Adjunct Control in Telugu: Exceptions as Non-Exceptions

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Abstract

South Asian languages license control into adjuncts known as conjunctive participle clauses. At the same time, these languages allow exceptions to adjunct control. These exceptions have received very few, mainly semantic, analyses in the literature. This paper focuses on one South Asian language, Telugu, and offers a syntactic analysis. It shows that the so-called exceptions to adjunct control are non-exceptions and that they are instances of Expletive Control that involve two unaccusative predicates. The proposal is not without challenges. One challenge comes from English that does not allow Expletive Control. The article spells out the English details and shows that they do not create a problem for the Telugu data.

1 Introduction

Conjunctive participle (CNP) clauses are non-finite adverbial clauses. They are a crosslinguistic category that exists in many languages, such as Modern Greek, Korean, and Diyari (Haspelmath 1995). In the Indian Subcontinent, they are a defining characteristic that South Asian languages inherited from Sanskrit (Dwarikesh 1971, Masica 2005).

Structures with CNP clauses in South Asian languages obey what is known as the Same-Subject Condition (Klaiman 1981, 88) or the Common-Subject Requirement (Lindholm 1975, 30). That is, the subject of the CNP clause and the subject of the matrix clause are obligatorily coreferential, and a sentence with a CNP clause is an instance of Obligatory Control. Sentences (1)–(4) are examples from selected South Asian languages. The symbol Δ stands for the unpronounced subject. The English translations show that the CNP clauses, although subordinate, have a conjunctive meaning; thus, the name conjunctive participle.²

(1) madhuu=ne $_i$ [$\Delta_{i/*k}$ pustaka utsl-uun] kapaaṭ=aat ṭhewlii Madhu=Erg [books pick up-CNP] cupboard=Loc put 'Having picked up the books, Madhu put them in the cupboard.' 'Madhu picked up the books and put them in the cupboard.' Marathi (from Pandharipande 1997: 106, ex.(266))

¹Abbreviations used are: 3=3rd person, Acc=accusative, Ag=agent, CNP=conjunctive participle, Dat=dative, Erg=ergative, Gen=genitive, Loc=locative, M=masculine, N=neuter, Nom=nominative, Pl=plural, Sg=singular.

²For the purpose of economy, the examples in the rest of the article will include either the subordinate or the coordinate translation.

Telugu

(2) avan $_i$ [$\Delta_{i/*k}$ keṇattule viZund-u] nõaamaana nelele keḍakkaran he [well fall-CNP] bad state lie 'Having fallen in a well, he is in a critical condition.' 'He fell in a well and is in a critical condition.' Tamil (from Lindholm 1975: 65, ex.(3.32))

(3) $[\Delta_{i/*k}$ ghar aa-kar] raaj=ne_i kapre badle [home come-CNP] Raj=Ag clothes changed 'Having come home, Raj changed.' 'Raj came home and changed.' (from Kachru 1981: 36, ex.(3))

(4) $[\Delta_{i/*k} \text{ phal per-e}]$ judo $_i$ bikri korlo [fruit pick-CNP] Jodu sale did 'Having picked the fruit, Jodu sold it.' Bengali 'Jodu picked the fruit and sold it' (from Klaiman 1981: 108, ex.(4.49))

Although the phenomenon of Obligatory Control into CNP clauses is robust, exceptions do exist, an observation that was first made by Lindholm (1975). For example, whereas the references of the CNP and matrix subjects in (1)–(4) above have to coincide, sentences (5)–(8) provide counterexamples in which disjoint subjects are allowed.

(5) [paauus paḍ-uun] dhaanya pikla [rain fall-CNP] crops grew The rain fell, and the crop grew.' Marathi (from Pandharipande 1997: 446, ex.(1277))

(6) [maze penj-u] aatu=le taṇṇi ooduccu
[rain fall-CNP] river=Loc water ran
'Having rained, the water flowed in the river.'

(from Lindholm 1975: 81, ex.(3.38))

(7) [diwaar gir-kar] patthar gir gaee
[wall fall-CNP] stones fell went
'The wall having fallen, stones fell.'
from Davison 1981: 122, fn.5, ex.(i))

(8) [ceaar bhêge giy-e] modhu pore gaelo [chair break down-CNP] Modhu fell down 'The chair broke, and Modhu fell off.' Bengali (from Klaiman 1981 114, ex.(4.57e))

Telugu is a Dravidian language of South Asia. Like the aforementioned languages, Telugu licenses control into CNP clauses, (9a-c).

(9) a. $[\Delta_{i/*k}]$ juttu pooy-i] Kumaa $_i$ picciwaadu ayyaa-du [hair lose-CNP] Kumar.Nom a crazy man became-3.M.Sg 'Having lost his hair, Kumar went crazy.' Telugu b. kumaa $_i$ $[\Delta_{i/*k}]$ laybrarii=ki well-i] pustakam cadiwaa-du

b. kumaar_i $[\Delta_{i/*k}]$ laybrarii=ki well-i] pustakam cadiwaa-du Kumar.Nom [library=Dat go-CNP] book read-3.M. 'Kumar went to the library and read a book.'

c. kumaar $[\Delta_{i/*k} \text{ daggu=u} \text{ jalubu=u wacc-i}]$ mandulu waadaa-du Kumar.Nom [cough=and cold=and come-CNP] medicines used-3.M.Sg 'Having caught a cough and a cold, Kumar took medication.' Telugu

At the same, exceptions to adjunct control are attested, as (10a)–(10i) illustrate.³ In these struc-

 $^{^3\}mathrm{I}$ thank an anonymous JSAL reviewer for examples (10b–c).

tures, the Same-Subject Condition is violated by the lack of coreference between the CNP and matrix subjects.

(10) a. [tufaanu wacc-i] naa=illu kuulin-di [flood come-CNP] my=house.Nom collapsed-3.N.Sg 'The flood came, and my house collapsed.'

Telugu

b. [simla-loo mancu paḍ-i] ḍhillii-loo calla paḍin-di [Simla-Loc snow fall-CNP] Delhi-Loc cool became.3.N.Sg 'The snow fell in Simla, and it became cool in Delhi.'

Telugu

c. [bayaṭa baagaa calla-paḍ-i] inṭi-loo callagaa undi [outside well cold-fall-CNP] house-Loc cool is 'Having become cool outside, it is cool in the house.'

Telugu

d. [warʃam paḍ-i] ceṭlu/mokkalu perigaa-yi [rain.Nom fall-CNP] trees/plants.Nom grew-3.N.Pl 'The rain fell, and the trees/plants grew.'

Telugu

e. [cali-kaalam wacc-i] aakulu raalipooyaa-yi [cold-weather.Nom come-CNP] leaves fell-3.N.Pl 'Winter arrived/came, and the leaves fell down.'

