On case-copying reflexives

Troy Messick
Rutgers University
troy.messick@rutgers.edu

Sreekar Raghotham
Rutgers University
sreekar.raghotham@rutgers.edu

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Abstract

While it is well known that local anaphors match their antecedents in ϕ-features in many languages, it has been suggested that the form of anaphors is insensitive to the morphological case of their antecedent. We show that this is not the case for local complex reflexives (and reciprocals) in Telugu. Pieces of these elements must match in case features with their antecedents. We provide the first in-depth description and analysis of this type of reflexive. Our analysis bears on the structure of complex anaphors, the relation between anaphors and intensifiers in some languages, and the syntactic mechanisms that allow for feature sharing.

1 Introduction

It is very common for complex reflexives cross-linguistically to agree in ϕ-features with their antecedents. This is shown in a run of the mill English example in (1). The antecedent is third person, feminine, and singular, and hence the anaphor must match those features.

(1) Sandra loves herself.

A question one might ask is can other features of the antecedent match with the anaphor. 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, CCRs for short (Subbarao & Saxena 1987, Subbarao 2012: 89-90, Forker 2020: 105). Some illustrative examples from Telugu (Dravidian, South Asia) are given in (2).[1] The case-copying reflexive is complex and involves two instances of the element *tanu*. Observe the two cases displayed on the two *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 *intensifier* (following the analysis of the similar complex reflexive in Malayalam by Jayaseelan 1996), appears in the nominative case which appears to be "copied" from the antecedent. Now compare this to the example in (2b), this time the reflexive is a direct

[1] Unless otherwise noted the Telugu data presented here comes from the second author of this paper. We also thank Akshay Aitha and Vishal Arvindam for discussion of the Telugu examples.

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 intensifier, however, no longer shows nominative, but instead appears in the dative case "copied" from its antecedent *Ravi-ki* ('Ravi-DAT').[2]

(2) a. vanaja tana-ni tanu poguḍu-kon-di
Vanaja.NOM 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-ææ-ru
child-PL.NOM Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PST-3PL
'The children introduced Ravi to himself.'

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 some dialects of Kannada (Amritavalli 2000).

Outside of Dravidian, we find case-copying in Sanzhi Dargwa (Nakh-Dagestanian). 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 anaphor in this language expresses the nominative case marker *-na* on the first part and the accusative case marker *-bu* on the second part.[3]

(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 the Izhma dialect of Komi-Zyrian. Other languages

[2]Glossing in the examples follows Leipzig glossing conventions and abbreviations with the following additions and modifications: EMPH = emphatic marker, HAB = habitual, HR = hiatus resolution, INEL = inelative, INT = intensifier, MSD = masdar, PRT = preterite, POEL = postelative, POESS = postessive, SRESS = superessive, TRL = translative, VR = verbal reflexive.

[3]It must be noted that while Sarju Devi & Subbarao (2002) claim that Meitei's anaphors display case-copying, all examples they give have nominative antecedents, hence nominative case on the anaphor. To be certain this language has case-copying, it is important to see the case of the reflexive with non-nominative antecedents. We leave such testing for future research.

in this family such as Khanty and Udmurt also display the same pattern. Like the previous languages, the complex reflexive is created via doubling 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.

(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)

If we expand to locally bound reciprocal constructions, we find case-copying in even more languages. Here again we show a minimal pair for Telugu. The reciprocal in Telugu is made from doubling the numeral *okaḷḷa* ('one'). Similar to the complex reflexive, the second *okaḷḷa* shows the same case as its antecedent: nominative in (6a) and dative in (6b) (Note that (6b) is an experiencer construction, which in Telugu often is accompanied with a oblique marker *-ante* on the object. Here and throughout, we simply gloss this marker as *-ante*).

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

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

This type of case-copying in reciprocals is much more wide spread and can be found in Sanzhi Dargwa (Forker 2020), Lezgian (Haspelmath 1993), Icelandic (Sigurðsson et al. 2021; Sigurðsson et al. 2020), Greek (Mackridge 1987; Paparounas & Salzmann to appear), Bosnian/Croatian/Serbian (Despić 2011), Polish (Dadan 2017) and Ukrainian (LaTerza 2014). Below is a minimal pair from Icelandic. When the antecedent is nominative, *hvor* also surfaces in the nominative case (8a), but when the antecedent is accusative, the accusative form *hvorn* is used for the reciprocal as in (8b).

(8) a. Þeir höfðu talað hvor um annan
they.NOM.M.PL had talked each.NOM.M.SG about other.ACC.M.SG
'They had talked about each other.' (Sigurðsson et al. 2020: ex. 1a)

b. Ég kynnti þá hvorn fyrir öðrum
I introduced them.ACC each.ACC for other.DAT
'I introduced them to each other.' (Sigurðsson et al. 2020: ex. 19)

One might wonder whether previous theories of feature matching that have covered cases of ϕ-feature matching can be extended to also account for case features. We argue that only some can: namely theories that posit a morphosyntactic feature sharing relationship can be extended to account for CCRs. However, theories that enforce feature matching solely in the semantic component of grammar cannot be easily extended to account for case-copying. This conclusion is reached based on the two premises below:

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 an 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. Case-copying reciprocals have likewise received little attention (though see Sigurðsson et al. 2020; Messick & Harðarson 2023; Paparounas & Salzmann to appear).

If these two premises are valid, then the conclusion one must reach is that there is a morphosyntactic feature sharing relation between part of a case-copying reflexive and its antecedent. Further, data from islands cast doubt on movement approaches to this connection. We then develop an analysis building off the observation that in languages that have case-copying reflexives, part of the reflexive is an intensifier that independently shows case-agreement in the language. We argue that on a particular view of reflexives and case agreement, CCRs fall out as a natural consequence of the components that "build" the reflexive in Telugu and other languages. We also show how this analysis can be extended to reciprocal constructions that likewise agree in case. Our analysis leads to a nuanced view of how feature matching between a complex reflexive and its antecedent is achieved, with some matching achieved via the morphosyntax and some achieved outside of the syntax proper. These findings, if correct, rule out the two extreme positions that one could take: one in which no feature matching at all between a complex reflexive and its antecedent is derived via the morphosyntax (Preminger 2019), and the other in which all instances of feature matching are derived via syntax (Kayne 2002).

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. We show that our analysis can account for the case-agreement between an anaphor and its antecedent. We also show how the analysis handles CCRs embedded within PPs. It is very common in languages that have case-copying complex reflexives and reciprocals to have the adposition "intervene" between the two parts of the reflexive/reciprocal in both head-initial and head-final languages when it is embedded in a PP. Compare examples from Telugu (9a) and Icelandic (9b). In

(9a), the postposition *miida* comes between the two parts of the reflexive. We see a similar effect in (9b), where *hvorn* and *öðrum* are separated by the preposition *fyrir*. We argue that this follows from our analysis with additional common assumptions about locality.

(9) a. 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.'
b. Ég kynnti þá hvorn fyrir öðrum
I introduced them.ACC each.ACC for other.DAT
'I introduced them to each other.' (Sigurðsson et al. 2020: ex. 19)

We also show how our analysis handles CCRs in ECM constructions and coordinations in Telugu. The paper ends with section 5, which concludes with some implications of our findings.

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 (Subbarao & Saxena 1987; Jayaseelan 1996; Lidz 2001a,b; Sundaresan 2012; Lust et al. 2000: Chs. 2–5, *a.o.*). Like many Dravidian languages, Telugu employs a verbal reflexive (VR) marker *-kon-* that affixes to agentive verbs in reflexive constructions.[4] It also has a simplex element *tanu* in addition to the complex case-copying reflexive.[5] Subbarao & Murthy (2000) provides a good overview of all these elements. For the sake of succinctness,

[4]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 (Raghotham in prep), as shown in the examples below. This behaviour is responsible for why they are sometimes referred to as the non-active form; see e.g. Paparounas 2023 for discussion.

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

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

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

[5]We follow many authors in treating simplex *tanu* as a type of pronoun (Kissock 1995: footnote 15, Kissock 2014: footnote 21, Balusu 2018), though we acknowledge there might be variation among dialects (see also footnote 7), where some dialects (Subbarao & Murthy 2000) treat *tanu* like a *se*-anaphor or what Reuland (2018) calls a semi-reflexive. In the dialect under consideration, *tanu* has the distribution of a pronoun (cannot be bound locally, but can be across clausal boundaries and can be used in cross-sentential anaphora). It also does not show logophoric restrictions on its use (i.e., it does not need to refer to perspective centers or empathy loci).

we will focus our attention on the case-copying reflexives and only touch on the VR and simplex *tanu* when relevant to our discussion. We first show that the case-copying reflexive forms a constituent. We then show that it has the same characteristics as reflexive anaphors found cross-linguistically.

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 Jayaseelan 1996 for the very similar complex reflexive in the related language Malayalam). This is shown via standard tests for constituency. We provide three pieces of evidence that the two form a constituent here: movement, intervening adjunct, and fragment answers.

As shown in (10), the complex reflexive can be scrambled (10a) or undergo right dislocation (10b) as a unit.

(10) a. [tana-ni tanu]$_i$ raamu t_i gillu-konn-aa-ḍu
3SG-ACC 3SG.NOM Ramu.NOM pinch-VR-PST-3MSG
'Ramu pinched himself.'

b. kamala t_i tiṭṭu-konna-di [tana-ni tan-ee]$_i$
Kamala.NOM 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 intensifier, the result is ungrammatical, as shown in (11).

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

b. *tanu$_i$ raamu tana-ni t_i gillu-konn-aa-ḍu
3SG.NOM Ramu.NOM 3SG-ACC pinch-VR-PST-3MSG
'Ramu pinched himself.'

We also see that no phrasal element may intervene between the base and intensifier as shown in (12), once again suggesting that the two do form a constituent.

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

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

The final argument comes from fragment answers. The CCR can grammatically occur as a fragment answer to a constituent question as shown in (13), where (13b) is a grammatical answer to the question posed in (13a).

(13) 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
3SG-on 3SG-DAT
'Himself'

These three pieces of data suggest that the base and intensifier *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 (14). In (14), 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 (14) demonstrates this with an experiencer subject and no verbal reflexive, allaying fears that the inability to take split antecedents might be an effect of the verbal reflexive.

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

Even when both potential antecedents can exhaustively bind the CCR, split antecedents are disallowed. In the double object construction, both the nominative subject or the dative object can exhaustively bind the accusative object, as shown in (15).

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

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

If we try to bind a plural anaphor taking both the subject and the dative object as split antecedents, the result is ungrammatical regardless of which case is shown on the CCR (nominative or dative). This is shown in (16).

(16) *Ravi raju-ki tama-ni tamu/tama-ki coop-inc-ææ-ḍu
Ravi.NOM raju-DAT 3PL-ACC 3PL.NOM-/3PL-DAT show-CAUS-PST-3MSG
Intended: 'Ravi$_i$ showed Raju$_j$ themselves$_{i+j}$

The case-copying reflexive cannot take discourse antecedents not can it be used deictically. As seen in (17), the case-copying reflexive is not possible with a cross-sentential antecedent.

We also see in (18), that the CCR requires a c-commanding antecedent; the embedded genitive possessor cannot bind the CCR. Once again, the c-command requirement on the antecedent is not due to the verbal reflexive, but the anaphor itself, as (19) demonstrates.[6]

(17) akhil alasi pooyaaḍu. *tanu tanu kučunn-aa-ḍu
akhil tired go.PST.3MS. 3SG 3SG sit-PST-3MS
Akhil got tired. He sat down.

(18) *[karuṇa$_i$ akka]$_j$ eppuḍuu tana-ni tana$_i$ poguḍu-kon-ṭuu unṭun-di
Karuna.GEN sister.NOM always 3SG-ACC 3SG.GEN praise-VR-PROG COP-3FSG
Intended: 'Karuna$_i$'s sister always keeps praising herself$_i$.' (Subbarao & Murthy 2000: 248)

(19) [karuṇa$_i$ akka]-ku$_j$ eppuḍuu tana-miida tana-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 (20). If the antecedent is separated from the bound element by a clause boundary only *tanu* is possible.

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

b. raaju$_i$ [raamu$_j$ tana-ni tanu$_{*i/j}$ poguḍu-konn-aa-ḍu ani]
Raju.NOM Ramu.NOM 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 (21).

[6]Martin Salzmann (p.c.) asks us whether it is possible for the CCR to bound by an NP embedded inside of a PP, like the English example in (i).

(i) She talked to Peter$_i$ about himself$_i$.

In Telugu, the CCR does not seem possible in such configurations. Consider the example in (ii). This a causative construction with the causer argument appearing in nominative case and the causee argument introduced by the postposition *ceeta* ('by'). The causer, but not the causee, can be antecedent to the CCR. This follows if NPs embedded in PPs cannot bind the CCR. The causee reading does not improve by adding the postpostion to the reflexive (cf. Greek reciprocals discussed in Paparounas & Salzmann to appear)

(ii) kamala$_i$ siita$_j$ ceeta tana-ni taanu$_{i/*j}$ (ceeta) tiṭṭ-incu-kon-di
Kamala.NOM Sita by 3SG-ACC 3SG.NOM (by) scold-CAUS-VR-3FSG
'Kamala$_i$ had Sita$_j$ scold herself$_{i/*j}$.'

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

The complex CCR must be used when there is co-reference between two co-arguments; *tanu* is not sufficient in such constructions as shown in (22).[7]

(22) 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 copying reflexive is also not possible as the possessor inside an NP regardless of whether the case-agreeing part comes before or after the possessed N. Only *tanu* is acceptable in such positions. This is shown in (23).

