On case-copying reflexives

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Abstract

Local anaphors match their antecedents in φ-features in many languages. The exact mechanism that ensures such matching is still a matter of debate: is it ensured via a syntactic mechanism or via a mechanism outside the syntax proper? Based on data from case-copying reflexives in Telugu, we argue that feature matching requires a morphosyntactic mechanism: theories that only ensure matching outside the syntax cannot account for local anaphors that agree with their antecedents in case features. Additionally, we provide data from islands that suggest that a locally bound anaphor should not be linked to its antecedent via movement. We show that theories that posit a syntactic agreement relation between anaphor and antecedent can be extended to account for case-copying and present a theory that captures the distribution and form of the reflexive in Telugu.

1 Introduction

What is the nature of the relationship that holds between a bound anaphor and its antecedent? Decades of research on binding has unveiled a number of non-trivial properties concerning the nature of such a relationship. We know that the antecedent for a reflexive like *herself* in (1) must be in a specific structural relation to its antecedent (i.e., c-command). We have also discovered that there are locality conditions on such a relation (roughly the two must be clausemates, technically implemented through concepts such as governing category, phase, etc.) These discoveries were neatly summarized in Principle A of the binding theory and the various refinements to it.

(1) Sandra loves herself.

One aspect of the relation between an antecedent and anaphor that is not attempted to be captured via the binding theory is the φ-feature matching that occurs between an antecedent and the bound element. Take the example in (1). The anaphor *herself* must match its antecedent Sandra in person number and gender features. In more recent years, the mechanism that ensures such feature matching has been a growing area of research. The nature of that mechanism is still a matter of great debate: is it a morphosyntactic mechanism similar to the mechanism that ensures φ-feature matching in predicate argument agreement (Hicks 2009; Kratzer 2009; Reuland 2011; Rooryck & Wyngaerd 2011; Wurmbrand 2017), or is it ensured because (part of) the anaphor is a pronounced pronominal copy of the antecedent (Drummond et al. 2011; Hornstein 2001; Kayne 2002), or is it a completely non-syntactic mechanism perhaps enforced in the semantics via the interpretation of the features on the anaphor (Cooper 1983; Ahn 2019; Preminger 2019)?

The purpose of this paper is to bring new evidence to bear on this question. The domain of inquiry will be what has been descriptively referred to as "case-copying" reflexives (Subbarao & Saxena 1987, Subbarao 2012: 89-90, Forker 2020: 105) (CCRs for short). Some illustrative examples from Telugu (Dravidian, South Asia) are given in (2).[1] The case copying reflexive is complex and involves a reduplicated simplex element *tanu*. Observe the two cases displayed on the reduplicated *tanu*s in (2a): the linearly first, what we will call the *base*, is affixed with the accusative marker *-ni*, as is expected for human objects in the language. The second, what we will call the *reduplicant*, appears in the nominative which appears to be "copied" from the antecedent. Now compare this to the example in (2b), this time the reflexive is a direct object in a ditransitive construction bound not by the nominative subject but by the indirect object. As in (2a), the base has accusative case, once again unsurprising given its position in the clause. The reduplicant, however, no longer shows nominative, but instead appears in the dative case "copied" from its antecedent *Ravi-ki* ('Ravi-DAT').

(2) a. vanaja tana-ni tanu poguḍu-kon-di
Vanaja 3SG-ACC 3SG.NOM praise-VR-3FSG
'Vanaja praised herself.' (Subbarao & Murthy 2000: 228)

b. pilla-lu ravi-ki tana-ni tana-ku paricayam cees-aa-ru
child-PL Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PAST-3PL
'The children introduced Ravi to himself.'

[1] Unless otherwise noted the Telugu data presented here comes from the second author of this paper. We also thank two Telugu speaking linguists for additional judgments and discussion of the data (names anonymized for peer review).

While a majority of this paper will use Telugu as an exemplar for case-copying, this is not a quirk of the language. The phenomenon is found in several other languages and language families. Within Dravidian, we also find the complex case-copying reflexive in Kannada (Amritavalli 2000).

Outside of Dravidian, we find case-copying in Sanzhi Dargwa (Nakh-Dagestanian). As in Telugu, a complex reflexive can be formed via reduplication and once again we see case-copying with the antecedent. In both examples in (3), the first part of the complex reflexive displays the copied case, ergative in (3a) and dative in (3b), the second part appears in the absolutive case which is what we typically find on objects in the language. In the absolutive form, the anaphor shows gender agreement with its antecedent.

(3) a. rasul-li cin-ni ca-w gap w-irq'-ul ca-w
Rasul-ERG REFL-ERG REFL-M praise M-do.IPFV-CVB COP-M
'Rasul is praising himself.'
b. rasul-li-j cinij ca-w či:g-ul ca-w
Rasul-OBL-DAT REFL.DAT REFL-M see.M-CVB COP-M
'Rasul sees himself.' (Forker 2020: 558)

We also find it in the Tibeto-Burman language Meitei (also called Manipuri). The reduplicated anaphor in this language expresses the nominative case marker *-na* on the first part and the accusative case marker *-bu* on the second part.[2]

(4) caoba-na ma-sa-na ma-sa-bu thagat-ce-i
Chaoba-NOM 3SG-SELF-NOM 3SG-SELF-ACC praise-VR-NF
'Chaoba praised himself.' (Sarju Devi & Subbarao 2002: 50)

This phenomenon is also found in several Uralic languages (Volkova 2014; Volkova & Reuland 2014). Observe the example in (5) from Izhma dialect of Komi-Zyrian, but other languages in this family such as Khanty and Udmurt also display the same pattern. Like the previous languages, the complex reflexive is created via reduplication of a simplex form. The first part of the complex reflexive appears in the nominative case again apparently copied from its antecedent, the subject. The second part carries dative case, which is a lexical case assigned by the verb to its object.

[2] It must be noted that while Sarju Devi & Subbarao (2002) claim that Meitei's anaphors display case-copying, we do not have any minimal pairs to establish the fact with certainty.

(5) Sya l'okes kar'-i-s ač'-ys as-ly-s
he bad do-PRT-3 self-P.3 self-DAT-P.3
'He harmed himself.' (lit: He did bad to himself). (Volkova 2014: 98)

We argue that the existence of case-copying reflexives provides support for a morphosyntactic connection between a reflexive and its antecedent. The shape of the argument is as follows:

Premise 1: While person, number, and gender features are interpreted, morphological case is often thought to be a semantically vacuous purely formal morphosyntactic feature. This is the consensus assumption among syntacticians in a variety of frameworks. Within minimalist theories, this is implemented via treating case features as uninterpretable features of NPs while φ-features are interpretable features on NPs (Chomsky 2000, 2001). Within this tradition, some researchers have gone as far as claiming that morphological case is only assigned post-syntactically in the mapping between syntax and the PF interface (Marantz 1991 *et seq*.), making it completely invisible to the semantics. In frameworks such as HPSG, case is treated solely as a CONCORD feature that interfaces with the morphological declension class of a NP while the φ-features—person, number, and gender—are all INDEX features that are associated with the referential index of the NP and hence can interface with the semantics (Wechsler & Zlatić 2000, 2003).

Premise 2: Reflexives in some languages share morphological case features with their antecedent. In other words, case-copying reflexives exist and the case displayed by these reflexives cannot be explained via the normal case assignment mechanisms in a given language.

The first part of this paper is dedicated to showing that the latter premise holds. This is because outside of a few descriptive notes (see e.g., Subbarao & Saxena 1987, Subbarao & Murthy 2000: 288-289, Volkova & Reuland 2014: 625; fn. 35), case-copying reflexives have gone largely unanalyzed especially in the theoretical literature. This paper will show that this premise is empirically sound.

If these two premises are valid, then the conclusion one must reach is that there is a morphosyntactic feature sharing relation between a case-copying reflexive and its antecedent. This paper hence provides a novel argument for theories that posit such a relationship. Further, data from islands cast doubt on movement approaches to this connection. We then develop an analysis based on agreement based theories. The proposed analysis not only captures case-copying but also has a number of implications for other aspects of binding such as the relation between simplex

and complex anaphors, the morphosyntax of reduplication, and case transmission in control structures.

This paper is organized as follows: in section 2, we provide an empirical overview of the case copying reflexive in Telugu. In section 3, we discuss previous theories of feature matching in light of the case-copying data. In section 4, we provide our analysis of case-copying reflexives couched in a theory of binding and case assignment; section 5 discusses several additional implications of the analysis, and section 6 concludes.

2 Properties and distribution of the case copying reflexive

Despite little discussion of the case-copying reflexive, binding in Dravidian is a fairly well studied topic. Like many Dravidian languages, Telugu employs a verbal reflexive (VR) marker *-kon-* that affixes to agentive verbs in reflexive constructions.[3] It also has a simplex anaphoric element *tanu* in addition to the complex case-copying reflexive. Subbarao & Murthy (2000) provides a good overview of all these elements. For the sake of succinctness, we will focus our attention on the case-copying reflexives and only touch on the VR and simplex anaphor when relevant to our discussion. We first show that the case-copying reflexive forms a constituent and we then show that it has the same characteristics as reflexive anaphors found cross-linguistically.

[3] Like verbal reflexive morphemes in other languages, the VR in Telugu has many other uses outside its use as a marker of reflexivity, such as reciprocal, self-benefactive, and unaccusative uses, as shown in the examples below.

(i) waḷḷu okaḷḷa-ni okaḷḷu tiṭṭu-konn-aa-ru
they one-ACC one.NOM scold-VR-PST-3PL
'They scolded each other.'

(ii) madhuri annam wanḍu-kon-di
Mandhuri rice cook-VR-3FSG
'Madhuri cooked food for herself.'

(iii) talupu terucu-kon-di
door open-VR-3NSG
'The door opened' (Subbarao & Murthy 2000: 229-230)

2.1 The case-copying reflexive is a constituent

In this section we show that the complex reflexive is a constituent (this is also the conclusion of Jayseelan 1996 for the very similar complex reflexive in the related language Malayalam). This is shown via standard test for constituency. We provide three pieces of evidence that the two form a constituent here: movement, intervening adjuncts and modification by the emphatic marker.

As shown in (6), the complex reflexive can be scrambled (6a) or undergo right dislocation (6b) together.

(6) a. [tana-ni tanu] raamu gillu-konn-aa-ḍu
3SG-ACC 3SG.NOM Ramu pinch-VR-PST-3MSG
'Ramu pinched himself.'
b. kamala tiṭṭu-konna-di tana-ni tan-ee
Kamala scold-VR.PST-3FSG 3SG-ACC 3SG-EMPH
'It is herself that Kamala scolded.'

If we try to scramble just one of base or the reduplicant, the result is ungrammatical, as shown in (7).

