

Morphosyntax values itself

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Feature-matching

- Many languages have reflexives which co-vary in φ -features with their antecedents
 - (1) Marty praised himself
 - (2) The students praised themselves
 - (3) The committee praised itself
- What ensures this matching?
 - Syntax
 - Agreement?
 - Movement?
 - Not-syntax

Reuland 2011; Hicks 2009
Hornstein 2001; Kayne 2002
Preminger 2019

The argument

P1 Case-copying reflexives – in some languages, the anaphor's case must match its antecedent's.

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

P2 Case is purely morpho-syntactic.

- Feature matching must have a morphosyntactic component.

Background: Anaphors in Telugu

- Telugu has a dedicated complex reflexive

Subbarao & Murthy 2000

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

- It's made by reduplicating a simplex anaphor (*tanu*) or a pronominal.
- The first element of the complex reflexive gets the regular structural case (ACC above)
- The second matches the antecedent in its case

Subbarao & Saxena 1987

- Variation:

- Some speakers only allow complex reflexives
- Others allow both the simplex and the complex anaphors as reflexives
- Yet others allow even pronouns

Balusu 2019

Case-copying & Doubling: Minimal Pairs

- Nominative subjects:

- (6) ravi- \emptyset vaaḍi-ni prem-is-ṭaa-ḍu
ravi-NOM 3MS-ACC love-CAUS-PRES-3MS
'Ravi loves him'
- (7) ravi- \emptyset vaaḍi-ni vaaḍu- \emptyset prem-inc-kun-ṭaa-ḍu
ravi-NOM 3MS-ACC 3MS-NOM love-CAUS-VR-PRES-3MS
'Ravi loves himself'

- Dative subjects:

- (8) ravi-ki vaaḍ-anṭe prema
ravi-DAT 3MS-TOP love
'Ravi loves him'
- (9) ravi-ki vaaḍ-anṭe vaaḍi-ki prema
ravi-DAT 3MS-TOP 3MS-DAT love
'Ravi loves himself'

CCRs around the world

- Sanzhi Dargwa (Nakh-Daghestanian)

Forker 2020, p.558, ex. 25–26

- (10) 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'
- (11) Rasul-li-j cini-j ca-w čiiḡ-ul ca-w
rasul-OBL-DAT REFL-DAT REFL-M.ABS see-CVB COP-M
'Rasul sees himself'

- Khanty (Uralic)

Volkova 2014

- (12) Pet'a-jən luv luvel nuom-l-əlle
Petja.NOM-2SG he.NOM he.ACC remember-NPST-SG.3SG
'Petja remembers himself'

- Meitei (Tibeto-Burman)

Sarju Devi & Subbarao 2002

- (13) caoba-na masa-na masa-bu thagat-ce-i
caoba-NOM himself-NOM himself-ACC praised-VR-NF
'Chaoba praised himself'

CCRs: One item

- The CCR can be scrambled ...

(14) [tana-ni tanu]₁ Ravi _____₁ gillu-kunn-aa-đu
3SG-ACC 3SG ravi _____ pinch-VR-PST-3MS
'Ravi pinched himself'

- ... but only as one unit

(15) * [tana-ni]₁ Ravi _____₁ tanu gillu-kunn-aa-đu
3SG-ACC ravi _____ 3SG pinch-VR-PST-3MS
'Ravi pinched himself'

- Adverbs cannot intervene between the two elements of the CCR

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

CCRs: One (complex) item

- The elements of the complex reflexive exhibit *some* degree of freedom:

(17) kalpana-ku tan-ante tana-ku iṣṭam leedu
kalpana-DAT 3SG-TOP 3SG-DAT like NEG
'Kalpana doesn't like herself'

(18) tana-ku tan-ante kalpana-ku iṣṭam leedu
3MS-DAT 3MS-TOP kalpana-DAT like NEG
'Kalpana doesn't like herself'

- The two elements *can* be separated by case or other markers on nominals

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

CCRs are anaphors

- CCRs cannot take split antecedents ...

