finite clauses, null subjects in Telugu alternate with overt nominative DPs:

(44) నేను నువ్వు చదవడం చూసాను.
nenu [nuvvu/EC chadav-aDam] chuus-aa-nu
I.nom [you.sg.nom/EC read-nmlz.acc] see-pst-1sg
'I saw you reading.'

Thus, since the tight connection between control and case assignment in English does not extend to Telugu, the Chomsky/Lasnik account fails.

3.2 Landau (2004) - NC clauses must be [+T], [+Agr]

Landau's influential account of control uses as its base mechanism Agree. However, in his 2004 paper on scales of finiteness, he posits that the difference between controlled and non-controlled clauses across languages is tied to certain abstract features of both embedded and matrix C and T heads. He calls these abstract features [±T(ense)] and [±Agr(eement)]. He crucially states that "the co-occurrence of [+T] and [+Agr] on the [embedded] T head is a necessary condition for a clause to be non-controlled" (Landau, 2004, p.840–841). He also states that [+Agr] on T heads is limited to those which instantiate overt ϕ-agreement. Interestingly, he divorces these featural specifications from morphological finiteness in order to explain phenomena like Portuguese inflected infinitives. Since these complements are [+Agr] (and tensed), it is expected that they should be NC. However, Telugu non-finite NC complements are [-Agr] - no overt ϕ-agreement morphology is allowed on them:

(45) రవి హవాయికి వెళ్లడానికి ప్లాన్ చేసాడు.
Ravi$_i$ [EC$_{i,j}$ Hawaii-ki vell-aDaani-ki] plan cees-aa-Du
Ravi.nom [EC Hawaii.obl-dat go-nmlz.obl-dat] plan do-pst-3sg.m
'Rajesh planned (for himself, for someone else) to go to Hawaii.'

Thus, regardless of whether they are [+T] or [-T], the account presented in Landau (2004) would falsely predict Telugu gerunds and infinitives to be OC across the board.

3.3 McFadden & Sundaresan 2018 - NC clauses have more structure than exhaustive OC clauses

The McFadden & Sundaresan account, like the Landau account, treats control as a consequence of a syntactic Agree dependency between the controller and the controllee. Exhaustive OC occurs when a complement clause lacks a C layer, thus rendering it transparent to Agree between the matrix controller and the embedded controllee:

(46) **McFadden & Sundaresan 2018: Exhaustive Control**
DP$_i$ V [UPro$_{i,*j}$...]

On the other hand, NC complement clauses (e.g. prototypical finite complements) have a C layer which blocks Agree into its c-command domain due to CP being a phase.

(47) **McFadden & Sundaresan 2018: Non-Control**
DP$_i$ V [C UPro$_{i,j}$...]
x

Importantly, they also assume that there is only one type of null subject in the languages that they consider, which they call UPro. This null subject is interpreted as PRO (i.e. controlled) just when it is Agreed with successfully by the matrix controller. When it isn't Agreed with, it is interpreted as *pro*. This allows them to sidestep the issue of the licensing of PRO - they don't need to say anything about special case-assigning properties of non-finite clauses

because their analysis has nothing to do with a special null subject which is restricted to non-finite clauses. Considering that the case facts in Telugu are exactly the same as those in the language which forms the basis of their account (Tamil), I follow them in assuming UPro.

The notion that the OC/NC distinction is tied to the lack of a C layer in the former type of complement clause works quite nicely for the OC/finite distinction in Telugu, because true finite complements in Telugu have an overt complementizer and consequently show no OC properties, while non-finite OC complements (as we've seen) do not have an overt complementizer.

However, the McFadden & Sundaresan account has a clear problem when it comes to the core empirical generalization of this paper - what should we do when we have an OC/NC distinction that does not correlate to any surface complementizer, like in the following examples?

(48) రవి హవాయికి వెళ్లడానికి ప్లాన్ చేసాడు.
Ravi$_i$ [UPro$_{i,j}$ Hawaii-ki vell-aDaani-ki] plan ches-aa-Du
Ravi.nom [UPro Hawaii-dat go-nmlz.obl-dat] plan do-pst-3sg.m
'Ravi planned for (himself, someone else) to go to Hawaii.'