Telugu

f. [eṇḍa-kaalam wacc-i] ceruwulu eṇḍipooyaa-yi [hot-weather.Nom come-CNP] tanks dried up-3.N.Pl 'Summer came, and the water tanks dried up.'

Telugu

g. [kurcii wirig-i] kumaar kinda paḍḍaa-ḍu [chair.Nom break-CNP] Kumar.Nom down fell-3.M.Sg 'The chair broke, and Kumar fell down.'

Telugu

h. [bhuukampam wacc-i] caala kaṭṭaḍaalu kuulipooyaa-yi [earthquake.Nom came-CNP] many buildings.Nom collapsed-3.N.Pl 'An earthquake came, and many buildings collapsed.'

Telugu

i. [baambu peel-i] caala mandi canipooyaa-ru [bomb.Nom explode-CNP] many people.Nom died-3.M.Pl
 'A bomb exploded, and many people died.'

Telugu

These exceptions are not uncommon in South Asian languages and, thus, warrant an explanation.⁴ In this paper, I limit the discussion to Telugu. I try to show that the so-called exceptions to Telugu adjunct control are non-exceptions. In other words, they too obey the Same-Subject Condition.

The following sections are organized as follows. Section 2 surveys the literature for available, mainly semantic, analyses and shows that they do not adequately account for the phenomenon in question. Section 3 presents an alternative syntactic account, analyzing the structures in question as instances of Expletive Control. Section 4 presents data from English that pose a challenge to the syntactic account; the data demonstrate that Expletive Control is banned in English. Section 5 shows that the lack of Expletive Control in English does not undermine the analysis of the Telugu exceptions as Expletive Control structures. Section 6 revisits the English data and explains why Expletive Control does not exist in English. Section 7 is a summary and a conclusion.

2 Existing Analyses

Researchers tend to analyze exceptions to adjunct control from a purely semantic perspective without any reference to syntax. For example, in her book on Marathi, Pandharipande (1997, 445–446) briefly indicates that such structures are allowed when there is a cause-effect relationship between the CNP

⁴My observation is that these exceptions tend to be more common in one language than in another. For example, they seem to be less common in Hindi than they are in Tamil. This observation, however, is not based on any statistics, and it calls for further investigation.

clause and the matrix clause. In this case, "the agents of the matrix and the participial [CNP] clauses can be different."

Unfortunately, at least in Telugu, a cause-effect relation between the CNP and matrix clauses is not sufficient for disjoint subjects to be allowed, as (11) illustrates. Compare to (9c) above.

(11) *[kumaar=ki daggu=u jalubu=u wacc-i] sarita mandulu iccin-di [Kumar=Dat cough=and cold=and come-CNP] Sarita.Nom medicines gave-3.N.Sg 'Kumar having caught a cough and a cold, Sarita gave him medication.' Telugu

Similarly, Lindholm (1975) attributes the occurrence of such exceptions in Tamil to a cause-effect relation between the matrix and the subordinate clauses, and he adds another factor which he calls "natural relevance". According to natural relevance, it is not enough to have a cause-effect relation between the CNP and matrix clauses; the relations must also follow naturally — or, as I understand it, the relation must belong to the natural world. For example, the CNP and matrix clauses in (12) exhibit a cause-effect relation, but the sentence is ungrammatical because the relation lacks natural relevance (Lindholm 1975, 80 (3.37)). Compare to (6) in which the relation between rain and the flowing of the river is a cause-effect relation that is naturally relevant (Lindholm 1975, 75–83).

(12) [maze penj-u] kade=le ellaam kode vittu pooccu [rain fall-CNP] shop=Loc all umbrella sell went 'It rained and umbrellas got sold out at all the shops.'

Tamil

Lindholm's analysis works for the Telugu examples (10a–h) above in which the cause-effect relations seem to be naturally relevant. In (10i), however, repeated here as (13a), the cause-effect relation is between a bomb explosion and the death of many people. Let us assume that the cause-effect relation between the two incidents is 'naturally relevant' — although the idea that bomb explosions are 'natural' is suspect. As expected, sentence (13a) is grammatical. If this analysis is correct — or sufficient — one would expect (13b) to be grammatical as well, for it also indicates that some disaster happened leading to a sad outcome. The only difference between (13a) and (13b) is that the latter mentions the agent behind the disaster, while the former does not. Apparently, mentioning the agent is the reason why (13b) is ungrammatical.

(13) a. [baambu peel-i] caala mandi canipooyaa-ru [bomb.Nom explode-CNP] many people.Nom died-3.M.Pl 'A bomb exploded, and many people died.'

Telugu

b. *[kumaar baambu=ni peelc-i] caala mandi canipooyaa-ru [Kumar.Nom bomb=Acc explode-CNP] many people.Nom died-3.M.Pl 'Kumar exploded a bomb, and many people died.'

Telugu

A more adequate explanation is offered by Klaiman (1981). She holds that exceptions to adjunct control in Bengali are allowed only when both the CNP and matrix clauses express a non-volitional activity. If one of the clauses expresses a volitional activity, disjoint subjects result in ungrammaticality. This is exactly the case of (13b) above; the CNP clause expresses a volition activity, which seems to be the reason why the sentence is unacceptable. The same is true if the matrix clause expresses a volitional activity, as (14) illustrates.

(14) *[baambu peel-i] caala mandi poliis=ni pilicaa-ru [bomb.Nom explode-CNP] many people police=Acc called-3.M.Pl 'A bomb exploded, and many people called the police.

Telugu

Klaiman's analysis is purely semantic. She explicitly rules out syntax and the possibility that "any existing theoretical model can handle the facts" (Klaiman 1981, 126). Nevertheless, her analysis may be translated into syntactic terms without undermining the semantic nature of the account. The following sections set out to do this and to show that what appears to be an exception to Adjunct Control in Telugu is not an exception.

3 Syntactic Analysis

A closer look at the Telugu sentences in (10) shows that what Klaiman describes as non-volitional activities correspond in syntactic terms to unaccusative structures. Each of the grammatical sentences in (10) contains two unaccusative predicates, one in the CNP clause and one in the matrix clause. By comparison, the ungrammatical structures (13b) and (14) contain at least one clause that is not unaccusative.

By "not unaccusative" I refer to, not only transitive and unergative, but also experiential predicates. For example, the sentences in (15) are ungrammatical because each contains one experiential predicate.⁵

(15) a. *[baambu peel-i] kumaar=ki koopam waccin-di [bomb.Nom explode-CNP] Kumar=DAT anger came-3.N.Sg 'A bomb exploded, and Kumar got angry.'

Telugu

b. *[ammaayi putt-i] andaru santoofincaa-ru [girl.Nom born-CNP] family.Nom became happy-3.M.Pl 'A girl was born; the family was happy.'

