

On case-copying reflexives: Implications for antecedent-anaphor feature matching

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Abstract

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

1 Introduction

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

(1) Sandra loves herself.

One aspect of the relation between an antecedent and anaphor that is not attempted to be captured via the binding theory is the ϕ -feature matching that occurs between an antecedent and the bound element. Take the example in (1). The anaphor *herself* must match its antecedent Sandra in person number and gender features. In more recent years, the mechanism

that ensures such feature matching has been a growing area of research. The nature of that mechanism is still a matter of great debate: is it a morphosyntactic mechanism similar to the mechanism that ensures ϕ -feature matching in predicate argument agreement (Hicks 2009; Kratzer 2009; Heinat 2009; Reuland 2011; Rooryck & Vanden Wyngaerd 2011; Antonenko 2012; Wurmbrand 2017; Murphy & Meyase 2020; Murugesan 2022; Paparounas & Akkuş 2021) or is it ensured because (part of) the anaphor is a pronounced pronominal copy of the antecedent (Drummond et al. 2011; Hornstein 2001; Kayne 2002), or is it a completely non-syntactic mechanism perhaps enforced in the semantics via the interpretation of the features on the anaphor (Cooper 1983; Ahn 2019; Preminger 2019)?

The purpose of this paper is to bring new evidence to bear on this question. The domain of inquiry will be what has been descriptively referred to as “case-copying” reflexives (Subbarao & Saxena 1987, Subbarao 2012: 89-90, Forker 2020: 105) (CCRs for short). Some illustrative examples from Telugu (Dravidian, South Asia) are given in (2).¹ The case copying reflexive is complex and involves two instances of the element *tanu*. Observe the two cases displayed on the two *tanus* 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 which appears to be “copied” from the antecedent. Now compare this to the example in (2b), this time the reflexive is a direct object in a ditransitive construction bound not by the nominative subject but by the indirect object. As in (2a), the base has accusative case, once again unsurprising given its position in the clause. The intensifier, however, no longer shows nominative, but instead appears in the dative case “copied” from its antecedent *Ravi-ki* (‘Ravi-DAT’).

- (2) a. vanaja tana-ni tanu poguḍu-kon-di
 Vanaja 3SG-ACC 3SG.NOM praise-VR-3FSG
 ‘Vanaja praised herself.’ (Subbarao & Murthy 2000: 228)
- b. pilla-lu ravi-ki tana-ni tana-ku paricayam cees-ææ-ru
 child-PL Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PAST-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 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

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

- ‘Rasul is praising himself.’
 b. rasul-li-j cinij ca-w č̣i: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.²

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

This phenomenon is also found in several Uralic languages (Volkova 2014; Volkova & Reuland 2014). Observe the example in (5) from the Izhma dialect of Komi-Zyrian. Other languages in this family such as Khanty and Udmurt also display the same pattern. Like the previous languages, the complex reflexive is created via 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 *okalla* (‘one’). Similar to the complex reflexive, the second *okalla* shows the same case as its antecedent: nominative in (6a) and dative in (6b).

- (6) vallu okalla-ni okallu tiṭṭu-konn-aa-ru
 3PL.NOM one-ACC one.NOM scold-VR-PST-PL
 ‘They scolded each other.’
 (7) vallu-ku okkar-anṭe okkari-ki iṣṭam
 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), Bosnian/Croatian/Serbian (Despić 2011), Polish (Dadan 2017) and Ukrainian (LaTerza 2014). Below is a minimal pair from Icelandic. When the antecedent is nominative, *hvör* 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).

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

- (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)

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

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

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

The first part of this paper is dedicated to showing that the latter premise holds. This is because outside of a few descriptive notes (see e.g., Subbarao & Saxena 1987, Subbarao & Murthy 2000: 288-289, Volkova & Reuland 2014: 625; fn. 35), case-copying reflexives have gone largely unanalyzed especially in the theoretical literature. Case-copying reciprocals have likewise received little attention (though see Sigurðsson et al. 2020).

If these two premises are valid, then the conclusion one must reach is that there is a morphosyntactic feature sharing relation between a case-copying reflexive and its antecedent. This paper hence provides a novel argument for theories that posit such a relationship. Further, data from islands cast doubt on movement approaches to this connection. We then develop an analysis based on agreement based theories. The proposed analysis captures case-copying reflexives and reciprocals.

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 the 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 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.³ It also has a simplex anaphoric element *tanu* in addition to the complex case-copying reflexive. Subbarao & Murthy (2000) provides a good overview of all these elements. For the sake of succinctness, we will focus our attention on the case-copying reflexives and only touch on the VR and simplex anaphor when relevant to our discussion. We first show that the case-copying reflexive forms a constituent. We then show that it has the same characteristics as reflexive anaphors found cross-linguistically.

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

- (i) waḷḷu okaḷḷa-ni okaḷḷu tiṭṭu-konn-aa-ru
 they one-ACC one.NOM scold-VR-PST-3PL
 ‘They scolded each other.’
- (ii) madhuri annam waṇḍu-kon-di
 Mandhuri rice cook-VR-3FSG
 ‘Madhuri cooked food for herself.’
- (iii) talupu terucu-kon-di
 door open-VR-3NSG
 ‘The door opened’ (Subbarao & Murthy 2000: 229-230)

2.1 The case-copying reflexive is a constituent

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

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

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

If we try to scramble just one of base or the intensifier, the result is ungrammatical, as shown in (11).

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

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

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

The final argument comes from modification. While pronouns and anaphors typically resist any type of modification, they can be modified by the emphatic marker *-ee*. As shown in (13) the emphatic marker can affix to the end of the simplex anaphor.

- (13) raaju [tan-ee parigett-ææ-nu ani] cepp-ææ-ḍu
 Raju 3SG-EMPH run-PAST-1SG COMP say-PAST-3MSG
 ‘Raju said that he_F ran.’

With the complex reflexive, only the intensifier can host the emphatic marker (14a). It cannot appear on the base (14b). This pattern follows if the two *tanus* are a constituent as the emphatic marker is typically found on the right edge of constituents, but if the two

tanus were separate constituents, it is unclear why (14b) should not be possible.

- (14) a. vanaja tana-ni tan-ee poguḍu-kon-di
 Vanaja 3SG-ACC 3SG.NOM-EMPH praise-VR-3FSG
 ‘Vanaja praised herself_F.’
 b. *vanaja tana-n-ee tanu poguḍu-kon-di
 Vanaja 3SG-ACC-EMPH 3SG.NOM praise-VR-3FSG
 Intended: ‘Vanaja praised herself_F.’

These three pieces of data suggest that the base and intensifier *tanus* 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 (15). In (15), 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 (16) demonstrates the same behaviour with an experiencer subject and no verbal reflexive, allaying fears that the inability to take split antecedents in (15) might be an effect of the verbal reflexive.

- (15) *kamala_i siita_j ceeta tama-ni taamu_{i+j} tiṭṭ-incu-kon-di
 Kamala Sita by 3PL-ACC 3PL.NOM scold-CAUS-VR-3FSG
 ‘Kamala had Sita scold themselves.’ (Subbarao & Murthy 2000: 282)
 (16) *kamala_i [siita-ku_j tama-miida tama-ku_{i+j} koopam vacc-indi ani]
 Kamala sita-DAT 3PL-ON 3PL-DAT anger come-PST.3NS COMP
 cepp-indi
 say-PST.3NS
 ‘Kamala said that Sita got angry at themselves’

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 (17).