(7) a. *tana-ni raamu tanu gillu-konn-aa-ḍu
3SG-ACC Ramu 3SG.NOM pinch-VR-PST-3MSG
'Ramu pinched himself.'
b. *tanu raamu tana-ni gillu-konn-aa-ḍu
3SG.NOM Ramu 3SG-ACC pinch-VR-PST-3MSG
'Ramu pinched himself.'

We also see that no element may intervene between the base and reduplicant as shown in (8), once again suggesting that the two do form a constituent.

(8) a. *akhil tanu-ni **čeppu-too** tanu koṭṭu-kun-aa-ḍu
akhil 3SG-ACC slipper-WITH 3SG hit-VR-PST-3MSG
'Akhil hit himself with a slipper'
b. akhil **čeppu-too** tanu-ni tanu koṭṭu-kun-aa-ḍu
akhil slipper-WITH 3SG-ACC 3SG hit-VR-PST-3MSG
'Akhil hit himself with a slipper'

The final argument comes from modification. While pronouns and anaphors typically resist any type of modification, they can be modified by the emphatic marker *-ee*. As shown in (9) the emphatic marker can affix to the end of the simplex anaphor.

(9) raaju [tan-ee parigett-ææ-nu ani] cepp-ææ-ḍu
Raju 3SG-EMPH run-PAST-1SG COMP say-PAST-3MSG
'Raju said that he$_F$ ran.'

With the complex reflexive, only the reduplicant can host the emphatic marker (10a). It cannot appear on the base (10b). This pattern follows if the two *tanu*s are a constituent as the emphatic marker is typically found on the right edge of constituents, but if the two *tanu*s were separate constituents, it is unclear why (10b) should not be possible.

(10) a. vanaja tana-ni tan-ee poguḍu-kon-di
Vanaja 3SG-ACC 3SG.NOM-EMPH praise-VR-3FSG
'Vanaja praised herself$_F$.'
b. *vanaja tana-n-ee tanu poguḍu-kon-di
Vanaja 3SG-ACC-EMPH 3SG.NOM praise-VR-3FSG
Intended: 'Vanaja praised herself$_F$.'

These three pieces of data suggest that the base and reduplicant *tanu*s form a constituent.

2.2 The case-copying reflexive is a reflexive anaphor

Here we show that the case-copying reflexive is an anaphor via well-known diagnostics for reflexive anaphors: it cannot take split antecedents, requires a c-commanding antecedent and obeys the locality conditions of reflexive anaphors (see Anagnostopoulou & Everaert 2013; Reuland 2018 for overviews).

The first diagnostic we will use is split antecedents. The case-copying reflexive cannot take split antecedents, as shown in (11). In (11), the plural reflexive cannot take both the causee and causer NPs as split antecedents. A plural case-copying reflexive requires a plural antecedent. It may not take two singular NPs as an antecedent. Example (12) demonstrates the same behaviour with an experiencer subject and no verbal reflexive, allaying fears that the inability to take split antecedents in (11) might be an effect of the verbal reflexive.

(11) *kamala$_i$ siita$_j$ ceeta tama-ni taamu$_{i+j}$ tiṭṭ-incu-kon-di
Kamala Sita by 3PL-ACC 3PL.NOM scold-CASUE-VR-3FSG
'Kamala had Sita scold themselves.' (Subbarao & Murthy 2000: 282)

(12) *kamala$_i$ [siita-ku$_j$ tama-miida tama-ku$_{i+j}$ koopam vacc-indi ani]
Kamala sita-DAT 3PL-ON 3PL-DAT anger come-PST.3NS COMP
cepp-indi
say-PST.3NS
'Kamala said that Sita got angry at themselves'

The case-copying reflexive cannot take discourse or deictic references. As seen in (13), the case-copying reflexive is not possible with a cross-sentential antecedent. We also see in (14), that the complex reflexive can only refer to the c-commanding NP, it cannot refer to the embedded possessor NP. Once again, the c-command requirement on the antecedent is not due to the verbal reflexive, but the anaphor itself, as (15) demonstrates.

(13) *akhil alasi pooyaaḍu. tanu tanu paḍukunn-aa-ḍu
akhil tired go.PST.3MS. 3SG 3SG sleep-PST-3MS
Akhil got tired. He slept

(14) [karuṇa$_i$ akka]$_j$ eppḍuu tana-ni tanu$_{*i/j}$ poguḍu-kon-ṭuu untun-di
Karuna sister always 3SG-ACC 3SG.NOM praise-VR-PROG COP-3FSG
'Karuna's sister always keeps praising herself.' (Subbarao & Murthy 2000: 248)

(15) [karuṇa$_i$ akka]-ku$_j$ eppḍuu tana-miida tanu-ku$_{*i/j}$ kopam
Karuna sister-DAT always 3SG-ON 3SG-DAT anger
'Karuna's sister is always angry at herself.'

The domain of the case-copying reflexive is roughly the clause, similar to well studied reflexive anaphors in English and other languages. It cannot be used across clause boundaries, as shown in (16). If the antecedent is separated from the bound element by a clause boundary only the simplex anaphor is possible.

(16) a. raaju [tanu (*tanu) parigett-ææ-nu ani] cepp-ææ-ḍu
Raju 3SG (3SG) run-PAST-1SG COMP say-PAST-3MSG
'Raju said that he ran.'

b. raaju$_i$ [raamu$_j$ tana-ni tanu$_{*i/j}$ poguḍu-konn-aa-ḍu ani]
Raju Ramu 3SG-ACC 3SG.NOM praised-VR-PST-3MSG COMP
anu-konn-aa-ḍu
say-VR-PST-3MSG
'Raju thought that Ramu praised himself.'

As we saw previously, the case-copying reflexive cannot be separated from its antecedent by a clause boundary, but it is possible in the ECM like structure in Telugu as shown in (17).

(17) madhuri tana-ni tanu andagatte-gaa bhaav-is-tun-di
Madhuri 3SG-ACC 3SG pretty-PRED consider-DO-HAB-3FSG
'Madhuri considers herself pretty.' (Subbarao & Bhaskararao 2004: 178)

The case copying reflexive is also not possible as the possessor inside an NP. Only the simplex form is acceptable in such positions.

(18) roojaa-ki$_i$ tana$_i$ (*tanaki) amma išṭam
Roja-DAT 3SG.GEN (*3SG.DAT) mother like
'Roja likes her mother.'

Let us now turn to the distribution of the case-copying reflexive within PPs. It is possible with PPs headed by *loo* ('in'/'with') and *miida* ('on') (19). Interestingly, what appears to be the postposition can intervene between the two reduplicated anaphors. As we have seen previously, elements other than case markers cannot intervene between the two.

(19) a. sarita kamala gurinci tana loo tanu maaTlaaḍu-kon-in-di
Sarita Kamala about 3SG in 3SG.NOM talk-VR-PST-3FSG
'Sarita talked to herself about Kamala.' (Subbarao & Murthy 2000: 244)
b. vibha-ki tana miida tana-ki koopam wacc-in-di
Vibha-DAT 3SG on 3SG-DAT angry become-PST-F.SG
'Vibha got angry at herself.' (Subbarao & Murthy 2000: 229)

These diagnostics suggest that case-copying reflexive is a true reflexive anaphor.[4]

[4] Another diagnostic proposed in the literature is the unavailability of so-called strict readings under

Moving on to the φ-features of the case-copying reflexive. Like reflexives in many other languages, the CCR must match its antecedent in φ-features as well. As *tanu* may only take third person antecedents, when there is a first person antecedent, the case-copying reflexive is a reduplicated first person pronoun. Similarly, with a second person antecedent, the second person pronoun is reduplicated (21).[5]

(20) nenu **nan-nu** **nenu** meccu-kun-aa-nu
1SG 1SG-ACC 1SG praise-VR-PST-1SG
'I praised myself'

ellipsis. We chose not to discuss this diagnostic in the main text because its reliability is questionable. Many authors have shown that the reflexive anaphor in English can give rise to strict readings in certain situations (see McKillen 2016 and references). We do note however that in Telugu, the strict readings still appear unavailable even in the situations that give rise to the reading in English:

(i) sowmya tana-ni tanu [tana talli kanṭe baaga] coosukon-indi
sowmya 3SG-ACC 3SG 3SG mother CMPR good look.after-PST.3NS
'Sowmya$_i$ looked after herself better than her mother$_j$ <looked after herself$_{j/*i}$>'

(ii) akhil tana-ni tanu [tana taata kanṭe mundu] maracipoy-ææḍu
akhil 3SG-ACC 3SG 3SG grandfather CMPR before forget-PST.3MS
'Akhil$_i$ forgot himself sooner than his grandfather$_j$ <forgot himself$_{*i/j}$>'

We leave further investigation of this difference for future research.

[5] At least for some speakers, for third person antecedents, other third person pronouns can be doubled as long as their features match with the antecedent. (i) and (ii) show the third person singular masculine informal pronoun *vaaḍu* and the third person plural pronoun *vaaru* doubled to create the CCR respectively.

(i) akhil **vaaḍi-ni** **vaaḍu** meccu-kun-aa-ḍu
akhil 3MS-ACC 3MS praise-VR-PST-3MS
'Akhil praised himself'

(ii) pilla-lu **vaari-ni** **vaaru** meccu-kun-aa-ru
child-PL 3PL-ACC 3PL praise-VR-PST-3PL
'The children praised themselves'

Middleton (2020) provides an analysis of a similar type of reflexive in the related language Malayalam (see also Blix 2021 for an alternative analysis). We leave it as a matter for future research whether this Telugu data can be analyzed similarly.

(21) nuvvu **nin-nu** **nuvvu** mečču-kun-aa-vu
2SG 2SG-ACC 2SG praise-VR-PST-2SG
'You praised yourself'

2.3 The case of Case-copying

With the background established in the previous sections, let us examine the case assigned to the case-copying reflexive. By looking at the various combinations of morphological case that can be expressed on this reflexive, it will become clear that the case of the antecedent predicts the case we also find on the reflexive. Below are some illustrative examples.

(22) *Nom antecedent + direct object = Acc + Nom*

a. vanaja tana-ni tanu poguḍu-kon-di
Vanaja 3SG-ACC 3SG.NOM praise-VR-3FSG
'Vanaja praised herself.'

b. pilla-lu ravi-ki tama-ni taamu paricayam ceesu-kunn-aa-ru
child-PL Ravi-DAT 3P-ACC 3P.NOM introduce do-VR-PST-PL
'The children introduced themselves to Ravi.'

(23) *Nom antecedent + indirect object = Dat + Nom*

rukmiṇi tana-ki tanu uttaram raasu-kon-di
Rukmini 3SG-DAT 3SG.NOM letter write-VR-3FSG
'Rukmini wrote a letter to herself.'

(24) *Nom antecedent + locative object = Loc + Nom*

sarita kamala gurinci tana-loo tanu maaṭlaaḍu-kon-in-di
Sarita Kamala about 3SG-in 3SG.NOM talk-VR-PST-3FSG
'Sarita talked within herself about Kamala.'