Telugu

At first blush, the exclusion of experiential predicates from the category of unaccusative predicates sounds suspect. This exclusion, however, follows from the locus of the subjects of these predicates and how low they may be in their corresponding clauses. The standard assumption is that unaccusative predicates license themes that are base-generated low in the structure. Themes, along with goals and patients, are considered the lowest of all arguments. They are generated below causers, which in turn are generated below experiencers (Landau 2001, 120 and works within). This implies that the non-volitional subjects in (10a-i) are themes that are generated low in the structure, probably as complements of V^o . Subjects of transitive/unergative and experiential predicates, on the other hand, are generated in higher positions.

It is desirable to have independent evidence that the unaccusative predicates under investigation contain themes that are realized low in the structure, probably in the locus of their first merge. Evidence comes from unaccusative structures that contain a theme and a locative expression. Although Telugu is an SOV language, with the subject canonically occupying a sentence initial position, (16a), if an unaccusative predicate is involved, the locative expression is realized sentence-initially, (16b–c). These examples are not unexpected, given that the locus of locative expressions is higher than the locus of themes (Grimshaw 1990, 24).

(16) a. kumaar maa=uuri=loo baambu=ni pelcaa-ḍu Kumar.Nom my=town=Loc bomb=Acc exploded-3.M.Sg 'Kumar exploded a bomb in my town.'

Telugu

b. maa=uuri=loo caala mandi canipooyaa-ru my=town=Loc many people died-3.M.Pl 'In my town many people died.'

Telugu

((i)) a. [taeks bere giy-e] aneke=r kasto hoyece [tax increase-CNP] many=Gen difficulty became 'Taxes increaded and many people had difficulties

Bengali

b. [briṣṭi por-e] caaside-r laabh holo [rain fall-CNP] farmers-Gen profit became 'It rained and the farmers profited.'

Bengali

The analysis offered in this article tries to account for the Telugu data. Concerning the Bengali examples in (i), I do not have an explanation.

⁵This is an important point because Klaiman's (Klaiman 1981) definition of non-volitional predicates seems to include experiential predicates. She presents the two examples in (i) which include one experiential predicate in the matrix clause and two disjoint subjects (Klaiman 1981, 113, (4.55a–b)). As far as I know, none of the grammatical examples in her study includes a CNP experiential predicate and two disjoint subjects.

c. pollalu=loo ceṭlu/mokkalu perigaa-yi field=Loc trees/plants.Nom grew-3.N.Pl 'In the field the trees/plants grew.'

Telugu

This observation extends to the exceptions to adjunct control in (10) above, some of which are repeated here with locative expressions.

(17) a. [pollalu=loo warʃam paḍ-i] ceṭlu/mokkalu perigaa-yi [[fields=Loc rain.Nom fall-CNP] trees/plants.Nom grew-3.N.Pl 'The rain fell on the fields, and the trees/plants grew.'

Telugu

b. [kolkata=loo baambu peel-i] caala mandi canipooyaa-ru [Calcutta=Loc bomb.Nom explode-CNP] many people.Nom died-3.M.Pl] 'A bomb exploded in Calcutta, and many people died.'

Telugu

c. [naa=uuri=loo tufaanu wacc-i] naa=illu kuulin-di [my=town=Loc flood come-CNP] my=house.Nom collapsed-3.N.Sg 'The flood came to my town, and my house collapsed.'

Telugu

This said, it is important to note that, owing to the free word order in Telugu, unaccusative structures with a sentence-initial theme followed by a locative expression are also acceptable, (18a–b). Nevertheless, sentences (16b–c) are the unmarked situation.

(18) a. caala mandi maa=uuri=loo canipooyaa-ru many people my=town=Loc died-3.M.Pl 'Many people, in my town, died.'

Telugu

b. cetlu/mokkalu pollalu=loo perigaa-yi trees/plants.Nom field=Loc grew-3.N.Pl 'The trees/plants, in the field, grew.'

Telugu

Based on the above discussion, I consider structures that involve unaccusative predicates in the CNP and matrix clauses as having coreferential null expletives pro^{EXP} in the subject positions, while the themes maintain their positions low in the clauses. In other words, the sentences in (10) have the structures in (19).⁶

(19) a. $[\Delta_{i/*k}$ tufaanu wacc-i] pro^{exp_i} naa=illu kuulin-di [flood come-CNP] my=house.Nom collapsed-3.N.Sg 'The flood came, and my house collapsed.'

Telugu

b. $[\Delta_{i/*k} \text{ simla-loo mancu pad-i}]$ pro^{EXP_i} dhillii-loo calla padin-di [Simla-Loc snow fall-CNP] Delhi-Loc cool became.3.N.Sg 'The snow fell in Simla, and it became cool in Delhi.'

Telugu

c. $[\Delta_{i/*k}]$ bayaṭa baagaa calla-paḍ-i] pro^{EXP_i} inṭi-loo callagaa undi [outside well cold-fall-CNP] house-Loc cool is 'Having become cool outside, it is cool in the house.'

use.' Telugu

d. $[\Delta_{i/*k} \text{ war} \text{fam pad-i}]$ pro^{exp_i} cetlu/mokkalu perigaa-yi rain.Nom fall-CNP] trees/plants.Nom grew-3.N.Pl

Telugu

'The rain fell, and the trees/plants grew.' e. $[\Delta_{i/*k} \text{ cali-kaalam} \text{ wacc-i}] \quad pro^{\text{exp}_i}$ aakulu raalipooyaa-yi [cold-weather.Nom come-CNP] leaves fell-3.N.Pl 'Winter arrived/came, and the leaves fell down.'

Telugu

f. $[\Delta_{i/*k}$ eṇḍa-kaalam wacc-i] pro^{EXP_i} ceruwulu eṇḍipooyaa-yi [hot-weather.Nom come-CNP] tanks dried up-3.N.Pl 'Summer came, and the water tanks dried up.'

Telugu

⁶The coindexation between Δ and pro^{EXP} in (19) means that the CNP subject may not have an independent reference; it has to be understood as an expletive controlled by the matrix expletive. Sections 4 and 5 suggest that this control relation is established through movement.

wirig-i] pro^{EXP_i} kumaar g. $[\Delta_{i/*k} \text{ kurcii}]$ kinda padaa-du chair.Nom break-CNP Kumar.Nom down fell-3.M.Sg 'The chair broke, and Kumar fell down.' Telugu h. $[\Delta_{i/*k}]$ bhuukampam pro^{EXP_i} caala kattadaalu wacc-i kuulipooyaa-yi earthquake.Nom came-CNP many buildings. Nom died-3. N. Pl 'An earthquake came, and many buildings collapsed.' Telugu peel-il i. $[\Delta_{i/*k}$ baambu pro^{EXP_i} caala mandi canipoovaa-ru bomb.Nom explode-CNP many people.Nom died-3.M.Pl 'A bomb exploded, and many people died.' Telugu

The expletive is null because Telugu does not have overt expletives, which is expected in pro-drop languages in general. This idea is confirmed by Subbarao and Murthy (1999, 217) who maintain that Telugu has "no pleonastic or expletive expressions such as *it* or *there*". Similarly, Rao (2002, 37–39) holds that "expletives in Telugu are obligatorily null".