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

These diagnostics suggest that the case-copying reflexive is a true reflexive anaphor.[8]

[7] This is true for all speakers of Telugu (that we are aware of) for constructions where the verbal reflexive is absent. In the constructions where the verbal reflexive is present, there is dialectal variation. Some speakers allow for *tanu* to be locally bound in such constructions, while others allow other pronouns to be bound as well (see Subbarao & Murthy 2000; Balusu 2019. This is shown in (i).

(i) a. %vaaḍu$_i$ tana-ni koṭṭu-kun-aa-ḍu
he$_i$ 3SG-ACC$_i$ hit-VR-PST-3MSG
'He hit himself.'
b. %vaaḍu$_i$ vaaḍini$_i$ koṭṭu-kun-aa-ḍu
he$_i$ him$_i$ hit-VR-PST-3MSG
'He hit himself.' Balusu (2019:ex. 23)

The speakers we consulted for this project (including the second author of this paper) require the CCR for all instances of local binding. While the variation in this domain is interesting, we will only attempt to give a description and analysis of the dialect that requires the CCR for all instances of local binding (including those with the verbal reflexive), and leave further investigation of the other dialects as a matter for future research.

[8] Another diagnostic proposed in the literature is the unavailability of so-called strict readings under 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-3NSG
'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.3MSG
'Akhil$_i$ forgot himself sooner than his grandfather$_j$ <forgot himself$_{*i/j}$>'

We leave further investigation of this difference for future research.

2.3 Possible antecedents and the distribution of the CCR

In this section we will fine tune the distribution of the CCR and also discuss what potential antecedents are possible for the CCR.

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') (24). Interestingly, what appears to be the postposition can intervene between the two parts of the CCR. As we have seen previously, elements other than case markers cannot intervene between the two.

(24) a. sarita kamala gurinci tana loo tanu maaṭlaaḍu-kon-in-di
Sarita.NOM 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)

This is also true of adjunct PPs like those headed *cuṭṭuu* ('around'), as shown in (25). Note that again the two parts of thee CCR are separated by the postposition.

(25) vimala tana cuṭṭuu tanu pasupu jall-kon-indi
Vimala.NOM 3SG around 3SG.NOM tumeric sprinkle-VR-PST.3NSG
'Vimala sprinkled tumeric powder around herself.'

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 doubled first person pronoun. Similarly, with a second person antecedent, the second person pronoun is doubled (27).[9]

(26) nenu nan-nu nenu mečču-kun-aa-nu
1SG.NOM 1SG-ACC 1SG.NOM praise-VR-PST-1SG
'I praised myself'

(27) nuvvu nin-nu nuvvu mečču-kun-aa-vu
2SG.NOM 2SG-ACC 2SG.NOM praise-VR-PST-2SG

[9] 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 mečču-kunn-aa-ḍu
akhil.NOM 3MS-ACC 3MS.NOM praise-VR-PST-3MS
'Akhil praised himself'

(ii) pilla-lu vaari-ni vaaru mečču-kunn-aa-ru
child-PL.NOM 3PL-ACC 3PL.NOM 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.

'You praised yourself'

The CCR can also take inanimate antecedents. Since *tanu* is restricted to human referents, the inanimate pronoun *adi* is used.

(28) talupu dan-ni adi moosu-kun-in-di
door.NOM 3NSG-ACC 3NSG.NOM close-VR-PST-3NSG
'The door closed itself.'

2.4 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. In (29), see a nominative subject bind an accusative direct object and the case displayed by the CCR are NOM and ACC.

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

a. vanaja tana-ni tanu poguḍu-kon-di
Vanaja.NOM 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.NOM Ravi-DAT 3PL-ACC 3PL.NOM introduce do-VR-PST-3PL
'The children introduced themselves to Ravi.'

When a nominative subject binds a dative indirect object, the resulting CCR shows the case NOM and DAT as shown in (30).

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

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

If a nominative antecedent binds a locative object in a PP, the cases displayed are NOM and the case assigned via the preposition. This is shown in (31).

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

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

Moving onto Dative antecedents if a dative indirect object binds an accusative direct object, then the cases on the CCR are DAT and ACC (32), but if the dative subject binds an oblique -*ante* marked object, then the cases on the CCR are DAT and ANTE (33). Finally, if a dative subjects binds an anaphor in a PP, then the cases on the CCR are DAT and the case assigned via the preposition (34).

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

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

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

ravi-ki tan-anṭe tana-ku prema
Ravi-DAT 3SG-ANTE 3SG-DAT love
'Ravi loves himself.'

(34) *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 (29) but dative in (32). 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 (29b) and (32) 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 (29b) and the dative indirect object in (32). 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 that the nominative is assigned by *-kon-*, dative being assigned to the intensifier *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 (35), the intensifier *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.

(35) madhu tana-ni tanu marci poo-yææ-ḍu
Madhu.NOM 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 it is somehow "copied" from its antecedent. There is one principled exception to this generalization. When an 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 (36).

(36) neenu ravi-ni$_i$ [t_i tana-gurinci tanu nijaayiti-paruḍu ani]
1SG.NOM Ravi-ACC 3SG-ABOUT 3SG.NOM honesty-one COMP

anukun-ṭaa-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 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 (37). We see that an anaphor must match in person, number and gender features.

(37) 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 family of approaches, 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 (Kratzer 2009; Heinat 2009; Reuland 2011; Bader 2011; Rooryck & Vanden Wyngaerd 2011; Antonenko 2012; Wurmbrand 2017; Murphy & Meyase 2022; Paparounas & Akkuş 2023; Murugesan 2022). This is schematized in (38).

(38) a. [. . . ANAPH$_{\phi:}$ . . .]
b. [Antecedent$_{\phi:\alpha}$ . . . [. . . ANAPH$_{\phi:\alpha}$ . . .]]

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 type of approach posits that the anaphor is or contains a copy of a movement chain (Drummond et al. 2011; Hornstein 2001; Kayne 2002; Charnavel & Sportiche to appeara,t; Royer to appear).[10] The antecedent begins in the position of the anaphor and moves to a c-commanding position during the course of the derivation. Feature matching is ensured because the anaphor and its antecedent are actually copies of the same element.

[10]Sigurðsson et al. (2020) give a variation of this analysis for case-agreeing reciprocals in Icelandic where only the agreeing part of the reciprocal moves to be in a local relation with the antecedent (cf. Heim et al. 1991). See Messick & Harðarson (2023) and section 4.3 for evidence against this approach.

(39) [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 anaphor's ϕ-features (see e.g., Heim 2008). Let us see how such a theory would work. Following Cooper (1983), researchers have treated ϕ-features on pronouns as 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 the variable, but with a definedness condition. Take for example the meaning of 'masculine' in (40a), 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 (40).

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

Returning to the example from above, consider the unacceptable utterance in (41a). It would have the LF in (41b).

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

The problem in (41) 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 assumption that the relevant Sandra identifies as female, the deviance of (41a) 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.[11]

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 (42a) and cross utterance anaphora (42b) despite the lack of c-command and the two elements being in (very) different

[11] As noted to us by an anonymous reviewer, languages that have grammatical gender on inanimate nouns like German or Spanish appear to pose issues for a simple semantic theory since the assignment of gender to a noun seems arbitrary and not related to the noun's semantics in anyway. Despite this, feature matching is necessary in these features for binding and co-reference. We agree that accounting for such matching is difficult under this theory. Some authors bite the bullet and allow such features to be semantically contentful (Dowty & Jacobson 1988) while others attempt to achieve feature matching by using agreement with an elided NP (Sauerland 2007). We do not have anything new to add in how to account for feature matching with grammatical gender, so we put it aside for now.

locality domains.[12]

(42) 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 (43). In (43a), the inessive case is expressed not only on the head noun, but also the adjective, demonstrative and quantifier. In (43b), the noun is in the translative case, and once again, the case is also expressed on the demonstrative and adjective.

(43) 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 (44), 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).

(44) 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.'

[12] A reviewer reminds us of discussion from Wechsler & Zlatić (2000) that shows that feature matching for local reflexives may be different than cross-sentential anaphora. Wechsler & Zlatić (2000) note that *one* and *you* can be used as impersonal pronouns in English and it is possible to switch between the two in cross-sentential anaphora (ia), but not an intersentential reflexive (ib).

(i) a. You$_i$ really have to watch yourself$_i$ around here. One$_i$ can easily get in trouble.
b. *You$_i$ really have to watch oneself$_i$ around here.

These data points suggest that reflexive feature matching is more stringent than cross-sentential anaphora. This dovetails with our data in that we only seem to find case-copying with local reflexive anaphora cross-linguistically as far as we know.

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 (45) (similar examples can be found in Icelandic, Russian, Latin). Overt subjects of infinitives are typically assigned accusative case, but in (45) the embedded PRO subject is dative, matching that of the controller. Although PRO is null, we can see it has dative 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).

(45) sumbouleuō soi PRO promumōi einai
advise.1SG you.DAT PRO.DAT zealous.DAT to.be
'I advised you to be zealous.' Quicoli 1982: 124 as cited in Landau 2008

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.

One may wonder if a semantic analysis of Telugu case features could be tenable. We saw in the previous section that the case copied from the antecedent is nominative or dative. These cases do often correlate with specific semantic roles. For instances nominative NPs are typically AGENTS or CAUSERS, while dative NPs are typically EXPERIENCERS. One may be tempted to assign a semantics to these cases that encodes these roles. There are reasons to be skeptical of such an analysis however. While there is a correlation between theta role and case in Telugu, the mapping is not one to one. Nominative arguments need not be AGENTS, as subjects of unaccusatives and passives are nominative despite being THEMES.

(46) talupu terucu-kon-di
door.NOM open-VR-3NSG
'The door opened'

It is also the case that not all AGENTS are nominative. In ECM constructions, it is possible for an agent of an embedded clause to surface in the accusative case as shown in (47).

(47) neenu akhil-ni annam tina-ḍam coos-ææ-nu
1SG.NOM akhil-ACC rice eat-NMZ saw-PST-1SG
'I saw Akhil eating rice'

Similar arguments can be made for dative. We have already seen examples such as those repeated in (48) that certain EXPERIENCERS can surface as nominative. This example also shows that the copied case on the CCR also is not necessarily tied to a specific theta role since we still have nominative here despite having an EXPERIENCER antecedent.

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

So while there are correlations between theta roles and morphological cases in Telugu (as well as in many other languages), these mappings are not absolute, so a completely semantic analysis of Telugu case does not seem tenable.

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 2021 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 (49) to account for this data.

(49) 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.[13] This is shown in the examples below. The example in (50) shows that a conjunct cannot move and (51) shows that an NP inside of a conjunct also cannot move.

[13]There are several ways to express conjunction in Telugu. Speakers may use the Sanskrit borrowing *mariyu*, which functions 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).

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

(51) a. neenu [[magazine-lu caduvut-aa-nu] mariyu [TV cuust-aa-nu]]
1SG.NOM 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 cuust-aa-nu]]
TV 1SG.NOM magazine-PL read-PST-1SG and t 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 (52) (the complex reflexive is also possible in coordinations in Kannada as noted in Lidz 2001a).[14]

(52) ravi-ki tana-miida tana-ku mariyu rani-miida koopam waccindi
Ravi-DAT 3SG-on 3SG-DAT and Rani-on anger 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 (52) to be ungrammatical. Note that examples like (52) do not involve clausal coordination plus conjunction reduction. This can be shown by the fact that *tana-miida tana-ku mariyu Rani-miida* behaves as if it were a constituent. As we see in (53), the string can be scrambled together, and in (54) it can act as a fragment answer to a question.

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

(54) 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

[14]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. This does not seem to be case for other languages like English; see Lin 2002 and Bruening 2021:Sec. 3.1 for relevant discussion and arguments against this view. For Telugu, it appears movement that feeds ECM is subject to the CSC (see section 4.4.4) hence it appears that A-movement in Telugu is also constrained by the CSC. See also footnote 16 on the relation between the VR and coordinations.

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[15] in order to agree with its antecedent (Rooryck & Vanden Wyngaerd 2011).[16] These data are less problematic for other agreement based theories that do not rely on movement, as it is well known that agreement relationships can be established within a conjunct (see e.g., Marušič et al. 2015; Murphy & Puškar 2018; Nevins & Weisser 2019). We discuss further issues regarding coordinations in section 4.4.5.

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

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

[16] 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-ḍu
Ravi.NOM 3SG-ACC 3SG.NOM and Rani-ACC hit-VR-PST-3MSG
Intended: 'Ravi hit himself and Rani.'

Taken together with (52), 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. Another possibility noted to us by an anonymous reviewer is that the semantics of the VR unifies the external and internal argument, since the coordinated anaphor is not the internal argument in the above example, but instead a part of the internal argument when part of the coordination, examples like (i) are ruled out regardless of whether the anaphor moves or not (see Raghotham in prep for an analysis along these lines).

4.1 Case assignment in Telugu

We follow the standard tradition of having an NP's uninterpreted case feature unvalued at first merge (Chomsky 2000, 2001; Baker 2015). The value is only determined during the course of the derivation. 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.

The first dependent case we will look at is accusative, which is realized as the morpheme *ni/nu*. As shown in (55), human objects obligatorily display accusative.

(55) neenu mimmala-ni/*miiru pilic-ææ-nu
1SG.NOM 2PL-ACC/2PL.NOM call-PST-1SG
'I called you.'

Specific nonhuman objects also are assigned accusative case as shown in (56).[17]

(56) neenu dosa-nu tinn-aa-nu
1SG.NOM dosa-ACC eat-PST-1SG
'I ate the dosa.'

Accusative marking also appears on embedded subjects in small clauses/ECM structures, as shown in (57).