- (17) a. pilla-lu ravi-ki tama-ni taamu paricayam ceesu-kunn-aa-ru
 child-PL Ravi-DAT 3P-ACC 3P.NOM introduce do-VR-PST-PL
 ‘The children introduced themselves to Ravi.’
 b. pilla-lu ravi-ki tana-ni tana-ku paricayam cess-aa-ru
 child-PL Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PAST-3PL
 ‘The children introduced Ravi to himself.’

If we try to bind a plural anaphor taking both the subject and the dative object as a split antecedents, the result is ungrammatical regardless of which case is shown on the CCR (nominative or dative). This is shown in (18).

- (18) *Ravi raju-ki tama-ni tamu-(ki) coop-inc-ææ-ðu
 Ravi raju-DAT 3PL-ACC 3PL.NOM-(DAT) show-CAUS-PST-3MSG
 Intended: ‘Ravi_i showed Raju_j themselves_{i+j}’

The case-copying reflexive cannot take discourse or deictic references. As seen in (19), the case-copying reflexive is not possible with a cross-sentential antecedent. We also see in (20), that the complex reflexive can only refer to the c-commanding NP, it cannot refer to the embedded possessor NP. Once again, the c-command requirement on the antecedent is not due to the verbal reflexive, but the anaphor itself, as (21) demonstrates.

- (19) *akhil alasi pooyaaðu. tanu tanu paḍukunn-aa-ðu
 akhil tired go.PST.3MS. 3SG 3SG sleep-PST-3MS
 Akhil got tired. He slept
- (20) [karuṇa_i akka]_j eppuḍuu tana-ni tanu_{*i/j} poguḍu-kon-ṭuu unṭun-di
 Karuna sister always 3SG-ACC 3SG.NOM praise-VR-PROG COP-3FSG
 ‘Karuna’s sister always keeps praising herself.’ (Subbarao & Murthy 2000: 248)
- (21) [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 (22). If the antecedent is separated from the bound element by a clause boundary only the simplex anaphor is possible.

- (22) a. raaju [tanu (*tanu) parigett-ææ-nu ani] cepp-ææ-ðu
 Raju 3SG (3SG) run-PAST-1SG COMP say-PAST-3MSG
 ‘Raju said that he ran.’
- b. raaju_i [raamu_j tana-ni tanu_{*i/j} poguḍu-konn-aa-ðu ani]
 Raju Ramu 3SG-ACC 3SG.NOM praised-VR-PST-3MSG COMP
 anu-konn-aa-ðu
 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 (23).

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

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

- (24) roojaa-ki_i tana_i (*tanaki) amma iṣṭam
 Roja-DAT 3SG.GEN (*3SG.DAT) mother like
 ‘Roja likes her mother.’

Let us now turn to the distribution of the case-copying reflexive within PPs. It is possible with PPs headed by *loo* ('in'/'with') and *miida* ('on') (25). 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.

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

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

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).⁵

- (26) nenu nan-nu nenu mečču-kun-aa-nu
 1SG 1SG-ACC 1SG praise-VR-PST-1SG

⁴Another 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 kaṇṭe baaga] coosukon-indi
 sowmya 3SG-ACC 3SG 3SG mother CMPR good look.after-PST.3NS
 'Sowmya_i looked after herself better than her mother_j <looked after herself_{j/*i}>'
- (ii) akhil tana-ni tanu [tana taata kaṇṭe mundu] maracipoy-ææḍu
 akhil 3SG-ACC 3SG 3SG grandfather CMPR before forget-PST.3MS
 'Akhil_i forgot himself sooner than his grandfather_j <forgot himself_{*i/j}>'

We leave further investigation of this difference for future research.

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

- (i) akhil vaadi-ni vaadu mečču-kun-aa-ḍu
 akhil 3MS-ACC 3MS praise-VR-PST-3MS
 'Akhil praised himself'
- (ii) pillalu vaari-ni vaaru mečču-kun-aa-ru
 child-PL 3PL-ACC 3PL praise-VR-PST-3PL
 'The children praised themselves'

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

‘I praised myself’

- (27) nuvvu nin-nu nuvvu mečču-kun-aa-vu
2SG 2SG-ACC 2SG praise-VR-PST-2SG
‘You praised yourself’

2.3 The case of Case-copying

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

- (28) *Nom antecedent + direct object = Acc + Nom*
a. vanaja tana-ni tanu poguḍu-kon-di
Vanaja 3SG-ACC 3SG.NOM praise-VR-3FSG
‘Vanaja praised herself.’
b. pilla-lu ravi-ki tama-ni taamu paricayam ceesu-kunn-aa-ru
child-PL Ravi-DAT 3P-ACC 3P.NOM introduce do-VR-PST-PL
‘The children introduced themselves to Ravi.’
- (29) *Nom antecedent + indirect object = Dat + Nom*
rukmiṇi tana-ki tanu uttaram raasu-kon-di
Rukmini 3SG-DAT 3SG.NOM letter write-VR-3FSG
‘Rukmini wrote a letter to herself.’
- (30) *Nom antecedent + locative object = Loc + Nom*
sarita kamala gurinci tana-loo tanu maṭṭlaaḍu-kon-in-di
Sarita Kamala about 3SG-in 3SG.NOM talk-VR-PST-3FSG
‘Sarita talked within herself about Kamala.’
- (31) *Dat antecedent + direct object = Acc + Dat*
pilla-lu ravi-ki tana-ni tana-ku paricayam cess-aa-ru
child-PL Ravi-DAT 3SG-ACC 3SG-DAT introduce do-PAST-3PL
‘The children introduced Ravi to himself.’
- (32) *Dat antecedent + oblique object = Obl + Dat*
ravi-ki tan-aṇṭe tana-ku prema
Ravi-DAT 3SG-OBL 3SG-DAT love
‘Ravi loves himself.’
- (33) *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 (28) but dative in (33). 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 (28b) and (31) 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 (28b) and the dative indirect object in (31). 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 (34), 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.

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

As we see, the case on the complex reflexive always tracks the case of its binder. Thus, it appears that the only predictive analysis of the case of the second *tanu* is that it is somehow “copied” from its antecedent. There is one principled exception to this generalization. When a hyper-ECMed subject binds a CCR in the embedded clause, the antecedent is accusative, but the case on the case-copying reflexive is nominative as shown in (35).

- (35) neenu ravi-ni_i [*t_i* tana-gurinci tanu nijaayiti-paruḍu ani]
 1SG 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 hyper-ECMed subjects has been noted before in other languages (Levin & Preminger 2015; Wurmbrand 2019; Zyman 2017). We will discuss this construction in more detail in the analysis section of the paper.

3 Previous approaches to feature matching

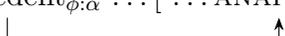
Let us discuss what an analysis of case-copying requires at a general level. It is obvious that some sort of feature matching must be enforced on an anaphor and its antecedent. Take the

simple English example in (36). We see that an anaphor must match in person, number and gender features.

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

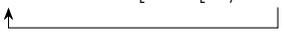
Telugu appears to extend such feature matching to case features in addition to the ϕ -features like we see in English. An obvious place to start for an analysis of case-copying is to try to extend analyses of ϕ -feature matching to include case as well.

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 2020; Paparounas & Akkuş 2021; Murugesan 2022). This is schematized in (37).

(37) 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 a type of copy of a movement chain (Drummond et al. 2011; Hornstein 2001; Kayne 2002).⁶ 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.