(25) *Dat antecedent + direct object = Acc + Dat*

pilla-lu ravi-ki tana-ni tana-ku paricayam cess-aa-ru
child-PL Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PAST-3PL
'The children introduced Ravi to himself.'

(26) *Dat antecedent + oblique object = Obl + Dat*

ravi-ki tan-ante tana-ku prema
Ravi-DAT 3SG-OBL 3SG-DAT love

'Ravi loves himself.'

(27) *Dat antecedent + Loc object = Loc + Dat*

vibha-ki tana-miida tana-ki koopam wacc-in-di
Vibha-DAT 3SG-on 3SG-DAT angry become-PST-F.SG
'Vibha got angry at herself.'

The case of the second *tanu* varies depending on the case of the antecedent. If we assumed that the second *tanu* received a default case, we cannot explain why it is nominative in (22) but dative in (27). If we were to assume that the case of the second *tanu* is assigned structurally, we must explain why no other NPs ever appear with those cases outside of the reflexive forms. A comparison of (22b) and (25) is especially enlightening here. The complex reflexive occurs in the same structural position and receives the same theta role in both examples. The only difference is the argument acting as the binder: the nominative subject in (22b) and the dative indirect object in (25). One might postulate a relationship between the verbal reflexive *-kon-* and nominative case. In the examples above, the nominative case is always found on the second *tanu* when there is a *-kon-* in the structure. We might be tempted then to postulate the nominative is assigned by *-kon-*, dative being assigned to the reduplicated *tanu* as a default in the absence of *-kon-*. However, there is reason to believe that this is not the case. Like many languages, the verbal reflexive marker can only be affixed to agentive verbs. For the most part, non-agentive verbs in Telugu have dative subjects, but there is at least one exception noted in Subbarao & Murthy 2000:240, the light verb construction meaning 'forget' cannot be affixed with the VR, but also takes a nominative subject. As shown in (28), the reduplicant *tanu* still surfaces with nominative in the absence of the VR with a nominative antecedent showing that it is the case of the antecedent and not the VR that conditions nominative in the case-copying reflexive.

(28) madhu tana-ni tanu marci poo-yææ-ḍu
Madhu 3SG-ACC 3SG.NOM forget do-PST-3MSG
'Madhu forgot himself.'

As we see, the case on the complex reflexive always tracks the case of its binder. Thus, it appears that the only predictive analysis of the case of the second *tanu* is that is somehow "copied" from its antecedent. There is one principled exception to this generalization. When a hyper-ECMed subject binds a CCR in the embedded clause, the antecedent is accusative, but the case on the case-copying reflexive is nominative

as shown in (29).

(29) neenu ravi-ni$_i$ [t_i tana-gurinci tanu nijaayiti-parudu ani]
1SG Ravi-ACC 3SG-ABOUT 3SG.NOM honesty-one COMP
anukun-taa-nu
consider-PRES-1SG
'I consider Ravi honest about himself.'

We show in section 4, that this follows from the way case copying is implemented in our system. In a nutshell, at the point of the derivation where the anaphor agrees with its antecedent in case, the antecedent has not been assigned accusative and behaves as if it were nominative, so the anaphor agrees in nominative. This nominative behavior for hyper-ECMed subjects has been noted before in other languages (Levin & Preminger 2015; Wurmbrand 2019; Zyman 2017). We will discuss this construction in more detail in the analysis section of the paper.

3 Previous approaches to feature matching

Let us discuss what an analysis of case-copying requires at a general level. It is obvious that some sort of feature matching must be enforced on an anaphor and its antecedent. Take the simple English example in (30). We see that an anaphor must match in person, number and gender features.

(30) Sandra loves herself/*myself/*themselves/*himself.

Telugu appears to extend such feature matching to case features in addition to the φ-features like we see in English. An obvious place to start for an analysis of case-copying is to try to extend analyses of φ-feature matching to include case as well.

Broadly, there have been three ways researchers have attempted to capture φ-feature matching. Under one approach, the anaphor enters the derivation with deficient or unvalued φ-features and during the course of the derivation, there is an agreement-like mechanism that transmits the features of the antecedent to the anaphor. This is schematized in (31).

(31) a. […ANAPH$_{\varphi:}$ …]
b. [Antecedent$_{\varphi:\alpha}$ …[…ANAPH$_{\varphi:\alpha}$ …]]

Feature matching is enforced in these types of analyses because the features expressed by the anaphor are copied from the antecedent, hence no mismatch can be obtained.

Another approach posits that the anaphor is a type of copy of a movement chain. The antecedent begins in the position of the anaphor and moves to a c-commanding position during the course of derivation. Feature matching is ensured because the anaphor and its antecedent are actually copies of the same element.

(32) [Antecedent …[…[*t*/ANAPH] …]]

The final way researchers have attempted to account for feature matching is to rely on a non-syntactic mechanism. This view has been recently defended in Preminger (2019). Though he does not go into the details of what the mechanism might look like, other researchers have provided such a mechanism in terms of the semantic interpretation of the anaphors φ-features. Let us see how such a theory would work. Following Cooper (1983), researchers have treated φ-features on pronouns a presuppositions. Assuming that pronouns are variables of type e, we can treat φ-features as type $\langle e, e\rangle$: that is an identity function that returns back the variable, but with a definedness condition. Take for example meaning of masculine in (33a), this will take a variable and return it, but with a condition that the referent of the variable be male. A somewhat simplified collection of denotations of the φ-features are given in (33).

(33) a. $[\![\textit{masculine}]\!] = \lambda x_e$: x is male. x
b. $[\![\textit{feminine}]\!] = \lambda x_e$: x is female. x
c. $[\![\textit{singular}]\!] = \lambda x_e$: x is an atom. x ; $[\![\textit{plural}]\!] = \lambda x_e$: x is a plurality. x
d. $[\![1st]\!]^c = \lambda x_e$: x includes *author*(c). x
e. $[\![2nd]\!]^c = \lambda x_e$: x includes *addressee*(c). x

Returning to the example from above, consider the unacceptable utterance in (34a). It would have the LF in (34b).

(34) a. #Sandra loves himself.
b. Sandra [λx: x is male. x loves x]

The problem in (34) is easy to spot, the function that is to apply to Sandra presupposes that the individual argument that it composes with is male. Under the as-

sumption that the relevant Sandra identifies as female, the deviance of (34a) follows from the presupposition not being satisfied. Under this theory, feature-matching is not enforced in the syntax, but instead via the semantics of the φ-features on the anaphor.

As Preminger (2019) points out, an attractive aspect of the non-syntactic approach to feature matching is that such a mechanism appears to be independently necessary, as we see feature matching between pronouns and their antecedents in the absence of syntactic relations, like c-command, and with apparent disregard for syntactic locality domains. For example, we still observe feature matching in donkey anaphora (35a) and cross utterance anaphora (35b) despite the lack of c-command and the two elements being in (very) different locality domains.

(35) a. No linguist who has purple pants$_i$ looks silly in them$_i$.
b. A: Where are the scissors$_i$?
B: They$_i$ are right here. (Preminger 2019: 10-11)

3.1 Syntax or not?

Let us now consider case-copying in light of these approaches to φ-feature matching. Analyses that treat feature matching as a type of agreement or movement relationship could potentially be extended to case features as well, as it is known that case can be shared via agreement like operations, for example between a head noun and its dependents via case concord. This is exemplified in the Estonian examples in (36). In (36a), the inessive case is expressed not only on the head noun, but also the adjective, demonstrative and quantifier. In (36b), the noun is in the translative case, and once again, the case is also expressed on the demonstrative and adjective.

(36) a. kõigi-s nei-s raske-te-s küsimus-te-s
all.PL-INE these.PL-INE hard-PL-INE question-PL-INE
'in all these hard questions.'
b. selle-ks vahepealse-ks perioodi-ks
this-TRL in.between-TRL period-TRL
'for this interim period.' (Norris 2019: 1-2)

We also see case concord "at a distance" in floated quantifier constructions. As exemplified in the German examples in (37), the floating quantifier must match in case features with the NP it associates with. Again, this is modeled as a form of agreement

(Merchant 1996) and under stranding analyses of floating quantifiers, the quantifier and its antecedent are linked via movement (Sportiche 1988).

(37) a. Diese Studenten haben gestern alle protestiert
these.NOM students have yesterday all.NOM protested
'These students all protested yesterday.'
b. Diese Bücher habe ich gestern alle gelesen
these.ACC books have I yesterday all.ACC read
'I have read all of these books yesterday.'
c. Diesen Studenten habe ich gestern allen geschmeichelt
these.DAT students have I yesterday all.DAT flattered
'I have flattered all of these students yesterday.'
d. Dieser Gefallenen habe ich gestern aller gedacht
These.GEN fallen.ones have I yesterday all.GEN commemorated
'I have commemorated all those who died in battle yesterday.' (Merchant 1996: 182)

Finally, we see case sharing between PRO and its antecedent/controller in control constructions in many languages via so-called case-transmission (Landau 2008). Take the Ancient Greek example in (38). Subjects of infinitives are typically assigned accusative case, but in (38) the embedded PRO subject is nominative, matching that of the controller. Although PRO is null, we can see it has nominative case via the agreeing embedded predicate. This is analyzed as the case being transmitted from the controller to PRO as in agreement based theories of control, or as an instance of case being assigned to a movement chain as in the movement theory of control (Hornstein 1999).

(38) Dareios bouletai PRO polemikos/*plemikon einai
Darius.NOM want.3SG PRO.NOM war-like.NOM/*ACC to.be
'Darius wants to be war-like.' Quicoli (1982) as cited in (Landau 2008: 881)

Given these facts, one could imagine an analysis of case-copying reflexives based around a theory of feature matching that is enforced via movement or an agreement like mechanism. A non-syntactic approach to feature matching, on the other hand does not fare as well. The main sticking point is while it is possible to give presuppositional semantics to φ-features, it is difficult to impossible to do the same for case features. In fact, many researchers treat case features as completely uninterpreted by the semantics, hence case-copying reflexives do not seem amenable to theories of

feature matching that are enforced via semantic interpretation of features.

3.2 Movement or Agreement?

In the previous section, we argued that case-copying reflexives are not amenable to feature-matching that is solely based on non-syntactic mechanisms. The question we turn to now is: what syntactic mechanism enforces case-copying. We will investigate two possibilities: the connection is one of movement or the connection is one of agreement. The crucial data that will help us decide between the two is the interaction between the case-copying reflexives and islands. As islands ban movement out of them, a movement theory of case-copying reflexives would predict that the reflexive would not be possible inside of island configurations. We provide evidence that the case-copying reflexive is possible in coordinations, a well known island environment since Ross's first investigation into the phenomena (Bruening to appear makes a similar argument against movement of English reflexives using coordinations). Such evidence, hence casts doubt on movement based approaches and in favor of in situ agreement based approaches that would not violate island constraints.