(57) memu tana-ni picci-vaaḍi-gaa bhaav-is-taa-mu
1PL.NOM 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 what appears to be a finite clause boundary when the embedded clause is a copula. Unlike

[17]Telugu nonspecific objects show up with no case as shown in (i).

(i) neenu dosa tinn-aa-nu
1SG dosa eat-PST-1SG
'I ate a dosa.'

While these constructions deserve more attention than we can give here, we would like to suggest that these types of examples involve instances of pseudo-noun incorporation (PNI) (Massam 2001; Dayal 2011; Baker 2014b). An argument in favor of this analysis comes from adjacency effects. PNI in many languages is only possible if the bare noun is adjacent to the verb (Massam 2001; Levin 2015; Branan 2022). As shown in (iia), an adverb can come between a case marked object and the verb, but this is not the case for bare objects (iib), this follows if bare object undergo PNI and hence subject to the adjacency requirement.

(ii) a. neenu čettu-ni tondaragaa koṭṭ-ææ-nu
1SG tree-ACC quickly hit-PST-1SG
'I quickly cut the tree.'
b. ??neenu čettu tondaragaa koṭṭ-ææ-nu
1SG tree quickly hit-PST-1SG
'I quickly cut (lit. hit) a tree.'

the example in (57), the assignment of accusative in (58) is optional and alternates with the embedded subject surfacing as nominative.

(58) memu tana(-ni) picci-vaaḍu 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. Given this discussion we assume accusative is assigned via the rule in (59) (to be revised).

(59) If NP_1 is c-commanded by NP_2 in the first phase of the extended projection of the verb (i.e., *v*P) then assign ACCUSATIVE to NP_1.

The next case we will examine is dative, which surfaces as *ki/ku*. While it is 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.

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 first phase of the extended projection of the verb such as from the specifier of ApplP (Marantz 1993; Bruening 2001; Pylkkänen 2008).

(60) 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 (61) and also sentences expressing possession (62). 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.

(61) a. raaju-ki annam-anṭe išṭam
Raju-DAT rice-ANTE like
'Raju likes rice.'
b. Maalati-ki bazaaru-loo endaroo kaninpinc-ææ-ru
Malati-DAT market-in many visible-PST-3PL
'Malati saw many people in the market.'

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

Finally, Telugu also has a type of external possession/possessor raising, where the posses-

sor surfaces with the dative (Subbarao & Bhaskararao 2004: 191-193). This construction alternates with another where the possessor remains in the NP and is found in the genitive case. The example in (63a) is a case of external possession where the possessor *vaaḍi-ki* is expressed outside of the NP where it c-commands the possessum and surfaces with the dative case. In (63b), the possessor is internal to the NP and surfaces with the genitive case.

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

Based on these data, we assume the rule in (64) assigns dative case in Telugu (see also Baker 2015: 131).

(64) If NP_1 c-commands NP_2 in the spell out domain of first phase of the extended projection of the verb then assign DATIVE to NP_1.

Note that in addition to this rule of dative case assignment, we need the following principle that regulates case features in movement chains.

(65) Dependent case features that are added to one copy in a movement chain are preserved on higher copies in the chain. (modified from Baker 2015: 272, ex. 65)

This principle allows for dative case assigned in the lower VP spell out domain to be inherited onto the higher copy of the movement chain where it will be pronounced. So for examples with dative subjects, within the VP, dative case is assigned to the higher of the two NPs by the rule in (64). When the NP moves to a higher subject position (say SpecTP), the higher copy of the NP will retain the dative case via (65), hence the dative morpheme will surface there. This is also true of passives of ditransitives, as shown in (66).

(66) akhil-ki pustakam ivva-baḍ-indi
Akhil-DAT book give-PASS-PST.3NSG
'Akhil was given a book

Just as with the experiencer subject constructions, in passives of ditransitives, dative case will be assigned to the higher of two NPs in VP (i.e., *Akhil* in (66)). When the NP moves to the subject position, the dependent dative case is retained on the higher copy via (65).

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 (hence accusative is not possible on the theme in examples like (66)). When a dative subject occurs in Telugu, the object must either bear 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).

(67) a. en-gal-ukku anda puttagam teve-ppatt-utu
we-PL-DAT that book.NOM need-suffer-3NSG

'We need that book.' *Tamil*

b. paala-kku anda padatt-e puri-tu
Bala-DAT the lesson-ACC understand-3NSG
'Bala understood the lesson.' *Tamil*

Baker argues that the dative NP in (67a), 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 (67a). 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 (67b) under a control verb, but only the nominative can be PRO when (67a) is embedded in the same environment (Baker 2015: 192)

(68) a. naan$_i$ [PRO.DAT$_i$ puri-ja] virumb-an-een
I PRO.DAT understand-INF want-PST-1SG
'I want to understand.' *Tamil*

b. naan$_i$ [PRO.NOM$_i$ mala-kku teveppattu] virumb-an-een
I PRO.NOM Mala-DAT need.INF want-PST-1SG
'I want to be needed by Mala.' *Tamil*

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

(69) mallika [PRO.DAT kindaṭi nela ii ṭaimu-loo jwaram-raawaḍam]
Mallika.NOM 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 (Marantz 1991:25-26; Baker 2015:196).[18]

(70) If NP$_1$ is c-commanded by an unmarked NP$_2$ in the first phase of the extended projection of the verb then assign ACCUSATIVE to NP$_1$.

Note that this requires that case assignment happens step-wise, where dative assignment must precede accusative assignment.

The final core 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

[18] An anonymous reviewer notes that there is an asymmetry between our dative and accusative rule. For the accusative the NP competitor must be unmarked, but for the Dative rule any NP (both case-marked and unmarked) may act as a competitor. We leave an explanation for this asymmetry for future research. It could be the case that the dative rule is likewise subject to a similar parameter, which would lead us to expect there are languages where dative is only assigned when c-commanding unmarked NPs.

nominative if it is not assigned a case value via any of the rules outlined in this section.

Let us move onto the lexical and semantic cases (for precedence of combining lexical cases in addition to dependent case see Marantz 1991:24, McFadden 2004, Baker & Vinokurova 2010; Baker 2015 and Preminger to appear where he refers to this type of case assignment as *Head Case*). 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 *anṭe* to the complement of many experiencer predicates. Below are some illustrative examples.

(71) a. ii baabu-ki kottawaaḷḷu-anṭe bhayam lee-du
this baby-DAT strangers-ANTE fear NEG.COP-3NSG
'This baby does not have fear of strangers.'
b. ravi-ki rani-anṭe prema
ravi-DAT rani-ANTE love
'Ravi loves Rani'

The presence of the marker is obligatory. We assume it is assigned by the rule in (72).

(72) 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 PPs. We see that a P assigns a case to its NP complement from stem allomorphy triggered on the complement. In (73a) the oblique form *vaaḍi* is used of the third person pronoun masculine singular pronoun *vaaḍu*.

(73) sarita kamala gurinci vaaḍi too maaṭlaaḍu-ṭunna-di
Sarita Kamala about 3MSG.OBL with talk-PROG-3FSG
'Sarita talked with him about Kamala.'

When a nominal takes a (non-nominative) case marker, the oblique form of the stem is used. This is true of all pronouns (including the simple reflexive) and most common nouns in Telugu.

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

We assume, following McFadden's 2018 analysis of stem changes in Tamil, that this should be analyzed as a form of contextual allomorphy. The form of the stem is dependent on whether the case of the NP has a value. If the case is valued, the oblique form of the stem is inserted via the Vocabulary Insertion rules. If the case is unvalued (nominative), then the elsewhere form of the stem is used. This is shown for the third person masculine informal pronoun *vaaḍu* in (75).

(75) a. [3MSG] ↔ vaaḍi / __ *u*K:VAL
b. [3MSG] ↔ vaaḍu / (elsewhere)

Since the complement of Ps in Telugu show stem allomorphy they must be assigned a case value. We assume that P assigns a lexical case to its complement (in our rules we will refer to this lexical case as PREP in (76b)) but the morphological realization of this value is null, hence there is no case suffix found on the complement. The value, however, does trigger the use of the allomorphy rule in (75a), hence the oblique form of the N stem is used (cf. McFadden's 2018 discussion of the genitive in Tamil where a null case morpheme still triggers the stem allomorphy).

All the case assignment rules from this section are summarized in (76).

(76) a. If NP is complement of $\sqrt{\ }$, where $\sqrt{\ } \in$ {preema, asahyam, iiršya, aaba, benga ...}, assign NP ANṬE
b. If NP is the complement of P assign NP PREP.
c. If NP_1 c-commands NP_2 in the spell out domain of the first phase of the extended projection of the verb then assign DATIVE to NP_1.
d. If NP_1 is c-commanded by an unmarked NP_2 in the first phase of the extended projection of the verb then assign ACCUSATIVE to NP_1.
e. 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 parts of the complex reflexive

Our analysis of the CCR in Telugu builds off of the analysis of Jayaseelan (1996), who analyzes a similar complex reflexive in Malayalam. Like Telugu, Malayalam has a simplex pronominal form *ta(a)n*, that can be bound across clauses, as shown in (77).

(77) raaman paRaňňu [siita tan-ne sneehik'k'unnu ennə]
Raman said Sita self-ACC loves COMP
'Raman$_i$ said that Sita loves him$_i$' (Jayaseelan 1996: 214 ex. 15)

For local binding, a complex reflexive form must be used, as shown in (78).

(78) raaman tan-ne tanne sneehik'k'unnu
Raman SELF-ACC SELF loves
'Raman loves himself.' (Jayaseelan 1996: 215 ex. 17a)

Jayaseelan's analysis of the complex reflexive in (78) is that the left-hand *tan* is the simplex pronominal from (77) and the right-hand *tan* is an intensifier, which independently exists in the language, as shown in (79). The addition of an intensifier to a simplex anaphor or pronoun is a common way to create a complex reflexive cross-linguistically (see König et al. 2013 and references).

(79) raaman tanne pooyi
Raman SELF went
'Raman himself went.' (Jayaseelan 1996: 215 ex. 16a)

In Malayalam, the form of the intensifier is invariant, and it is historically built from *tan* + the focus marker *ee* (Jayaseelan 1996: 219) (on the diachronic relation between reflexives and intensifiers see Kiss & Mus 2021, Bassel 2022 and references). Returning to Telugu, we note an intriguing difference. Unlike Malayalam, where the intensifier form is invariant, the intensifier in Telugu shows case agreement with the NP that it is associated with (see also Subbarao & Murthy 2000:225-226). As shown in (80a), when the NP associate is nominative, the intensifier is nominative, but when the NP associate is dative, the intensifier must also be dative, as shown in (80b).[19]

(80) a. taanu taanu ii pani ceyya galaḍu
3SG.NOM 3SG.NOM this work do can
'He himself can do this work.'

b. tana-ku tana-k-ee ame-miida prema puṭṭindi
3SG-DAT 3SG-DAT-EMPH 3FSG-on love born.3NSG
'He himself started liking her.'

We suggest that Jayaseelan's analysis can be extended to Telugu: in both languages, the left hand member of the complex reflexive is the pronominal element *tan*, and it gets its case assigned via the normal case assignment rules of the language. Also in both languages, the right-hand *tan* is an intensifier, but in Telugu, this element undergoes case agreement unlike Malayalam, hence its addition to *tan* gives rise to a CCR.[20] This analysis makes an interesting cross-linguistic prediction: if the complex reflexive shows case agreement with its antecedent and is built from the addition of an intensifier element, the intensifier element on its own should also show case-agreement. For Sanzhi Dargwa, this appears to be true (Forker 2020: 556-562) and perhaps also for Komi-Zyrian (Volkova 2014: 99), but this should be investigated more systematically.

First person and second person CCRs can be given a similar analysis. Recall that the

[19]For speakers that allow for other pronouns to build the complex reflexive (see footnote 9), those pronouns can be used as case agreeing intensifiers as well, as shown in (i).

(i) a. vaaḍu vaaḍu ii pani ceyya galaḍu
3MSG.NOM 3MSG.NOM this work do can
'He himself can do this work.'

b. vaaḍi-ki vaaḍi-k-ee ame-miida prema puṭṭindi
3MSG-DAT 3MSG-DAT-EMPH 3FSG-on love born.3NSG
'He himself started liking her.'

[20]A difference between Malayalam and Telugu is that Malayalam allows for other pronouns and even proper names to be combined with *tanne* to create local reflexives, as shown in (i). Equivalent Telugu sentences are not acceptable.

(i) a. raaman awan-e tanne sneehik'k'unnu
Raman he-ACC SELF love
'Raman loves himself.' (Jayaseelan 1996: 215 ex. 17b)

b. raaman raaman tanne weRuttu
Raman Raman SELF hated
'Raman hated himself.' (Jayaseelan 1996: 218 ex. 25)

We leave the cause of this difference as a matter for future research.

CCR for first person is a first person pronoun with structural case followed by another first person pronoun with copied case (26) (similarly for the second person CCR (27)). Note that *tanu* cannot be used with first and second person antecedents. Instead ϕ-feature matchings pronouns are used in the positions where *tanu* is used for third person antecedents, as shown in (81).

(81) a. nuvvu [nuvvu parigett-ææ-nu ani] cepp-ææ-vu
2SG.NOM 2SG.NOM run-PST-1SG COMP say-PST-2SG
'you said that you ran.'
b. neenu [neenu parigett-ææ-nu ani] cepp-ææ-nu
1SG.NOM 1SG.NOM run-PST-1SG COMP say-PST-1SG
'I said that I ran.'

Similarly the intensifier must match in number, person, and case when associated with either a first person (82) or second person (83) pronoun.