If this observation is correct, then exceptions to adjunct control in Telugu are non-exceptions. That is, they too qualify as instances of control — more specifically, Expletive Control — into CNP clauses. This conclusion, however, is challenged on empirical and theoretical grounds. The following section spells out the details. Section 5 offers a solution.

4 Problem

The null expletive pro^{EXP} involved in Telugu Expletive Control seems to resemble the English expletive there. In English, there does not trigger agreement on the verb. Rather, the verb agrees with another NP that is associated with the expletive. To illustrate, in (20a) the verb agrees with the singular associate one secretary, while in (20b) the verb shows plural agreement with two secretaries. Like English there, Telugu null expletives, the type I assume to exist in Expletive Control structures, do not enter an agreement relation with the verb. The verb agrees with a nominative NP, as (21a–b) show. In (21a), warfam 'rain' is singular; the verb shows singular agreement. In (21b), warfaalu 'rains' is plural; the verb shows plural agreement.

- (20) a. There is one secretary in this room.
 - b. There are two secretaries in this rooms.

'It rained.' Literally: 'The rains fell.'

(21) a. pro^{EXP} war \int am padin-di rain.Nom fell.3.N.Sg 'It rained.' Literally: 'The rain fell.' b. pro^{EXP} war \int aalu padaa-yi rain.Nom fell-3.N.Pl

Telugu

Telugu

While adjunct control is allowed in English, (22a-b), there-Expletive Control (hereafter, Expletive Control) is banned, (23a-b), unless the expletive is phonologically realized in the adjunct as well, (24a-b) (Lasnik 1992, 244 (51-54)).⁷

(22) a. $[\Delta_i]$ having witnessed the robbery John_i aided the investigation.

- (i) There arrived two more politicians.
- (ii) There entered two men_i [without Δ_i identifying themselves]

 $^{^7}$ The structures in (23) involve an existential expletive there. English also has a locative there, (i). When the latter is part of a control structure, (ii), the outcome is control by associate. That is, the associate of the expletive, two men, rather than the expletive itself controls the unpronounced subject of the adjunct (Chomsky (1995, 274); Cardinaletti (1997, 524)). Although the Telugu pro^{EXP} may resemble the locative expletive, Telugu does not license control by associate.

I consider this resemblance orthogonal to the discussion in the rest of the article. What is important for our purposes is that English does not license *there*-Expletive Control; this fact poses a challenge to the claim that Telugu has Expletive Control.

- b. Harry_i was a witness [without Δ_i being a victim].
- (23) a. *[Δ_i having been a robbery] there_i was an investigation.
 - b. *There_i was a crime [without Δ_i being a victim].
- (24) a. [There having been a robbery] there was an investigation.
 - b. There was a crime [without there being a victim].

Lasnik (1992) analyzes the sentences in (23) within the PRO Theory of Control. This analysis does not work for Telugu, however. The reason is that the different versions of PRO Theory assume that the subordinate subject is obligatory silent. While this is true for Telugu Forward Control, (25), the assumption is not true for Telugu Backward and Copy Control, (26)–(27). In (26a–b), the subordinate subjects are pronounced while the matrix subjects are implied. In (27a–b), both subjects are pronounced and obligatorily coreferential. I consider these examples sufficient to avoid an analysis within the PRO Theory of Control and to find an answer elsewhere.

(25) Forward Control

a. kumaar $_i$ [$\Delta_{i/*k}$ aakali wees-i] saandwic tinnaa-ḍu Kumar.Nom [Δ hunger.Nom fall-CNP] sandwich ate-3.M.Sg 'Having felt hungry, Kumar ate a sandwich.'

Telugu

b. $[\Delta_{i/*k}]$ jwaram wacc-i] kumaa $_i$ haaspaṭal weḷḷaa-ḍu $[\Delta.\mathrm{Dat}]$ fever.Nom come-CNP] Kumar.Nom hospital went-3.M.Sg 'Having had a fever, Kumar went to the hospital.'

Telugu

(26) Backward Control

a. $\Delta_{i/*k}$ [kumaar=ki_i aakali wees-i] saandwic tinnaa-du Δ [Kumar=Dat hunger.Nom fall-CNP] sandwich ate-3.M.Sg 'Having felt hungry, Kumar ate a sandwich.'

Telugu

b. $\Delta_{i/*k}$ [kumaar=ki $_i$ jwaram wacc-i] haaspaṭal weḷḷaa-ḍu Δ [Kumar=Dat fever.NOM come-CNP] hospital went-3.M.Sg 'Having had a fever, Kumar went to the hospital.'

Telugu

(27) Copy Control

- a. [kumaar=ki $_i$ aakali wees-i] atanu $_i$ /aa pichoodu $_i$ /kumaar saandwic tinnaa-du [Kumar=Dat hunger.Nom fall-CNP] he/that idiot/Kumar.Nom sandwich ate-3.M.Sg 'Kumar felt hungry, and he/the idiot/Kumar ate a sandwich.' Telugu
- b. [kumaar=ki $_i$ jwaram wacc-i] atanu $_i$ /kumaar haaspaṭal wellaa-ḍu [Kumar=Dat fever.Nom come-CNP] he/Kumar.Nom hospital went-3.M.Sg 'Kumar had a fever, and he/Kumar went to the hospital.'
- c. [Kumaar=ee tappu cees-i] kumaar=ee eedawatam modalupettaa-du [Kumar.Nom=Emph mistake do-CNP] Kumar.Nom=Emph crying started-3.M.Sg 'Kumar started crying although he has made a mistake.'

Within generative linguistics, Backward and Copy Control structures of the type exemplified in (26)–(27) have warranted an analysis of control as movement (see Polinsky and Potsdam 2002a,b, Monahan 2003, Haddad 2007, 2009, 2010a, Potsdam 2009; among several others).⁸ According to the movement approach, the subject in a control structure starts out in the subordinate clause and moves to the matrix clause, whereby movement is understood as copy-plus-merge. The result is two copies of the same element at PF, one of which may have to be deleted. If the subordinate copy is deleted, the structure is realized as an instance of Forward Control. If, on the other hand, the matrix copy is deleted, the result is Backward Control. If both copies escape deletion, the outcome is Copy

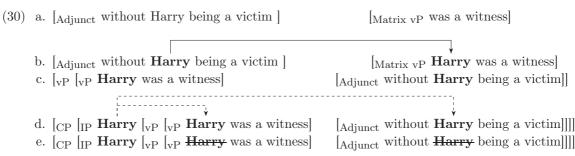
⁸It is worth mentioning that there is speaker variation with respect to Copy Control structures like (27a–b). My observation is that they are found more acceptable by younger native speakers of Telugu; these are speaker in their 20's or early 30's. Sentence (27c), on the other hand, has been judged as grammatical by all the native speakers I consulted.