3.2.1 The case-copying reflexives and the CSC

Ross (1967) first observed that asymmetric movement out of coordination structures leads to ungrammaticality. He put forth the coordinate structure constraint given in (39) to account for this data.

(39) In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct. Ross (1967:161).

Let us first demonstrate that Telugu generally does not tolerate violations to Ross's coordinate structure constraint.[6] This is shown in the examples below. The example in (40) shows that a conjunct cannot move and (41) shows that an NP inside of a conjunct also cannot move.

(40) a. ravi-ki idli inka dosa ištam
Ravi-DAT idli CONJ dosa like

[6] There are several ways to express conjunction in Telugu. Speakers may use the Sanskrit borrowings *inka* and *mariyu*, which function similar to coordinators in English. It is also possible for speakers to express conjunction with two adjacent NPs where the final vowel of the NPs is lengthened (Krishnamurti & Gwynn 1985: 326).

'Ravi likes idli and dosa'

b. *idli$_i$ ravi-ki t_i inka dosa ištam
idli Ravi-DAT t CONJ dosa like
'Ravi likes idli and dosa'

(41) a. neenu [[magazine-lu caduvut-aa-nu] mariyu [TV cuust-aa-nu]
1SG magazine-PL read-PST-1SG and TV watch-PST-1SG
]

'I read magazines and watched TV.'

b. *TV$_i$ neenu [[magazine-lu caduvut-aa-nu] mariyu [t_i
TV 1SG magazine-PL read-PST-1SG and t
cuust-aa-nu]]
watch-PST-1SG
Intended: 'I read magazines and watched TV.'

Now let us observe that the case copying reflexive can occur in coordinations as shown in (42) (the case-copying reflexive is also possible in coordinations in Kannada as noted in Lidz 2001).[7]

(42) ravi-ki tana-miida tana-ku mariyu rani-miida koopam
Ravi-DAT 3SG-on 3SG-DAT and Rani-on anger
waccindi
become.PST.3NSG
'Ravi became angry at himself and at Rani.'

If the connection between the anaphor and its antecedent were derived via movement, it would violate the coordinate structure constraint and hence we would expect (42) to be ungrammatical. Note that examples like (42) do not involve clausal coordination plus conjunction reduction. This can be shown by the fact that *tana-*

[7] While we have shown above that scrambling (typically thought to be an A′-movement) is subject to the CSC, the movement involved between an antecedent and reflexive is most likely to be A-movement. One may attempt to argue that A-movement is exempt from the CSC. However, there is reason to believe that A-movement is also subject to the CSC in Telugu. In (49), we show that asymmetric differential object marking (DOM) is not allowed in Telugu. We argue that this follows from an object shift analysis of DOM, coupled with the CSC (see Saab & Zdrojewski 2020 for a similar line of argumentation in Spanish). As object shift is thought to be a type of A-movement, this suggests that the CSC must also bar asymmetric A-movement out of coordinations. See also footnote 9 on the relation between the VR and coordinations.

miida tana-ku mariyu Rani-miida behaves as if it were a constituent. As we see in (43), the string can be scrambled together, and in (44) it can act as a fragment answer to a question.

(43) [tana-miida tana-ku mariyu rani-miida] ravi-ki koopam
3SG-on 3SG-DAT and Rani-on Ravi-DAT anger
waccindi
become.PST.3NSG
'Ravi became angry at himself and at Rani.'

(44) a. ravi-ki evari-miida koopam waccindi
Ravi-DAT who-on anger become.PST.3NSG
'Who did Ravi become angry at?'
b. tana-miida tana-ku mariyu rani-miida
3SG-on 3SG-DAT and Rani-on
'Himself and Rani.'

The fact that we can have the case-copying reflexive inside a coordination without inducing a violation of the CSC suggests that movement is not involved in the dependency between the reflexive and its antecedent. This casts doubt on theories of reflexives that treat them as overt copies of tails of movement chains (Drummond et al. 2011; Hornstein 2001), but also agreement theories that require that the reflexive (covertly) move[8] in order to agree with its antecedent (Rooryck & Wyngaerd 2011).[9]

[8] For evidence that covert movement is also subject to the CSC see May 1985: 59 and Bošković & Franks 2000.

[9] The data presented here show that case-copying does not require movement, but movement might be required for other reasons. For instance, in his analysis of the verbal reflexive in Kannada, Ahn (2015) suggests that the object anaphor must move to the specifier of the verbal reflexive projection, which Ahn argues is a type of voice head. Ahn shows that with the verbal reflexive the object anaphor cannot be coordinated in Kannada (Ahn attributes this observation to personal communication with Jeff Lidz). The same restriction also exists in Telugu as shown below.

(i) *ravi tana-ni tanu mariyu rani-ni koṭṭu-kunn-aa-Du
Ravi 3SG-ACC 3SG and Rani-ACC hit-VR-PAST-3MSG
Intended: 'Ravi hit himself and Rani.'

Taken together with (42), this data point suggests that although the complex reflexive does not itself need to move, it might be forced to move in structures where the verbal reflexive is present.

3.2.2 Is the agreement relation parasitic on T-agreement?

So far we have shown that case-copying reflexives are not amenable to analyses that are based solely on semantic requirements to enforce feature matching, and also analyses that connect the anaphor to its antecedent via movement. This leaves agreement based theories. Within these types of theories, there are analyses that attempt to have the agreement relation between an anaphor and its antecedent piggy-back off of other agreement relations, while other theories posit a more direct agreement relation between the anaphor and its antecedent. Reuland (2011) is a prototypical case of the latter approach. He proposes that there is a series of independent agreement relations between an antecedent DP, T, v/*v*, and the anaphor. R1 in (45) is Subject-T agreement. R2 is the tense-dependency found between the verb and T (modeled as syntactic agreement as in Pesetsky & Torrego 2001, 2004, 2007). R3 is the accusative Case dependency between the verb and its object.

(45) DP …T …V …anaphor
R1 R2 R3

The idea is that since there is a φ-feature dependency between DP-T-V and a case dependency between V and the anaphor, the features of the antecedent are a "free rider" from V to the anaphor. Such an analysis runs into issues with some of the Telugu data presented here. Specifically we have examples where the antecedent can bind and share case with a reflexive, but not be the agreement controller on T. This is shown via the example with dative subjects, as shown in (46). In (46), the subject is in the dative case and binds the case copying reflexive. Note, however, that dative subjects do not control agreement on T in Telugu. Instead in (46), the third person singular neuter agreement suffix *-di* is used, indicating agreement with *koopman* ('anger'). If Ravi was controlling agreement, we would expect the third person singular masculine agreement suffix *-Du* to be used

(46) ravi-ki tana-miida tana-ku koopam waccindi
Ravi-DAT 3SG-on 3SG-DAT anger become.PST.3NSG
'Ravi became angry at himself.'

If the features of the antecedent must be transmitted to the anaphor via T agreement, it is unclear how this accounts for (46) as the antecedent does agree with T but it is still able to share features with the anaphor. This suggests that whatever the

agreement mechanism is between an anaphor and its antecedent, it is not necessarily mediated via T-agreement (this is the same conclusion that Safir 2010:97 reaches based on similar data from Icelandic).

3.3 Summary

In this section, we looked at three theories of feature matching between an anaphor and its antecedent in light of the case copying data: semantic based theories, movement based theories and agreement based theories. As morphological case is a purely morphosyntactic feature, semantic theories cannot be extended to account for case-copying. We also showed that the case-copying reflexive is possible in coordinations. This suggests that antecedent-anaphor feature matching should not be enforced via movement because in order to account for the coordination data we must assume that such movement can violate the CSC, which we showed is independently active in Telugu.

4 Analysis

Here we lay out our analysis of case-copying reflexives. An analysis of CCRs will require an analysis of case assignment and an analysis of complex reflexives. We lay out our assumptions about both below before walking through some sample derivations to help illustrate the mechanics of the anlysis. We end this section by discussing how the analysis accounts for the distribution and form of the case-copying reflexive.

4.1 Case assignment in Telugu

We follow the standard tradition of having an NP's uninterpreted case feature unvalued at first merge. The value is only determined during the course of the derivation. There are many theories of case assignment on the market, and any fully worked out analysis of case assignment should be able to be coupled with our analysis of case copying reflexives to achieve the correct empirical coverage. As proof of concept, we follow configurational approaches to case assignment and assume that so-called dependent cases are assigned to NPs when certain structural configurations are met (Baker 2015; Bobaljik 2008; Marantz 1991). We also assume that in addition to dependent cases, there is the unmarked nominative case and also semantic lexical cases that are assigned to complements of certain predicates and postpositions. We assume, following Preminger (2014), that although case is assigned via dependent case rules, that assignment happens within the narrow syntax.

The first dependent case we will look at is accusative, which is realized as the morpheme *ni/nu*. As shown in (47), human objects obligatorily display accusative.

(47) neenu mimmalani/*miiru pilic-ee-nu
1SG.NOM 2PL.ACC/2PL.NOM call-PST-1SG
'I called you.'

Telugu displays differential object marking (DOM) with nonhuman objects conditioned by specificity. If the nonhuman object occurs with the accusative case marker, it is interpreted as specific; if it is unmarked, it is interpreted as nonspecific, as shown in (48).

(48) a. neenu dosa-nu tinn-aa-nu
1SG dosa-ACC eat-PST-1SG
'I ate the dosa.'
b. neenu dosa tinn-aa-nu
1SG dosa eat-PST-1SG
'I ate a dosa.'

We assume that movement feeds assignment of accusative. Human and specific NPs move out of the VP into a position where they can be assigned accusative case. Evidence for movement comes from coordination. As shown in (49), a specific and non-specific NP cannot be coordinated where only one of the two NPs is marked as accusative (see Kalin & Weisser 2019 and Saab & Zdrojewski 2020 for discussion of the relation between DOM and the CSC cross-linguistically).

(49) *neenu iḍli-luu dosa-la-nuu paḍeesæænu
1SG idli-PL.CONJ dosa-PL-ACC.CONJ throw.PERF.1SG
Intended: 'I threw away idlis and the dosas.'

This follows from the movement based account of DOM because in order for the specific object to be assigned accusative it must move out of a coordination in violation of the CSC.

Accusative marking also appears on embedded subjects in small clauses/ECM structures, as shown in (50).

(50) memu tana-ni picci-vaadi-gaa bhaav-is-taa-mu
1PL 3SG-ACC mad-3MSG-PRED consider-DO-HAB-1PL
'We consider him mad.'

Telugu also displays what we might call hyper-ECM, i.e., assignment of accusative across a finite clause boundary when the embedded clause is a copula. Unlike the example in (50), the assignment of accusative in (51) is optional and alternates with the embedded subject surfacing as nominative.