(82) a. neenu neenu ii pani ceyya galanu
1SG.NOM 1SG.NOM this work do can
'I myself can do this work.'
b. naaku naaku ame-miida prema puṭṭindi
1SG.DAT 1SG.DAT 3FSG-on love born.3NSG
'I myself started liking her.'

(83) a. nuvvu nuvvu ii pani ceyya galavu
2SG.NOM 2SG.NOM this work do can
'You yourself can do this work.'
b. niiku niiku ame-miida prema puṭṭindi
2SG.DAT 2SG.DAT 3FSG-on love born.3NSG
'You yourself started liking her.'

We can then give a parallel analysis: the CCR for first and second persons are made up of a pronoun + the addition of an intensifier just as in third person antecedents.

In our analysis we would like to propose that the parts of the CCR behave morphosyntactically similarly to when they occur on their own. Let's first look at the intensifier when it occurs outside of the CCR. In English, intensifiers can either be adnominal where they adjoin to the NP (see Ahn 2010 and references) or adverbial adjoined somewhere in the clausal spine. This is shown in (84).

(84) a. Sandra herself completed the work (adnominal)
b. Sandra completed the work herself (adverbial)

In Telugu, the intensifier appears to only adjoin and form a constituent with the NP that it modifies; i.e., it does not appear to have adverbial uses. Evidence for this comes from the fact that nominally adjoined intensifiers are incompatible with non-referential NPs like quantifiers. This is shown for English in (85) (Ahn 2010; Charnavel & Sportiche to appearb).

(85) a. #No boy himself smoked the whole pack.
b. Spike himself smoked the whole pack.

We find a similar restriction in Telugu intensifiers, suggesting that these intensifiers are also adnominal in the language.

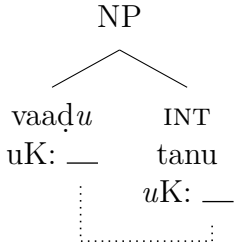
(86) #pratii vaaḍu tanu ii pani ceyya galḍu
every guy 3SG this work do can
Intendend: 'Every guy himself can do this work'.

As is the case with the CCR, the intensifier must move with the NP it adjoins, suggesting that the two form a constituent. This is shown in (87) with right dislocation of the subject.

(87) ii pani ceyya galaḍu taanu taanu
this work do can 3SG.NOM 3SG.NOM
'He himself can do this work.'

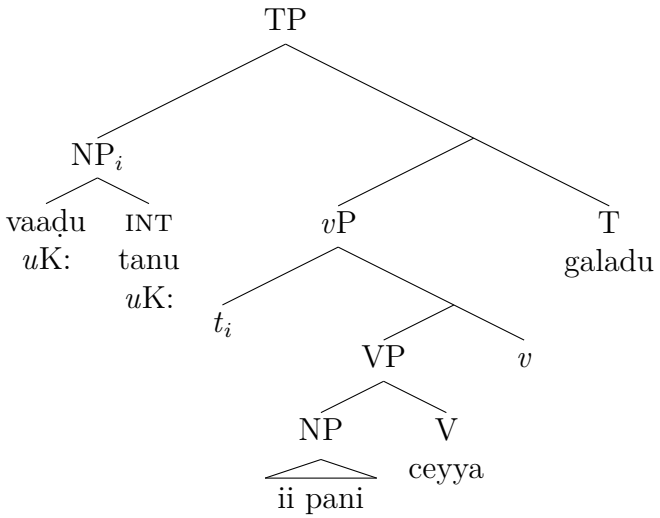
We assume that since the intensifier is an adjunct/modifier, it is invisible for normal case assignment rules in the language (on the interaction between adjuncts and case assignment see Baker 2014: Sec. 6.2.2). Instead, the case value of the intensifier is determined via agreement with the NP that it adjoins to. We assume that this is achieved via AGREE where the intensifier probes and finds the NP it is adjoined to, and copies that case value. Note that under the assumption of bottom up structure building, there is a timing issue: when the intensifier agrees with with NP it adjoins to, it has not been assigned a case value. Instead the NP's case value is only determined after the NP is built and has been merged into the larger clause structure. Because of this we model this type of case agreement as *feature-sharing* (Frampton & Gutmann 2000; Pesetsky & Torrego 2001, 2004 *i.a.*, see Dadan 2017 for the use of feature sharing in the context of case-agreement). This allows for two unvalued features to enter into an agreement relationship with one another, that does not result in valuation of either feature. Instead, the two unvalued features become a single instance of a feature, hence both occurrences are valued simultaneously when case is assigned to the NP. Here we walk through brief derivations for the examples in (i). For the case where the intensifier is modifying a nominative NP, when the intensifier is merged into the structure with an unvalued case feature, it undergoes AGREE and probes the N, which at this point has not had its own case value assigned. Although neither element has a value, the probe and goal undergo *feature sharing*, hence the two features become one instance of the feature (*u*K: __ is shorthand for uninterpretable unvalued case feature).

(88)



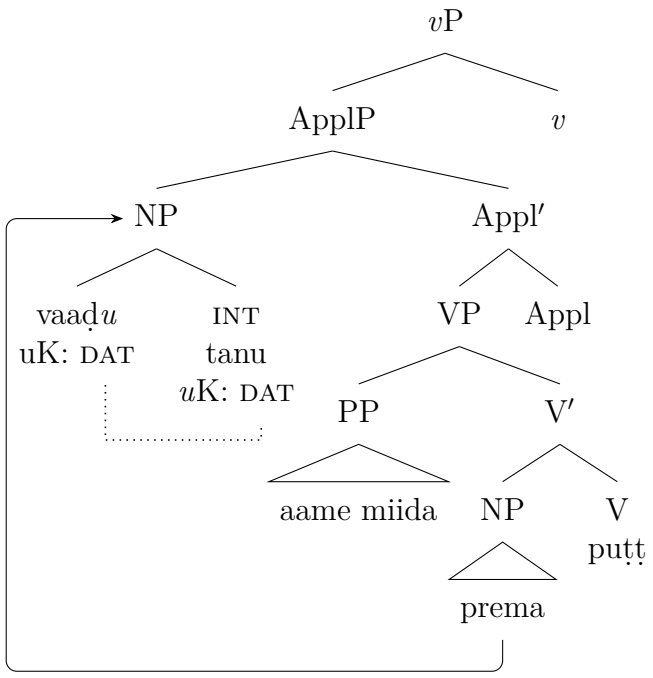
This NP will then be merged into the specifier of *v*P and subsequently move to the specifier of TP. As none of the case assignment rules discussed in the previous section assign a case to the NP, the case feature of the NP remains unvalued, hence both the head and the modifier surface as nominative. Below in (89) is a simplified tree structure of the sentence in (80a).

(89)



In the example where the intensifier modifies a dative NP, the first step in (88) is the same, but the entire NP will instead be merged into the specifier of ApplP where it will c-command the NP object within the spell out domain of vP, this will result in both the head and modifier being assigned dative case given the rules laid out in the previous section. This is shown in (90), which is a tree structure of the sentence in (80b); note that the dotted line indicates Feature Sharing/AGEE and the solid line indicates case assignment. The subject will then move to SpecTP.

(90)



As we have seen in the examples above, in addition to case, the intensifier must agree in person features with the noun it is modifying. A question arises about how to account for matching between these features. We can imagine two ways to analyze person matching in addition to case matching. Under what we might call a strong syntactic theory, all feature matching (case and ϕ-features) is enforced by morphosyntactic agreement between

the intensifier and the noun it adjoins to. On a weak syntactic analysis, case feature matching is enforced by the syntax, while ϕ-feature matching is enforced via the semantics. At the moment, it is difficult to empirically delineate the two analyses. The fact that the intensifier and the noun it adjoins to are always in a syntactically local configuration makes the strong syntactic analysis feasible. Here and below we will assume what we take to be the more conservative theory, i.e., the weak syntactic analysis, but if future research makes clear that the strong syntactic analysis is correct, then we believe that our analysis can be easily amended to take that into account.

Let us now turn to the other component of the CCR, what we have been calling the pronominal base. For third person antecedents, the element used is *tanu*. When not in the CCR, this element can be used in cross-clausal binding as shown in (91a) and also cross-sentential anaphora as shown (91b).

(91) a. Ravi-ki [tanu parigett-ææ-ḍu ani] telusu
Ravi-DAT 3SG run-PST-3MSG COMP know
'Ravi knew that he ran.'

b. akhil mariyu raju alasi pooyaaru. taamu paḍukunn-aa-ru
akhil and Raju tired go.PST.3PL. 3PL sleep-PST-3PL
'[Akhil and Raju]$_i$ got tired. They$_i$ slept.'

Note that the *tanu* must agree with its antecedent in number features: in (91a), the antecedent is singluar so *tanu* is also singular. For the the plural antecedent in (91b), the plural form *taamu* must be used. Note also that case matching is not enforced here, in (91a), the antecedent is dative, but *tanu* is nominative. Unlike the intensifier, the pronominal base shows case independence with its antecedent, hence it gets its case value determined by the dependent case rules discussed in the previous section. This follows from the fact, that unlike the intensifier, the pronominal base is a clausal argument and not an adjunct/modifier. Turning our attention to ϕ-features, as mentioned before, the antecedent and the pronominal base must show feature matching. How should this be enforced? As such matching is enforced in the absence of syntactic locality (i.e., across phase boundaries or even across sentences), a syntactic mechanism seems untenable (cf. Preminger 2019's argument from before), hence it is preferable to treat feature matching in such cases as enforced via the semantics.

Now that we have an idea about how the pronominal base and the intensifier behave outside the CCR let us now compare it to their behavior within the CCR. As mentioned above, a guiding principle of our analysis is the idea that the components of the CCR, the pronominal base and the intensifier, for the purposes of morphosyntax, behave the same inside the CCR as they do when they occur independently in their other functions. With this in mind, there is a glaring difference between the use of the intensifier when it is part of the CCR versus when it occurs outside the CCR: in examples like (80), the intensifier agrees in case with the element it adjoins to, but in the case of the CCR, the intensifier does not appear to agree with the local NP that it adjoins to, but rather it appears to agree with the antecedent of the anaphor at a distance. Given what we have seen so far, this is unexpected; we would expect the intensifier to agree with the pronominal base. This appears to be a problem for the unification of the two uses of the intensifier. One may attempt to argue that

in the case where the intensifier is part of the CCR, it still uses the same mechanism, but this time it probes upward in search of an NP to agree with instead of downwards, using Upward or Reverse Agree (Wurmbrand 2012; Zeijlstra 2012; Bjorkman & Zeijlstra 2019). Putting aside why the intensifier should behave differently in its two uses, there is reason to think that upward probing by the intensifier is on the wrong track. An important aspect of any definition of Agree (be it Upwards or Downwards) is the minimality condition, which forces agreement probes to target the closest potential goal. While most examples with the CCR obey a minimality condition, crucially examples like (92) appear to violate minimality, as the intensifier agrees in nominative case with the subject antecedent across an intervening NP. In fact, it has been noted previously that the English version of these types of examples are difficult for agree accounts of binding precisely because they violate minimality (see Bader 2011:231 and Antonenko 2012:110).

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

Hence, even changing the direction of the probe for the intensifier does not solve the issue. There is, however, a way forward. In recent work on English complex anaphors and intensifiers, Charnavel & Sportiche have argued that complex reflexives have a more intricate structure than what we see on the surface (Charnavel & Sportiche to appeara,t; cf. Safir 1996, Labelle 2008: 847). They claim that in the complex reflexive, the intensifier (following work by Eckardt 2001) is a two-place predicate of identity taking the overt pronoun (in English) as one argument and a null element represented in (93) as α as the other. The intensifier ensures that the two elements are co-valued.[21]

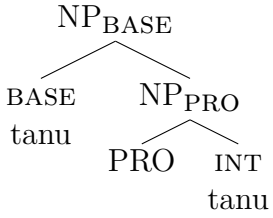
(93) [him [self α]]

For Charnavel & Sportiche, α is a trace/unpronounced copy of the antecedent, a type of movement approach to complex reflexives discussed in the previous sections. As we have discussed, these types of approaches falter because of the ability for complex reflexives to occur in island environments like coordinations. Departing from this analysis slightly, instead of treating α as a trace of movement, what if instead α is in fact PRO controlled by the anaphor's antecedent. This would allow us to circumvent the issue of movement out of islands, as there is no movement dependency. Another attribute of the analysis is that we know that PRO independently allows for case transmission (Landau 2008), which would allow for the antecedent's case features to be transmitted to a position that is local to the intensifier, and that such transmission is still possible across another NP (Landau 2008: 890), hence we do not run into similar issues regarding minimality that occur with upward probing. Under this type of analysis, the intensifier does not agree with the antecedent in case features directly, but instead the relation is mediated via PRO: the antecedent transmits case to PRO and the intensifier agrees with PRO hence copying the transmitted features. Also since PRO is co-referent with its controller, and the intensifier forces PRO to co-refer

[21] When used as a simple intensifier adjoined to a NP, Eckardt (2001) treats the intensifier as a one place predicate taking a single argument. It is possible that it can be type lifted into a two place predicate as Eckardt 2001 does to account for some adverbial intensifiers.

with the referent of the base, then the controller of PRO must be co-referent with the base of the anaphor, hence only the NP that is co-referent with the anaphor can share its case with the intensifier via PRO. Under this analysis, the complex reflexive in Telugu has the structure given in (94). We depart from Charnavel & Sportiche and treat what we have been calling the pronomominal base as the head of the NP, PRO + the intensifier adjoins to the head to create the complex reflexive. As the adjoined NP is at the phase edge, it is still accessible for operations in the higher domain.