Hornstein (2001) provides an analysis of (23a-b), repeated here as (28), within the framework of the Movement Theory of Control. He argues that the unacceptability of these structures follows from the restriction that all merge has to be cyclic.

- (28) a. *[Δ_i having been a robbery] there_i was was investigation.
 - b. *There_i was a crime [without Δ_i being a victim].

To elaborate, building on Nunes (1995, 2004), Hornstein holds that adjunct control is derivationally the outcome of sideward movement. In this kind of movement, an element copies out of one syntactic object (SO1) and merges in another (SO2). SO1 and SO2 do not have to be connected. Take, for example, sentence (29). The sentence has the derivation in (30). The adjunct clause and the matrix clause form independently, as (30a) illustrates. Harry copies out of the adjunct and merges in Spec, vP of the matrix clause, (30b). After movement takes place, the adjunct merges with the matrix clause; Hornstein assumes that this merge takes place at vP or VP. In this case, the adjunct clause merges with matrix vP, (30c). Upon merge, the adjunct becomes an island. In (30d), the matrix clause projects as high as IP; subsequently, Harry moves to Spec, IP, and CP projects. The highest copy of Harry c-commands the lower copies and forms a chain with each of them, as the dotted arrows show. At PF, the lower copy in each chain is deleted; the result is the structure in (30e). Notice that the derivation proceeds cyclically. That is, it obeys the Extension Condition (Chomsky 1995, 248) which holds that merge extends the structure by applying at the root.

(29) Harry_i was a witness [without Δ_i being a victim].



Now observe the derivation of the ungrammatical sentence (28b) above as presented in (31). The adjunct clause and the matrix clause form independently, (31a). Following, the subordinate subject — the expletive — undergoes sideward movement to the matrix clause, (31b). Notice that matrix IP has already projected; this is so because the expletive can only merge at Spec,IP (see, however, Richards 2006 and Deal 2008 for an argument that expletives enter the derivation lower as the specifiers of certain kinds of v).

⁹See Davison (2008) who argues that PRO vs. movement in control follows from case restriction. Languages that do not license a dative subject in the subordinate clause of control constructions, such as Hindi-Urdu, are more likely to include PRO. Languages that allow control structures with a subordinate dative subject are more likely to be derived via movement. Telugu belongs to the latter category.

¹⁰It is worth mentioning that the derivation in (30), especially as pertaining to the pronunciation/deletion of copies, is slightly different from the discussion in Hornstein (2001) and more in line with Nunes' (2004) Copy-plus-Merge Theory of Movement. According to Nunes, when a copy moves, it undergoes four independent steps: copy, merge, form chain, and chain reduction. This approach makes it possible for *Harry* in (30b) to move between the two unconnected structures: the adjunct and the matrix clause. In other words, movement may take place between two positions that are not in a c-command relationship. Nevertheless, the two copies that result from movement will still have to enter a c-command relationship and form a chain. This is so because chain reduction — or deletion of copies — only targets copies in chains. Chain reduction takes place at PF in order for the structure to be mapped into a linear order without violating Kayne's (1994) Linear Correspondence Axiom (LCA). The LCA states that at PF two overt copies that are related by movement cannot be in a precedence relation; that is, they cannot be dominated by two non-terminal nodes that are in a c-command relationship. Therefore, one of them has to be deleted.

Telugu

(31) a. [Adjunct without **there** being a victim] [Matrix IP [VP was a witness]]

b. [Adjunct without **there** being a victim] [Matrix IP **there** [VP was a witness]]

After movement takes place, it is time for the adjunct clause to merge with the matrix clause, presumably at VP, (32). This is not possible, however. According to Hornstein, (32) is blocked by (31b). The reason is that matrix I° has already projected in order to license the movement of the expletive. Accordingly, VP of the matrix clause is no longer a root, and the adjunct cannot undergo merge at VP without violating the Extension Condition.

(32) Blocked: [Matrix IP there [vP [vP was a crime] [Adjunct without there being a victim]]]

By the same token, if the adjunct clause merges cyclically at VP, (33a), the expletive subject will not be able to move out of the subordinate clause, (33b), because the subordinate clause has already become an island upon its merge with the matrix clause.

(33) a. [vP [vP was a crime] [Adjunct without **there** being a victim]]
b. [Matrix IP **there** [vP [vP was a crime] [Adjunct without **there** being a victim]]]

Based on this analysis, Hornstein argues that the generalization in (34) is necessary for adjunct control to obtain.

(34) Movement from the adjunct must proceed through a theta position in the matrix. (Hornstein 2001, 120 (119))

The generalization in (34) poses a challenge to the claim that Telugu has Expletive Control. The following section offers a possible solution. It suggests that the generalization in (34) is too restrictive. The section also shows that if the language allows late adjunction while still obeying the rules of linearization, ¹¹ movement from the adjunct may proceed through a non-theta position in the matrix clause without violating the Extension Condition.

5 Solution

The common assumption is that adjunct clauses merge at vP or VP of the matrix clause. In Hornstein's analysis, as delineated in the previous section, this restriction seems to be the main reason why Expletive Control is banned in English. Telugu, on the other hand, allows the adjunct to merge at CP. Evidence comes from the Telugu Copy Control structure (35). In Haddad (2007, 2009), I suggest that while the CNP clause in Forward and Backward Control undergoes merge at matrix vP, in Copy Control structures like (35) it undergoes first merge at CP of the matrix clause. As (36a) shows, the subject undergoes sideward movement, copying out of the adjunct and merging at vP of the matrix clause. Matrix IP projects, allowing the subject to move to Spec,IP, (36b). Following, CP projects; this is when the adjunct undergoes merge with the matrix clause, (36c). As a result, the CNP and matrix subjects do not enter a c-command relationship, which explains why they do not induce a Condition C violation. According to Condition C, an r-expression in a given structure must be simply free (Chomsky 1986, 164-165). That is, it cannot be bound by any element, including another r-expression in the same structure. See Haddad (2010b) for a more detailed discussion.

(35) [kumaar illu pooy-i] kumaar picciwaaḍu ayyaa-ḍu [Kumar.Nom house lose-CNP] Kumar.Nom a crazy man became-3.M.Sg 'Kumar lost his house, and Kumar went crazy.'

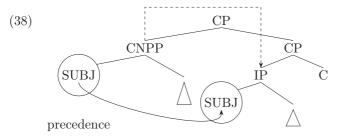
¹¹Late adjunction as used here is different from Stepanov's (2001) late adjunction. The latter induces a violation of the Extension Condition.