(51) memu tana(-ni) picci-vaad-ani bhaav-is-taa-mu
1PL 3SG-(ACC) mad-3MS-COMP consider-DO-HAB-1PL
'We consider him mad.'

While analyses differ in the details (see Wurmbrand 2019 for a recent overview), all analyses assume that in these constructions, the embedded subject must move into the higher spell out domain in order for accusative to be assigned, we assume this type of movement is in some ways analogous to the movement that feeds accusative to NPs in simple clauses. Concretely we assume the following case assignment rule for accusative.

(52) If NP_1 is c-commanded by NP_2 in TP then assign ACCUSATIVE to NP_1.

The next case we will examine is dative, which surfaces as *ki/ku*. While it sometimes assumed that dative is an inherent or lexical case, Baker & Vinokurova (2010) and Baker (2015) have recently argued that it should be analyzed as a structural case at least in some languages. These authors make their argument based on Sakha. They show that dative reliably shows up on the higher of two NPs when both occur in the same VP spell out domain. In Telugu, we find dative in almost all environments where dative occurs in Sakha suggesting that dative can be analyzed as a structural case in the language as well.[10]

[10] The one construction where dative assignment diverges in the two languages is the causative construction. In Sakha, the causee in a causative construction appears with dative case. In Telugu, however, the causee appears inside an adposition or with the instrumental case. We assume that the instrumental case found in the causative in Telugu is an idiosyncratic lexical case. The adposition or lexical case hence bleeds the assignment of dative.

(i) kamala$_i$ siita$_j$ ceeta tana-ni tanu$_i$ tiṭṭ-incu-kon-di
Kamala Sita by 3PL-ACC 3PL.NOM scold-CASUE-VR-3FSG

Dative in Telugu occurs on the goal argument of a ditransitve verb. We assume that the goal c-commands the theme from a position inside the VP spell out domain such as from the specifier of ApplP.

(53) neenu ataniki naa pustakam icc-aa-nu
1SG.NOM 3MSG.DAT 1SG.GEN book give-PST-1SG
'I gave him my book.'

We also find dative on the subject of experiencers/psych verbs (54) and also sentences expressing possession (55).[11] On the assumption that these are the unaccusative counterparts of ditransitive constructions where both arguments are first merged inside the VP, the dative case on experiencer subjects follows.

(54) a. raaju-ki annam-ante ištam
Raju-DAT rice-OBL like
'Raju likes rice.'
b. Maalati-ki bazaaru-loo endaroo kaninpinc-ee-ru
Malati-DAT market-in many visible-PST-3PL
'Malati saw many people in the market.'

(55) waaḍi-ki paḷḷu lee-wu
3MSG-DAT teeth COP.NEG-3PL
'He doesn't have any teeth.' (Subbarao & Bhaskararao 2004: 172)

Finally, Telugu also has an type of external possession/possessor raising, where the possessor surfaces with the dative (Subbarao & Bhaskararao 2004: 191-193). This

'Kamala had Sita scold her.'

[11] Like many other South Asian languages, Telugu has another type of possession structure where the subject appears with the postposition meaning 'near' in the language (Krishnamurti & Gwynn 1985: 85).

(i) waaḍi deggara ḍabbu unnadi
3MSG.OBL near money be.PRF.3NSG
'He has money (on him now)'

This type of sentence is often described as marking temporary possession, but the exact meaning difference between the dative subject and the PP subject can be subtle.

construction alternates where the possessor remains in the NP and is found in the genitive case. The example in (56a) is a case of external possession where the possessor *waaḍi-ki* is expressed outside of the NP where it c-commands the possessum and surfaces with the dative case. In (56b), the possessor is internal to the NP and surfaces with the genitive case.

(56) a. waaḍi-ki ceyyi kaal-in-di
3MSG-DAT hand burn-PST-3NSG
'His hand got burnt.'
b. waaḍi ceyyi kaal-in-di
3MSG.GEN hand burn-PST-3NSG
'His hand got burnt.'

Based on these data, we assume the rule in (57) assigns dative case in Telugu.

(57) If NP_1 c-commands NP_2 in VP then assign DATIVE to NP_1.

Before moving onto the other cases, let us first discuss how dative and accusative interact in Telugu. Telugu does not have structures with dative subjects and accusative objects. When a dative subject occurs in Telugu, the object must either occur in an oblique case or nominative. In the closely related language Tamil, there two types of predicates with apparent dative subjects. One takes an accusative object and the other takes a nominative object (Baker 2015: 188).

(58) a. en-gal-ukku anda puttagam teve-ppatt-utu
we-PL-DAT that book.NOM need-suffer-3NS
'We need that book.'
b. paala-kku anda padatt-e puri-tu
Bala-DAT the lesson-ACC understand-3NS
'Bala understood the lesson.'

Baker argues that the dative NP in (58a), is not a subject but is instead an adjunct inside a PP headed by a null P. One may wonder whether what we have called dative subjects in Telugu are actually adjuncts similar to Baker's analysis of (58a). There are data that suggest that dative NPs can be subjects in Telugu. One such test comes from control. As known since Zaenen et al. (1985), only subjects can be PRO in control structures. As Baker shows, the dative NP can be PRO when we embed (58b) under

a control verb, but only the nominative can be PRO when (58a) is embedded in the same environment (Baker 2015: 192)

(59) a. naan puri-ja virumb-an-een
I understand-INF want-PAST-1SG
'I want to understand.'
b. naan mala-kku teveppattu virumb-an-een
I Mala-DAT need.INF want-PAST-1SG
'I want to be needed by Mala.'

In Telugu, the dative NP can be PRO, as noted in Subbarao & Bhaskararao 2004: 176.

(60) mallika [PRO kindaṭi nela ii ṭaimu-loo jwaram-raawaḍam]
Mallika PRO previous month this time-in fever-coming
gurtu ceesu-kon-di
remember do-VR-3FSG
'Mallika remembered getting a fever last month.

The fact that the Dative NP can be PRO suggests that it is in fact the subject and not an adjunct. The fact that we do not get accusative objects with dative subjects in Telugu must follow from the accusative assignment rule. In Telugu, accusative can only be assigned to NP that is c-commanded by an unmarked NP. This is similar to what we find in Kannada and Icelandic.

(61) If NP_1 is c-commanded by an unmarked NP_2 in TP then assign ACCUSATIVE to NP_1.

Let us move onto the lexical and semantic cases. There are two areas where we will investigate these cases: as the complement to certain experiencer predicates and as the complements of postpositions.

The first area we will look at is the assignment of the oblique *ante* to the complement of many experiencer predicates. Below are some illustrative examples.

(62) a. ii baabu-ki kottawaaḷḷu-ante bhayam lee-du
this baby-DAT strangers-OBL fear NEG.COP-3NSG
'This baby is not afraid of strangers.'

b. ii abbaayi-ki peddawaaḷḷu-ante bhayamuu bhaktii
this boy-DAT elders-OBL fear.CONJ respect.CONJ
lee-wu
NEG.COP-3NPL
'This boy does not have fear or respect for elders.'

c. ravi-ki rani-ante prema
ravi-DAT rani-OBL love
'Ravi loves Rani'

The presence of the marker is obligatory. We assume it is assigned by the rule in (63).

(63) a. If NP is complement of $\sqrt{\ }$, where $\sqrt{\ } \in$ {prema, asahyam, iirSya, aaba, benga …}, assign NP ANTE

We also make use of semantic cases within PP. Remember that outside of case markers, the only elements that appear to intervene in the complex reflexive are apparent Ps.

(64) a. sarita kamala gurinci tana-loo tanu maaṭlaaḍu-kon-ṭunna-di
Sarita Kamala about 3SG-in 3SG.NOM talk-VR-PROG-3FSG
'Sarita talked within herself about Kamala.'

b. vibha-ki tana-miida tana-ki koopam wacc-in-di
Vibha-DAT 3SG-on 3SG-DAT angry become-PST-F.SG
'Vibha got angry at herself.'

We believe there is evidence that the apparent postpositions should be analyzed as local case markers assigned via a null P. First, recall that Telugu has an emphatic marker *-ee* that affixes to NPs. With the apparent adpositions, the focus marker must appear after the adposition and cannot intervene between the NP and the adposition.

(65) a. ravi-miid-ee
Ravi-on-EMPH
at Ravi_F

b. *rav-ee-miida
Ravi-EMPH-on
at Ravi_F

Another argument that these elements should be analyzed as local cases, is the fact that they can combine with the dative case to create complex local cases. In such structures, it is the local cases that are adjacent to the NP, with the dative case affixed to them.

(66) a. illu-miida-ki
house-on-DAT
'onto a house'
b. illu-loo-ki
house-in-DAT
'into a house'

A final argument that these elements are local cases on NPs and not Ps comes from allomorphy. When a nominal takes a (non-nominative) case marker, the oblique form of the stem (which is syncretic with the genetive) is obligatorily used.

(67) a. vaaḍu
3MSG.NOM
b. vaaḍi-ni (*vaaḍu-ni)
3MSG-ACC

Notice that in the CCR cases we have looked at so far, the oblique form is used with the local cases as well. Interestingly, with these local cases the nominal may optionally appear in the non-oblique form (68). This optionality makes sense if we assume that Ps may have an alternative realization as local case markers or full postpositions in the language (see Emonds 1985, 1987; den Dikken & Dékány 2018 for analyses along these lines for other languages). In the examples where an oblique form of the nominal is used, the P is null and is realized as a local case marker on the nominal where it can trigger allomorphy and the use of the oblique stem. In the examples where the non-oblique form of the nominal is used, the P is a full adposition with a NP complement and does not trigger use of the oblique form.

(68) a. illu loo
house IN
'in the house'
b. inṭi-loo
house-IN

'in the house'

These data are suggestive of an analysis where the elements in question are not Ps that are taking NPs as complements, but rather local cases assigned to the NPs when they occur with the CCR. This allows us to explain why they can intervene in the case-copying reflexive, while nothing else can. In (69) we give an example of the rule we assume for the assignment of *miida*. We assume similar rules for the other local/semantic cases in the language.

(69) If NP is the complement of P_{on} assign NP MIIDA

The final case we will discuss is nominative. We assume that nominative is the unmarked case in Telugu and is simply the absence of a valued case feature (Bittner & Hale 1996; Levin & Preminger 2015; McFadden 2018). In other words, an NP will surface as nominative if it is not assigned a case value via any of the rules outlined above. All the case assignment rules from this section are summarized in (70).

(70)
a. If NP is complement of $\sqrt{\ }$, where $\sqrt{\ } \in$ {preema, asahyam, iirSya, aaba, benga …}, assign NP ANTE
b. If NP is the complement of P_{on} assign NP MIIDA (and other local case rules)
c. If NP_1 c-commands NP_2 in VP then assign DATIVE to NP_1. ⁚ If NP_1 is c-commanded by an unmarked NP_2 in TP then assign ACCUSATIVE to NP_1.
d. All other NPs are NOMINATIVE

In the next section, we lay out our assumptions about complex reflexives and the feature sharing operations we assume in our analyses.