(49) రవి పొగ తాగడం మానేసాడు.
Ravi$_i$ [UPro$_{i,*j}$ poga thaag-aDam] maanes-aa-Du
Ravi.nom [UPro smoke drink-nmlz.acc] quit-pst-3sg.m
'Ravi quit smoking.'

To see what they might say, we can look to their account of partial control. For them, partial control involves a non-finite complement with a special, null C head which mediates Agree in such a way that triggers the partial co-reference that partial control predicates require between the controller and the controllee.

(50) **McFadden & Sundaresan 2018: Partial Control**
DP$_i$ V [C UPro$_{i,j}$...]

For Telugu, then, one might argue that there is simply a different special null C than the ones seen in partial control languages - this one behaves like overt finite C in blocking Agree between controller and controllee, but it still selects a non-finite T. We might expect that if this is the case, there should be independent evidence for this extra structure in non-finite NC clauses - the following subsection tests this prediction.

3.4 Could NC gerunds and infinitives be covertly finite?

If the 'null finite C' hypothesis is correct, we expect that NC gerunds and infinitives, crucially to the exclusion of OC gerunds and infinitives should pattern with finite clausal complements with respect to finiteness diagnostics. In this section, I show that scrambling, NPI licensing, and inverse scope readings, which are all blocked by finite complements in Telugu, never make the desired cut between NC and OC non-finite complements.

3.4.1 Scrambling

In Telugu, word order in a sentence is relatively free modulo information structural factors - in other words, Telugu features scrambling. For a simple three-word transitive sentence, all possible word orders are allowed - the following sentences could all be translated into English as 'I ate this.':

(51) **Scrambling possibilities in finite clauses**

a. *nenu idi tinnaanu.*
b. *idi nenu tinnaanu.*
c. *nenu tinnaanu idi.*
d. *idi tinnaanu nenu.*
e. *tinnaanu nenu idi.*
f. *tinnaanu idi nenu.*

Scrambling is also possible within gerund clauses:

(52) *Scrambling possibilities in gerunds*

a. *nenu idi tinaDam* 'me eating this'
b. *idi nenu tinaDam* 'me eating this'

Crucially, scrambling possibilities appear to be sensitive to finiteness - finite complement clauses cannot be scrambled out of:

(53) **Scrambling of the object of an embedded finite clause to a matrix clause-internal position is ungrammatical**

a. రాజేష్ శ్రీకర్ అన్నం తింటాడు అని చెప్పాడు.
Rajesh [Sreekar annam tin-Taa-Du ani] chepp-aa-Du
Rajesh.nom [Sreekar.nom rice.acc eat-fut/hab-3sg.m that] see-pst-3sg.m
'Rajesh said that Sreekar will eat rice.'

b. *రాజేష్ శ్రీకర్ తింటాడు అని అన్నం చెప్పాడు.
*Rajesh [Sreekar tin-Taa-Du ani] annam chepp-aa-Du
Rajesh.nom [Sreekar.nom eat-fut/hab-3sg.m that] say-pst-3sg.m
Attempted: 'Rajesh said that Sreekar will eat rice.'

If it is the case that non-finite OC clauses are truly non-finite, while non-finite NC clauses are covertly finite, we might expect that the former allow scrambling out of them while the latter do not. It turns out, however, that elements of a gerund complement can never scramble into the matrix clause, regardless of control:

(54) **No scrambling out of a non-controlled gerund**

a. ఆరుషుకు అన్నం ఎక్కువ తినడం అవసరము.
Aarush$_i$-ku [UPro$_{i,j}$ annam ekkuva tin-aDam] avasaramu
Aarush.obl-dat [rice.acc more eat-nmlz.nom] need
'Aarush needs (himself, someone else) to eat more rice.'

b. *ఆరుష్కు ఎక్కువ తినడం అన్నం అవసరము.
*Aarush$_i$-ku [UPro$_{i,j}$ ekkuva tin-aDam] annam avasaramu
Aarush.obl-dat [more eat-nmlz.nom] rice.acc need
'Aarush needs (himself, someone else) to eat more rice.'

