Morphosyntax values itself

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Abstract

Adducing evidence from case-copying reflexives, this paper argues that feature matching between a reflexive anaphor and its antecedent must include a morphosyntactic component. After discarding some plausible proposals, this feature-matching is modelled as agreement between antecedent and anaphor, mediated by a functional head.

1 Introduction

Many languages have reflexive anaphors that co-vary in ϕ-features with their antecedents (1). Among students of binding and anaphora, there is no consensus on the formal mechanism responsible for this co-variation. Nominated candidates range from agreement formalized variously (Hicks 2009, Kratzer 2009, Rooryck and Wyngaerd 2011, Reuland 2011) and movement (Hornstein 2001, Drummond et al. 2011) to mechanisms altogether non-syntactic (Preminger 2020).

(1) a. Devadutta praised himself.
b. The students praised themselves.
c. The committee praised itself.

In this paper, we present evidence from so called 'Case-copying reflexives' to argue that feature-matching between a reflexive anaphor and its antecedent has to have a morphosyntactic component to it. Empirically, we focus on Telugu, a Dravidian language spoken predominantly in the South Indian states of Andhra Pradesh and Telangana. Telugu has a complex reflexive anaphor that is constructed by reduplicating a pronominal. As (2) shows, the reflexive anaphor matches the case of the antecedent.

(2) akhil-**ki** tana-miida tana-**ku** koopam vacc-indi
akhil-DAT 3SG-ON 3SG-DAT anger come-PST.3NS
'Akhil got mad at himself.'

While Telugu is our empirical focus, such reflexives have been attested in many unrelated languages like Meiteilon (Tibeto-Burman; Sarju Devi and Subbarao 2002), Khanty (Uralic; Volkova 2014) and Sanzhi Dargwa (Nakh-Dagestanian; Forker 2020). The minimal pair in (3) shows the case-copying behaviour of the complex reflexive in Sanzhi Dargwa.

(3) *Sanzhi Dargwa* (Forker 2020, p. 558, exx. 25–26)

a. Rasul-**li** cin-**ni** ca-w gap w-irq'-ul ca-w
rasul-ERG REFL-ERG REFL-M.ABS praise M-do.IPFV-ICVB COP-M
'Rasul is praising himself.'

b. Rasul-li-**j** cini-**j** ca-w čiig-ul ca-w
rasul-OBL-DAT REFL-DAT REFL-M.ABS see-CVB COP-M
'Rasul sees himself.'

The existence of case-copying reflexives has been known at least since the publication of Subbarao and Saxena 1987. However, their relevance for theories of feature-matching hasn't been sufficiently appreciated. Keeping this in mind, we present a thorough description of these reflexives, before moving on to our theoretical claims.

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In the first half of the paper, we establish the fact that case-copying reflexives are true to their name. Given that case is a purely morphosyntactic phenomenon, existence of case-copying reflexives forces us to include a morphosyntactic mechanism in the modelling of feature-matching between a reflexive anaphor and its antecedent.

The nature of this morphosyntactic mechanism is the focus of the second half of the paper (§3–§4). We present data from islands to show that reflexive anaphors and their antecedents cannot be linked via movement. Our analysis will instead model the feature-matching as agreement mediated by a functional head. Crucially, we show that the agreement mechanism behind case-copying cannot be the same as that responsible for ϕ-agreement on T. In §5, we conclude by stating our position about feature-matching of anaphors in general.

2 Case-copying reflexives

We've already encountered one minimal pair indicative of 'case-copying' behaviour of reflexives in some languages of the world. In this section, we describe some properties of the case-copying reflexive (henceforth CCR) in Telugu. (4–5) show two minimal pairs, once again indicating that the case of the complex reflexive is dependent on the case of its antecedent.[2] Both sets of examples use the predicate *prema* 'love' — its subject can either be in the nominative (4) or in the dative (5). When the theme is a pronoun (the b. examples), it surfaces with case morphology consistent with its structural position — ACC in (4b) and the oblique ANTE in (5b). With a reflexive theme (the a. examples), the pronoun is reduplicated, and the regular structural case remains on the base. The reduplicant however, surfaces with the case of its antecedent.