(38) [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 presuppositions. Assuming that pronouns are variables of type e , we can treat ϕ -features as type $\langle e, e \rangle$: that is an identity function that returns back the variable, but with a definedness condition. Take for example the meaning of 'masculine' in (39a), 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 (39).

(39) a. $\llbracket \text{masculine} \rrbracket = \lambda x_e: x \text{ is male. } x$

⁶Sigurðsson 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). We provide evidence against this specific account in section 4.3.3 and footnote 17.

- b. $\llbracket \text{feminine} \rrbracket = \lambda x_e: x \text{ is female. } x$
- c. $\llbracket \text{singular} \rrbracket = \lambda x_e: x \text{ is an atom. } x$
- d. $\llbracket \text{plural} \rrbracket = \lambda x_e: x \text{ is a plurality. } x$
- e. $\llbracket \text{1st} \rrbracket^c = \lambda x_e: x \text{ includes } \textit{author}(c). x$
- f. $\llbracket \text{2nd} \rrbracket^c = \lambda x_e: x \text{ includes } \textit{addressee}(c). x$

Returning to the example from above, consider the unacceptable utterance in (40a). It would have the LF in (40b).

- (40) a. #Sandra loves himself.
 b. Sandra [$\lambda x: x \text{ is male. } x \text{ loves } x$]

The problem in (40) 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 (40a) follows from the presupposition not being satisfied. Under this theory, feature-matching is not enforced in the syntax, but instead via the semantics of the ϕ -features on the anaphor.

As Preminger (2019) points out, an attractive aspect of the non-syntactic approach to feature matching is that such a mechanism appears to be independently necessary, as we see feature matching between pronouns and their antecedents in the absence of syntactic relations, like c-command, and with apparent disregard for syntactic locality domains. For example, we still observe feature matching in donkey anaphora (41a) and cross utterance anaphora (41b) despite the lack of c-command and the two elements being in (very) different locality domains.

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

- (42) a. kōigi-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 (43), 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).

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

Finally, we see case sharing between PRO and its antecedent/controller in control constructions in many languages via so-called case-transmission (Landau 2008). Take the Ancient Greek example in (44). Subjects of infinitives are typically assigned accusative case, but in (44) the embedded PRO subject is nominative, matching that of the controller. Although PRO is null, we can see it has nominative case via the agreeing embedded predicate. This is analyzed as the case being transmitted from the controller to PRO as in agreement based theories of control, or as an instance of case being assigned to a movement chain as in the movement theory of control (Hornstein 1999).

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

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

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.

- (45) talupu terucu-kon-di
 door 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 (46).

- (46) neenu akhil-ni [annam tina-ḍam] coos-ææ-nu
 1SG 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 (47) that certain EXPERIENCERS can surface as nominative.

- (47) madhu tana-ni tanu marci poo-yææ-ḍu
 Madhu 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 (48) to account for this data.

- (48) 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 coordi-

nate structure constraint.⁷ This is shown in the examples below. The example in (49) shows that a conjunct cannot move and (50) shows that an NP inside of a conjunct also cannot move.

- (49) a. ravi-ki idli inka dosa iřtam
 Ravi-DAT idli CONJ dosa like
 ‘Ravi likes idli and dosa’
 b. *idli_i ravi-ki t_i inka dosa iřtam
 idli Ravi-DAT t CONJ dosa like
 ‘Ravi likes idli and dosa’
- (50) a. neenu [[magazine-lu caduvut-aa-nu] mariyu [TV cuust-aa-nu]]
 1SG magazine-PL read-PST-1SG and TV watch-PST-1SG
 ‘I read magazines and watched TV.’
 b. *TV_i neenu [[magazine-lu caduvut-aa-nu] mariyu [t_i cuust-aa-nu]]
 TV 1SG 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 (51) (the complex reflexive is also possible in coordinations in Kannada as noted in Lidz 2001a).⁸

- (51) 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 (51) to be ungrammatical. Note that examples like (51) 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 (52), the string can be scrambled together, and in (53) it can act as a fragment answer to a question.

- (52) [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.’

⁷There are several ways to express conjunction in Telugu. Speakers may use the Sanskrit borrowings *inka* and *mariyu*, which function similar to coordinators in English. It is also possible for speakers to express conjunction with two adjacent NPs where the final vowel of the NPs is lengthened (Krishnamurti & Gwynn 1985: 326).

⁸While we have shown above that scrambling (typically thought to be an A'-movement) is subject to the CSC, the movement involved between an antecedent and reflexive is most likely to be A-movement. One may attempt to argue that A-movement is exempt from the CSC. However, there is reason to believe that A-movement is also subject to the CSC in Telugu. In (56), we show that asymmetric differential object marking (DOM) is not allowed in Telugu. We argue that this follows from an object shift analysis of DOM, coupled with the CSC (see Saab & Zdrojewski 2020 for a similar line of argumentation in Spanish). As object shift is thought to be a type of A-movement, this suggests that the CSC must also bar asymmetric A-movement out of coordinations. See also footnote 10 on the relation between the VR and coordinations.

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

The fact that we can have the case-copying reflexive inside a coordination without inducing a violation of the CSC suggests that movement is not involved in the dependency between the reflexive and its antecedent. This casts doubt on theories of reflexives that treat them as overt copies of tails of movement chains (Drummond et al. 2011; Hornstein 2001), but also agreement theories that require that the reflexive (covertly) move⁹ in order to agree with its antecedent (Rooryck & Vanden Wyngaerd 2011).¹⁰

3.3 Summary

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

⁹For evidence that covert movement is also subject to the CSC see May 1985: 59 and Bošković & Franks 2000.

¹⁰ 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 3SG-ACC 3SG and Rani-ACC hit-VR-PST-3MSG
 Intended: ‘Ravi hit himself and Rani.’

Taken together with (51), 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 independent of whether the anaphor moves or not.

4 Analysis

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

4.1 Case assignment in Telugu

We follow the standard tradition of having an NP's uninterpreted case feature unvalued at first merge (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 (54), human objects obligatorily display accusative.

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

Telugu displays differential object marking (DOM) with nonhuman objects conditioned by specificity. If the nonhuman object occurs with the accusative case marker, it is interpreted as specific; if it is unmarked, it is interpreted as nonspecific, as shown in (55).

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

We assume that movement feeds assignment of accusative. Human and specific NPs move out of the VP into a position where they can be assigned accusative case. Evidence for movement comes from coordination. As shown in (56), a specific and non-specific NP cannot be coordinated where only one of the two NPs is marked as accusative (see Kalin & Weisser 2019 and Saab & Zdrojewski 2020 for discussion of the relation between DOM and the CSC cross-linguistically).

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

This follows from the movement based account of DOM because in order for the specific

object to be assigned accusative it must move out of a coordination in violation of the CSC.

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

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

Telugu also displays what we might call hyper-ECM, i.e., assignment of accusative across a finite clause boundary when the embedded clause is a copula. Unlike the example in (57), the assignment of accusative in (58) is optional and alternates with the embedded subject surfacing as nominative.

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

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

- (59) If NP₁ is c-commanded by NP₂ in TP then assign ACCUSATIVE to NP₁.

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.¹¹

Dative in Telugu occurs on the goal argument of a ditransitive verb. We assume that the goal c-commands the theme from a position inside the VP spell out domain such as from the specifier of ApplP (Marantz 1993; Bruening 2001; Pytkänen 2008).