- (36) a. [Adjunct **Kumaar** illu pooy-i] [Matrix vP **Kumaar** picciwaadu ayyaa-du]
 - b. $[CP]_{IP}$ Kumaar $[vP]_{VP}$ Kumaar picciwaadu ayyaa-du]]]
 - c. [CP [Adjunct Kumaar illu pooy-i] [CP [IP Kumaar [vP Kumaar picciwaadu ayyaa-du]]]]
 - d. [CP [Adjunct Kumaar illu pooy-i] [CP [IP Kumaar <math>[vP Kumaar picciwaadu ayyaa-du]]]]

Stated differently, let us assume that the CNP clause in (35) has to be base-generated at vP of the matrix clause before it moves to CP. In this case, the two copies of the subject would enter a c-command relation at some point in the derivation, as the dotted arrow in (37) shows. Thus, binding would be involved, resulting in the ungrammaticality of (35) due to a Condition C violation. But (35) is grammatical, which suggests that the derivation in (36) is on the right track.

(37) [CP [Adjunct Kumaar illu pooy-i] [CP [Matrix Kumaar [vP [Adjunct Kumaar illu pooy-i] [vP Kumaar picciwaadu ayyaa-du]]]]

An additional remark regarding the derivation in (36) is important for the discussion of Expletive Control. Note that in (36d), the non-terminal nodes dominating the CNP and matrix subjects are in a c-command relationship, as (38) illustrates. According to Kayne (1994), the c-command relation between the non-terminal nodes is sufficient to place the terminal nodes — in this case, the subjects — in a precedence relation. This means that the two copies of 'Kumar' precede each other at PF. Kayne (1994) holds that two identical copies cannot be linearized at PF if they are in a precedence relationship, which is why one of them has to be deleted. This means that the derivation in (36) must crash, contrary to facts.



In Haddad (2009), I solve this problem by suggesting that the matrix clause in (36b) undergoes spell-out as a phase (Chomsky 2001, 2004) and is transformed into a phonological word à la Uriagereka (1999) prior to the adjunction of the CNP clause in (36c). The spell-out of matrix CP as a phase — that is, the spell-out of IP complement of C° — converts the phase into a giant compound. In this sense, the outcome in (36d) looks more like (39); the box around the spelled out domain indicates that matrix IP is perceived as a phonological word at PF. The matrix subject hides inside this giant compound. Linearization cannot see into words. This is how the subject escapes deletion.

Now we turn to Expletive Control. Consider sentence (40) and its derivation in (41). The adjunct and matrix clauses form independently in (41a). The null expletive copies out of the adjunct and merges in Spec,IP in the matrix clause, (41b). Following, the matrix clause projects as high as CP, (41c), allowing the CNP clause to undergo adjunction, (41d). Recall that, according to Hornstein, Expletive Control is banned in English because it induces a violation to the Extension Condition. No such violation is induced in (41). All merge extends the structure by applying to the root.

(40) $[\mathbf{pro}^{\text{exp}} \text{ war}]$ am paḍ-i] $\mathbf{pro}^{\text{exp}} \text{ mokkalu}$ perigaa-vi rain.Nom fall-CNP plants.Nom grew-3.N.Pl 'The rain having fallen, the plants grew.' Telugu

(41) a. [Adjunct **pro**^{EXP} warʃam paḍ-i] [Matrix IP [vP mokkalu perigaa-yi]]

b. [Adjunct **pro**^{EXP} warʃam paḍ-i] [Matrix IP **pro**^{EXP} [vP mokkalu perigaa-yi]] c. [CP [IP **pro**^{EXP} [vP mokkalu perigaa-yi]]]

d. [CP [Adjunct **pro**EXP warJam paḍ-i] [CP [IP **pro**EXP [vP mokkalu perigaa-yi]]]]

I mentioned earlier that the matrix clause in the Copy Control structure (35) is spelled out as a phase prior to the adjunction of the CNP clause. This step allows the structure to converge at PF without violating the rules of linearization. The same is not necessary when a null expletive is involved. Null expletives already lack phonological content. This means that no decisions need to be made regarding their deletion or pronunciation at PF for the purpose of linearization. This explains why (40) may also be realized as (42). Given that the matrix clause may undergo spell-out after, rather than before, the adjunction of the CNP clause, scrambling out of the matrix clause to a sentence-initial position is possible, albeit marked. The same is not possible with the Copy Control structure (35), as (43) illustrates. The reason is that the matrix IP is already a frozen compound that is opaque to all movement by the time the CNP clause adjoins to matrix CP.¹²

[pro^{EXP} warſam pad-i] *pro*^{EXP} perigaa-yi (42) mokkalu plants.NOM [pro^{EXP} rain.Nom fall-CNP] pro^{EXP} grew-3.N.Pl 'The rain having fallen, the plants grew.'

Telugu

(43) *picciwaadu [kumaar illu pooy-i Kumaar ayyaa-du a crazy man [Kumar.Nom house lose-CNP] Kumar.Nom became-3.M.Sg 'Kumar lost his house, and Kumar went crazy.'

Telugu

English Expletive Control Revisited

Let us assume that the solution in Section 5 is on the right track. One might wonder if this same analysis would work for English Expletive Control. In other words, could late adjunction be a solution, allowing (45) to be a possible derivation of (44)? In this case, the adjunct and matrix clauses would form independently, (45a). The subordinate expletive copies out of the adjunct and merges in Spec.IP of the matrix clause, (45b). The matrix clause projects as high as CP, (45c). The adjunct, having missed out on its chance to merge at matrix VP, undergoes late adjunction at matrix CP. The two copies of there do not enter a c-command relation. Accordingly, they do not form a chain, which is why neither of them is deleted.

(44) There having been a robbery, there was an investigation.

(45) a. [Adjunct there having been a robbery] [Matrix IP[VP] was an investigation]]

 \downarrow $[_{\text{Matrix IP}}$ **there** $[_{\text{VP}}$ was an investigation]] b. [Adjunct there having been a robbery]

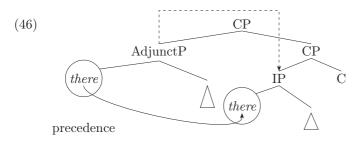
c. [CP [IP there [VP was an investigation]]]

d. [CP[Adjunct there having been a robbery] [CP[IP there [VP] was an investigation]]]]

 $^{^{12}}$ An anonymous JSAL reviewer asks why the expletive has to move at all. The question is based on the observation that the expletive does not move to check its Case feature or to check the theta-role feature of the target. In a forthcoming article Haddad (2010b), I suggest that the subject in Telugu Adjunct Control moves to satisfy neither its own needs nor those of its target. The subject moves to satisfy the requirements of the CNP clause and to license its merge with the matrix clause.

Telugu

At first glance, the derivation in (45) seems to work. Closer examination shows that it suffers from a major flaw. Although the two copies of *there* do not enter a c-command relationship, the nodes that dominate them do, (46). This means that the expletives are in a precedence relation and one of them has to be deleted in order for the structure to be mapped into a linear order at PF. Nevertheless, deletion is not possible because it is contingent on chain formation. Given that chains require c-command and that the two copies of *there* do not c-command each other, chain formation and thus deletion fail to apply (Nunes 2004).