(4) Nominative subjects:

a. ravi-∅ vaaḍi-ni vaaḍu-∅ prem-inc-kun-ṭaa-ḍu
ravi-NOM 3MS-ACC 3MS-NOM love-CAUS-VR-PRES-3MS
'Ravi loves himself.'

b. ravi-∅ vaaḍi-ni prem-is-taa-ḍu
ravi-NOM 3MS-ACC love-CAUS-PRES-3MS
'Ravi loves him.'

(5) Dative subjects:

a. ravi-**ki** vaaḍ-anṭe vaaḍi-**ki** prema
ravi-DAT 3MS-TOP 3MS-DAT love
'Ravi loves himself.'

b. ravi-**ki** vaaḍ-anṭe prema
ravi-DAT 3MS-TOP love
'Ravi loves him.'

In all of the examples above, the reduplicated element in the CCR was a third person pronoun. While it is possible that this morphological form is restricted to third persons, even the first and second person reflexives are case-copying in Telugu (6). Note though, that the argument to follow would not be affected if case-copying were restricted to third person reflexives. In addition to case and person, the CCR also co-varies with the antecedent in number and gender (7–8).

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

[2] See Messick and Raghotham (2021, §2.3) for a more detailed discussion on the case of the case-copying reflexive.

b. nuvvu **nin-nu nuvvu** mečču-kun-aa-vu
2SG 2SG-ACC 2SG praise-VR-PST-2SG
'You praised yourself.'

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

(8) sowmya **aame-ni aame** mečču-kun-in-di
sowmya 3FS-ACC 3FS praise-VR-PST-3FS
'Sowmya praised herself.'

The co-variation in case and ϕ-features established, we move on to other properties of the CCR. An immediate question that arises is whether the CCR is a constituent in the first place. In line with the relatively free word order of Telugu, the CCR can be scrambled (9). However, the components of the CCR cannot be scrambled independently, suggesting that for the purposes of syntactic processes like movement, the CCR behaves as one unit (10).

(9) [tana-ni tanu]$_1$ Ravi ____$_1$ gillu-kunn-aa-ḍu
3SG-ACC 3SG ravi ____ pinch-VR-PST-3MS
'Ravi pinched himself.'

(10) *[tana-ni]$_1$ Ravi ____$_1$ tanu gillu-kunn-aa-ḍu
3SG-ACC ravi ____ 3SG pinch-VR-PST-3MS
'Ravi pinched himself.'

The base and the reduplicant of the CCR cannot be separated by an intervening adjunct either (11), again suggesting that the CCR is a constituent. The base and the reduplicant can in fact be separated by a case-marker, as we've already seen, and what looks like a postposition on the base (12). Foreshadowing our analysis a little, we treat these elements as local case markers conditioned by the presence of a null postposition.

(11) *Ravi tana-ni **ceppu-to** tanu koṭṭu-kunn-aa-ḍu
ravi 3SG-ACC slipper-INST 3SG hit-VR-PST-3MS
Intended: 'Ravi hit himself with a slipper.'

(12) kamala-ku tana-**miida** tana-ku koopam
kamala-DAT 3SG-ON 3SG-DAT anger
'Kamala is angry at herself.'

Further evidence of constituency comes from modification. Pronouns and anaphors in Telugu can be modified by an emphatic marker *-ee*. As (13) shows, the emphatic marker is suffixed to the pronoun. Observe, now, that the emphatic can only be suffixed to the complex reflexive as a whole — it cannot be suffixed to the base (14). This pattern falls naturally if the CCR is a constituent since the emphatic marker attaches to the right edge of the constituent.

(13) vaaḍ-ee inṭi-ki veḷḷ-ææ-ḍu
3MS-EMPH house-DAT go-PST-3MS
'He$_F$ went home.'

(14) akhil-**ki** tana-miida-(*ee) tana-**k**-ee koopam vacc-indi
akhil-DAT 3SG-ON-EMPH 3SG-DAT-EMPH anger come-PST.3NS
'Akhil got mad at himself$_F$.'