4.2 The case-copying reflexive as a local D-bound form

We build our analysis around insights of Kratzer (2009) and Safir (2014). Concretely we follow Safir's proposal that anaphors start out the derivation as specified as D-bound and the morphological shape of the D-bound element is determined at spell-out: if the antecedent and the D-bound element are within the same phase, the D-bound element appears with special morphology. For example, in English, *self* is inserted when the antecedent and D-bound occupy the same phase resulting in *herself, himself*, etc. If the the D-bound element is not in the same phase as its

antecedent, *self* is not inserted and the element appears as a normal pronoun *her, him*, etc. Below we give a sample derivation of English. First, D-bound is assigned features before entering the derivation. It is then merged with the V (71a), when the *v*P is constructed, the binder for D-bound is introduced in the specifier of *v*P (71b). Since the binder for D-bound is phase internal, that triggers the insertion of *self* as part of the spell-out operation (71c). Given the features assigned to D-bound and the operation of *self* insertion, D-bound is morphologically realized as *himself* (71d). The T is then introduced into the structure, and the derivation goes on from there (71e).

(71) a. [praise D-bound+3sg]
b. [John [v [praise D-bound+3sg]]]
c. [John [v [praise D-bound+3sg-self]]] : [John [v [praise himself]]]
d. [John [T [John [v [praise himself]]]]]

In Telugu, we argue that instead of *self* insertion, the D-bound element is reduplicated when the antecedent and D-bound are within the same phase. When they are separated by a phase, the simplex *tanu* is used for third person antecedents. We take the reduplication process to be a type of syntactic reduplication, using the terminology of Saba Kirchner (2010). This distinguishes it from other types of morphophonological reduplication that operate over phonological segments. That this reduplication operates over abstract features and not phonological segments can be seen from the fact that it is not sensitive to phonological information of the base element being reduplicated. The nominative first person plural pronoun in Telugu is *meemu*, but the form in the accusative is *mammalani*. The local case copying reflexive for first person plural with a nominative antecedent is *mammalani meemu* as shown in (72).

(72) meemu **mammalani meemu** mečču-kun-aa-mu
1PL 1PL.ACC 1PL praise-VR-PST-1PL
'We praised ourself'

We further assume, following Safir (2014), D-bound can begin the derivation with features specified as long as they are compatible with its antecedent. However, following Kratzer (2009), we assume that D-bound can also be minimal, meaning lacking φ-features. In such situations, D-bound inherits its features from its antecedent

via the following mechanisms given in (73).

(73) a. *Predication* (*Spec-Head agreement*)
When a DP occupies the specifier position of a head that carries a λ-operator, their φ-feature sets unify.
b. *Feature Transmission*
The φ-feature set of a bound DP unifies with the φ-feature set of the head that hosts its binder.

The mechanism of *Feature Transmission* is a phase bound operation. This has the consequence of only allowing the minimal form of D-bound to co-occur with a local antecedent. D-bound when it is not locally bound, must have its features specified before entering the derivation as it would not be able to have its features valued during the derivation via Feature Transmission.

Moving onto the operation underlying case-copying, as the two reduplicated elements in the case-copying reflexive display distinct cases, we assume that D-bound receives a structural case which is assigned via the rules laid out in the last section, but also receives the "copied" case from the antecedent. We formalize this "copying" relation also in the framework of Kratzer (2009) and treat it as part of the Feature Transmission process. While Kratzer's mechanisms were original only for φ-features, we extend this line of analysis to case features as well. This allows for the case feature of the binder to be transmitted to the anaphor, allowing the anaphor to display the "copied" case. The move to include case features in a Feature Transmission mechanism has been proposed before. In his analysis of Case Transmission in control structures, Landau (2008) argues that case of the controller as well as its other features can be transmitted to PRO via a functional head (F) similar to Kratzer's implementation.[12]

(74) [F …NP …[…PRO …]]

We take the availability of case transmission in control structures to be evidence that our use of case transmission to account for case-copying reflexives is not a construction specific mechanism, and that a case agreement mechanism between two NPs is independently needed for natural language.

[12] We should note that Landau has updated and revised aspects of his theory in more recent works (Landau 2015). However, the relevant aspect, i.e., that there is an agreement relation between the controller and PRO, is still found in the newer works as well (see also Landau 2016).

D-bound will hence have two case features with two different values: its own case feature that it began the derivation with and the "copied" case that has been transmitted from its antecedent. As Telugu is not a case-stacking language, only one case feature can be expressed on a nominal. We assume that the base D-bound privileges its original case feature that it began the derivation with and is valued by the case assignment rules laid out in the previous section. The case feature "copied" from the antecedent is deleted prior to vocabulary insertion. The copied case is realized on the reduplicant. One may wonder why the two elements of the reduplicated structure cannot both express the same case value, e.g., why is the form **tana-ni tana-ni* not well formed? We suggest that the ban against the base and reduplicant realizing the same case feature follows from a general property of syntactic reduplication noted by Saba Kirchner (2010): namely identity avoidance. Saba Kirchner notes that the reduplicated element must be distinct in some way from the base element it reduplicated. We imagine this constraint as a PF output filter given in (75).

(75) *Identity Avoidance*
The base and reduplicant of a syntactically reduplicated element must be distinct at PF.

Independent evidence that such a filter is at play in Telugu comes from 'echo-reduplication' (76). The reduplicated elements in echo-reduplication are syntactic constituents of arbitrary size as shown by example (c) below. The first syllable (minus the coda) of the base is replaced by *gi-* in the reduplicant, resulting in non-identity between the base and reduplicant.

(76)

a.	pappu gi-ppu	lentils and such
b.	annam gi-nnam	rice and such
c.	[annam tinu] [gi-nnam tinu]	eat rice and such

If, however, the element to be replaced is *gi-* to begin with, echo-reduplication is impossible. This fact follows through if the filter in (75) is active in the language.

(77)

a.	*gillu gi-llu	pinch and such
b.	*giita gii-ta	line and such
c.	*giiru gii-ru	scratch and such

The fact that the two D-bounds in the case-copying reflexive express different case

values, we suggest, is a way for the identity avoidance constraint to be satisfied here.

4.3 Sample Derivations

Below we walk through some examples to show how the system works. We begin with simple examples involving nominative and dative antecedents and also constructions where D-bound is assigned a local lexical case. We then discuss ditransitives and finally ECM constructions.

4.3.1 Nominative antecedents

Let us begin with an example like (78). In this example the two *tanu*s show structural accusative and "copied" nominative.

(78) pillalu tama-ni taamu poguḍu-kunn-aa-ru
children 3PL-ACC 3PL praise-VR-PST-3PL
'The children praised themselves'

D-bound and its antecedent are in the same phase. As the antecedent for D-bound is in the specifier of *v*P, it shares its φ-features and also its case features with the *v* head via predication, the head then transmits those features to D-bound via Feature Transmission. The antecedents features (3pl) are hence shared with D-bound along with its case feature. This results in D-bound having two case features, its original feature it began the derivation with and the feature it inherited from its antecedent.

(79) $[_{vP}$ pillalu$_{[uK:]}$ $[_{VP}$ [D-bound:3PL$_{[uK:][uK:]}$] V] v_{λ}]

PREDICATION

FT

The derivation will proceed and the subject will move to specifier of TP and D-bound to the object shift position.

(80) $[_{TP}$ pillalu$_{[uK:]2}$ $[_{vP}$ [D-bound:3PL$_{[uK:][uK:]}]_1$ $[_{vP}$ —$_2$ $[_{VP}$ [—$_1$] V] v_{λ}]]]

As D-bound is c-commanded by another NP in the TP spell out domain, the dependent case rules assign accusative to D-bound.

(81) $[_{TP}$ pillalu$_{[uK:]2}$ $[_{vP}$ [D-boundb:3PL$_{[\text{ACC}]\ [uK:]}]_1$ $[_{vP}$ —$_2$ $[_{VP}$ [—$_1$] V] v_{λ}]]]

DEP CASE

As its antecedent is in the same phase as D-bound, at spell out, D-bound is reduplicated.

(82) $[_{TP}$ pillalu$_{[uK:]}$ $[_{vP}$ [D-bound:3PL$_{[ACC][uK:]}$ D-bound:3PL$_{[ACC][uK:]}$] V] v_{λ}]
RED

Moving onto the mapping of syntax to the morphology. Both the base and reduplicant D-bound have two case features. As stated above, we assume that the base D-bound privileges its original case feature over the copied case feature from its antecedent, hence this case feature is realized on the base. The copied case feature is deleted prior to vocabulary insertion. The following vocabulary items are inserted for the the base using the vocabulary insertion (VI) rules in (83).

(83) a. [3PL, +OBL, D-bound] ↔ tama
b. [ACC] ↔ ni

Turning to the reduplicant, recall that it must avoid identity with the base. In order to do that, the case feature copied from the antecedent must be spelled out on the reduplicant. As the case feature is unvalued (i.e., nominative), the reduplicant is spelled out via the VI rules in (84).

(84) [3PL, -OBL, D-bound] ↔ taamu

4.3.2 Dative subject antecedents

Let us now look at a derivation when the subject is dative such as the example in (85).

(85) pilla-lu-ki tam-ante tama-ki prema
child-PL-DAT 3SG-ANTE 3SG-DAT love
'The children love themselves.'

In (85), the base D-bound is assigned the lexical case *ante* via case assignment by the selecting root *prema*. This is shown in (86).

(86) $[_{V'}$ [D-bound$_{[ANTE]}$] V_{λ}]
L-CASE

We assume that experiencer subjects are merged lower in the structure than agentive subjects, here we represent them in the specifier of VP. This changes two things from the previous derivation: (i) dative case will be assigned to the subject as it c-commands an NP within the VP spell out domain as shown in (87), (ii) the λ-binder will be hosted by V as the antecedent for D-bound will be in the specifier of VP, not *v*P, hence predication and feature transmission take place with V. This is shown in (88).

(87) [$_{VP}$ pillalu$_{[\textsc{dat}]}$ [$_{V'}$ [D-bound$_{[\textsc{ante}]}$] V$_{\lambda}$]]

DEP CASE

(88) [$_{VP}$ pillalu$_{[\textsc{dat}]}$ [$_{V'}$ [D-bound:3pl$_{[\textsc{ante}][\textsc{dat}]}$] V_{λ}]]

PREDICATION

FT

Once the *v*P is completed, the phase including D-bound will be spelled-out. Once again, since D-bound is in the same phase as its antecedent, reduplication is triggered.

(89) [$_{vP}$ [$_{VP}$ pillalu$_{[\textsc{dat}]}$ [D-bound:3$\textsc{pl}_{[\textsc{ante}][\textsc{dat}]}$ D-bound:3$\textsc{pl}_{[\textsc{ante}][\textsc{dat}]}$] V$_{\lambda}$] v]

RED

The base D-bound will once again privilege its original case feature, so morphemes inserted will be via the VI rules in (90).