(20) * Ravi₁ Raju-to₁ tama-ni taamu₁₊₂ tiṭṭu-kunn-aa-ḍu
ravi rajū-COMM 3PL-ACC 3PL scold-VR-PST-3MS
'Ravi made Raju scold themselves'

- ... do not allow strict readings ...

(21) Uma tana-ni tanu meccu-kun-di. Suma kuda ade cees-in-di
uma 3SG-ACC 3SG praise-VR-3FS. Suma ALSO THAT DO-PST-3FS
'Uma₁ praised herself. Suma₂ did so (praised x_{2/*1}) too'

- ...and do not allow deictic/discourse antecedents

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

CCRs are anaphors: Locality

- We've already seen that local antecedents are okay
- Extra-clausal antecedents are not:

(23) Uma₁ [Suma₂ tana-ni tanu_{2/*1} coosindi ani] ceppindi
Uma Suma 3SG-ACC 3SG saw.3FS COMP said.3FS
'Uma₁ said that Suma₂ saw herself_{2/*1}'

- ECM-anaphors can take matrix subject antecedents:

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

- (24) also shows that there is no co-argument restriction.

CCRs are anaphors: Command restriction

- The antecedent needs to c-command the case-copying reflexive:

(25) [Roja₁ talli]₂ tana-ni tanu_{2/*1} meccu-kun-di
Roja mother 3SG-ACC 3SG praise-VR-3FS
'Roja₁'s mother₁ praised herself_{2/*1}'

CC: Not movement

- The CCR can occur in coordinations.

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

- Movement (out) of the CCR would violate the CSC.
- The case matching must be done in situ.

CC: Not daisy-chained agreement

- Reuland (2011) ties feature matching to T-agreement, but binding of the CCR is possible even when the antecedent does not agree with T:

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

Analysis: requirements

- The CCR must be assigned two case values: one structural and one via its antecedent.
- The CCR does not need to move to receive the case value of its antecedent.
- The antecedent does not need to agree with T to share its case value.

Basic ingredients

- An analysis of structural case assignment.
- An analysis of complex reflexive formation.
- An analysis of Antecedent-Anaphor feature matching.

Ingredient 1: Case assignment

- We assume that NPs enter the derivation with unvalued case features.
- Case is valued via the dependent case rules:

Baker 2015 *a.o.*

- (28)
- a. If NP is complement of $\sqrt{\quad}$, where $\sqrt{\quad} \in \{\text{preema, asahyam, iirSya, aaba, bengal...}\}$, assign NP ANTE
 - b. If NP_1 c-commands NP_2 in VP then assign DATIVE to NP_1
 - c. If NP_1 is c-commanded by an unmarked NP_2 in TP then assign ACCUSATIVE to NP_1 .
 - d. All other NPs are NOMINATIVE

Ingredient 2: Reduplicative structure

- We follow the D-bound approach to anaphors. Safir 2014
- The morphological form of D-bound is determined via locality to antecedent.
- A phase internal antecedent triggers special complex morphology (cf. *self*-insertion in English)
- In Telugu, a phase internal antecedent triggers reduplication. Simplex anaphor is used when antecedent and D-bound reside in different phases.
- Reduplication precedes case assignment.

Ingredient 3: Feature Transmission

- We assume that anaphor and a local antecedent share features via head mediated Feature Transmission: Kratzer 2009
 - (29) a. *Predication*
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 verbal functional head that hosts its binder.

Parallels: Case-transmission in Control

- In some languages, PRO can match the case of its controller.

(30) Russian

my predpočil _____ sobrat'sja vse/??vsem v šest'
we.NOM preferred PRO to.gather all.NOM/DAT at six
'We preferred to all gather at six'

Landau 2008, p. 908, ex. 53a

(31) Latin

ego iuebo te _____ esse bonum
I.NOM order you.ACC PRO to.be good.ACC
'I order you to be good'

Landau 2008, p. 918, ex. 74b

- Landau gives an analysis similar to Kratzer's. A functional head agrees with the controller and transmits the controller's features (including case) to PRO.

Baking

- Let's walk through a derivation.