The CCR is a constituent. It is also a reflexive anaphor. One diagnostic of reflexive-hood is the inability to be take a deictic or a discourse antecedent (Anagnostopoulou and Everaert 2013, Reuland 2018). As (15) shows, discourse antecedents for the CCR are disallowed. Moreover, there is a c-command restriction on antecedence. The CCR can only be anaphoric to those elements that c-command it. In (16), a potential antecedent is embedded inside a NP c-commanding the reflexive, and therefore its potential is unrealized.

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

(16) [Roja$_1$ talli]$_2$ tana-ni tanu$_{2/*1}$ meccu-kun-di
Roja mother 3SG-ACC 3SG praise-VR-3FS
'Roja$_1$'s mother$_1$ praised herself.$_{2/*1}$'

Unlike other anaphoric elements (logophors and pronouns), reflexive anaphors do not allow split antecedents. As (17) shows, both the causer and the causee cannot antecede the CCR simultaneously. A plausible hypothesis to entertain for this behaviour places the restriction not on the anaphor itself, but on the verbal reflexive — the verbal reflexive needs to associate in some way with both the antecedent and the anaphor, but it cannot do so with two antecedents at once, hence making the configuration illicit. That the restriction on split antecedence applies to the anaphor itself is demonstrated by (18), but this time the subject is an experiencer and experiencer subject predicates disallow the verbal reflexive.

(17) *Ravi$_1$ Raju-to$_1$ tama-ni taamu$_{1+2}$ tiṭṭu-kunn-aa-ḍu
ravi raju-COMM 3PL-ACC 3PL scold-VR-PST-3MS
'Ravi made Raju scold themselves.'

(18) *kamala$_1$ [siita-ku$_2$ tama-miida tama-ku$_{1+2}$ koopam vacc-indi ani] cepp-indi
Kamala sita-DAT 3PL-ON 3PL-DAT anger come-PST.3NS COMP say-PST.3NS
'Kamala said that Sita got angry at themselves.'

Finally, the reflexive anaphor also needs to find its antecedent in the same clause. As (19) shows, the CCR can only be anteceded by the local subject *Suma*, but not the matrix subject *Uma*. This behaviour is consistent with two hypotheses: the antecedent needs be in the same clause as the anaphor, or the antecedent and the anaphor need to be co-arguments of the same predicate. In an ECM context, like in (20), the complex reflexive is once again possible, with the matrix subject as its antecedent. On a raising-to-object analysis of ECM, the two nominals are in the same clause, setting up the right environment for the CCR. The examples also show that the relevant structural configuration between antecedent and anaphor is not that of co-argumenthood.

(19) Uma$_1$ [Suma$_2$ tana-ni tanu$_{2/*1}$ coosindi ani] ceppindi
Uma Suma 3SG-ACC 3SG saw.3FS COMP said.3FS
'Uma$_1$ said that Suma$_2$ saw herself.$_{2/*1}$'

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

Summarizing, this section showed that the complex reflexive in Telugu is indeed case-copying, a syntactic constituent, and that it needs its antecedent to be in the same clause as itself, to c-command it, and not be split. These properties, according to the diagnostics summarized in Anagnostopoulou and Everaert (2013) and Reuland (2018) place it in the category of reflexive anaphors.

3 Some non-analyses

This section discusses some previous analyses of antecedent-anaphor feature matching that cannot be extended to CCRs. In the introduction, we alluded to three broad classes of analyses: movement, agreement and a non-syntactic mechanism. Let us begin by considering what a non-syntactic mechanism responsible for the feature matching would look like.

Any non-syntactic mechanism that ensures co-variation between antecedent and anaphor must rely on (in)compatibility in meaning between the two. A popular approach, due to Cooper (1983), is to treat ϕ-features as contributing presuppositions — restricting the choice of pronominal's referent depending on its featural makeup. The toy example below demonstrates this. Assume Mohini is female.