- (60) neenu ataniki naa pustakam icc-aa-nu
 1SG.NOM 3MSG.DAT 1SG.GEN book give-PST-1SG

¹¹The one construction where dative assignment diverges in the two languages is the causative construction. In Sakha, the causee in a causative construction appears with dative case. In Telugu, however, the causee appears inside an adposition or with the instrumental case. We assume that the instrumental case found in the causative in Telugu is an idiosyncratic lexical case. The adposition or lexical case hence bleeds the assignment of dative.

- (i) kamala_i siita_j ceeta tana-ni tanu_i titṭ-incu-kon-di
 Kamala Sita by 3PL-ACC 3PL.NOM scold-CASUE-VR-3FSG
 ‘Kamala had Sita scold her.’

‘I gave him my book.’

We also find dative on the subject of experiencers/psych verbs (61) and also sentences expressing possession (62).¹² 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-aṅṅe iṣṭam
Raju-DAT rice-OBL like
‘Raju likes rice.’
b. Maalati-ki bazaar-loo endaroo kaninpinç-ææ-ru
Malati-DAT market-in many visible-PST-3PL
‘Malati saw many people in the market.’
- (62) waadi-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 possessor 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 *waadi-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. waadi-ki ceyyi kaal-in-di
3MSG-DAT hand burn-PST-3NSG
‘His hand got burnt.’
b. waadi 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 NP₁ c-commands NP₂ in VP then assign DATIVE to NP₁.

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

¹²Like many other South Asian languages, Telugu has another type of possession structure where the subject appears with the postposition meaning ‘near’ in the language (Krishnamurti & Gwynn 1985: 85).

- (i) waadi deggara dabba unnadi
3MSG.OBL near money be.PRF.3NSG
‘He has money (on him now)’

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

- (65) Dependent case features that are added to one copy in a movement chain automatically belong to all copies in the chain. (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-3NS
 ‘Akhil was given a book’

Just as with the experiencer subject constructions, in the passive of the 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 occur in an oblique case or nominative. In the closely related language Tamil, there two types of predicates with apparent dative subjects. One takes an accusative object and the other takes a nominative object (Baker 2015: 188).

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

Baker argues that the dative NP in (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-PAST-1SG
 ‘I want to understand.’
 b. naan_i [PRO.NOM_i mala-kku teveppattu] virumb-an-een
 I PRO.NOM Mala-DAT need-INF want-PAST-1SG
 ‘I want to be needed by Mala.’

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

- (69) mallika [PRO.DAT kindat̪i nela ii ʃaimu-loo jwaram-raawaḍam] gurtu
 Mallika PRO previous month this time-in fever-coming remember
 ceesu-kon-di
 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).

- (70) If NP₁ is c-commanded by an unmarked NP₂ in TP then assign ACCUSATIVE to NP₁.

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 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 *ante* to the complement of many experiencer predicates. Below are some illustrative examples.

- (71) a. ii baabu-ki kottawaallu-ante bhayam lee-du
 this baby-DAT strangers-OBL fear NEG.COP-3NSG
 ‘This baby does not have fear of strangers.’
 b. ii abbaayi-ki peddawaallu-ante bhayamuu bhaktii lee-wu
 this boy-DAT elders-OBL fear.CONJ respect.CONJ NEG.COP-3NPL
 ‘This boy does not have fear or respect for elders.’
 c. ravi-ki rani-ante prema
 ravi-DAT rani-OBL love
 ‘Ravi loves Rani’

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

- (72) a. If NP is complement of $\sqrt{\quad}$, where $\sqrt{\quad} \in \{\text{prema, asahyam, iirSya, aaba, benga} \dots\}$, 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 *vaadu* is used of the third person pronoun masculine singular pronoun *vaadu*.

- (73) sarita kamala gurinci vaadi too maatladaṭunna-di
 Sarita Kamala about 3MSG with talk-PROG-3FSG
 ‘Sarita talked with him about Kamala.’

We see that a P assigns a case to its NP complement from stem allomorphy triggered on the complement. 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. vaadu
 3MSG.NOM
 b. vaadi-ni (*vaadu-ni)
 3MSG-ACC

We assume, following McFadden (2018)’s 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 *vaadu* in (75).

- (75) a. [3MSG] ↔ vaadi / $_$ uK:VAL
 b. [3MSG] ↔ vaadu / (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) 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 (2018)’s 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 $\sqrt{_} \in \{\text{preema, asahyam, iirṣya, aaba, bengā ...}\}$, assign NP ANTE
 b. If NP is the complement of P assign NP PREP.
 c. If NP₁ c-commands NP₂ in VP then assign DATIVE to NP₁.
 d. If NP₁ is c-commanded by an unmarked NP₂ in TP then assign ACCUSATIVE to NP₁.
 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 anaphor *ta(a)n*, that can be bound across clauses, as shown in (77).

- (77) raaman paRaṅṅu [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 hit himself.’ (Jayaseelan 1996: 215 ex. 17)

Jayaseelan’s analysis of the complex reflexive in (78) is that the left-hand *tan* is the simplex anaphor 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).¹³

- (80) a. waadu tanu ii pani ceyya galaḍu
 He 3SG.NOM this work can do
 ‘He himself can do this work.’

¹³For speakers that allow for other pronouns to build the complex reflexive (see footnote 5), those pronouns can be used as case agreeing intensifiers as well, as shown in (i).

- (i) a. waadu waadu ii pani ceyya galaḍu
 3MSG.NOM 3MSG.NOM this work can do
 ‘He himself can do this work.’
 b. waadi-ki waadi-k-ee ame-miida prema puṭṭindi
 3MSG-DAT 3MSG-DAT-EMPH 3FSG-on love born.3NSG
 ‘He himself started liking her.’

- b. waadi-ki tana-k-ee ame-miida prema puṭṭindi
 3MSG-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 simplex anaphor, 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 the simplex reflexive gives rise to a CCR.¹⁴ 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: 559-562) 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 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 the simplex reflexive cannot be used with first and second person antecedents. Instead, regular pronouns are used in the positions where the simplex reflexive is used for third person antecedents, as shown in (81).

- (81) a. nuvvu [nuvvu parigett-ææ-nu ani] cepp-ææ-vu
 2SG 2SG run-PST-1SG COMP say-PST-2SG
 ‘you said that you ran.’
 b. neenu [neenu parigett-ææ-nu ani] cepp-ææ-nu
 1SG 1SG 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 can do
 ‘I myself can do this work.’
 b. naaku naaku ame-miida prema puṭṭindi
 1SG.DAT 1SG.DAT 3FSG-on love born.3NSG

¹⁴A 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.

- ‘I myself started liking her.’
- (83) a. *nuvvu nuvvu ii pani ceyya galavu*
 2SG.NOM 2SG.NOM this work can do
 ‘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.

Following the suggestion of an anonymous reviewer, we assume that the intensifier is adjoined to the anaphor or pronoun base in order to create the CCR. The base is specified for ϕ -features and has its case determined via the case rules laid out in the previous section. This is also true when it is part of the CCR. The intensifier portion of the CCR, however, is featureless (it is a minimal pronoun in the sense of Kratzer 2009) and has its case and formal features assigned via agreement with its antecedent via the mechanisms laid out in the next section.

4.3 Agreement and the CCR

Let us now discuss the operation that underlies the case-agreement we see between the intensifier part of the CCR and its antecedent. While the simplex anaphor part of the CCR appears to be assigned case via the normal case-assignment rules of the language. The intensifier part of the CCR receives the “copied” case. We assume that the case features of the intensifier are copied from the antecedent of the CCR via the mechanism of FEATURE TRANSMISSION (Kratzer 2009). Focusing on ϕ -features, Kratzer argues that features of the antecedent may be transmitted to an anaphor via the mechanisms in (84).