Sentence (44) is acceptable, however. Therefore, there must be a derivation that accounts for it. Two derivations are possible. Recall that Telugu Copy Control structures like (47) face a similar problem to the one delineated in (45)–(46) for English. To solve this problem, I suggest that the matrix clause is spelled out as a phase and transferred to the phonological component prior to the merge of the adjunct, (48). In this way, linearization is not able to detect the two subjects as non-distinct copies in a precedence relation simply because one of them hides inside a spelled-out domain. This is how both subjects escape deletion.

(47) [kumaar illu pooy-i] kumaar picciwaaḍu ayyaa-ḍu [Kumar.Nom house lose-CNP] Kumar.Nom a crazy man became-3.M.Sg 'Kumar lost his house, and Kumar went crazy.'

(48) [CP [Adjunctkumaar illu pooy-i] [CP [IP kumaar [vP kumaar picciwaaḍu ayyaa-ḍu]]]]

It can be assumed that English Expletive Control resembles Telugu Copy Control. That is, at PF (45d) above looks like (49) in which the matrix clause has already been spelled out and transformed into a phonological word. When linearization applies, no precedence relation is detected, and the two copies of *there* escape deletion without inducing a violation. In this sense, English Expletive Control will be an instance of Copy Control.

(49) [CP [Adjunct there having been a robbery] [CP [IP there [vP was an investigation]]]]

The solution in (49) seems attractive, but it faces two major problems. First, it is more likely to be an ad hoc solution simply because, as far as I know, English does not license any other type of Copy Control. In addition, the solution is challenged by structures like (50) in which the merging site of the adjunct seems to be lower than CP. That is, the adjunct merges with the matrix clause before matrix CP is spelled out as a phase. Also, unless one assumes that the adjunct has undergone extraposition, the two copies of there are obviously in a c-command relationship. This means that the two copies may form a chain that is subject to chain reduction. The prediction is that one of the copies of there has to be deleted, which is not true. Such deletion leads to ungrammaticality, as (51) shows.

- (50) There was a crime [without there being a victim].
- (51) *There was a crime [without being a victim].

The second derivation is the one generally adopted in the literature. This derivation assumes that the two instances of *there* are copies of two different tokens selected from the numeration. That is, they are not related through movement. This means that the derivation of sentence (50) is (52). The

adjunct and matrix VP form independently, (52a). Subsequently, the adjunct merges with the matrix clause at VP, (52b). Matrix IP projects, and another copy of *there* selected from the numeration undergoes first merge in Spec, IP. Matrix CP projects, and the structure converges at PF, (52d).

- (52) a. [Adjunct without there being a victim] [VP] was a crime]
 - b. [VP[VP] was a crime] [Adjunct without there being a victim]]
 - c. [IP there [VP[VP] was a crime] [Adjunct without there being a victim]]]
 - d. [CP[IP there [VP[VP was a crime] [Adjunct without there being a victim]]]]

This derivation seems to be more accurate especially since Expletive Control is not enforced in English. That is, if the subject of the adjunct is an expletive, this does not necessarily entail that the subject of the matrix clause has to be an expletive, as the sentences in (53) illustrate.

- (53) a. You don't get that big without there being some condition, (be it physical or mental).
 - b. No business shall be transacted without there being at least two officers and two ordinary members present. 13

It is worth noting that there is a major difference between the derivation in (52) and the one assumed in the literature. Take Hornstein's (2001) account for example. According to Hornstein, the restriction on English Expletive Control and the derivation in (52) follow from the generalization in (34), repeated here as (54). The ban of Expletive Control in English as discussed in this section, however, follows from the ban on late adjunction and/or the rules of linearization. See Nunes (2004, 51–52) for a similar restriction on a derivation that employs across-the-board extraction.

(54) Movement from the adjunct must proceed through a theta position in the matrix. (Hornstein 2001, 120: (119))

7 Conclusion

This article set out to show that Telugu structures that are normally referred to in the literature as exceptions to Adjunct Control into CNP clauses are not really exceptions. They are Expletive Control structures that are allowed only if the CNP clause and the matrix clause involve unaccusative predicates. The reason is that unaccusative predicates merge low in the structure, allowing a null expletive to fill the subject position.

The article mainly offered a syntactic account. It showed that Expletive Control is allowed in Telugu simply because the language allows late adjunction. Semantics does play a role, however. Although unaccusative CNP and matrix clauses are a prerequisite for Expletive Control to obtain, such structures seem to be limited to disasters, accidents, and natural phenomena. The reason might be because speakers look at such incidents as whole events rather than a topic and a comment. In other words, a structure like (55) does not depict a bomb or certain individuals and talks about them. Rather, it depicts two events: a bomb explosion and casualties. In this sense, the themes in (55) lack the quality of a topic. If we consider subjects to be topic-like (Rizzi 2005), then it is expected that the themes in (55) do not move to a subject position. Consequently, the subject positions are filled with expletives.

(55) [baabu peel-i] caala mandi canipooyaa-ru [bomb.Nom explode-CNP] many people.Nom died-3.M.Pl 'A bomb exploded, and many people died.'

Telugu

Once a theme acquires a topic-like status and moves to the subject position, it becomes part of the interpretation dependency in a control structure. In the Copy Control structure (56), warfam 'the rain' functions as the subject of the CNP clause, determining the identity of adi 'it' in the matrix clause.

¹³Sentence (53a) and (53b) are from webpages (i) and (ii) respectively (last retrieved December 2009):

 $⁽i) \ \texttt{http://training.fitness.com/members-lounge/im-watching-show-tlc-23098.html}$

⁽ii) http://www.psychology.nottingham.ac.uk/bns/Constitution.htm

(56) [warʃam pad-i] adi wiidhula=ni subram ceesin-di [rain fall-CNP] it streets=Acc clean did-3.N.Sg 'The rain came down and cleaned the streets.'

Telugu

Finally, the article limited the discussion to Expletive Control in Telugu. The hope is that the same observation and analysis would apply to other languages, such as Tamil and Hindi-Urdu, that also have exceptions to adjunct control into CNP clauses. ¹⁴ Nevertheless, the article does not make such a claim. Although similar in many ways, the languages of South Asia seem to have micro-differences regarding these exceptions; for example, Expletive Control seems to be less common in Hindi-Urdu than it is in Tamil or Bengali. ¹⁵ These micro-differences call for in-depth analysis of individual languages before arriving at any non-trivial generalization.

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¹⁴It might be worth mentioning that the analysis definitely does not work for Sinhala which allows real violations of the Same-Subject Condition; these are structures that contain accusative predicates (Gair 2003, Gair et al. 1998, Taylor 2006 among others). See Haddad (2010b) for an analysis.