(21) $[\![\textsc{masc}]\!] = \lambda x : x \text{ is male. } x$

(22) a. #Mohini deceived himself.
b. Mohini [$\lambda x : x$ is male. x deceived x]

Such non-syntactic mechanisms appear to be necessary anyway since examples of anaphoric relations with no c-command or a similar structural relationship between antecedent and anaphor abound — cross-sentential anaphora and donkey anaphora being two major classes (23).

(23) a. No linguist who has purple pants$_1$ looks silly in them$_1$.
b. A: Where are the scissors$_1$?
B: They$_1$ are right here. (Preminger 2020, pp. 10–11)

Taking these examples as a starting point, Preminger (2020) questions the need for a syntactic mechanism that essentially replicates the work a non-syntactic mechanism does elsewhere. While this line of argumentation is appealing, the existence of case-copying reflexives, which the previous section has hopefully convinced the reader of, spells trouble for any wholesale treatment of feature matching in anaphora. Case is a purely morphosyntactic phenomenon with no obvious meanings that can be attached at least to the structural cases. If feature-matching can involve case-matching, then the mechanisms responsible for co-variation in cross-sentential anaphora and in case-copying reflexives are necessarily different.

Since case is a morphosyntactic phenomenon, the mechanism responsible for the shape of case-copying reflexives must also be morphosyntactic. One such mechanism put forward in the literature is movement. It posits that the reflexive anaphor and the antecedent are the copies of a movement chain (24). The antecedent begins in the position of the anaphor, and then moves to its surface position during the course of the derivation. The lower copy is then spelled out as an anaphor (Hornstein 2001, Drummond et al. 2011).

(24) [Antecedent ... [... [t/ANAPH] ...]]

Evidence from island effects suggests that movement cannot be the factor that links antecedent and anaphor. As the example in (25) shows, the CCR is possible in a co-ordinate structure. If the anaphor were a lower copy in a movement chain, (25) would be a violation of the co-ordinate structure constraint.

(25) 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.'

There are two possible counter-arguments. First, it is imaginable that the coordinate structure constraint is not active in the language. (26–27) confirm that this isn't so. The constraint bans movement of a co-ordinate, as well as movement out of a co-ordinate; (26) and (27) respectively demonstrate that Telugu bans both types of movement.

(26) a. ravi-ki idli inka dosa ištam
Ravi-DAT idli and dosa like
'Ravi likes idli and dosa.'

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

(27) 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.'

Second, it is possible that the conjunction in (25) is not of two nominals but rather of two clauses accompanied by conjunction reduction. The two seemingly conjoined nominals do behave as if they form a constituent. They can be scrambled together (28) and can also serve as fragment answers (29), confirming that they do in fact form a constituent in the syntax.

(28) [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.'

(29) a. ravi-ki evari-miida koopam waccindi
Ravi-DAT who-on anger become.PST.3NSG
'Who did Ravi get angry at?'

b. tana-miida tana-ku mariyu rani-miida
3SG-on 3SG-DAT and Rani-on
'Himself and Rani.'

The objections so set aside, we are in a position to confirm that the co-ordinate structure does in fact hold, and hence the antecedent and the CCR cannot be linked via movement.[3] The discussion above also discounts analyses where the anaphor moves to agree with the antecedent (Rooryck and Wyngaerd 2011).

The second family of analyses treats feature-matching as a form of agreement. There are various ways of formalizing an agreement-based account, but uniting them all is the idea that an anaphor is deficient in featural content, and agreeing with the antecedent repairs this deficiency (30). On some accounts, the anaphor agrees with the antecedent directly, while on some others, feature-matching is ensured by ϕ-features free riding on the anaphor via other independently necessary agreement dependencies.

(30) a. [... ANAPH$_{\phi:_}$ ...]

b. [Antecedent$_{\phi:\alpha}$ ... [... ANAPH$_{\phi:\alpha}$ ...]]

One such analysis can be found in Reuland 2011. For Reuland, feature-matching is achieved indirectly through a series of agreement dependencies that already take place in the syntax (31). The anaphor agrees with the verb for accusative case assignment, modelled as AGREE (R3); the T and V nodes form a tense-dependency (R2) modelled as an AGREE relation following Pesetsky and Torrego (2001, 2004, 2007); finally the antecedent agrees with the T node as in regular subject agreement (R1). The features from the antecedent are passed down to the anaphor 'for free' along these chains.