(94)



Let us now discuss the operation that underlies the case-agreement we see between the PRO within the CCR and its antecedent. While the pronominal base of the CCR appears to be assigned case via the normal case-assignment rules of the language, the PRO part of the anaphor is transmitted case from the antecedent. We assume that the case features of PRO are copied from the anteccedent of the CCR via the mechanism of Feature Transmission (Kratzer 2009; cf. Landau 2008, 2016). Focusing on ϕ-features, Kratzer argues that features of the antecedent may be transmitted to an anaphor via the mechanisms in (95).

(95) 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. (Kratzer 2009: 196 ex. 19)

b. *Feature Transmission*
The ϕ-feature set of a bound DP are unified with the ϕ-features of the verbal functional head that hosts its binder. (Kratzer 2009: 195 ex. 18)

For Kratzer, binding is mediated via functional heads in the syntax (see also Reuland 2011; Antonenko 2012; Paparounas & Akkuş 2023; Murphy & Meyase 2022 who also argue that binding is mediated by syntactic heads), so there is an agreement relation between a head, say v for binding by a subject, and the element in its specifier via the mechanism (95a) (cf. valuation via selection of Murphy & Meyase 2022 and the cyclic agree analysis of Paparounas & Akkuş 2023). As stated in (95a), this predication relation only occurs when the head in question hosts a λ-binder. As a reviewer notes, this blurs the lines between syntactic and semantic representations. If we assume that λ-binders are only appended into the structure in the mapping from narrow syntax to LF, then in the narrow syntax, there is no way to distinguish between heads that have binders and those that do not. In order to make this distinction visible within the narrow syntax, Kratzer proposes that there are different flavors of syntactic heads some of which are mapped to λ-binders at LF, but the initial distinction is made in the syntax proper. This is pursued by Paparounas & Akkuş (2023), who suggest a Voice$_{\text{min}}$ head that will agree with its specifier. Similarly, Antonenko (2012) proposes that there is a diacritic syntactic feature ρ ('rho') that occurs on binding heads in the syntax that

maps to λ-binder in the semantics.[22]

The condition in (95b) then shares the features of the binding head with the anaphor being bound. We formalize case-copying in this framework and treat it as part of the Feature Transmission process. While Kratzer's mechanisms were originally only for ϕ-features, we extend this line of analysis to case features as well. This allows for the case feature of the antecedent to be transmitted to the PRO within the CCR, allowing the intensifier to display the "copied" case. As mentioned above, the inclusion of case to Feature Transmission seems independently needed to account for case transmission with PRO in control configurations. In fact, the analysis of case transmission for control given in Landau (2008) is extremely similar to the Feature Transmission analysis given above: the controller enters into a relation with a Functional head and the functional head transmits the features of the controller to PRO as shown in (96).

(96) $\overset{\lceil\quad\quad\quad\quad\quad\quad\rceil}{[\ \underset{\lfloor\quad\rfloor}{\text{F}}\ \ldots \text{NP} \ldots [\ \ldots \text{PRO}\ \ldots]\ ]}$

The mechanism of Feature Transmission is a phase bound operation (Kratzer 2009: 197).[23] This has the consequence of only allowing case-copying on the intensifier to co-occur with a local antecedent. Feature Transmission also does not have a minimality condition like we see with AGREE, and can allow for feature sharing between a head and any element within its sister (Kratzer 2009:194; see also Murphy & Meyase 2022:23 fn. 9 for relevant discussion and comparison to facts in Tenyidie which is a language that appears to show a minimality effect). Our treatment of case-copying involves transmission of case to PRO that is contained within the complex anaphor. The pronominal base does not partake in Feature Transmission. It is assigned case via the normal case assignment rules just like it does when it occurs independently. Under this account, while the parts of CCR form a

[22] Another issue raised by the reviewer concerns why predication cannot take place with a *wh*-phrase moving to the specifier of *v*P during successive cyclic movement. This question relates to how we distinguish classic A-positions from A′-positions. One recent account of these effects is given by Safir (2019), who argues that elements undergoing A′-movement must be encapsulated within a larger XP (see also Rezac 2003), hence Predication may be blocked since the wh-phrase itself is not truly the spec of *v*P.

[23] The idea that case transmission is phase bound appears to run into the issue that case transmission is possible across infinitival complementizers (Landau 2008: pp. 890). There are a few points worth noting about this finding: First, infinitival complementizers have been shown to occupy a lower position in the left periphery than high finite complementizers (Satik 2022), so even in the cases of infinitival complementizers, the infinitive clause is truncated and may lack a phase boundary. In this regard, it is important to note that infinitives that host a wh-phrase in the clause uniformly block case-transmission (Landau 2008: pp. 893). Satik shows that wh-phrases occupy a higher position in the left periphery than infinitival complementizers (but lower than finite complementizers), hence it is possible that the additional structure added to host the wh-phrase introduces a phase boundary. Second, locally bound complex reflexive and reciprocals can be separated from their antecedent by infintival complementizers. For example, in English, it is possible for reflexives and reciprocals to occupy the subject position of *for NP to* construction. Many naturally occurring examples can be found on the internet; we give two here (see also Bruening 2021; Reinhart & Reuland 1993):

(i) a. Newton arranged for herself to be taken to the hospital from Chadbourn, North Carolina.
b. They arranged for each other to be well represented on the high-level GoreChernomyrdin Commission.

While the topic of phasehood/locality in infinitives is an important issue, delving further into this topic will take us too far afield and hence we must leave further investigation as a matter of further research.

syntactic constituent, they are syntactically independent of one another when it comes to the Feature Transmission process.

Before moving on, we want to be explicit about which operations target which component of the reflexive and antecedent. Here we summarize and sharpen our assumptions about the antecedent, the pronominal base, the intensifier, Feature Transmission, and Feature Sharing:

The antecedent: We assume that the antecedent has valued ϕ-features at the beginning of the syntactic derivation and an unvalued case feature. Its case feature is determined by the case assignment rules outlined in the previous section. It shares its features with the functional head of which it is the specifier, if said functional head is one that facilitates binding (in Kratzer's terms the head contains a λ-binder).

The base: The pronominal base is the linearly first *tanu* we see in the CCR. We take this *tanu* to be one and the same that we see used as the pronoun when it occurs outside the CCR. As it can be bound in constructions where feature transmission would be impossible, e.g., across finite CP phases and even cross-sententially, we assume that its ϕ-features are valued at the beginning of the derivation. Feature matching with the antecedent is then enforced via the semantics. Its case feature is unvalued and is once again determined by the case assignment rules laid out in the last section. When it is part of the CCR, it keeps all of these relevant properties.[24]

The intensifier: The intensifier, both when part of the CCR and on its own, adjoins to an NP and agrees with that NP in case features. As it is an adjunct, it does not have its case features valued via dependent case rules. Turning to its ϕ-features, we see that it must also match the NP that it adjoins to. As discussed above, this could be achieved one of two ways: under a strong syntactic analysis: both case and ϕ-feature matching would be enforced via syntactic agreement between the intensifier and the NP that it adjoins to. Under a weak syntactic analysis, only case features are determined by syntactic agreement; ϕ-feature matching is then determined by the semantics. As stated above, we will assume the more conservative weak syntactic analysis here. What is important is that the intensifier in the CCR and outside of it behaves the same with regard to its features. The intensifier is semantically a two place predicate that takes PRO and the pronominal base as its arguments and asserts that the two co-refer (though see footnote 21). This ensures co-reference between the antecedent (which is PRO's controller) and the pronominal base of the CCR.

PRO: PRO in the CCR is the variable that is bound by the functional head that introduces the antecedent of the CCR in its specifier. It has an unvalued case feature that is valued via case/feature transmission with the functional head.[25] This results in it having

[24]A potential issue pointed out to us by Martin Salzmann (p.c.) concerns Condition B of the binding theory. If the base is truly the same inside an outside of the CCR, we might expect it to trigger a Condition B violation while inside the CCR just as it does outside of it (cf. (22)). Here we follow Reuland (2021) and Volkova & Reuland (2014) in assuming that the addition of the intensifier protects the pronominal base from enducing a Condition B violation by making it formally distinct enough from a simplex variable. See Reuland (2021) and Volkova & Reuland (2014) for important discussion.

[25]Case transmission seems to be obligatory in Telugu as it only has a CCR, but we know that in some languages (e.g., Russian, Icelandic) PRO can alternate between case transmission and independent case assignment, hence we might expect a similar type of alternation for complex reflexives. An intriguing candidate for such a language is Sanzhi Dargwa. As shown in the introduction, Sanzhi Dargwa has a CCR where the first element copies the case of the antecedent. It also has a complex reflexive where, instead of copied case, the first element shows genitive case (the case typically assigned to an NP embedded within

the same case feature as its antecedent/controller. Like the intensifier, we can take a strong or weak syntactic analysis of the ϕ-features of PRO. A number of authors have argued on both empirical and theoretical grounds that PRO should be viewed a minimal (i.e. lacking valued ϕ-features) and only have its feature valued via feature transmission (Kratzer 2009, Landau 2008, 2016). If these arguments are correct, then for PRO, the strong syntactic analysis appears to be on the right track, and hence we follow it below. Again, we believe the analysis could be amended to a weak syntactic analysis of PRO's ϕ-features if future research uncovers that is the right analysis. What is important for us is that agreement in case features only seems amenable to an analysis in terms of morphosyntactic agreement, hence only a strong syntactic analysis of case feature sharing between the antecedent, PRO and the intensifier seems viable.

Feature Transmission: We use the operation of Feature Transmission to analyze the sharing of case features between the antecedent and the PRO piece of the CCR. This operation appears to best fit the data as we have described. A movement based account of case sharing would run into problems with the coordination data discussed in the previous section, but an analysis using the operation (upward) Agree runs into issues with ditransitive structures where minimality appears to be violated. Feature Transmission overcomes both of these issues as it does not rely on movement (for more detail on how our analysis handles coordination data see section 4.4.5) and the ditransitive data (discussed in more detail in section 4.4.3) follow as Feature Transmission unlike Agree does not have a minimality condition. Feature Transmission is phase bound, however, and this will help us account for the lack of CCR across finite clause boundaries (see section 4.4.6) and also in discussion of PPs (see section 4.4.7). It does appear that Feature/case transmission can cross infinitival complementizers (see footnote 23); our analysis predicts that the CCR should be possible in such constructions. Telugu lacks such complementizers, so this prediction would require future work in a language that has such complementizers.

Feature Sharing: The other operation that we use to model the case agreeing properties of the intensifier is Agree/Feature sharing, this allows the intensifier to agree in case with the noun that it adjoins to: PRO in the CCR or any NP in its regular intensifier use. This is achieved via the intensifier probing its sister. The use of Feature sharing allows for the probe on the intensifier to locate the case feature on its sister. When case is assigned to the NP, either via normal case assignment or via Feature Transmission, this results in case values being shared between the NP and the intensifer.

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another NP) (Forker 2020: 105). An example is given below. In this example, the antecedent is dative, but the first element of the reflexive shows genitive.

(i) har durhu-j [cin-na ca-w] či-w-až-ib
every boy-DAT REFL-GEN REFL-M SPR-M-see.PFV-PRET
'Every boy saw himself.' (Forker 2020: 556 ex. 15)

Under the current analysis we can analyze the CCR similarly to Telugu where the first element/intensifer has agreed with PRO that has undergone case transmission, in the genitive reflexive, the same element has agreed with PRO that has been assigned an independent case.

4.3 An aside on case-copying reciprocals

Our analysis can also capture case-copying reciprocals in Telugu (and perhaps other languages as well, e.g., Icelandic below). Like reflexives, reciprocals in Telugu are complex, made up of two instances of *okaḷḷa* ('one'). Again the first instance shows independent case, while the second shows copied case. The relevant examples are given below.

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

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

Like the CCR, the two elements of the reciprocal form a constituent. As shown in (99), they can be scrambled together.

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

Also like the CCR, they require a c-commanding (100a) and local (100b) antecedent.

(100) a. *[vaḷḷa$_i$ akka]-ku eppuḍuu okkari-miida okkari-ki$_{*i}$ kopam
3PL.GEN sister-DAT always one-ON one-DAT anger
'Their sister is always angry at each other.'

b. *vaḷḷu$_i$ [raamu okaḷḷa-ni okaḷḷu poguḍu-konn-aa-ḍu ani]
Raju.NOM Ramu.NOM one-ACC one.NOM praised-VR-PST-3MSG COMP
anu-konn-aa-ḍu
say-VR-PST-3MSG
'They thought that Ramu praised each other.'

Given these similarities, we would like our analysis to account for case-copying with reciprocals as well. Here we sketch out the relevant assumptions for that to work.

Following Heim et al. (1991), we refer to one part of the reciprocal as the *distributor* (e.g., English *each* and the other as the *reciprocator* (e.g., English *other*). Because in Telugu, the two elements share the same form, it is hard to tell which is the distributor and which is the reciprocator. A helpful hint might come from Icelandic, which also has case-copying reciprocals. The distributor is *hvor* and the reciprocator is *annar*. It is the distributor that agrees in case, while the reciprocator shows case independence, as shown in (101).

(101) Þeir höfðu talað hvor um annan
they.NOM.M.PL had talked each.NOM.M.SG about other.ACC.M.SG
'They had talked about each other.' (Sigurðsson et al. 2020: ex.1)

Hence, we will assume that this is also the case for Telugu: the distributor is the element that copies case and the reciprocator is the element that shows case independence. Beginning with Heim et al. (1991), it has been assumed (similar to the discussion of reflexives above)

that in addition to the overt parts of the reciprocal, there is also a covert variable/empty category that is essential to the make up of reciprocals. This is conveyed by the following assumption from Heim et al. 1991.