¹⁵One factor that may be decisive in whether Expletive Control obtains in a particular language or not is the interaction between the referential quality of the themes (specific vs. non-specific, referential vs. non-referential), the strength of the EPP feature on T0, and the ability of unaccusative predicates to license case on the theme VP-internally (see Bhatt 2007 for more details). I did not have the chance to investigate these factors here, but they certainly call for further research.

References

Bhatt, Rajesh. 2007. Unaccusativity and case licensing. Handout, McGill University.

Cardinaletti, Anna. 1997. Agreement and control in expletive constructions. Linguistics Inquiry 28:521–533.

Chomsky, Noam. 1986. Knowledge of Language. New York: Praeger.

Chomsky, Noam. 1995. The Minimalist Program. Cambridge, MA: The MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In M. Kenstowicz, ed., Ken Hale: A life in language, pages 1–52. Cambridge, MA: The MIT Press.

Chomsky, Noam. 2004. Beyond explanatory adequacy. In A. Belletti, ed., Structure and beyond: The cartography of syntactic structures, vol. 3, pages 104–131. Oxford: Oxford University Press.

Davison, Alice. 1981. Syntactic and semantic indeterminacy resolved: a mostly pragmatic analysis for the hindi conjunctive participle. In P. Cole, ed., *Radical pragmatics*, pages 101–128. New York: Academic Press.

Davison, Alice. 2008. A case restriction on control: Implications for movement. *Journal of South Asian Linguistics* 1:29–54.

Deal, Amy Rose. 2008. The origin and content of expletives: evidence from "selection.". Syntax 12:285–323.

Dwarikesh, Dwarika Prasad. 1971. The historical syntax of the conjunctive participial phrase in the New Indo-Aryan Dialects of the Madhyadesha ("Midland") of Northern India. Ph.D. thesis, University of Chicago, Illinois.

Gair, James W. 2003. Sinhala. In G. Cardona and D. Jain, eds., The Indo-Aryan Languages, pages 766–817. London: Routledge.

Gair, James W., Barbara Lust, Lelwala Sumangala, and Milan Rodrigo. 1998. Acquisition of null subjects and control in some Sinhala adverbial clauses. In B. Lust, ed., *Studies in South Asian linguistics: Sinhala and other South Asian languages*, pages 271–285. Oxford: Oxford University Press.

Grimshaw, Jane. 1990. Argument Structure. Cambridge, MA: The MIT Press.

Haddad, Youssef A. 2007. Adjunct Control in Telugu and Assamese. Ph.D. thesis, University of Florida, Gainesville.

Haddad, Youssef A. 2009. Copy control in Telugu. Journal of Linguistics 45:69–109.

Haddad, Youssef A. 2010a. A non-stranding approach to resumption: Evidence from South Asia. *The Linguistic Review* To Appear.

Haddad, Youssef A. 2010b. Why things may move: Evidence from (circumstantial) control. *Journal of South Asian Linguistics* To Appear.

Haspelmath, Martin. 1995. The converb as a cross-linguistically valid category. In M. Haspelmath and E. König, eds., *Converbs in Cross-Linguistic Perspective*. Berlin: Mouton de Gruyter.

Hornstein, Norbert. 1999. Movement and control. Linguistics Inquiry 30:69-96.

Hornstein, Norbert. 2001. Move! A Minimalist theory of construal: Generative syntax. Oxford: Blackwell.

Kachru, Yamuna. 1981. On the syntax, semantics and pragmatics of the conjunctive participle in Hindi-Urdu. Studies in the Linguistic Sciences 11:39–49.

Kayne, Richard. 1994. The Antisymmetry of Syntax. Cambridge, MA: The MIT Press.

Klaiman, M. H. 1981. Volitionality and Subject in Bengali: A study of semantic parameters in grammatical processes. Ph.D. thesis, University of Chicago, Illinois.

Landau, Idan. 2001. Control and extraposition: The case of super-equi. Natural Languages and Linguistic Theory 19:109–152.

Lasnik, Howard. 1992. Two notes on control and binding. In R. K. Larson, S. Iatridou, U. Lahiri, and J. Higginbotham, eds., *Control and Grammar*, pages 235–252. Dordrecht: Kluwer Academic Publishers.

Lindholm, James Milton. 1975. The conceptual basis of the Tamil adverbial participle. Ph.D. thesis, University of Chicago, Illinois.

Masica, Colin P. 2005. Defining a Linguistic Area. New Delhi: Chronicle Books.

Monahan, Philip. 2003. Backward object control in Korean. In *The Proceedings of the 22nd West Coast Conference on Formal Linguistics*, pages 356–369. Somerville, MA: Cascadilla.

Nunes, Jairo. 1995. The Copy Theory of Movement and Linearization of Chains in the Minimalist Program. Ph.D. thesis, University of Maryland, College Park.

Nunes, Jairo. 2004. Linearization of Chains and Sideward Movement. Cambridge, MA: The MIT Press.

Pandharipande, Rajeshwari V. 1997. Marathi. New York: Routledge.

Polinsky, Maria and Eric Potsdam. 2002a. Backward control. $Linguistics\ Inquiry\ 33:245-282.$

Polinsky, Maria and Eric Potsdam. 2002b. Backward control: Evidence from Malagasy. In A. Rackowski and N. Richards, eds., MIT Working Papers in Linguistics 44: The Proceedings of the 8th Austronesian Formal Linguistics Association, pages 257–272. Cambridge, MA: MIT Working Papers in Linguistics.

Potsdam, Eric. 2009. Malagasy backward object control. Language To appear.

Rao, Anuradha. 2002. Null objects in Telugu and English: Merge, Binding Theory, and pro-drop. Ph.D. thesis, Center Institute of English and Foreign Languages, Hyderabad, India.

Richards, Marc. 2006. On object shift, phases, and transitive expletive constructions in Germanic. Linguistics $Variation\ Year\ Book\ 6:136-159.$

Rizzi, Luigi. 2005. On some properties of subjects and topics. *Incontro di Grammatica Generativa* XXX. Stephanov, Arthur. 2001. Late adjunction and minimalist phrase structure. *Syntax* 4:94–125.

Subbarao, KV and B. Lalitha Murthy. 1999. Lexical anaphors and pronouns in Telugu. In B. Lust, K. Wali, J. Gair, and K. Subbarao, eds., *Lexical anaphors and pronouns in selected South Asian languages*, pages 217–276. Berlin: Mouton de Gruyter.

Taylor, Chris. 2006. Perfect, sequence, recapitulation: common construal and the Sinhala conjunctive participle. Santa Barbara Papers in Linguistics 17:150–162.

Uriagereka, Juan. 1999. Multiple spell-out. In S. D. Epstein and N. Hornstein, eds., Working Minimalism, pages 251–282. Cambridge, MA: The MIT Press.