- (84) 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 -feature 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 2021; Murphy & Meyase 2020 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 (84a) (cf. valuation via selection of Murphy & Meyase 2020 and the cyclic agree analysis of Paparounas & Akkuş 2021). As stated in (84a), 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 (2021), who suggest a Voice_{\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.¹⁵

The condition in (84b) then shares the features of the binding head with the anaphor being bound. We formalize case-copying in the framework and treat it as part of the Feature Transmission process. While Kratzer’s mechanisms were original only for ϕ -features, we extend this line of analysis to case features as well. This allows for the case feature of the binder to be transmitted to the intensifier part of the CCR, allowing the intensifier to display the “copied” case. The move to include case features in a Feature Transmission mechanism has been proposed before. In his analysis of Case Transmission in control structures, Landau (2008) argues that case of the controller as well as its other features can be transmitted to PRO via a functional head (F) similar to Kratzer’s implementation.¹⁶

$$(85) \quad \left[\overbrace{\text{F} \dots \text{NP} \dots} \left[\dots \text{PRO} \dots \right] \right]$$

The mechanism of Feature Transmission is a phase bound operation (Kratzer 2009: 197). This has the consequence of only allowing the case-copying on the intensifier to co-occur with a local antecedent. Our treatment of case-copying involves transmission of the case to the intensifier portion of the CCR. The base portion does not partake in Feature Transmission. It is assigned case via the normal case assignment rules laid out previously. Under this account, while the two parts of the CCR form a syntactic constituent, they are syntactically independent of one another when it comes to the Feature Transmission process (and as we will see below, some movement processes as well).

4.3.1 Nominative antecedents

Let us begin with an example like (86). In this example the anaphoric base shows structural accusative and the intensifier shows “copied” nominative.

$$(86) \quad \begin{array}{l} \text{pillalu} \quad \text{tama-ni} \quad \text{taamu} \quad \text{poguđu-kunn-aa-ru} \\ \text{children 3PL-ACC 3PL} \quad \text{praise-VR-PST-3PL} \\ \text{‘The children praised themselves’} \end{array}$$

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 the intensifier via Feature Transmission. The antecedent’s features (3pl) are hence shared with

¹⁵Another issue raised by the reviewer concerns why predication cannot take place with wh-phrase moving to the specifier of vP 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 vP .

¹⁶We should note that Landau has updated and revised aspects of his theory in more recent works (Landau 2015). However, the relevant aspect, i.e., that there is an agreement relation between the controller and PRO, is still found in the newer works as well (see also Landau 2016).

the intensifier along with its case feature.

$$(87) \quad [{}_{vP} \text{pillalu}_{[uK:]} [{}_{VP} [[\text{taam}_{[uK:]} \text{3pl}_{int[uK:]}]] V] v_\lambda]$$

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

$$(88) \quad [{}_{TP} \text{pillalu}_{[uK:]} 2 [{}_{vP} [\text{taam}_{[uK:]} \text{3pl}_{int[uK:]}] 1 [{}_{vP} \text{---} 2 [{}_{VP} [\text{---} 1] V] v_\lambda]]]$$

As the anaphoric base is c-commanded by another NP in the TP spell out domain, the dependent case rules assign it accusative case.

$$(89) \quad [{}_{TP} \text{pillalu}_{[uK:]} 2 [{}_{vP} [\text{taam}_{[ACC]} \text{3pl}_{int[uK:]}] 1 [{}_{vP} \text{---} 2 [{}_{VP} [\text{---} 1] V] v_\lambda]]]$$

Since the case feature of both the antecedent and the intensifier remains unvalued at the end of the derivation, they surface unmarked (nominative).

4.3.2 Dative subject antecedents

Let us now look at a derivation when the subject is dative such as the example in (90).

$$(90) \quad \text{pilla-la-ku} \quad \text{tam-ante} \quad \text{tama-ki} \quad \text{prema}$$

child-PL-DAT 3PL-ANTE 3PL-DAT love
 ‘The children love themselves.’

In (90), the base is assigned the lexical case *ante* via case assignment by the selecting root *prema*. This is shown in (91).

$$(91) \quad [{}_{V'} [\text{tama}_{[ANTE]} \emptyset_{int}] V]$$

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 (92), (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. This is shown in (93).

$$(92) \quad [{}_{\text{ApplP}} \text{pillalu}_{[DAT]} [{}_{\text{Appl}'} [{}_{VP} [\text{tama}_{[ANTE]} \emptyset_{int}] V] \text{Appl}_\lambda]]$$

$$(93) \quad [{}_{\text{ApplP}} \text{pillalu}_{[DAT]} [{}_{\text{Appl}'} [{}_{VP} [\text{tama}_{[ANTE]} \text{3pl}_{[DAT]}] V] \text{Appl}_\lambda]]$$

Once the *vP* is completed, the dative subject will move to the specifier of TP and the CCR will be spelled out.

4.3.3 The CCR in PPs

Let us turn to the CCR when it occurs in a PP. What is interesting about these constructions is that the postposition appears to intervene between the base and the intensifier. A relevant example is repeated in (94).

- (94) sarita tana-loo tanu maatlaaḍu-kon-in-di
 Sarita 3SG-in 3SG.NOM talk-VR-PST-3FSG
 ‘Sarita talked to herself.’

In work on case agreeing reciprocals (LaTerza 2014; Sigurðsson et al. 2020), it has been noted that it is quite common for adpositions to intervene between two parts of a complex reciprocal even when it is a preposition. This is the case in Icelandic, as shown in (95). The preposition *um* (‘about’) comes between *hvor* (‘each’) and *annan* (‘other’).¹⁷

- (95) 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)

Note that *hvor* agrees in case with its antecedent similar to the intensifier in the CCR in Telugu. The example in (95) has a nominative antecedent, hence *hvor* is also nominative. In (96), the antecedent is dative, hence *hvorum* is dative.

- (96) 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)

Given these similarities, we would like to account for both of these constructions in a unified way. We suggest that when the adposition comes to intervene between the CCR in Telugu and the complex reciprocal in Icelandic it is because the case-agreeing part in each language moves to the edge of the PP. Evidence for such a movement operation comes from CSC islands. In both Telugu and Icelandic, it is typically possible to coordinate two NPs under a single adposition. This is shown in (97a) for Telugu and (97b) for Icelandic.

- (97) a. aame-ku Ravi mariyu Rani miida koopam wacc-in-di
 3FSG-DAT Ravi and Rani on anger become-PST-3FSG
 ‘She got angry at Ravi and Rani.’

¹⁷ Sigurðsson et al. (2020) give an analysis of Icelandic in which the case agreeing part of the reciprocal, *hvor*, overtly moves to the base position of the subject in *SpecvP*. In work with an Icelandic colleague, we argue against such an analysis since *hvor um annan* behaves as a constituent. For example it can be topicalized, as shown in (i). Note that since Icelandic is V2, whatever precedes the finite verb must be a single constituent.

- (i) 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.’ (anonymized)

See also example (100b), where it is shown that the string can be coordinated with another PP without violating the CSC, which again argues against a movement to the specifier of *vP*.

- b. þeir tóluðu alltaf um kvikmyndir og stjórnmál
 they.NOM.M.PL talked always about movies and politics
 ‘They always talked about movies and politics.’ (anonymized)

However, a CCR and a case-agreeing reciprocal cannot be coordinated under a single P, as shown in (98).