(90) a. [3PL, +OBL, D-bound] ↔ tama
b. [ANTE] ↔ ante

The reduplicant will then realize the copied case in order to satisfy identity avoidance. This is done via the VI rules in (91).

(91) a. [3PL, +OBL, D-bound] ↔ tama
b. [DAT] ↔ ku

4.3.3 Local case constructions

We will now look at the instances where the anaphor occurs with a local case. A relevant example is shown in (92).

(92) sarita tana-loo tanu maaṭlaaḍu-kon-in-di
Sarita 3SG-in 3SG.NOM talk-VR-PST-3FSG
'Sarita talked to herself.'

Here D-bound is first merged as sister to a null P. The P assigns D-bound a lexical case.

(93) $[_{P'}$ [D-bound$_{[IN]}$] P]
↑ L-CASE

The PP is then merged with the verb. Structure building continues and the antecedent is introduced in the specifier of *v*P, predication and feature transmission take place.

(94) $[_{vP}$ Sarita$_{[uK:]}$ $[_{VP}$ $[_{PP}$ [D-bound:3sg$_{[IN][uK:]}$] P] V] v_{λ}]
PREDICATION
FT

D-bound and its antecedent are in the same phase so reduplication is triggered at spell out.[13]

(95) $[_{TP}$ Sarita$_{[uK:]}$ $[_{vP}$ $[_{PP}$ [D-bound:3SG$_{[IN][uK:]}$ D-bound:3SG$_{[IN][uK:]}$] P] V] v_{λ}]
RED

In the morphological component, the following VI rules in (96) and (97) are used to expone the features of the base and reduplicant.

(96) a. [3SG, +OBL, D-bound] ↔ tana
b. [IN] ↔ loo

(97) [3SG, -OBL, D-bound] ↔ tanu

[13] The phasal status of PPs may pose an issue for this analysis. If PPs were phases, we would not expect the case-copying reflexives to be possible in such environments, only the simplex anaphor should be available there. One simple way around this is to simply assume that PPs are not phases. Another alternative is to assume that PPs are phases, but that the null P we assume here incorporates into the V and this type of incorporation collapses the two phasal domains into a single domain. This would then make it possible for the antecedent and the anaphor to occupy the same phase. We leave the phasal status of Telugu Ps as a matter for future research.

4.3.4 Ditransitive constructions

Let us now move to ditransitive constructions. In these constructions, the subject can bind either the goal or the theme argument as shown in (98). And the goal can bind the theme as shown in (99).

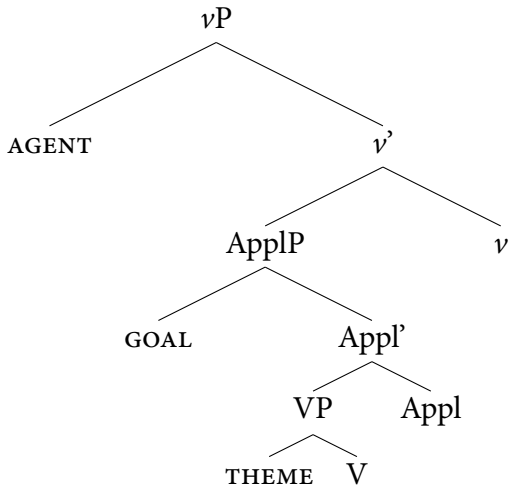
(98) a. Pilla-lu ravi-ki tama-ni taamu paricayam ceesu-kunn-aa-ru
child-PL Ravi-DAT 3PL-ACC 3PL.NOM introduce do-VR-PST-PL
'The children introduced themselves to Ravi.'

b. rukmiNi tana-ki tanu uttaram raasu-kon-di
Rukmini 3SG-DAT 3SG.NOM letter write-VR-3FSG
'Rukmini wrote a letter to herself.'

(99) pilla-lu ravi-ki tana-ni tana-ku paricayam cess-aa-ru
child-PL Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PAST-3PL
'The children introduced Ravi to himself.'

We follow the ApplP approach to ditransitive construction. In Telugu, the goal asymmetrically c-commands the theme, as shown in (100).

(100)



The example in (98a) would follow the same steps as the derivation given in 4.3.1 save for the fact we have the additional ApplP and goal argument in (98a). The example in (98b) is similar, the only difference being that D-bound's case feature is valued as dative instead of accusative since it c-commands an NP (i.e., the goal) within the VP

spell out domain.

The example in (99) also follows from this analysis. In this example, the binder is located in the specifier of ApplP, so Appl will be the head that mediates predication and feature transmission. As the goal c-commands the theme, the goal is assigned dative case, and that case is shared with D-bound via feature transmission. The original case feature on D-bound is then assigned accusative. D-bound is reduplicated and the features are exponed via the VI rules outlined in the previous sections.

4.3.5 ECM

Let us finally turn to ECM constructions. There are two aspects of interest: when the ECMed NP is D-bound and when the antecedent of D-bound is an ECMed NP. As shown in (101), an ECMed D-bound can surface as the complex case copying reflexive.

(101) uma tana-ni tanu goppadi ani anukon-indi
Uma 3SG-ACC 3SG great.3FS COMP think-PST-3FS
'Uma considered herself great'

As mentioned previously, a common analysis of this type of ECM cross-linguistically is that the embedded subject moves into the matrix clause and this feeds accusative case assignment. Coupling this assumption with our current analysis correctly predicts the use of the case copying reflexive here. D-bound will begin the derivation merged in the embedded clause but subsequently move into the matrix clause. This will put it in the same phase as the matrix subject. This allows for feature transmission to transmit (via the matrix *v*) the features of the matrix subject to D-bound and triggers reduplication as we have seen previously.

ECM and the case-copying reflexive show another interesting and revealing interaction when the antecedent of the reflexive is the ECMed subject. ECM in Telugu is an optional process. It is also possible for the subject to stay in the embedded clause and surface with the nominative case. When an embedded nominative subject binds a complex reflexive in the embedded clause, the reflexive unsurprisingly shows nominative case as shown in (102).

(102) neenu [ravi tana-gurinci tanu nijaayiti-parudu ani]
1SG Ravi 3SG-ABOUT 3SG.NOM honesty-one COMP

anukuntaaḍu
consider
'I consider Ravi honest about himself.'

When the subject has undergone ECM and surfaces with accusative case, the case-copying reflexive still appears as nominative and not accusative as shown in (103).[14]

(103) neenu ravi-ni$_i$ [t_i tana-gurinci tanu nijaayiti-parudu ani]
1SG Ravi-ACC 3SG-ABOUT 3SG.NOM honesty-one COMP
anukuntaaḍu
consider
'I consider Ravi honest about himself.'

This on the surface appears to be an issue for our analysis. How can a case-copying reflexive not copy case? We argue that this follows from our analysis because at the point of the derivation at which feature transmission occurs (i.e., the first phase of the embedded clause), the embedded subject has an unvalued case feature. Given that we treat nominative as lacking a case value, it follows that it is nominative that is copied on to D-bound. It is only after the embedded subject has raised into the matrix clause that it is assigned the accusative case value, but this is after feature transmission has taken place and D-bound has been spelled out, hence the accusative case is assigned too late to be copied onto D-bound.

The notion that an ECMed NP behaves as nominative in the embedded clause is not a new idea and has been proposed before. For instance, in Sakha, it is possible for an embedded subject that has been assigned accusative case to still be the agreement controller of the probe on the embedded predicate, as shown in (104).

[14] One may wonder whether the ECM examples are actually cases where the accusative NP is a proleptic object base generated in the matrix clause. The embedded subject is a null *pro* given that Telugu productively allows for argument drop. There are reasons to favor the ECM over a proleptic object representation, however. One argument comes from the fact that in such constructions the embedded subject must be null as shown below. Under the ECM account, this follows naturally as the embedded subject position is occupied by a trace, but under the prolecptic object account this is unexplained as *pro*-drop in Telugu is an optional process.

(i) *ravi raaju-ni [tanu picci-vaad-ani] bhaav-is-taa-ḍu
Ravi Raju-ACC 3SG mad-3MS-COMP consider-DO-HAB-3MSGL
Intended:'Ravi thinks of Raju that he is mad.'

(104) min ehigi-ni [bügün kyaj-yax-xyt dien] erem-mit-im
I you-ACC today win-FUT-2PL that hope-PST-1SG
'I hoped you would win today.' (Baker & Vinokurova 2010: 615)

This is surprising because otherwise only unmarked nominative NPs can control agreement in the language. Levin & Preminger (2015) suggest that such agreement is possible because at the point of the derivation where the embedded T probes for the embedded subject, it is nominative and hence is available for agreement operations. It is only after the agreement takes place that the NP is assigned accusative.

We find more evidence for treating ECMed NP as nominative in the embedded clause from floated quantifiers in P'urhépecha. In this language, floated quantifiers show case concord with the NP they are associated with. When an accusative marked ECM subject is associated with a floated quantifier in the embedded clause, the case shown on the quantifier is nominative (Zyman 2017).

(105) Ueka-sïn-∅-ga=ni Alonzo-ni Paku-ni ka Puki-ni
want-HAB-PRS-IND1=1sS Alonzo-ACC Paco-ACC and Wildcat-ACC
eska=sï iamindu-eecha ch'ana-a-∅-ka
that=pS all-PL(NOM) play-FUT-PRS-SUBJV
'I want Alonzo, Paco, and Puki to all play.'

This once again suggests that the subject is nominative in the lower spell out domain and can agree as a nominative NP within that domain. It is only after the subject has moved into the higher phase and the lower TP has been spelled out that it becomes accusative.

4.3.6 Places where the complex reflexive is impossible

Under the theory proposed here, the complex reflexive is only triggered when it occurs within the same phase as its antecedent. First recall we do not get the complex reflexive as a genitive possessor inside of an NP. Once again, only the simplex anaphor is possible here.

(106) roojaa-ki$_i$ tana$_i$ (*tanaku) amma išṭam
Roja-DAT 3SG.GEN (3SG.DAT) mother like
'Roja likes her mother.'

This follows from the current theory assuming that the extended projection of the NP contains a phase boundary (Bošković 2012; Despić 2011). This once again places D-bound outside of the phase of its antecedent, hence the complex reflexive cannot be triggered in this position, hence only the simplex form is possible.

As we have also seen, the complex reflexive cannot be separated from its antecedent by a CP phase boundary, as the examples repeated in (107) shows.

(107) a. raaju [t̪anu (*tanu) parigett̪-ææ-nu ani] cepp-ææ-ḍu
Raju 3SG (3SG) run-PAST-1SG COMP say-PAST-3MSG
'Raju said that he ran.'

b. raaju$_i$ [raamu$_j$ tana-ni tanu$_{*i/j}$ poguDu-konn-aa-ḍu ani]
Raju Ramu *3sg-acc* 3SG.NOM praised-VR-PST-3MSG COMP
anu-konn-aa-Du
say-VR-PST-3MSG
'Raju thought that Ramu praised himself.'