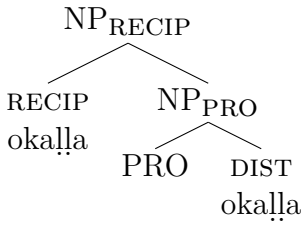
(102) Syntactic assumption
e of *each* is an anaphor; [*e other*] is an R-expression. (Heim et al. 1991: 73)

Similar to Charnavel & Sportiche (to appeara) above, the empty category is assumed to be a trace of movement. The fact the case-copying reciprocals can occur in coordinations once again speaks against the use of movement to create the variable.

(103) vaḷḷa-ku rani-anṭe mariyu okkar-anṭe okkari-ki išṭam
3PL-DAT rani-ANTE and one-ANTE one-DAT like
'They like Rani and each other.'

We would like to suggest that once again the variable is PRO and not a trace (cf. Déchaine & Wiltschko 2004, Labelle 2008: 847). This allows us to give a similar syntax to both complex reflexives and reciprocals in Telugu.[26]

(104)



With this structure, PRO can be transmitted case, similar to the CCR above, and the distributor can agree with it similar to the intensifier. The reciprocator then plays a similar role to the pronominal base where it has its case assigned via dependent case rules.

As noted in the introduction, many languages show some sort of case agreement with the antecedent. While we leave investigation of many of these languages to further research, we like to suggest that our analysis can be extended to Icelandic.[27] Here we review the properties of the Icelandic reciprocal by reviewing data from Messick & Harðarson (2023). Like Telugu, the two parts of the Icelandic reciprocal can undergo movement together, as shown in (105). Note that since Icelandic is V2, whatever precedes the finite verb must be a single constituent.

(105) hvor um annan, höfðu þeir talað
each.NOM.M.SG about other.ACC.M.SG, had they.NOM.M.PL talked
'About each other, they had talked.' (Messick & Harðarson 2023: ex. 4b)

The example in (105) also illustrates another common property between Icelandic and Tel-

[26] One may wonder if the reciprocator should be categorized as a determiner, making the structure in (104) a DP. While this may be the case for English *each*, it is a trickier question for Telugu which lacks articles and hence may not have a DP projection. We won't dive into this matter here. See Dees to appear for discussion of whether the closely related Kannada projects a DP layer or not.

[27] A part of Greek reciprocals also agrees in case with its antecedent, but it appears to have a different syntax than Icelandic and Telugu. See Paparounas & Salzmann (to appear) for discussion.

ugu: notice that the adposition *um* comes in between the distributor *hvor* and the reciprocator *annan*. The only difference being that Telugu being head final has postpositions while Icelandic has prepositions. We also see that case agreement between the antecedent and reciprocal can be established across an intervening NP, as shown in (106) (cf. (112a) in Telugu).

(106) Nemendurnir sögðu kennaranum hvor frá ögðrum
students.THE.NOM told teacher.THE.DAT each.NOM from other.DAT
'The students told the teacher about each other.' (Messick & Harðarson 2023: ex. 55)

Another property that the languages have in common is that both can have the reciprocal occur in a coordination without incurring a CSC violation (107). This suggests (contra Sigurðsson et al. 2020) that Icelandic reciprocals are not linked to their antecedents via movement.

(107) Þeir töluðu alltaf hvor um annan og um
they.NOM.M.PL talked always each.NOM.M.SG about other.ACC.M.SG and about
stjórnmál
politics
'They always talked about each other and about politics.' (Messick & Harðarson 2023: ex. 14b)

Based on these similarities, we suggest that Icelandic can also be analyzed in a similar manner to Telugu reflexives and reciprocals. While we focus most of our attention on Telugu, we return to Icelandic comparisons when discussing binding of CCRs within PPs in section 4.4.7.

4.4 Derivations and discussion

In the subsections below, we give some sample derivations and discussion of the CCR with different types of antecedents: we discuss nominative antecedents, dative antecedents, ditransitive constructions, ECM structures, coordinations, places where the CCR is not licensed and finally the CCR in PPs.

4.4.1 Nominative antecedents

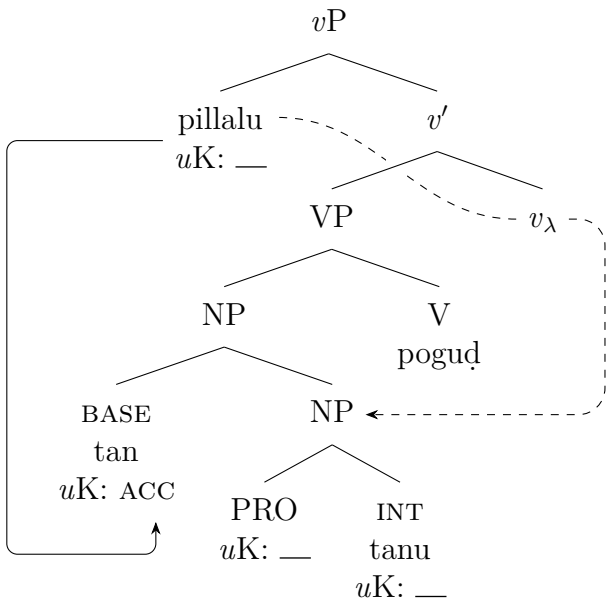
Let us begin with an example like (108). In this example the anaphoric base shows structural accusative and the intensifier shows "copied" nominative.

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

As the antecedent for the CCR is in the specifier of vP, it shares its ϕ-features and also its case features with the v head via predication, the head then transmits those features to PRO via Feature Transmission. The intensifier and PRO have undergone AGREE and hence

share the same feature. Since the base of the CCR is c-commanded by an unmarked NP, it is assigned accusative case. The tree structure for (108) is shown in (109).

(109)



The derivation will proceed and the subject will move to the specifier of TP. Since the case feature of both the antecedent and the intensifier remains unvalued at the end of the derivation, they surface unmarked (nominative).

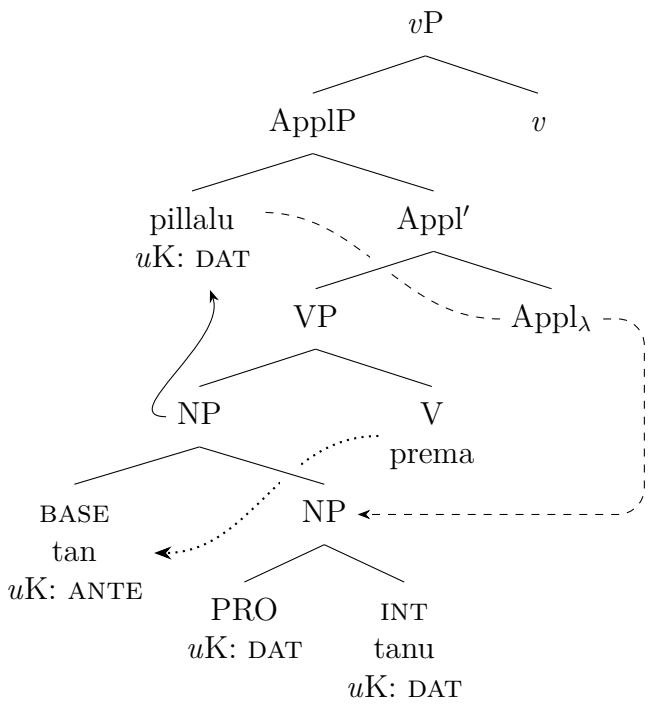
4.4.2 Dative subject antecedents

Let us now look at a derivation when the subject is dative such as the example in (110).

(110) pilla-la-ku tam-aṇṭe tama-ki prema
child-PL-DAT 3PL-ANTE 3PL-DAT love
'The children love themselves.'

In (110), the base is assigned the lexical case *aṇṭe* via case assignment by the selecting root *prema*. We assume that experiencer subjects are merged lower in the structure than agentive subjects; here we will represent them in an ApplP. 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 (111), (ii) the λ-binder will be hosted on the functional head Appl as the antecedent for the CCR will be in the specifier of ApplP, not vP, hence predication and feature transmission take place with Appl. The tree structure for (110) is shown in (111).

(111)



Once the vP is completed, the dative subject moves to SpecTP and the CCR is spelled out.

4.4.3 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 (112). And the goal can bind the theme as shown in (113).

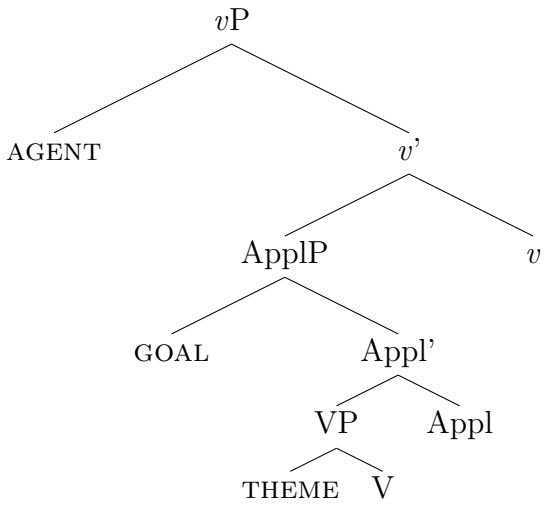
(112) a. Pilla-lu ravi-ki tama-ni taamu paricayam ceesu-kunn-aa-ru
child-PL Ravi-DAT 3PL-ACC 3PL.NOM introduce do-VR-PST-3PL
'The children introduced themselves to Ravi.'

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

(113) pilla-lu ravi-ki tana-ni tana-ku paricayam cees-ææ-ru
child-PL Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PST-3PL
'The children introduced Ravi to himself.'

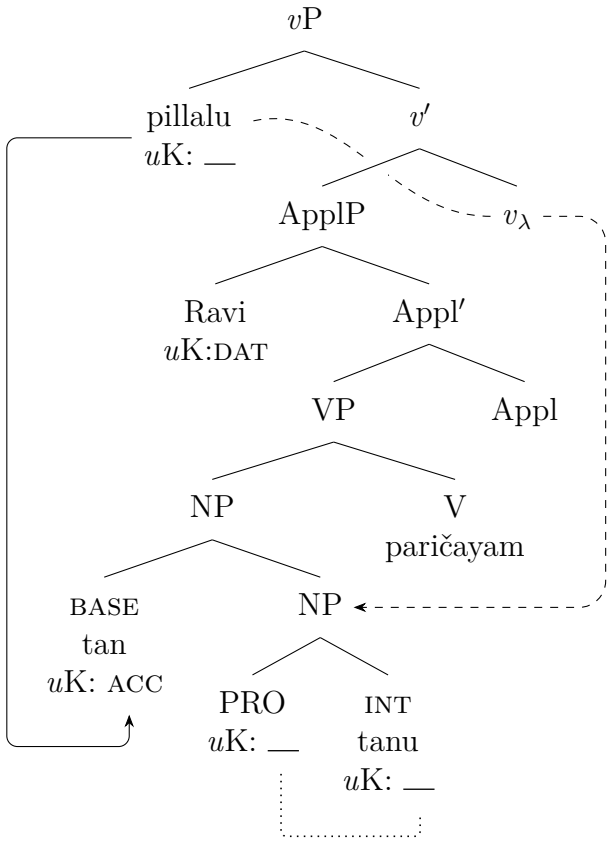
We follow the ApplP approach to ditransitive constructions (Marantz 1993; Bruening 2001; Pylkkänen 2008). In Telugu, the goal asymmetrically c-commands and hence precedes the theme in its base position, as shown in (114).

(114)



With this background, let's walk through the examples presented at the beginning of this section. The example in (112a) would follow the same steps as the derivation given in section 4.4.1 save for the fact we have the additional ApplP and goal argument in (112a). This is shown as a tree structure in (115).

(115)

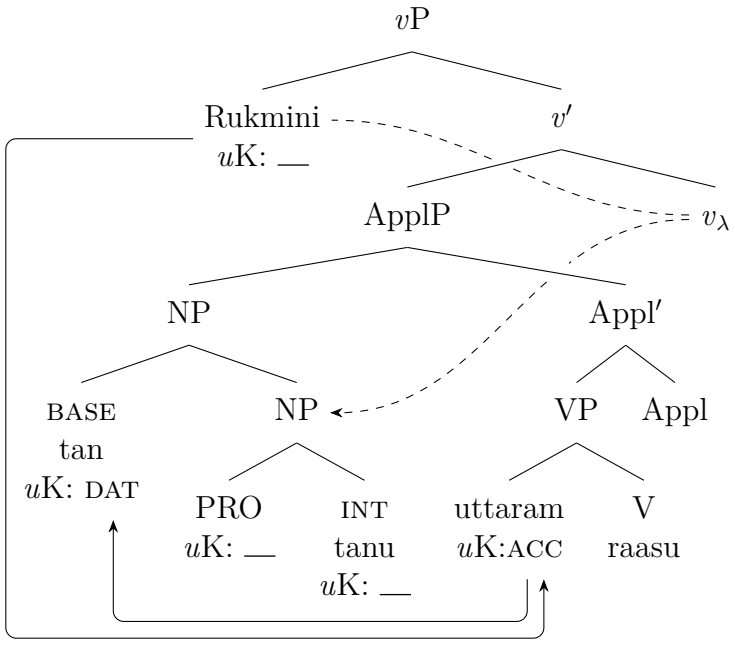


The subject moves to the specifier of TP. Since the case features of the subject remain unvalued, they surface as nominative.