- (98) a. *valla-ku Ravi mariyu tama miida tama-ku_i koopam wacc-in-di
 3PL-DAT Ravi and 3PL on 3PL-DAT angry become-PST-3NSG
 Intended: ‘They got angry at Ravi and themselves.’
 b. *þeir tóluðu alltaf hvor um annan og stjórnmál
 they.NOM.M.PL talked always each.NOM.M.PL about other and politics
 Intended: ‘They always talked about each other and politics.’ (anonymized)

We suggest that the examples in (98) are ruled out due to the CSC. The case agreeing part of the reflexive or reciprocal moves to the edge of the PP. When the reflexive/reciprocal is in a coordination with another NP, the movement results in asymmetric extraction out of a coordination, hence a violation of the CSC. This is shown schematically for (98b) in (99).

- (99) [PP hvor_i um [&P [NP t_i annan] og [NP stjórnmál]]]

Two additional data points suggest that this is the correct analysis: first, it is possible to coordinate the CCR and the Icelandic reciprocal with two adpositions, as shown in (100a) for Telugu and (100b) for Icelandic.

- (100) a. Ravi-ki tana-miida tana-ku mariyu Rani-miida koopam
 Ravi-DAT 3SG-on 3SG-DAT and Rani-on anger
 waccindi
 become.PST.3NSG
 ‘Ravi became angry at himself and at Rani.’
 b. þeir tóluðu alltaf hvor um annan og
 they.NOM.M.PL talked always each.NOM.M.SG about other.ACC.M.SG and
 um stjórnmál
 about politics
 ‘They always talked about each other and about politics.’ (anonymized)

In these cases, two PPs are coordinated, hence when the case-agreeing part moves, it only moves within its conjunct, hence no asymmetric extraction occurs and the CSC is not violated.

The second data point comes from the so-called ‘innovative’ reciprocal in Icelandic. This reciprocal is a relatively new construction in the language (Sigurðsson et al. 2020; Sigurðsson et al. 2021). What is important is that in this construction, the preposition does not intervene between the two parts of the reciprocal as shown in (101). Note also that *hvor* no longer agrees in case with the antecedent. Instead both *hvorn* and *annan* bear accusative case, assigned by the preposition.

- (101) 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.’ (Sigurðsson et al. 2020: ex 11)

Unlike the traditional reciprocal, the innovative reciprocal can be coordinated with another NP under a single P.

- (102) þeir tóluðu alltaf um hvorn annan og stjórnmál
 they.NOM.M.PL talked always about each.NOM.M.PL other and politics
 ‘They always talked about each other and politics.’ (anonymized)

Again, since there is no movement of *hver* in the innovative reciprocal, no CSC violation occurs and the sentence is grammatical.

Let us discuss why movement occurs in these structures. There appears to be a correlation between moving to the edge of PP and the availability of case agreement with the antecedent. This is best shown by a comparison between the traditional reciprocal and the innovative reciprocal in Icelandic. These are repeated below in (103a) for the traditional and (103b) for the innovative.

- (103) 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.’

In fact, in all languages that we know of that are head-initial and have case agreeing reciprocals, the preposition intervenes between the two parts of the reciprocal. This is true of Greek, Ukrainian, Bosnian/Croatian/Serbian, and Polish (see Mackridge 1987; Despić 2011; LaTerza 2014; Dadan 2017). Telugu and (dialects of) Kannada show the same behavior with postpositions and complex reflexives. We suggest that the movement 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. This movement/agreement correlation mirrors movement found for negative concord items (NCIs) in Russian. NCIs are morphologically complex, being composed of a *wh*-item and a negative prefix. In cases of PPs, the negative concord reading is only possible if the negative prefix comes before the preposition. If the negative prefix comes after the preposition, only the double negative reading is possible as shown in (104) (Fitzgibbons 2010: 79).

- (104) a. Vera ne sdelala salat iz ni-čego
 Vera NEG made salad from *n*-what
 ‘Vera did not make salad out of nothing.’ *NC/DN

- b. Vera ne sdelala salat ni iz čego
 Vera NEG made salad *n* from what
 ‘Vera did not make a salad out of anything.’ NC/*DN

Fitzgibbons argues that *ni*-movement moves the negative prefix to the left edge of the PP domain. Once at the edge of PP, the negative prefix may agree with the sentential negation *ne* giving rise to the negative concord interpretation (104b). If the negative prefix, does not undergo movement, but instead stays within the complement of the P as in (104a), then it is not local enough to enter an agreement relation with the sentential negation, hence the double negation interpretation arises.

Turning back to case-copying reflexives, when embedded in a PP, the base of the CCR would then be assigned a lexical case by the P, and the intensifier would move to the edge of the PP, where it can have its features valued via Feature Transmission. A similar analysis can then be given to Icelandic and other case-copying reciprocals: *annar* is assigned a lexical case by the P, and then *hvor* moves to the edge of the PP where it is accessible for Feature Transmission with the functional head that introduces its antecedent.

A question arises: why does Icelandic have the case agreeing part move leftward to the left edge of the PP, while in Telugu the case agreeing part of the CCR moves rightward to the right edge. We suggest that this difference follows from the fact that it is the linearly left part of the reciprocal (*hvor*) that agrees in case in Icelandic, while it is the linearly right part of the complex reflexive that agrees in case in Telugu. It has been suggested that extraction out of an NP can only occur if it preserves the linear order of the elements established within the NP. Davis (2020) puts forth the following generalization about intermediate stranding caused by leftward movement cross-linguistically:

- (105) *Intermediate Stranding Generalization*
 Leftward movement of a phrase α can only intermediately strand an element β if β is (or can be) ordered rightward of α before stranding occurs. (Davis 2020: ex 2)

Jenks (2011, 2013) offers the mirror image of (105) for rightward Q-float in Thai and other Southeast Asian languages. He suggests that such rightward movement is constrained by the generalization in (106).

- (106) *Quantifier float generalization*
 Rightward quantifier float of (*Q-Clstf*) is only possible in classifier languages which allow for the QP internal order $N \prec Q$. (Jenks 2011: 309)

Both Davis and Jenks attempt to derive their generalizations through the use of cyclic linearization coupled with order preservation or consistency, as given in (107) (Fox & Pesetsky 2005; Ko 2014).

- (107) Consistency
 If linear order is established within a phase, that linear order must be respected at later phases within the computation. (Jenks 2013: 104)

Under the assumption that the extended projection of the NP constitutes a phase, we can account for the differences between the languages. In Icelandic, as shown in (108a), in the

extended projection of the NP, the order is established as *hvor* \prec *annan*. If *hvor* then moves leftward to the left edge of the PP as in (108b), when the PP is ordered, consistency is satisfied since the order determined in (108a) is preserved, *hvor* still precedes *annan*. If we attempt to move *hvor* rightward as in (108c), then when the PP is linearized, consistency is violated because this requires *annan* to precede *hvor* in contradiction to the order established in (108a), hence this derivation results in an ungrammatical utterance.

- (108) a. [NP *hvor* *annan*] Order: *hvor* \prec *annan*
 b. [PP *hvor*_{*i*} *um* [NP *t*_{*i*} *annan*]] Order: *hvor* \prec *um* \prec *annan*
 c. *[PP *um* [NP *t*_{*i*} *annan*] *hvor*_{*i*}] *Order: *um* \prec *annan* \prec *hvor*

In Telugu, it is the element that is linearized to the right in the NP (*tan*_{*k*}), that must move to the edge of the PP (109a). If this *tan* moves rightward to adjoin to the PP (109b), then consistency is satisfied and the derivation converges. If it moves leftward (109c), then consistency is violated leading to ungrammaticality.