This again follows straightforwardly from our analysis with the common assumption that CPs are phases.

4.4 Extension to Reciprocals

So far we have focused on the local complex reflexive in Telugu and gave an analysis of case-copying. The reciprocal in Telugu is similarly created via reduplication, this time of a numeral quantifier *okaḷḷa* ('one'). Similar to the complex reflexive created by reduplication, the reciprocal displays case copying. As shown in (108), when the reciprocal takes a nominative antecedent, the reduplicant is also nomiantive, and in (109), the antecedent is dative and the reduplicant also appears in the dative.[15]

[15] Everaert (2000) discusses data from Greek and Icelandic where it appears that part of the reciprocal agrees in case with its antecedent. We give his Greek example below, which he attributes to Elena Anagnostopoulou (p.c.). In this example the first part of the reciprocal *i mia* ('the one') appears in nominative case, apparently agreeing with the nominative antecedent.

(i) i ginekes agapoun i mia tin alli
the.NOM.PL women.NOM.PL love.3SG.PL the.NOM.SG one.NOM.SG the.ACC.SG her.ACC.SG
'The women love each other.'

While delving into the Greek and Icelandic data would take us too far afield, we will make two points about these data. First, to confirm that these examples demonstrate case-copying of the

(108) vaḷḷu okaḷḷa-ni okaḷḷa tiṭṭu-konn-aa-ru
3PL.NOM one-ACC one.NOM scold-VR-PST-PL
'They scolded each other.'

(109) vaḷḷa-ku okkar-anṭe okkari-ki išṭam
3PL-DAT one-ANTE one-DAT like
'They like each other'

Given that both the reflexive and reciprocal are created via reduplication and both display case-copying, the two should be analyzed uniformly. Our analysis of the reflexive can be extended to also account for the reciprocal data in (109) with small modifications. Safir (2014:97) suggests that reciprocals can be viewed as D-bound with an additional RECPROICAL (RCP) feature. This feature forces the use of reciprocal (instead of reflexive) morphology. We follow this assumption here. In example like (109), D-bound begins the derivation with the RCP feature, it undergoes feature transmission where the features (including case) of the antecedent are copied onto it. At spell out, as it occupies the same phase as its binder, it undergoes reduplication. The only point of difference between the reciprocal examples like (109) and the reflexive examples, is the vocabulary insertion. The presence of the RCP feature forces the use of the reciprocal form *okaḷḷa*.

4.5 Feature matching beyond case

In our analysis, we have followed a slightly modified view of Kratzer's analysis where case features *and* φ-features are shared via feature transmission for the case-copying reflexive. In this section, we consider a slightly different alternative: complex anaphors are born with fully valued φ-features and only case is shared via feature transmission. While both the current analysis and this alternative make a number of similar predictions, we argue that the current analysis makes stronger predictions about number matching with the case-copying reflexive and is hence preferable to the proposed alternative.

Recall that the case-copying reflexive cannot take split antecedents or non-exhaustive

kind found in Telugu, future research must investigate these reciprocals with non-nominative antecedents. This will allow us to rule out a default nominative analysis of these reciprocals. Second, Everaert suggests an analysis of these facts whereby the case agreeing part of the reciprocal (covertly) moves to form a constituent with the antecedent at LF (Heim et al. 1991). We can once again test this analysis by placing the reciprocal in a coordination and seeing if causes a CSC violation. We leave this test as a matter for future research.

antecedents. The CCR must perfectly match its antecedent in number. Relevant examples are repeated in (110).

(110) *kamala$_i$ siita$_j$ ceeta tama-ni taamu$_{i+j}$ tiṭṭ-incu-kon-di
Kamala Sita by 3PL-ACC 3PL.NOM scold-CASUE-VR-3FSG
'Kamala had Sita scold themselves.

(111) *kamala$_i$ [siita-ku$_j$ tama-miida tama-ku$_{i+j}$ koopam vacc-indi ani]
Kamala sita-DAT 3PL-ON 3PL-DAT anger come-PST.3NS COMP
cepp-indi
say-PST.3NS
'Kamala said that Sita got angry at themselves'

This contrasts with the anti-local simplex anaphor *tanu*, which does not show case-copying with its antecedent. This anaphor does allow for split and non-exhaustive antecedents, as shown in (112).

(112) a. kamala$_i$ sarita$_j$ too [taamu$_{i,j}$ tappaka pariikʃa paas awwaagalmu
Kamala Sarita with 3PL certainly exam pass can.1PL
ani] cepp-in-di
COMP say-PAST-FSG
'Kamala told Sarita that they can certainly pass the exam.'
Subbarao & Murthy (2000:282)

b. raaju$_i$ [taamu$_{i+}$ bayaludeer-ææ-mu ani] cepp-ææ-ḍu
Raju 3PL leave-PAST-1PL COMP say-PAST-M.SG
'Raju said that they (including Raju) left.'

A way to account for this contrast is to assume that the case-copying reflexive also agrees with its antecedent in number features as well as case features. This explains why it does not allow for antecedents that do not perfectly match it in number. The simplex anaphor, on the other hand, does not agree in case with its antecedent, it is also bound by its antecedent across a phase boundary, hence feature transmission is not possible. This means feature matching here is achieved via a non-syntactic mechanism which allows for partial and split antecedents as seen in (112).

An intriguing comparison once again comes from case-transmission in control structures. It is well known that PRO can differ from its controller in number features in partial control structures, where the controller is understood as a subpart of the

group that PRO refers to. However, Landau (2008) notes that in Russian, when case transmission occurs, partial control is blocked, as shown in the Russian example in (113). In (113), the embedded verb is a collective predicate and hence requires a plural subject. Since the controller in the matrix clause is singular, the only way for PRO to be plural is via partial control. In the sentence, case transmission of nominative from the controller to PRO, as evidenced by case concord on the floating quantifier is blocked. PRO instead must have dative case, which is the default case that is associated with subjects of infinitives in the language.

(113) predsedatel' predpočil ____ sobrat'sja vsem/*vse v šest'
chair.NOM preferred PRO to.gather all.DAT/*NOM at six
'The chair preferred to all gather at six' Russian (Landau 2008, p. 908, ex.53b)

Landau argues that partial control is blocked when case transmission takes place because in addition to case, PRO also must agree with the controller in number features as well, allowing for only exhaustive control. This analysis once again mirrors perfectly what we argue occurs for the case copying reflexive, and further strengthens our postulation that the case transmission in control and case-copying in CCRs are the result of the same underlying mechanism.

5 Implications

Before concluding, let us discuss our findings in the context of the larger debate around feature matching between an anaphor/pronoun and its antecedent. As mentioned in the introduction Preminger (2019) has recently suggested that all feature matching should be achieved by a non-syntactic mechanism. On the other side of the spectrum is Kayne (2002), who argues that even cross-sentential anaphora should have a syntactic component. As we have argued in this paper, case-copying reflexives show the claim that *all* feature matching is achieved via non-syntactic mechanisms is not tenable, as non-syntactic mechanisms are unable to achieve case-copying. With that being said we do not endorse a fully syntactized approach to feature matching either.

We believe that our findings are completely compatible with a view of feature-matching where some matching is enforced via the morphosyntax and some is enforced outside of the syntax, say by the semantics and pragmatics of the anaphors/pronouns and their antecedents. We find case copying with complex reflexive anaphors sub-

ject to Condition A of the binding theory. These are also the elements we find most sensitive to syntactic locality constraints, such as phases, and syntactic relations like c-command. Other types of anaphora such as cross-clausal, cross-sentential and donkey-anaphora do not show case-copying in Telugu (or any other language that shows case-copying as far as we are aware). These types of anaphora are also not (as) sensitive to syntactic locality domains and/or c-command. We do not believe that these correlations are accidental. Instead, we believe that they provide strong evidence for a division of labor between the syntax and non-syntactic component: feature-matching with local complex anaphors is done via a syntactic mechanism, this explains why we find case-copying here and also why these anaphors are sensitive to syntactic locality and c-command restrictions. Matching in cross-clausal, cross-sentential and donkey anaphora is not enforced via the morphosyntax, so morphological case features cannot be shared and the mechanism is not sensitive to syntactic locality or relations. While our analyses differ, we believe the general division of labor we outline here is similar to previous approaches presented in Heim 2008; Kratzer 2009; Reuland 2011, 2021.

An interesting avenue for future research is to explore the possibility of case-copying reflexives with so-called exempt uses (Charnavel 2019). If case-copying reflexives can only match in case with their antecedent via a local feature transmission mechanism, then we predict that exempt uses of the case-copying reflexive should be impossible compared to complex reflexives in English and French. This prediction appears to be correct for Telugu where the complex reflexive is only ever used as a plain anaphor, but this matter should be taken up in subsequent research for other languages as well.

Second, while we argue that a morphosyntactic agreement relation is *necessary* for the case-copying reflexive, we do not believe that agreement is a *sufficient* mechanism to completely explain Condition A of Binding Theory. Charnavel & Sportiche (2016) point out a number of obstacles to completely reducing Condition A to agreement, and we believe these criticism are fair, however, Charnavel & Sportiche (2016) do not discuss case-copying reflexives and hence miss what we believe to believe to be a strong argument for the existence of an agreement relation between anaphor and antecedent, even if the agreement needs to be supplemented with additional mechanisms.

6 Conclusion

This paper adds to the debate concerning the relation between an antecedent and a locally bound complex reflexive. Empirically, we have provided an in depth investigation of the complex reflexive anaphor in Telugu, paying special attention to the property of case copying. We provided the most detailed description of case copying reflexives to date. We showed that the two parts of the case-copying reflexive form a constituent. We also showed that the case-copying reflexive behaves similarly to other local complex reflexives given a number of diagnostics.

On the theoretical side, we argued that the case-copying reflexive provides evidence that non-syntactic mechanisms cannot account for all feature matching between a bound anaphor and its antecedent. As case is a purely morphosyntactic feature, matching in case features must be enforced by the morphosyntax. We also argued based on data from islands, the link between the antecedent and the case-copying reflexive is not created via movement. This was shown by the fact that the case-copying reflexive is possible in coordinations, a well known island configuration. We took these facts to indicate that the link between the case-copying reflexive and its antecedent is created via a morphosyntactic agreement mechanism. We built our analysis building on insights from dependent case theory and also theories of agreement between anaphors and their antecedents and also PRO and its controller. We showed how the analysis correctly predicts the distribution and form of the complex reflexive in a number of different constructions.

This research hence provides both novel empirical data about how complex reflexives can be formed cross-linguistically, but also better informs our theories of how complex reflexive anaphors are linked to their antecedents.

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