[3]We must note that we are not arguing that the anaphor never moves. An analysis like Ahn 2015, where an anaphor is required to move to the specifier of the verbal reflexive, a type of Voice head, is in principle compatible with the present account. To get around this possible necessity, we use examples with experiencer subjects above — the verbal reflexive is incompatible with experiencer subjects.

(31) DP ... T ... V ... anaphor
R1 R2 R3

This account, and other theories that depend on pre-existing dependencies, predict that whenever one of the agree relations involved in (31) do not obtain, there is no feature matching between antecedent and anaphor. There are instances where there is no T agreement, but case-copying and binding of the reflexive do occur. In (32), the subject is in dative case, and binds the reflexive. The reflexive also gets dative case, in line with its nature. Note however, that T does not agree with the subject, but rather with the nominal predicate *koopam* 'anger'. Telugu agreement is case-discriminating — agreement is only possible with nominative DPs. Since we see feature-sharing in spite of this lack of agreement, we must conclude that whatever mechanism is responsible for feature-matching cannot be dependent on T-agreement.[4]

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

So far, we showed that the feature-matching seen in Telugu CCRs is not amenable to three types of analyses: non-syntactic analyses do not predict case matching, movement analyses cannot account for the possibility of coordinating the CCR and finally, free-rider analyses do not explain how feature-matching occurs in the absence of regular agreement. We now turn to our positive proposal.

4 Analysis

An analysis of the form of case-copying reflexives requires (minimally) three components: a theory of case assignment, a theory of reduplication and a theory of feature-matching. In what follows, we go over each of these components in turn, beginning with case assignment.

Let us assume, as is standard, that when nominals are first merged, they bear an unvalued Case feature, which gets its value during the course of the derivation. While there are various theories of how this case assignment happens, in this paper, we follow configurational approaches where nominals in certain structural configurations are assigned 'dependent' case (Marantz 1991, Bobaljik 2008, Baker 2015).[5] We further assume, following Baker and Vinokurova (2010) and Preminger (2014) that dependent case assignment happens in the narrow syntax. The dependent case rules for Telugu are given in (33).

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

Of the case rules above, (33d) is the standard treatment of accusative case among dependent case theories. The rule for dative case in (33c) again has some precedent in Baker and Vinokurova 2010 and Baker 2015. The behaviour of Telugu dative is identical to that of Sakha except in one respect:

[4] See also Safir 2010 for an argument from Icelandic leading to the same conclusion.

[5] We must note though that any fully worked theory of case assignment can be substituted in place of dependent case. To implement our proposal, we choose one theory, but nothing crucial hinges on the choice. We see only one aspect of the choice to be directly relevant: its place in the architecture. The way we implement feature-matching, it is crucial that case-assignment happen in the narrow syntax. Replacing dependent case as we use it with another theory where case is assigned in the PF branch necessitates a (perhaps minor) change in how reduplication is thought about and implemented.

in Sakha, the causee in a causative construction gets dative case, whereas in Telugu the causee gets instrumental case. We assume that the difference is due to a lexical instrumental case assigned to the causee in Telugu, hence bleeding DATIVE assignment. Again following previous work, we treat nominative as the unmarked case (33e) — more precisely, the absence of a case value (Bittner and Hale 1996, Levin and Preminger 2015, McFadden 2018).[6]

This leaves us with the two cases that are specific to Telugu. The lexical case assignment rule in (33a) is an idiosyncracy of certain experience subject predicates. The complements of these predicates are obligatorily marked with the oblique *aṇṭe* (34).

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

b. ii abbaayi-ki peddawaaḷḷu-aṇṭe 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-aṇṭe prema
ravi-DAT rani-OBL love
'Ravi loves Rani.'