- (109) a. [NP *tan*_{*i*} *tan*_{*k*}] Order: *tan*_{*i*} \prec *tan*_{*k*}
 b. [PP [NP *tan*_{*i*} *t*_{*k*}] *miida* *tan*_{*k*}] Order: *tan*_{*i*} \prec *miida* \prec *tan*_{*k*}
 c. *[PP *tan*_{*k*} [NP *tan*_{*i*} *t*_{*k*}] *miida*] *Order: *tan*_{*k*} \prec *tan*_{*i*} \prec *miida*

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 (110a), the antecedent of the reciprocal is a dative subject and the left part of the reciprocal surfaces in the dative case. In (110b), the antecedent is now in the ergative case, and the left part of the reciprocal also appears in the ergative.

- (110) a. *Wahši-jr.i-z sada-z=sada-g^aaj 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 necessary COP
 'We have to trust each other.' (Haspelmath 1993, ex. 1167)

The language also has postpositions like Telugu, as shown in (111). The adposition *gwaz* follows its complement.

- (111) *Gada ġurč-äj sa ġizil.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 thus far, we would expect that the left case-agreeing part of the complex reciprocal would need to undergo movement to the left edge of the PP in order to agree in case, but since the PP is head final, such a movement would be string vacuous, hence in this language, we would not expect for the P to intervene between the two parts of the reciprocal. This is indeed what we find as shown in (112).

- (112) 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 moved leftward to the left edge of the PP, but such a movement does not affect word order. This makes a prediction about coordinations in Lezgian. If there is truly movement to the left edge, we would expect to cause a CSC violation when the reciprocal is coordinate with another NP under a single P. We must leave the testing of this prediction as a matter for future research.

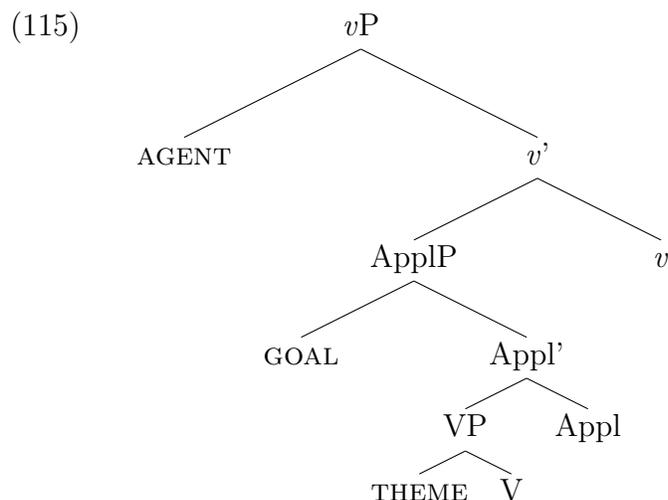
4.3.4 Ditransitive constructions

Let us now move to ditransitive constructions. In these constructions, the subject can bind either the goal or the theme argument as shown in (113). And the goal can bind the theme as shown in (114).

- (113) a. Pilla-lu ravi-ki tama-ni taamu paricayam ceesu-kunn-aa-ru
 child-PL Ravi-DAT 3PL-ACC 3PL.NOM introduce do-VR-PST-PL
 'The children introduced themselves to Ravi.'
 b. rukmiṇi tana-ki tanu uttaram raasu-kon-di
 Rukmini 3SG-DAT 3SG.NOM letter write-VR-3FSG
 'Rukmini wrote a letter to herself.'

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

We follow the ApplP approach to ditransitive construction (Marantz 1993; Bruening 2001; Pylkkänen 2008). In Telugu, the goal asymmetrically *c*-commands the theme, as shown in (115).



The example in (113a) would follow the same steps as the derivation given in section 4.3.1

save for the fact we have the additional ApplP and goal argument in (113a). The example in (113b) 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.

The example in (114) 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 simplex anaphor part of the CCR is then assigned accusative.

These types of examples are important as they show a distinction between the proposed analysis and an analysis that makes use of reverse or upward agree between an anaphor and its antecedent (see Bader 2011; Wurmbrand 2012, 2017). A definition of reverse agree is given in (116) (cf. Zeijlstra 2012; Bjorkman & Zeijlstra 2019).

- (116) A feature $F: __$ on α is valued by the feature $F:val$ on β if
- a. β c-commands α and
 - b. There is no γ (γ distinct from β) with a valued feature F such that γ c-commands α and is c-commanded by β and
 - c. α is *accessible* to β [*accessible*: not spelled out] (Wurmbrand 2012: ex.3)

The important aspect of this definition is the minimality condition given in (116b). While most examples obey the minimality condition, crucially (113a) appears 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 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). Feature Transmission on the other hand does not have a minimality condition, and can allow for feature sharing between a head and any element within its sister (Kratzer 2009:194; see also Murphy & Meyase 2020:23 fn. 9 for relevant discussion and comparison to facts in Tenyidie which is a language that appears to show a minimality effect).

It is important to note that other languages that have case-copying anaphora also appear to behave similarly to Telugu when it comes to a subject being able to bind an argument across another intervening NP. As we have shown previously, *hvor* in the Icelandic reciprocal agrees in case with its antecedent. This is still possible when there is another NP intervening between antecedent and *hvor* as shown in (117).

- (117) 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.’ (Anonymized)

Bosnian/Croatian/Serbian (BCS) and Ukrainian are also languages that have case agreeing reciprocals (Despić 2011; LaTerza 2014). In both languages, it is possible for the the reciprocal to agree in case with its antecedent despite an intervening NP. This is shown for BCS in (118) and Ukrainian in (119). In (118a) and (119a) we see that the reciprocal is bound by the accusative marked direct object and surfaces with accusative case. In (118b) and (119b), the reciprocal is bound by the nominative subject and surfaces as nominative despite the

accusative NP still being closer to the reciprocal.

- (118) a. *Studenti su predstavili profesore jedne drugima*
 students.NOM AUX introduced professors.ACC one.ACC other.DAT
 ‘The students introduced the professors to each other.’
 b. *Studenti su predstavili profesore jedni drugima*
 students.NOM AUX introduced professors.ACC one.NOM other.DAT
 ‘The students introduced the professors to each other.’
- (119) a. *Studenty predstavily profesoriv odnyx odnym*
 students.NOM introduced professors.ACC one.ACC one.DAT
 ‘The students introduced the professors to each other.’
 b. *Studenty predstavily profesoriv odni odnym*
 students.NOM introduced professors.ACC one.NOM one.DAT
 ‘The students introduced the professors to one another.’ (LaTerza 2014:
 123-4 ex. 50-51)

This suggests that the lack of minimality effects are not a quirk of Telugu, but are found in other languages that show case-agreeing anaphora. This follows from the analysis proposed due to the mechanics of Feature Transmission. Analyses that make use of Reverse Agree would require augmentation in some way to account for these data points.¹⁸

4.3.5 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 complex anaphor is an ECMed NP. As shown in (120), an ECMed anaphor can surface as the complex case copying reflexive.