The example in (112b) is similar, the only difference being that the anaphoric base's case

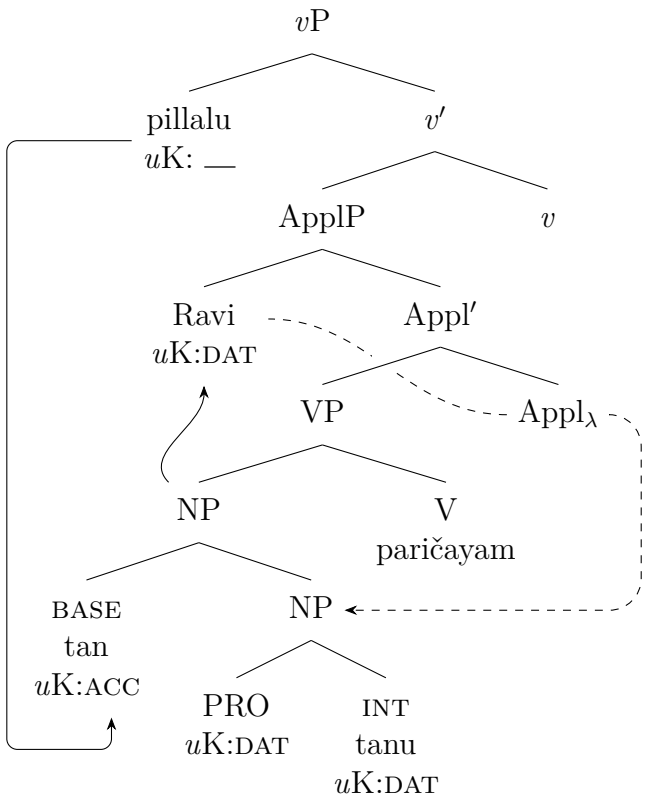
feature is valued as dative instead of accusative since it c-commands an NP (i.e., the goal) within the VP spell out domain. This is shown as a tree structure in (116).

(116)



The example in (113) 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 the intensifier via Feature Transmission. The original case feature on the base part of the CCR is then assigned accusative as it is c-commanded by an unmarked NP (i.e., the subject). This is shown as a tree structure in (117).

(117)



4.4.4 ECM

Let us turn to ECM constructions. There are two aspects of interest: when the ECMed NP is a complex anaphor and when the antecedent of the complex anaphor is an ECMed NP. As shown in (118), an ECMed anaphor can surface as the complex case-copying reflexive.

(118) uma tana-ni tanu goppadi ani anukon-in-di
Uma.NOM 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. The CCR 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 the intensifier 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 (119).

(119) neenu [ravi tana-gurinci tanu nijaayiti-paruḍu ani] anukuṇṭaanu
1SG.NOM Ravi 3SG-ABOUT 3SG.NOM honesty-one COMP 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 (120).[28]

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

One may wonder whether what we have been calling ECM is really a type of prolepsis where the accusative NP is base generated in the matrix clause and the subject of the embedded clause is actually a null bound *pro*. Under this analysis, the nominative case on the anaphor would not be surprising as the local antecedent of the anaphor would not be the accusative NP, but instead a nominative null *pro* in the embedded clause. There are however, reasons to think that the construction under investigation is truly ECM and not prolepsis. We will give three arguments that it is ECM: the construction is sensitive to islands (this is shown with both CSC and relative clause islands), the construction may only target the highest NP in the embedded clause (i.e., minimality), and ECM is restricted to certain predicates while prolepsis is more productive. In each case, we will compare the ECM construction to a what appears to be a true case of prolepsis in the language where the NP in the matrix clause is introduced by the postposition *gurinci* ('about') and is co-indexed with a pronominal argument in the embedded clause. Let us first look at islands. As shown in (121), the ECM construction does not allow for the gap in the embedded clause to be in an island environment. This is shown for coordination islands in (121).

(121) *ravi raaju-ni [__ mariyu raamu] picci-vall-ani
Ravi.NOM Raju-ACC __ and Ramu mad-3PL-COMP
bhaav-is-taa-ḍu
consider-DO-HAB-3MSGL
Intended:'Ravi thinks of Raju that he and Ramu are mad.'

Compare this to the case with a matrix PP, where the construction is grammatical.

(122) ravi raaju$_i$-gurinci tanu$_i$ mariyu raamu picci-vall-ani
Ravi.NOM Raju-ABOUT 3SG and Ramu mad-3PL-COMP

[28]This is also the case for case-copying reciprocals in Icelandic: despite the antecedent of the reciprocal being assigned accusative, the case-agreeing part of the reciprocal surfaces as nominative and not accusative.

(i) Ég taldi þá$_i$ [t_i hafa hjálpað hvor/*hvorn öðrum]
I beleived them.ACC have helped each.NOM/each.ACC other.DAT
'I believed them to have helped each other.' (Sigurðsson et al. 2021: ex. 10a)

bhaav-is-taa-ḍu
consider-DO-HAB-3MSGL
'Ravi thinks of Raju that he and Ramu are mad.'

Similarly, we see that an accusative marked NP cannot be associated with a gap inside a relative clause island as shown in (123).

(123) *neenu ravi-ni manasaara [__ kalisina ammayi] telivayinadi ani
1SG.NOM ravi-ACC wholeheartedly [__ met girl] intelligent COMP
anukunnanu
thought
Intended: "I thought wholeheartedly that the girl who met Ravi was intelligent"

Again, prolepsis is possible in the same construction as shown in (124).

(124) neenu ravi-gurinci manasaara [tana-ni kalisina ammayi] telivayinadi
1SG.NOM ravi-ABOUT wholeheartedly [3SG-ACC met girl] intelligent
ani anukunnanu
COMP thought
"I thought of Ravi wholeheartedly that the girl who met him was intelligent"

We also see that for the ECM construction, the NP that can raise into the matrix clause must be the embedded subject (i.e., the highest NP in the embedded clause). It cannot be any other NP such as a possessor embedded within the subject, as shown in (125).

(125) *akhil Sameer-ni [__ tanḍri picci-vaaḍu ani] bhaavinč-ææ-ḍu
akhil 3SG-ACC __ father mad-3MS COMP consider-PST-3MS
Intendend: 'Akhil thought Sameer's father was mad'

This again differs from the prolepsis construction where the matrix PP can be co-indexed with a non-subject in the embedded clause.

(126) akhil sameer-gurinči [tana tanḍri picci-vaaḍu ani] bhaavinč-ææ-ḍu
akhil sameer-ABOUT 3SG.GEN father mad-3MS COMP consider-PST-3MS
'Akhil thought of Sameer that his father was mad'

Finally, there are selectional restrictions that are suggestive that the construction under investigation is ECM. Prolepsis is widely available with almost all embedding predicates including verbs of communication such as *čepp* ('say'), as shown in (127).

(127) akhil ravi-gurinči [tanu pičči-vaaḍu ani] čepp-ææ-ḍu
akhil ravi-ABOUT 3SG mad-3MS COMP say-PST-3MS
'Akhil said of Ravi that he was a mad man'

Accusative marking/ECM, on the other hand, is much more restrictive. As we have seen it can occur with verbs meaning 'think' or 'believe', but it cannot occur with verbs of communication. This is shown in (128).

(128) *akhil vaaḍi-ni [__ piĉĉi-vaaḍu ani] čepp-ææ-ḍu
akhil 3SG-ACC __ mad-3MS COMP say-PST-3MS
Intended: 'Akhil said him was a mad man'

This type of difference in productivity of prolepsis vs. ECM mirrors what has been observed cross-linguistically (Lohninger et al. 2022) and suggests that the instances with accusative subjects are cases of ECM.

Given this discussion, it does appear that the antecedent for the anaphor in examples like (120) is the accusative NP. 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 PRO and then ultimately the intensifier. 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 the CCR has been spelled out, hence the accusative case is assigned too late to be copied onto PRO and the intensifier.[29]

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 (129).

(129) 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).

(130) Ueka-sïn-∅-ga=ni Alonzo-ni Paku-ni ka Puki-ni eska=sï
want-HAB-PRS-IND1=1SS Alonzo-ACC Paco-ACC and Wildcat-ACC that=PS
iamindu-eecha ch'ana-a-∅-ka
all-PL(NOM) play-FUT-PRS-SUBJV

[29]There are perhaps interesting parallels between this type of analysis and case-agreement found in case attraction environments in languages like Swiss German where case-agreeing elements in a relative clause agree in case with the case assigned inside the embedded clause and not the case assigned in the higher matrix clause (Georgi & Salzmann 2017: Section 3.2.3). We leave a further investigation of these types of ECM constructions with case attraction constructions as a promising avenue for future research.

'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.

4.4.5 Coordinations

Let us now discuss the use of the CCR in coordinations. As we have shown in section 3.2.1, the CCR can occur in coordinations. A relevant example is repeated in (131).

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

Bruening (2021) claims that the possibility of complex anaphors in conjunctions is problematic for theories that attempt to reduce Condition A of the binding theory to AGREE. Though we do not necessarily attempt to reduce Condition A to AGREE, we still posit an agreement relation between the CCR and its antecedent, so his argument may appear to carry over to our analysis as well. Bruening notes that while agreement relations can be established within a conjunct (see Nevins & Weisser 2019 and references), the order within the conjunct of the agreeing element matters, hence we find examples of "closest conjunct" agreement or "first/highest conjunct" agreement, but we do not find instances where order of the conjuncts does not matter at all. Like Bruening's English examples, the CCR can occur in either conjunct and still be grammatical. The example in (131) shows that it may occur as the first conjunct, but it is also grammatical as the last conjunct as shown in (132).

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

Why should CCRs differ from other agreement processes in this way? We suggest that this follows from an independent difference we have already seen between the mechanism of Feature Transmission and Agree, namely the difference between the presence of minimality effects. Agree has a condition that requires the probe to agree with the "closest" NP in its search domain. Depending on whether we define closest in linear or structural terms, a probe can agree with the structurally highest or linearly closest conjunct, but minimality would block instances of agreement with an NP that is not closest in either sense (Marušič et al. 2015). Feature Transmission, on the other hand, does not have a minimality condition, as we have seen previously, hence it is able to enter a relation with an NP that is neither the structurally highest or linearly closest NP, hence the difference we observe between Agree and Feature Transmission in conjuncts falls out from an independently needed difference between the two mechanisms observed elsewhere.[30]

[30]Another issue regarding coordination raised in Bruening 2021 is their phasal status. Bruening claims that coordinated phrases should be analyzed as phasal nodes based on data in (i).

(i) *James$_i$ and Elizabeth dressed himself$_i$. (Bruening 2021: 440 ex. 49)

4.4.6 Places where the complex reflexive is impossible

Under the theory proposed here, the CCR is only possible in configurations where Feature Transmission can value the formal features of the intensifier and since Feature Transmission is phase bound, this limits where the CCR can appear. First recall we do not get the complex reflexive as a genitive possessor inside of an NP. Once again, only simplex *tanu* is possible here.

(133) 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) and that possesor do not occupy the edge of the extended nominal domain (i.e., they are not at the phase edge), but rather occupy a lower position (Szabolcsi 1983; Kayne 1994; Despić 2015). This once again places the CCR outside of the phase of its antecedent, hence only the simplex form is possible.[31]

As we have also seen, the complex reflexive cannot be separated from its antecedent by a CP phase boundary, as the examples repeated in (134) shows.

(134) a. raaju [tanu (*tanu) parigett-ææ-nu ani] cepp-ææ-ḍu
Raju 3SG (3SG) run-PST-1SG COMP say-PST-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.'

Following Bruening 2014, if binding requires phase-command, the fact that a conjunct cannot bind out of a coordination phrase indicates that the phrase is a phase. However, if we were to instead assume that binding requires c-command (as we have in the above sections), then (i) is ruled out regardless of the phasal status of the coordination since the conjunct would not c-command out of the coordination. We will also note that the fact that Agree appears to look into coordination to agree with one of the conjuncts in closest conjunct agreement also speaks against treating coordinations as phases (though not every analysis of closest conjunct agreement requires Agree to probe into the coordination. See e.g., Murphy & Puškar 2018).

[31] Martin Salzmann (p.c.) asks about the possibility of CCRs inside nominals when the antecedent also resides in the nominal domain. For reasons of space we will not delve into the issue too deeply here. There are two types of nominalizations in Telugu, one uses the *-adam* suffix and one uses the *-ta* suffix. While this is an understudied aspect of Telugu syntax, preliminary data suggests that *-adam* attaches high in the structure while *-ta* attaches lower. However, they can both attach high enough to embed vPs. This predicts that within the complement of both types of nominalizers, the CCR as well as its antecedent can occur, as indeed is the case:

(i) a. ravi tana-ni tanu cada-kottu-ko-w-adam maaku nacca-leedu
Ravi.NOM 3SG-ACC 3SG.NOM bad-hit-VR-HR-NMLZ 1PL.DAT like-NEG
'We don't like Ravi's destruction of himself'

b. ravi tana-ni tanu cada-kottu-konu-ta maaku nacca-leedu
Ravi.NOM 3SG-ACC 3SG.NOM bad-hit-VR-NMLZ 1PL.DAT like-NEG
'We don't like Ravi's destroying of himself'

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

4.4.7 The CCR in PPs

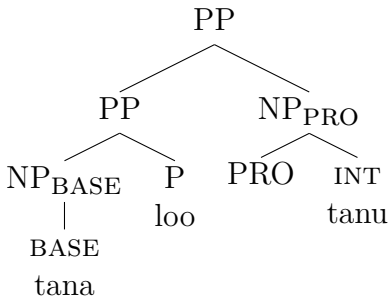
Let us turn to the CCR when it occurs in a PP. In this section, we will also investigate similarities between the CCR and case-agreeing reciprocals, looking specifically at Icelandic, which we have shown in previous sections to be very similar to the CCR.

What is interesting about the CCR in PPs in Telugu is that the postposition appears to intervene between the base and the intensifier. A relevant example is repeated in (135).