Finally, the case rule in (33b) concerns the assignment of case by adpositions. In §2, we saw examples where the base and the reduplicant seemed to be separated by a postposition. There is suggestive evidence that these are in fact local cases and not adpositions themselves. The first piece of evidence comes from the construction of complex cases. These apparent postpositions can combine with dative case to form complex cases. In such situations, it is the 'adposition' and not the dative case that is closest to the stem (35). This behaviour is consistent with an analysis where the apparent postpositions are in fact case markers.

(35) a. illu miida-ki
house ON-DAT
'onto the house'

b. illu loo-ki
house IN-DAT
'into the house'

Another piece of evidence that these elements are case markers comes from allomorphy. When a nominal is marked with a non-nominative structural case, it is obligatorily in its oblique form (36). When the postpositions/local case markers attach to a nominal, there is an optionality – a non-pronominal nominal can optionally surface in the non-oblique form (37). Assuming postpositions can be alternatively realized as Ps or as local case markers, the optionality can be accounted for (cf. Emonds 1985, 1987, den Dikken and Dékány 2018) — the oblique form corresponds to the realization of the postposition as a case marker. In all the examples of CCRs we have seen so far, the stems to which these local cases attach are always in the oblique, indicating that the latter are indeed case markers.

(36) a. *vaaḍu ni
3MS ACC
'him'

b. vaaḍi-ni
3MS-IN
'him'

(37) a. illu loo
house IN
'in the house'

b. iṇṭi-loo
house-IN
'in the house'

[6]See Messick and Raghotham 2021 for details and argumentation supporting these case assignment rules.

The case assignment rule in (33b) is an abbreviation of different adpositions assigning their respective cases, but since these rules never interact with one another, and are different instances of the same phenomenon, it seems to reasonable to treat them as one. In what follows, we present our account of the feature-transmission and reduplication found in CCRs.

4.1 On the form of the CCR

The starting point for analysis is the insight in Kratzer 2009 and Safir 2014 — what differentiates a locally bound anaphor from other anaphors is its morphological form. We follow Safir (2014) in treating all instances of anaphors as possessing a feature 'D-bound' when first merged. The shape of D-bound is determined at spell-out. If the antecedent and the anaphor are in the same phase, the anaphor might appear with special morphology, like *self*-suffixation in English.

In Telugu, we suggest that the special morphology associated with local binding is reduplication. When the D-bound element and its antecedent are separated by a phase boundary, the simplex *tanu* is used for third person antecedents. We assume that the reduplication seen in CCRs is a type of 'syntactic reduplication' following the terminology of Saba Kirchner (2010). Syntactic reduplication entails the process' indifference to phonological information. Witness (38). The first person plural pronoun in the nominative is *meemu*, but is a suppletive *mammalni* in the accusative. When reduplicated, the suppletion seen in the accusative remains:

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

With Kratzer (2009) and Safir (2014), we assume that D-bound elements can be 'born' with no ϕ-features, or specified for ϕ-features. When they are specified for features, the sentence is only acceptable when the specification is compatible with the antecedent's features. When they are born minimal, the two processes in (39) ensure that the features of the antecedent are passed on to the anaphor.

(39) a. *Predication* (*Spec-Head agreement*)
When a DP occupies the specifier position of a head that carries a λ-operator, their ϕ-feature sets unify.

b. *Feature Transmission*
The ϕ-feature set of a bound DP unifies with the ϕ-feature set of the head that hosts its binder.

Feature transmission is a phase-bound operation, with the consequence that the only time a minimal form of D-bound is licit is when the antecedent is local. When not locally bound, the D-bound element must be born with its ϕ-features specified.

While the original scope of the Kratzer's mechanisms (39) were only ϕ-features, we claim that in Telugu, even case features undergo this process. This move lets the case of the antecedent to be copied on to the anaphor. Given the inclusion of case features for feature transmission, the D-bound element now has two unvalued case features: one from regular case-assignment rules, and another from feature transmission. Since Telugu isn't a case-stacking language, only one case can surface on the D-bound. Moreover, the base and the reduplicant must differ in which case surfaces on them. We suggest that the reason why both the base and the reduplicant do not surface with the same case is due to a more general property of syntactic reduplication, noted by Saba Kirchner (2010): Identity Avoidance (40).