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

- The subject and v share features via *Predication* and they are transmitted to the anaphor via *Feature Transmission*

(33) $[_{VP} \text{pillalu}_{uK}: [_{VP} [D\text{-bound}_{uK}:] V] v_{\lambda}]$

(34) $[_{VP} \text{pillalu}_{uK}: [_{VP} [D\text{-bound}:3PL_{uK}:] V] v_{\lambda}]$

- D-bound and its antecedent reside in the same phase, hence reduplication is triggered.

(35) $[_{VP} \text{pillalu}_{uK}: [_{VP} [D\text{-bound}:3PL_{uK}: D\text{-bound}:3PL_{uK}:] V] v_{\lambda}]$

Baking

- As the case of the subject is not determined yet, we assume that the transmission procedure links the value of the subject and the one case feature of CCR and valuation of one is shared with the other.
- The antecedent will move to SpecTP and the CCR will move to an object shift position. The CCR is assigned ACC via dependent case rules.

(36) $[_{TP} \text{pillalu}_{[uK:]}_2 [_{VP} [Db:3PL_{[uK:]} Db:3PL_{[uK:]}]_1 [_{VP} \text{---}_2 [_{VP} [\text{---}] V] v_\lambda]]]]$

(37) $[_{TP} \text{pillalu}_{[uK:]}_2 [_{VP} [Db:3PL_{[ACC]} Db:3PL_{[uK:]}]_1 [_{VP} \text{---}_2 [_{VP} [\text{---}] V] v_\lambda]]]]$

- Given the interaction of reduplication, case assignment and case/feature transmission, the CCR ends up with both structural and copied case.

(38) $[_{TP} \text{pillalu}_{[NOM]}_2 [_{VP} [Db:3PL_{[ACC]} Db:3PL_{[NOM]}]_1 [_{VP} \text{---}_2 [_{VP} [\text{---}] V] v_\lambda]]]]$

Accounting for the distribution

- CCR cannot occur when its antecedent is not in the same phase. No long-distance antecedents with the CCR:

(39) Uma₁ [Suma₂ tana-ni tanu_{2/*1} coosindi ani] ceppindi
Uma Suma 3SG-ACC 3SG saw.3FS COMP said.3FS
'Uma₁ said that Suma₂ saw herself_{2/*1}'

- In ECM, embedded subjects moves into the matrix clause: CCR is now in the same phase as its antecedent.

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

Accounting for the distribution

- CCR cannot occur as a possessor inside of NP. Follows from the analysis once we assume that the extended projection of NP is a phase.

(41) Roojaa-ki_i tana_j (*tanaku) amma iŝtam
Roja-DAT 3SG.GEN (*3SG.DAT) mother like
'Roja likes her mother.'

Other feature matching

- We have focused on case features, but are other features shared between the antecedent and the CCR? Recall that the CCR does not allow for split or non-exhaustive antecedents.

(42) * Ravi_i Raju-to₁ tama-ni taamu_{i+2} tiṭṭu-kunn-aa-ḍu
ravi rajū-COMM 3PL-ACC 3PL scold-VR-PST-3MS
'Ravi made Raju scold themselves'

- The simplex long-distance anaphor can take split and non-exhaustive antecedents

(43) Kamala_i Sarita_j too [taamu_{i,j} tappaka pariikḷa paas awwagalamu ani] cepp-in-di
Kamala Sarita with 3PL certainly exam pass can.1PL COMP say-PAST-FSG
'Kamala told Sarita that they can certainly pass the exam.'

(44) Raju_i [taamu_{i+} bayaludeer-ææ-mu ani] cepp-ææ-ḍu
Raju 3PL leave-PAST-1PL COMP say-PAST-M.SG
'Raju said that they (including Raju) left.'

Other feature matching

- Interestingly, partial control is blocked when case transmission takes place with PRO.

(45) Russian

Landau 2008, p. 908, ex. 53b

predsedatel' predpočil _____ sobrat'sja vsem/*vse v šest'

chair.NOM preferred PRO to.gather all.DAT/NOM at six

'The chair preferred to all gather at six'

- Both follow from the analysis if we assume that number (and presumably other φ -features) are also shared when case transmission happens.