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

We suggest that when the adposition comes to intervene between the CCR in Telugu it is because the case-agreeing part (i.e., PRO + the intensifier) adjoins to the edge of PP (cf. Jayaseelan 1996 footnote 15 on Malayalam). The structure for the CCR in PPs under this analysis is given in (136). Note that the base of the CCR shows stem allomorphy suggesting it has been assigned case by the preposition. The constituent consisting of PRO and the intensifier adjoin to the right edge of the PP. PRO undergoes feature transmission in a similar fashion to our previous derivations, and the intensifier agrees with PRO.[32]

(136)



This analysis rules out cases that involve coordination of the base with another NP. First note, that it is typically grammatical to coordinate two NPs under a single P, as shown in (137). In (137), the pronoun *vaaḍi* and Rani are coordinated under the P *miida*. Note that the pronoun shows stem allomorphy here suggesting that it is assigned case and hence c-commanded by the P (on case assignment in conjunction see Weisser 2020).

(137) aame-ku vaaḍi mariyu Rani miida koopam wacc-in-di
3FSG-DAT 3MSG and Rani on anger become-PST-3FSG
'She got angry at him and Rani.'

However, a CCR cannot be coordinated under a single P, as shown in (138). Note that

[32]As discussed in section 2.3, the CCR is possible with both argument and adjunct PPs. Since we rely on Feature Transmission/Control to account for case copying, the adjunct data would be a type of adjunct control (see Landau 2021 for relevant discussion on adjunct control). See also Haddad 2009 for an obligatory control analysis of adjunct control in Telugu.

(138) is ungrammatical despite the first conjunct showing the stem alternation we find when it is complement to P. This controls for a potential parse of the sentence where we are coordinating a bare NP with a PP. Under our analysis, typically, the intensifier takes PRO (controlled by the CCR's antecedent) and the base as arguments and ensures that the two are co-referent. However in cases where the base is coordinated with another NP as in (138), the argument of the intensifier would be the entire coordination, so it would ensure that PRO and the coordination are co-referent, hence this type example is ruled out via the semantics of the CCR.[33]

(138) *vaḷḷa-ku vaaḍi ravi mariyu tama miida tama-ku$_i$ koopam wacc-in-di
3PL-DAT 3MSG Ravi and 3PL on 3PL-DAT angry become-PST-3NSG
Intended: 'They got angry at Ravi and themselves.'

Now recall that case-agreeing reciprocals in Icelandic show an intriguing similarity to Telugu in that the adposition intervenes between the two parts of the reciprocal just like we see for the CCR in Telugu. A relevant example is repeated in (139) (recall from section 4.3 that the reciprocal + adposition passed constituency tests).

(139) þeim hefur alltaf líkað hvorum við annan
them.DAT.PL has always liked each.DAT.M.SG with other.ACC.M.SG
'They have always liked each other.' (Sigurðsson et al. 2020: ex 17a)

We would like to suggest that just like in Telugu, the case agreeing part of the reciprocal (i.e., *hvor* + PRO) adjoins to the PP. The only difference between Telugu and Icelandic is that Telugu has right adjunction to the PP and Icelandic has left adjunction to the PP.

Let us discuss why the case agreeing elements in the Telugu CCR and the Icelandic reciprocal must adjoin to the edge of the PP. There appears to be a correlation between adjoining to the edge of PP and the availability of case agreement with the antecedent. This is best shown by a comparison between two different types of reciprocals in modern Icelandic. In addition to the traditional reciprocal in Icelandic which we have discussed above (see (140a)), speakers have recently begun using a so-called innovative reciprocal as in (140b) (Sigurðsson et al. 2021; Sigurðsson et al. 2020). Note that in the innovative reciprocal both overt parts of the reciprocal appear to the right of the preposition, hence both appear as complement of the P. Also note that in this construction, *hvor* no longer agrees in case with the antecedent.

(140) a. þeir höfðu talað hvor um annan
they.NOM.M.PL had talked each.NOM.M.SG about other.ACC.M.SG
'They had talked about each other.'
b. þeir höfðu talað um hvorn annan
they.NOM.M.PL had talked about each.ACC.M.SG other.ACC.M.SG
'They had talked about each other.'

[33]In Messick & Harðarson 2023, it is argued that the two parts complex reflexives and reciprocals are merged together and then part of the anaphor moves to the edge of the PP. This allows coordination examples like (138) in Telugu and other languages to be ruled out as CSC violations. We do not attempt choose between the two theories here.

We suggest that the adjoining of the case-agreeing part of the reflexive/reciprocal to the edge of PP is to facilitate the agreement relationship between it and the antecedent. If PPs are phases (Abels 2003, 2012), this is explained by the Phase-bound nature of Feature Transmission. Since the edge of a phase is accessible for operations in the higher phase domain, we only expect case-agreement between an anaphor and its antecedent if the anaphor is at the edge of the PP phase. This is why case-agreeing anaphors are often broken up by adpositions in languages with case-agreeing anaphora.[34]

4.5 Summary and discussion

In this section we provided an analysis of case-copying reflexives in Telugu. We began by giving an analysis of morphological case assignment in the language. Then following Jayaseelan (1996), we argued that the complex reflexive in Telugu should be analyzed as a pronominal base combined with an intensifier. The difference between the two languages lies in the intensifier. In Telugu, the intensifier agrees in case with its NP associate and it keeps that case agreement when it is part of the complex reflexive. Malayalam on the other hand has an invariant intensifier hence adding it to the pronominal base does not result in a CCR in the language.

[34] An interesting comparison of the languages discussed so far comes from Lezgian (Haspelmath 1993). In this language, the left element in the complex reciprocal agrees in case with the antecedent. This makes it like Icelandic. In (ia), the antecedent of the reciprocal is a dative subject and the left part of the reciprocal surfaces in the dative case. In (ib), the antecedent is now in the ergative case, and the left part of the reciprocal also appears in the ergative.

(i) a. Wahši-jr.i-z sada-z=sada-g^{q}aj kič'e tuš-ir
wild-PL-DAT one-DAT=one-POEL afraid COP.NEG-PST
'The wild animals were not afraid of each other.'
b. Čna sada=sada-i ixtibar awu-n lazim ja
we.ERG one.ERG=one-SRESS trust do-MSD neccesary COP
'We have to trust each other.' (Haspelmath 1993, ex. 1167)

The language also has postpositions like Telugu, as shown in (ii). The adposition *gwaz* follows its complement.

(ii) Gada ğurč-äj sa q̃izil.di-n k'ek gwaz xta-na
boy hunt-INEL one gold-GEN rooster with return
'The boy returned from hunting with a golden rooster.' (Haspelmath 1993, 567)

Given what we have seen in Telugu and Icelandic, we expect the case-agreeing element to left adjoin to the PP as it does in examples like in (i), but since the PP in Lezgian is head final, this does have an effect on word order in the language, hence we do not see the P intervene between the two overt parts of the reciprocal unlike what we see in Telugu and Icelandic. This is shown in (iii).

(iii) Kukup'-ar sad=sada-q^{h} galaz insan-ar xir raxa-zwa
cuckoo-PL one=one-POESS with human-PL like talk-IMPF
'Cuckoos talk to each other like humans.' (Haspelmath 1993, ex. 1166)

Under the locality of Feature Transmission advocated here, it must be that the case agreeing part of the reciprocal *sad* in Lezgian has adjoined to the left edge of the P. If we are correct about our assumption about Feature Transmission, this leads us to predict that *sad=sada-q* is not an NP constituent in (iii). We leave exploration of these predictions as a matter for future research.

We showed that when outside of the CCR, the intensifier agrees in case with the NP that it adjoins to, but this does not seem to be the case when it is part of the CCR. We argued that this difference was only surface deep: in the case of the CCR, the intensifer does agree in case with the NP it adjoins, but in the CCR, that NP is PRO which has undergone case/Feature Transmission with the antecedent of the CCR. We modeled the relation between PRO and the antecedent by using Feature Transmission via functional heads as in Kratzer (2009). Our analysis departs slightly from Kratzer in that we take Feature Transmission to only target *part of* the complex anaphor: PRO.[35] The pronominal base, on the other hand, instead is assigned case via the normal case assignment rules in the language just as it is outside of the CCR. This distinction is reminiscent of Heim et al. (1991)'s assumption that complex reciprocals are made up of both an anaphoric component and a non-anaphoric component (Heim et al. 1991:73; see also Despić 2011:Sec. 2.5). Their assumption is repeated here.

(141) Syntactic assumption
e of *each* is an anaphor; [*e other*] is an R-expression. (Heim et al. 1991: 73)

Under this approach to reciprocals, it is natural that Feature Transmission should target the anaphoric component of the reciprocal (for us, the empty category PRO), while the non-anaphoric component does not partake in Feature Transmission with the antecedent. This analysis accounted for the possibility of the CCR's presence in island environments like coordinations, and also how binding occurred in ditransitive constructions even in cases that are difficult on AGREE-based accounts of binding due to the absence of minimality effects.

We showed that in PPs, it appears that the intensifier + PRO constituent of the CCR adjoins to the edge of the PP, hence the postposition intervenes between the two overt parts of the CCR. This parallels reciprocal constrictions in languages like Icelandic. We showed, following work by Sigurðsson et al. (2020), that in Icelandic, the reciprocal can only agree in case with its antecedent if it was at the edge of the PP. We argued that this followed from the locality of Feature Transmission. Note that only overt elements that shows case agreement must be at the edge of the PP. Since the pronominal base merges as the complement of the P, under our assumptions about phases and Feature Transmission, it must be the case that the pronominal base does not undergo feature transmission with the CCR's antecedent; hence it appears that this instance of feature matching is achieved by mechanisms outside the morphosyntax.

These findings are especially consequential for debates concerning PPs and phases/locality domains. There is currently tension in the literature about how to treat PPs with regard to their phasal status. There are many accounts in the literature that attempt to reduce the domain of Principle A of the binding theory to phases (see Lee-Schoenfeld 2004; Hicks 2009; Heinat 2009; Bader 2011; Despić 2011; Safir 2014; Charnavel & Sportiche 2016 among many others). Since binding of a complex reflexive anaphor is possible in PPs in many languages, this would suggest that PPs are not phases on this view. The operation of Agree is likewise assumed to be phase bound (Chomsky 2000, 2001; Baker 2008), and the fact that we do not have agreement with NPs embedded in PPs may be taken to be evidence of their phasal status (see Rezac 2008; Baker 2014a). What our data show is that there is a very

[35]It should be noted that in Kratzer's system, the target of Feature Transmission is not also not the whole anaphor, but instead the Number projection within its extended projection (Kratzer 2009: 230).

nuanced relation between binding and agreement when it comes to PPs. Binding appears possible in PPs even with case-copying reflexives and reciprocals, but actual sharing of case features between an antecedent and anaphor is only possible if the case agreeing part of the reflexive/reciprocal is at the edge of the PP. If it merges as complement to the P, then case-copying is no longer possible (cf. the innovative reciprocal in Icelandic). There are a few ways one may interpret these facts. One way would be to claim that PPs are not phases, but agreement/Feature Transmission is blocked into PPs for independent reasons (see Bruening 2014:370). Another route one may take is to say that PPs are phases and hence block agreement/Feature Transmission, but the binding domain for Condition A is not defined in terms of phases, but is defined in some other way (e.g., Bruening 2021 argues for a definition of binding domain in terms of local subject). Finally it may be the case that PPs are phases and both agreement/Feature Transmission and Condition A are sensitive to phases but languages use different tactics to circumvent PP phasehood for binding. One tactic, as we have seen in the languages here, is to adjoin part of the reciprocal/reflexive to the edge of the PP. Other languages may resort to covert movement (i.e., QR in the spirit of Heim et al. 1991) to a more local position to the antecedent, or perhaps some uses of complex anaphora in PPs can be explained by exempt uses (Pollard & Sag 1992; Reinhart & Reuland 1993; Charnavel 2019, though see Bruening 2021:431 for arguments and references that not all binding into PPs can be explained via exempt uses). Whatever path ultimately turns out to be correct, we hope that these findings spur on additional work in the area to sharpen our understanding of binding, agreement and locality in PPs.

At the heart of our analysis is the idea that the components of the CCR keep their morphosyntactic properties that they display on their own when they are recruited to build the CCR. Hence, because the intensifer in Telugu shows case agreement when it is acting as an adnominal intensifier, it retains that property as part of the CCR.

5 Conclusion

This paper offers the first in depth discussion and analysis of case-copying reflexives in the generative literature. While we have analyzed Telugu, we hope that our analysis can serve as a starting point for analyzing other cases of case-copying reflexives in other languages. We demonstrated that the two parts of the CCR form a constituent in Telugu and obey the same locality and syntactic conditions that govern complex reflexives cross-linguistically. We argued that morphological case in Telugu cannot be reduced to semantics, and hence case-agreement in the CCR required a morphosyntactic mechanism. Using coordination islands as a diagnostic, we argued against a movement approach to the connection between the CCR and its antecedent. We also showed that the case-agreement with the CCR did not show minimality effects suggesting that the mechanism underlying the relation could not be reduced to a direct AGREE relation between the antecedent and the intensifier. We instead built an analysis where the case-agreeing part of the CCR is an adnominal intensifier, which independently shows case agreement in the language. We further argued that in the CCR, there is an empty category we took to be PRO that undergoes case/feature transmission with the CCR's antecedent. Since agreement relations appear to be able to look into coordinations, and case/feature transmission does not seem subject to minimality, this analysis

successfully accounted for the data that other potential theories could not. We also showed how our analysis can be extended to binding within PP and also ECM constructions in Telugu. 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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