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

Since there are two case-features on each part of the reduplication, a different case feature from each must be deleted to ensure Identity Avoidance. So how does one decide which element gets which case? We assume that the case originally assigned to the D-bound element is given precedence for appearing on the base. Inherent in the previous assumption is an other assumption that the reduplicant follows the base in Telugu, given that the structural case precedes the 'copied' case.[7]

4.2 A few sample derivations

With all the pieces in place for our analysis, let us walk through some simple derivations to see the system in action. We begin with a nominative antecedent and a CCR with a structural accusative case, alongside the copied nominative (41).

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

At the start of the derivation, both the antecedent and the D-bound element are in the same phase. When the antecedent merges with the external argument introducing head, here v, it shares its ϕ- and case-features with v via predication. Since the D-bound is also in the same phase, feature transmission between v and D-bound can take place. The antecedent's ϕ-features (3PL) and its case-feature are now on D-bound, including its own case-feature.

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

Both the antecedent and the anaphor evacuate the vP — the antecedent to the specifier of TP, and the anaphor to an object shift position (cf. Raghotham 2019, Messick and Raghotham 2021).

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

With the two DPs now in the same spell out domain (TP), the lower DP, D-bound, receives accusative case, following the case assignment rules discussed above. No other case assignment rule applies, so the case feature of the antecedent, and consequently the other case-feature on the anaphor, are left unvalued. Descriptively, they are marked 'nominative'.

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

Finally, the antecedent and the anaphor are in the same spell-out domain, so D-bound is reduplicated, which we analyzed earlier as indicating a phase-local antecedent.

(45) $[_{TP}$ pillalu$_{[uK:]}$ $[_{vP}$ [D-bound:3PL$_{[ACC][uK:]}$ D-bound:3PL$_{[ACC][uK:]}$] V] v$_{\lambda}$]
RED

Now both elements of the CCR have two case features: one valued ACC and the other not valued at all. In order to satisfy Identity Avoidance, the unvalued feature on the base (left) is deleted, while the ACC feature on the reduplicant (right) is deleted. Post-deletion, the following vocabulary items are inserted: (46a–b) for the base, and (46c) for the reduplicant. As noted earlier, nominals surface in their oblique form in the presence of case morphology.

[7] Dravidian languages differ from other languages which have been claimed to have case-copying reflexives in the order in which structural and copied cases appear — structural precedes copied in the former, and follows in the latter. If our assumption that the 'original' case is privileged by the base has wider applicability than just Telugu, it must be the case that in those languages, the reduplicant precedes the base. On the other hand, it might well be that the choice of where the structural case is spelled out is subject to parametric variation by itself, without any deeper reasons. We leave studying this variation for future research.

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

Let us now move on to a derivation where the antecedent has dative case, and D-bound receives a lexical case (47). This example, and its comparison with the previous example is instructive in that it sheds light on the derivational nature of operations used here — operations apply as soon as their structural conditions are met.

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

Upon merging its complement with the verb, the lexical case rule applies, since its structural description is met. In the example above, *prema* 'love' assigns its complement the oblique case *aṇṭe*.

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

The experiencer argument is now merged. We assume that experiencers are merged lower in the structure than agents — the former in SpecVP and the latter in Spec$v$P. This assumption leads to two changes in the derivation: first, since the structural description of the dative assignment rule is met, dative case is assigned to the higher c-commanding nominal. Second, the λ-binder is now V, and not v, since the antecedent for the CCR is in SpecVP. Since V is now the binder, Predication occurs as soon as the experiencer is merged, and since both antecedent and anaphor are in the same phase, so does Feature Transmission. Note that case assignment and feature transmission occur simultaneously here, unlike in the previous derivation.

(49) $[_{VP}$ pillalu$_{[\text{DAT}]}$ $[_{V'}$ [D-bound$_{[\text{ANTE}]}$] V_{λ}]]
DEP CASE

(50) $[_{VP}$ pillalu$_{[\text{DAT}]}$ $[_{V'}$ [D-bound:3pl$_{[\text{ANTE}][\text{DAT}]}$] V_{λ}]]
PREDICATION
FT

Finally, when the phase head v is merged, its complement is shipped to the interfaces, at which stage reduplication is triggered since both antecedent and anaphor are in the same phase.