(55) **No scrambling out of a controlled gerund**

a. రవి అన్నం తినడం మొదలుబెట్టాడు.
Ravi$_i$ [UPro$_{i,*j}$ annam tin-aDam] modalupeTT-aa-Du
Ravi.nom [EC rice.acc eat-nmlz.acc] begin-pst-3sg.m
'Ravi began to eat rice.'

b. *రవి తినడం అన్నం మొదలుబెట్టాడు.
*Ravi$_i$ [UPro$_{i,*j}$ tin-aDam] annam modalupeTT-aa-Du
Ravi.nom [EC eat-nmlz.acc] rice.acc begin-pst-3sg.m
Attempted: 'Ravi began to eat rice.'

On the other hand, elements of an infinitival complement can *always* scramble into the matrix clause, again regardless of control:

(56) **Scrambling out of a non-controlled infinitival clause is allowed**

a. రవికి నేను పని చెయ్యనక్కర లేదు.
Ravi-ki [nenu pani cheyyan]-akkara ledu
Ravi.obl-dat [1sg.nom work do]-need is.not
'Ravi doesn't need me to work.'

b. రవికి పని చెయ్యనక్కర లేదు నేను.
Ravi-ki [pani cheyyan]-akkara ledu nenu
Ravi.obl-dat [work do]-need is.not 1sg.nom
'Ravi doesn't need me to work.'

(57) **Scrambling out of a controlled infinitival clause is allowed**

a. రవికి అన్నం తినొస్తది.
Ravi$_i$-ki [UPro$_{i,*j}$ annam tin]-ostadi
Ravi.obl-dat [EC rice.acc eat]-know.how.to
'Ravi knows how to eat rice'

b. రవి తినొస్తది అన్నం.
Ravi$_i$ [UPro$_{i,*j}$ tin]-ostadi annam
Ravi.nom [EC eat]-know.how.to rice.acc
'Ravi knows how to eat rice.'

So the scrambling test, while it is clearly sensitive to structure and makes a very clear cut between infinitives on the one hand and gerunds/finite clauses on the other, is not at all sensitive to the OC/NC distinction.

3.4.2 NPI licensing

In Telugu, wh-words are NPIs - in the context of verbal negation, they can be interpreted as negative indefinites:

(58) ***eemi* as a wh-word**

వాడు ఏమి చేసాడు?
vaaDu eemi ches-aa-Du?
3sg.m.nom what do-pst-3sg.m
'What did he do?'

(59) ***eemi* as an NPI**

వాడు ఏమి చెయ్యలేదు.
vaaDu eemi cheyya-ledu.
3sg.m.nom anything do-pst.neg
'He didn't do anything.'

This NPI interpretation of wh-words is clausebound - negation in the matrix clause does not license a negative indefinite interpretation of a wh-word in an finite complement clause:

(60) **Wh-subjects of embedded finite clauses cannot be NPIs**

పని ఎవరు చేసాడు అని రమేష్ చెప్పలేదు.
[pani evaru ches-aa-Du ani] Ramesh cheppa-ledu.
[work.acc who.nom do-pst-3sg.m that] Ramesh.nom say-pst.neg
'Ramesh did not say who did the work/*Ramesh did not say anyone did the work.'

Non-finite OC gerunds and infinitives allow NPI licensing into them from matrix negation:

(61) **Gerund complements of exhaustive control verbs are transparent to NPI licensing**

నేను దేన్ని తినడం మానెయ్యలేదు.
nenu$_i$ [UPro$_{i,*j}$ deen-ni tin-aDam] maaneyya-ledu
1sg.nom [EC anything.obl-acc eat-nmlz.acc] quit-pst.neg
'I didn't quit eating anything.'

(62) **Infinitive complements of exhaustive control verbs are transparent to NPI licensing**

నాకు ఏ భాష చదవరాదు.
naa$_i$-ku [UPro$_{i,*j}$ ee bhaasha chadava]-raadu
1sg.obl-dat [EC any language read]-know.how.to.neg
'I do not know how to read any language.'