Binding in PPs

- Apparent adpositions can intervene between the two parts of the CCR. Other than case markers, these are the only elements that can intervene.

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

- We believe that the adposition makes a complex head with the NP. Either because it is a local case marker or via some sort of pseudo-incorporation.
- Note that the emphatic marker can usually modify NP, but in these constructions, it can only attach after the apparent P.

(47) Ravi-miid-ee
Ravi-on-EMPH
'at Ravi_F'

(48) * Rav-ee-miida
Ravi-EMPH-on
Intended: 'at Ravi_F'

Summary

- We have shown that local complex anaphors in some languages agree in case with their antecedents.
- We argued that this agreement provides strong novel support for positing a morphosyntactic link between the anaphor and its antecedent.
- We also showed that the link cannot be facilitated via movement or T-agreement.
- We instead argued that the link was established via Feature and Case transmission mechanism that have been previously put forth for binding and control structures.
- These findings suggest that local anaphors share a morphosyntactic link with their antecedent. We believe our findings are compatible with semantic approaches to feature matching with long-distance binding, cross-sentential anaphora and donkey-anaphora.

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Ditransitives

- In ditransitive constructions, both the agent and goal arguments can bind the theme argument. Case always matches the antecedent.

(49) 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.'

(50) 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.'

The agent may also bind the goal.

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

More on Case rules

- ACC is assigned to human and specific objects in Telugu. Non-specific objects do not surface with ACC. We assume this follows from movement of human/specific objects out of VP spell out domain.

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

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

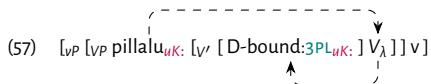
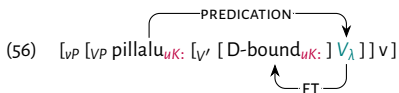
- DAT is assigned to the higher of two NPs in VP. This includes the COAL argument in ditransitives, EXPERIENCER arguments, possession constructions and external possession.

(54) waaDi-ki paLLu lee-wu
he-DAT teeth COR.NEG-3PL
'He doesn't have any teeth.'

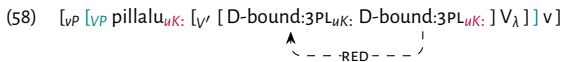
(55) waaDi-ki ceeti-ki deeba tagil-in-di
he-DAT hand-DAT wound hit-PST-3NSC
'His hand was hurt.'

Dative subjects

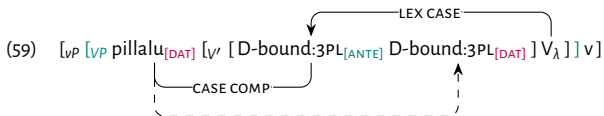
- Feature-sharing: *Predication + via Feature Transmission*



- D-bound and its antecedent reside in the same phase, hence reduplication is triggered.



- VP domain: $\sqrt{\text{ROOT}}$ gives lexical case; DAT = high dependent case



-kun- less verbs

- We typically see copied nominative case with the VR *-kun-*, but that is only an accidental correlation as *-kun-* only attaches to verbs with agentive subjects and agentive subjects are typically nominative in Telugu. When we can tease them apart, we see that we get copied nominative without *-kun-*

(60) Madhu tana-ni tanu marci poo-yee-Du
Madhu 3SG-ACC 3SG.NOM forget do-PST-3MSG
'Madhu forgot himself.'

Co-ordinate structure constraint

- The CSC is independently attested in Telugu

(61) * idli_i Ravi-ki t_j inka dosa iStam
idli Ravi-DAT t CONJ dosa like
Intended: 'Ravi likes idli and dosa'

(62) * TV_i neenu [[magazine-lu caduvut-aa-nu] mariyu [t_j coost-aa-nu]]
TV 1SG magazine-PL read-PST-1SG and t watch-PST-1SG
Intended: 'I read magazines and watched TV.'

The examples with the CCR cannot be a case of conjunction reduction as the coordination behaves as a constituent.

(63) [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.'

(64) a. Ravi-ki evaru-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.'