(51) $[_{vP}$ $[_{VP}$ pillalu$_{[\text{DAT}]}$ [D-bound:3PL$_{[\text{ANTE}][\text{DAT}]}$ D-bound:3PL$_{[\text{ANTE}][\text{DAT}]}$] V_{λ}] v]
RED

Following our assumption about the base privileging the 'original' case assigned to it, the 'copied' dative is deleted on the base, and the oblique *aṇṭe* is deleted from the reduplicant. The following vocabulary items are now inserted:

(52) a. [3PL, +OBL, D-bound] ↔ tama
b. [ANTE] ↔ ante
c. [3PL, +OBL, D-bound] ↔ tama
d. [DAT] ↔ ku

The two example derivations above showed how our theory captures the behaviour of case-copying reflexives in simple cases. The assumption that nominative is lack of a case value also helps capture the behaviour of CCRs in ECM contexts, as described in (20).[8] Furthermore, the derivational nature of our analysis can also straightforwardly account for examples like (53) where, on the surface, the antecedent's case is not copied onto the anaphor.

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

Notice though, that at the stage in the derivation when the CCR is spelled out, feature transmission of an unvalued case feature has taken place since the embedded subject is still nominative. Moreover, a lower copy of the subject is still in the same phase as the CCR, feeding reduplication. The local case seen on the base is assigned as soon as D-bound merges with P_{about}. These three conditions taken together, explain the surface form the CCR. Accusative assignment to the embedded subject occurs at a later stage of the derivation, and hence doesn't affect the form of the CCR.

5 Conclusion

One contribution of this paper was to provide an analysis of case-copying reflexives. Where we diverge from previous agreement-based theories of feature-matching is in extending the mechanisms to include case as well. Extending agreement to case features is not novel however. Landau (2008) uses a similar mechanism to account for instances of control where PRO agrees in case with its controller.

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

In his analysis of case-transmission structures likes (54), Landau proposes that case-transmission is made possible by the controller and the PRO both agreeing with a functional head independently, much like our analysis of case-copying (55). We take the availability of such control facts to indicate that the extension of agreement mechanisms to Case is not restricted to specific constructions, but is a more general possibility with the tools UG provides.

(55) [F ... NP ... [... PRO ...]]

More generally, drawing parallels to control might be a fruitful exercise in studying the mechanisms underlying case-copying reflexives. Structures like (54), modulo case-matching, exhibit both partial and exhaustive control. However, when PRO matches its controller in Case, only exhaustive control is possible. This mirrors the behaviour of anaphors in Telugu — a simplex anaphor, which does not agree in case with its antecedent can take split antecedents, but the CCR which does agree in case, cannot. We leave an exhaustive study of the parallels for future work.

Another, and perhaps the chief contribution of this paper was to show that there are languages in the world where a reflexive anaphor matches its antecedent in case features, in addition to ϕ-features. Since case is a purely morphosyntactic phenomenon, it necessarily follows that feature-matching between antecedent and locally bound reflexive anaphors must involve a morphosyntactic component.

We must note though that the reach of our conclusions is limited to locally bound reflexive anaphors. While Preminger (2020) has argued for a non-syntactic mechanism to handle all instances

[8] See Messick and Raghotham 2021 for a fuller discussion of the ECM derivation as well as derivations in ditransitives and when the CCR is assigned a local case.

of feature matching, the other extreme is represented by Kayne (2002), who argues that even donkey and cross-sentential anaphors have a syntactic component. The conclusions here are not to be taken to endorse the syntax corner. Our findings are completely compatible with a non-syntactic mechanism being responsible for other types of anaphora. In fact, the presence of a morphosyntactic component in the realization of elements that are perhaps most sensitive to structural factors like locality and c-command might not be accidental; we think it reflects the division of labour between syntax and other components of the language faculty. In this respect, our conclusions agree in spirit with Heim 2008, Kratzer 2009, Reuland 2011 and other authors.

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