- (120) *uma tana-ni tanu goppadi ani anukon-in-di*
 Uma 3SG-ACC 3SG great.3FS COMP think-PST-3FS
 ‘Uma considered herself great’

As mentioned previously, a common analysis of this type of ECM cross-linguistically is that the embedded subject moves into the matrix clause and this feeds accusative case assignment. Coupling this assumption with our current analysis correctly predicts the use of the case copying reflexive here. 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

¹⁸This argument against the Reverse Agree analysis also applies to the Cyclic Agree analysis of Murugesan (2022). Under this analysis anaphors also probe upward and are valued directly by their antecedents. Like the approaches cited above, this approach also assumes a minimality condition (Murugesan 2022: 54, ex. 42c), hence it also would require modification in order to account for the data presented here.

the embedded clause, the reflexive unsurprisingly shows nominative case as shown in (121).

- (121) neenu [ravi tana-gurinci tanu nijaayiti-paruḍu ani] anukunṭaanu
 1SG 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 (122).¹⁹

- (122) neenu ravi-ni_i [t_i tana-gurinci tanu nijaayiti-paruḍu ani] anukunṭaanu
 1SG Ravi-ACC 3SG-ABOUT 3SG.NOM honesty-one COMP consider
 ‘I consider Ravi honest about himself.’

This on the surface appears to be an issue for our analysis. How can a case-copying reflexive not copy case? We argue that this follows from our analysis because at the point of the derivation at which Feature Transmission occurs (i.e., the first phase of the embedded clause), the embedded subject has an unvalued case feature. Given that we treat nominative as lacking a case value, it follows that it is nominative that is copied on to 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 the intensifier.

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 (123).

- (123) min ehigi-ni [бүгүн кыaj-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

¹⁹One may wonder whether the ECM examples are actually cases where the accusative NP is a proleptic object base generated in the matrix clause. The embedded subject is a null *pro* given that Telugu productively allows for argument drop. There are reasons to favor the ECM over a proleptic object representation, however. One argument that there is a movement dependency at work here is the dependency’s sensitivity to islands. As we have shown, Telugu does not allow for violations of the CSC including in cases of DOM. This is also true for ECM constructions as shown in (i): an ECM accusative subject cannot be coordinated with a nominative embedded subject. This follows on a movement analysis of this construction because the ECM NP (*Raju-ni*) would move out of the coordination in order to be assigned accusative case and such a movement would be in violation of the CSC.

- (i) *ravi raaju-ni mariyu raamu picci-vall-ani bhaav-is-taa-ḍu
 Ravi Raju-ACC and Ramu mad-3PL-COMP consider-DO-HAB-3MSG
 Intended: ‘Ravi thinks of Raju and Ramu that they are mad.’

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).

- (124) Ueka-sin-∅-ga=ni Alonzo-ni Paku-ni ka Puki-ni eska=sī
 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
 ‘I want Alonzo, Paco, and Puki to all play.’

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

4.3.6 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 (125).

- (125) 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 posit an agreement relationship between the anaphor and antecedent, as we do in this paper. 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 (125) shows that it may occur as the first conjunct, but it also grammatical as the last conjunct as shown in (126).

- (126) 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, we can agree with the structurally highest or linearly closest conjuncts, 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.²⁰

4.3.7 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 the simplex anaphor is possible here.

- (127) roojaa-ki_i tana_i (*tanaku) amma ištam
 Roja-DAT 3SG.GEN (3SG.DAT) mother like
 ‘Roja likes her mother.’

This follows from the current theory assuming that the extended projection of the NP contains a phase boundary (Bošković 2012; Despić 2011). This once again places the CCR outside of the phase of its antecedent, hence only the simplex form is possible.

As we have also seen, the complex reflexive cannot be separated from its antecedent by a CP phase boundary, as the examples repeated in (128) shows.

- (128) a. raaju [tanu (*tanu) parigett-ææ-nu ani] cepp-ææ-ḍu
 Raju 3SG (3SG) run-PAST-1SG COMP say-PAST-3MSG
 ‘Raju said that he ran.’
 b. raaju_i [raamu_j tana-ni tanu_{*i/j} poguḍu-konn-aa-ḍu ani]
 Raju Ramu 3SG-ACC 3SG.NOM praised-VR-PST-3MSG COMP
 anu-konn-aa-ḍu
 say-VR-PST-3MSG
 ‘Raju thought that Ramu praised himself.’

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

²⁰Another 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)

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).

4.4 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 simplex anaphor 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 simplex anaphor does not result in a CCR in the language.

We then argued that the formal features and case of the intensifier part of the CCR are valued by Feature Transmission with its antecedent 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: the intensifier in reflexives and elements like *hvor* and *jedni* for reciprocals.²¹ The anaphoric base and the other part of the reciprocal do not partake in Feature Transmission, and instead are assigned case via the normal case assignment rules in the language. 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). Under this approach to reciprocals, it is natural that Feature Transmission should target the anaphoric component of the reciprocal (*hvor*, *jedni*, etc), while the non-anaphoric component does not partake in Feature Transmission with the antecedent. The similarities that we see between case-copying reciprocals and reflexives cross-linguistically suggest that reflexives (at least in some languages) are similarly composed of these two parts, hence Feature Transmission may target a part of the complex reflexive.

We showed that in PPs, it appears that the intensifier part of the CCR moves to the edge of the PP, hence the postposition intervenes between the two parts of the CCR. This parallels reciprocal constrictions in languages like Icelandic, which we likewise argued resulted from movement. 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. We argued that this followed from the locality of Feature Transmission. 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; Heintz 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 2014). What our data show is that there is a very 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

²¹It 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).

anaphor is only possible if the case agreeing part of the reflexive/reciprocal is at the edge of the PP. If it stays 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, it to overtly move 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.

We finally showed how the analysis handles binding in ditransitive and ECM constructions, and compared our approach to one that relies solely on Reverse Agree. It was argued that Feature Transmission was empirically superior since it could account for cases where we had case agreement between antecedent and CCR despite the presence of an intervening NP.

At the heart of our analysis is the idea that CCRs require a morphosyntactic feature sharing relation between an anaphor and its antecedent. Our findings are incompatible with approaches that attempt to account for antecedent-anaphor feature matching entirely via semantics. A question from an anonymous reviewer asks about whether CCRs can help us tease apart when in the derivation case assignment/Feature Transmission takes place: during the narrow syntax or in the mapping of syntax to PF (i.e., the morphological component)? As far as we can tell, our analysis is compatible with the view that case is assigned in syntax as in Baker & Vinokurova 2010; Baker 2015; Preminger 2014 or in the morphology as in Marantz 1991; Bobaljik 2008, and our analysis does not favor one approach over the other. We will note that implementing our analysis is perhaps simple where both case assignment and Feature Transmission either take place within the same module (either both at syntax or both in morphology) or if case assignment happens in the syntax while Feature Transmission takes place in the morphology, but implementation might be difficult if Feature Transmission takes place in the syntax *before* case assignment in the morphology, since the case values must be determined before they can be shared during the process of Feature Transmission.

5 Future directions and Conclusion

Before concluding, let us discuss our findings in the context of the larger debate around feature matching between an anaphor/pronoun and its antecedent. As mentioned in the

introduction Preminger (2019) has recently suggested that all feature matching should be achieved by a non-syntactic mechanism. On the other side of the spectrum is Kayne (2002), who argues that even cross-sentential anaphora should have a syntactic component. As we have argued in this paper, case-copying reflexives show the claim that *all* feature matching is achieved via non-syntactic mechanisms is not tenable, as non-syntactic mechanisms are unable to achieve case-copying. With that being said we do not endorse a fully syntacticized approach to feature matching either.

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

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

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

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

showed that the case-copying reflexive behaves similarly to other local complex reflexives given a number of diagnostics.

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

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

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