However, so do NC gerunds and infinitives:

(63) **Gerund complements of non-control verbs are transparent to NPI licensing**

నేను		ఎవరిని	కొట్టడానికి	ప్లాన్ చెయ్యలేదు.
nenu$_i$	[UPro$_{i,j}$	evari-ni	koTT-aDaani-ki]	plan cheyya-ledu
1sg.nom	[EC	anyone.obl-acc	hit-nmlz.obl-dat]	plan do-pst.neg

'I didn't plan to hit anyone.'

(64) **Infinitive complements of non-control verbs are transparent to NPI licensing**

నాకు		ఎవరిని	కొట్టనవసరము	లేదు.
naa$_i$-ku	[UPro$_{i,j}$	evari-ni	koTTan]-avasaramu	ledu
1sg.obl-dat	[EC	anyone.obl-acc	hit]-need	not

'I do not need (myself, someone) to hit anyone.'

Thus, we again have a phenomenon which is clearly blocked by finite complementation that does not make a cut between OC gerunds/infinitives vs. NC gerunds/infinitives.

3.4.3 Inverse scope readings

The final diagnostic I use for finiteness is the possibility of inverse scope readings of quantifiers. As in many languages, sentences like the following have two different interpretations in Telugu based on which quantifier scopes over the other:

(65) **Inverse scope in Telugu**

ఒక	మనిషి	ప్రతి	ఇంటిముందు	ఉన్నాడు.
oka	manishi	prati	inTi-mundu	unn-aa-Du
a	man	every/each	house.obl-in.front	be-nonpst-3sg.m

'A man is in front of every house' $\exists > \forall / \forall > \exists$

However, when one quantifier is in the matrix clause while the other is buried in a finite complement, the inverse scope reading is gone:

(66) **IS readings are blocked by finite clause boundaries**

ఒక	మనిషి	ప్రతి	ఇంటిముందు	ఉన్నాడు	అని	చెప్పాడు.
oka	manishi	[prati	inTi-mundu	unn-aa-Du	ani]	chepp-aa-Du
a	man	[every/each	house.obl-in.front	be-nonpst-3sg.m	that]	say-pst-3sg.m

'A man said he was in front of every house.' $\exists > \forall / * \forall > \exists$

If NC gerunds and infinitives are covertly finite, we might expect them, too, to block inverse scope readings of quantifiers inside of them. On the other hand, if OC gerunds and infinitives are truly non-finite, we might expect them to allow inverse scope readings of quantifiers inside of them with respect to quantifiers outside of them. This is not what we see - gerunds are always opaque to inverse scope readings, regardless of control:

(67) **Inverse scope readings are blocked across controlled clause boundaries**

ఒక	మనిషి		ప్రతి	ఇంటుముందు	నిలబడడం	మానేసాడు.
oka	manishi$_i$	[UPro$_{i,*j}$	prati	inTi-mundu	nilabaD-aDam]	maanes-aa-Du
a	man.nom	[EC	every	house.obl-in.front	stand-nmlz.acc]	quit-pst-3sg.m

'A man quit standing in front of every house.' $\exists > \forall / * \forall > \exists$

(68) **IS readings blocked across non-controlled clause boundaries**

ఒక మనిషి ప్రతి ఇంటిముందు నిలబడడానికి ప్లాన్
oka manishi$_i$ [EC$_{i,j}$ prati inTi-mundu nilabaD-aDaani-ki] plan
a man.nom [EC every house.obl-in.front stand-nmlz.obl-dat] plan
చేసాడు.
ches-aa-Du
do-pst-3sg.m
'A man planned to stand in front of every house.' $\exists > \forall / * \forall > \exists$

(69) **IS readings blocked across embedded clauses with overt disjoint subjects**

ఒక మనిషి రాజేష్ ప్రతి ఇంటిముందు నిలబడడానికి ప్లాన్
oka manishi [Rajesh prati inTi-mundu nilabaD-aDaani-ki] plan
a man.nom [Rajesh.nom every house.obl-in.front stand-nmlz.obl-dat] plan
చేసాడు.
ches-aa-Du
do-pst-3sg.m
'A man planned for Rajesh to stand in front of every house.' $\exists > \forall / * \forall > \exists$

Inverse scope readings are ameliorated for infinitives, regardless of control:

(70) ప్రతి ఇంటిముందు ఒక మనిషికి నిలబడొస్తది.
prati inTi-mundu oka manishi$_i$-ki [UPro$_{i,*j}$ nilabaD]-ostadi
every house.obl-in.front a man.obl-dat [EC stand]-know.how.to
'A man knows how to stand in front of every house.' $\exists > \forall / ? \forall > \exists$

(71) ప్రతి ఇంటిముందు ఒక మనిషికి నిలబడనవసరము లేదు.
prati inTi-mundu oka manishi$_i$-ki [UPro$_{i,j}$ nilabaDan]-avasaramu ledu
every house.obl-in.front a man.obl-dat [EC stand]-need not
'A man doesn't need to stand in front of every house.' $\exists > \forall / ? \forall > \exists$

It is entirely possible that some other less obvious diagnostic would actually make the cut between NC and OC gerunds/infinitives. In the case that future work uncovers such a diagnostic, the hypothesis that OC complements are smaller than NC complements would be much more enticing. However, given what we know, such an analysis is arbitrary at best and unexplanatory at worst.

4 A modified version of the UPro account

It is clear that, at least for Telugu, an account of control which places too much emphasis on properties of the embedded clause will be, at best, inefficient. However, existing Agree-based accounts (especially that of McFadden & Sundaresan) do provide us with some very useful results. First, the restriction of controlled elements to subject position, which is naturally explained due to Agree's being sensitive to structural height. Secondly, the notion

of UPro, which is ambiguous between *pro* and PRO, allows us to build an account that doesn't depend on certain embedded clauses licensing PRO while others only license *pro*.

4.1 A solution - OC is triggered by a probe on v

In building my alternative, I begin with the observation that the real generalization about the distribution of OC in Telugu is that it is a property of the matrix verb itself. The predicates *modalupeTTu* 'begin' and *plan cheyyu* 'plan' both take the same type of gerund complement, but the former is OC and the latter NC. I translate this key observation into the Agree framework in the following way: I posit that there exist two v heads in Telugu - v_{OC}, which selects OC predicates (a category which presumably carries some feature in common which v_{OC} can be sensitive to), and v_{NC}, which selects NC predicates. v_{OC} probes into the embedded clause and Agrees with null embedded subjects. I follow McFadden & Sundaresan in assuming that there is only one type of embedded subject in Telugu, UPro, which is interpreted as OC PRO just when v_{OC} agrees with it successfully. Successful Agree between v_{OC} and embedded UPro forces the matrix subject (Merged in Spec,vP) to share the same index as UPro.

(72) **Exhaustive Subject Control in Telugu**
DP$_i$ v$_{OC}$ V [UPro$_{i,*j}$...]

Non-control predicates, whether they take finite or non-finite complements, are selected by v_NC, which does not have the relevant probe. Thus, null subjects of complement clauses under this class of verbs are not controlled because there is no Agree relation between matrix v and UPro.

(73) **Non-Control in Telugu**
DP$_i$ v$_{NC}$ V [C UPro$_{i,j}$...]
[No Agree]

This analysis preserves the benefits of the UPro-Agree analysis while also better capturing the core generalization about OC in Telugu - it is not a property of the embedded clause but instead a property of the matrix verb (now more specifically, a property of the v head which selects the matrix verb).

5 Conclusion

The traditional bijection between finiteness and control has been problematized many times in the 40-odd years since the Chomsky/Lasnik Case-based account of control was introduced to the field. However, while finiteness being a sufficient condition for NC has been doubted often (i.e. by Landau (2004) on Hebrew finite control), the corresponding assumption that non-finiteness is a sufficient condition for OC has not been pushed nearly as much.

In this paper, I show conclusively that Telugu has both OC and NC non-finite complement clauses. I argue that many modern syntactic accounts of control, which often explain

the OC/NC distinction by assuming structural differences between OC and NC embedded clauses, cannot handle such a language without positing null structure for which there is a lack of independent evidence. I then posit a slightly tweaked version of McFadden & Sundaresan's Agree-based account which captures the core generalization about subject OC in Telugu - that non-finiteness is an insufficient condition for it, and that the choice of matrix verb is relevant as well.

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