

Reciprocal binding and syntactic ergativity in Adyghe and Kabardian

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- Long-standing question in the research on syntactically ergative languages: range of phenomena that draws a distinction between **ERG** vs. **ABS** arguments (Polinsky 2017; Deal 2015, 2016, a.m.o.).
- Syntactic ergativity is well-documented in \bar{A} -phenomena:

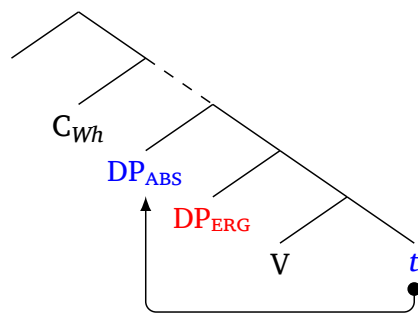
(1) *Q'anjob'al* (Mayan)

- a. **Maktxel**₁ max y-il[-a'] **naq winaq t**₁? (ABS can \bar{A} -move)
 who ASP 3ERG-see-TV CLF man
 'Who did the man see?'
- b. **Maktxel**₁ max way-i **t**₁?
 who ASP sleep-ITV
 'Who slept?'
- c. ***Maktxel**₁ max- \emptyset y-il[-a'] **t**₁ **ix ix**? (ERG cannot \bar{A} -move)
 who ASP-3ABS 3ERG-see-TV CLF woman
 Intended: 'Who saw the woman?'

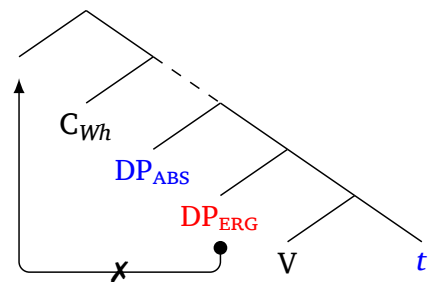
[Coon et al. 2014: p. 192f]

- **HIGH ABS analysis:** the asymmetry between **ERG** vs. **ABS** is a consequence of **ABS** moving to a position that asymmetrically c-commands **ERG**.

(2) a. *High ABS movement*

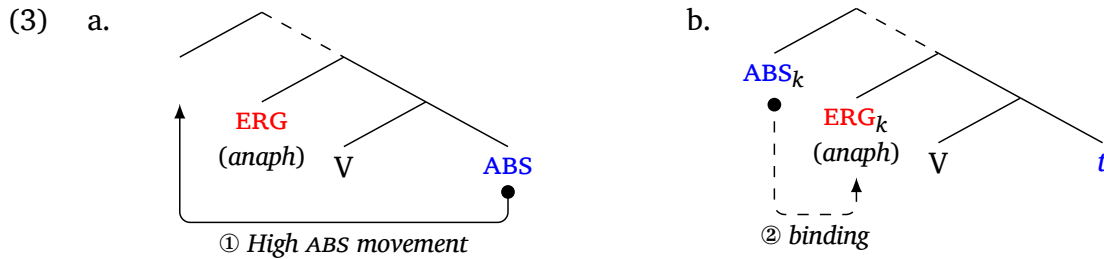


b. *ERG cannot Wh-move*



- \bar{A} -movement in a language such as *Q'anjob'al* (1c) can then be analyzed as the now higher **ABS** blocking the movement of **ERG**.

- Anderson (1976, a.o.; see discussion in Brodtkin & Royer 2024): a prediction that emerges from a HIGH ABS theory is that, as a consequence of ABS moving to a position that c-commands an ERG anaphor, the former should be able to bind the latter:



- But: this prediction does not seem to be borne out by facts.

The ban on ergative anaphors

- (4) In many ergative languages, [reflexive] anaphors cannot surface as ergative external arguments.

[Brodtkin & Royer 2024]

- ▶ Anderson (1976): syntactic ergativity does not usually show up in A-type of phenomena, including binding.
- ▶ Polinsky (2017): it is restricted to \bar{A} -phenomena.

- **Reciprocal binding** in Adyghe and Kabardian appears to diverge from (4).¹

(5) a. $\text{\textcircled{S}^w\text{\textcircled{a}}-t-\lambda\text{\textcircled{e}}\text{\textcircled{v}}^w\text{\textcircled{a}}-\text{\textcircled{v}}$ (Adyghe)
 2PL.ABS-1PL.ERG-see-PST
 ‘We saw you.’
 b. $\text{\textcircled{te}-ze-re-\lambda\text{\textcircled{e}}\text{\textcircled{v}}^w\text{\textcircled{a}}-\text{\textcircled{v}}$
 1PL.ABS-RECP-INSTR-see-PST
 ‘We saw each other.’ [Ershova 2023]

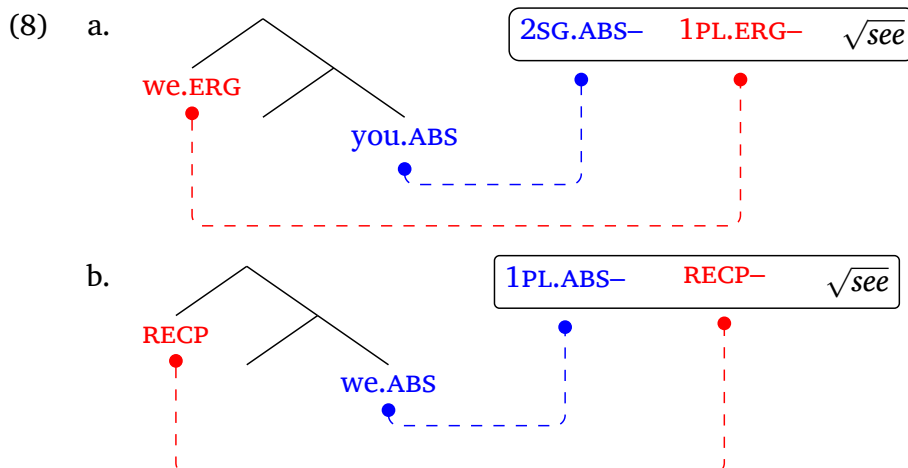
(6) a. $\text{se d\text{\textcircled{a}}\text{\textcircled{r}}^w\text{\textcircled{a}}\text{\textcircled{s}}e \text{\textcircled{w}\text{\textcircled{a}}-s-\lambda\text{\textcircled{e}}\text{\textcircled{r}}^w\text{\textcircled{a}}-\text{\textcircled{a}}-\text{\textcircled{s}}'$ (Kabardian)
 1SG yesterday 2SG.ABS-1SG.ERG-see-PST-IND
 ‘I saw you yesterday.’
 b. $\text{de d\text{\textcircled{a}}\text{\textcircled{r}}^w\text{\textcircled{a}}\text{\textcircled{s}}e \text{\textcircled{d}\text{\textcircled{a}}-ze-r\text{\textcircled{a}}-\lambda\text{\textcircled{e}}\text{\textcircled{r}}^w\text{\textcircled{a}}-\text{\textcircled{a}}-\text{\textcircled{s}}'$
 1PL yesterday 1PL.ABS-RECP-INSTR-see-PST-IND
 ‘We saw each other yesterday.’

¹The analysis of the reciprocal prefix *ze-* will not be that it occupies an **ERG** φ -slot. See Proposal [↗](#) and Appendix [↗](#).

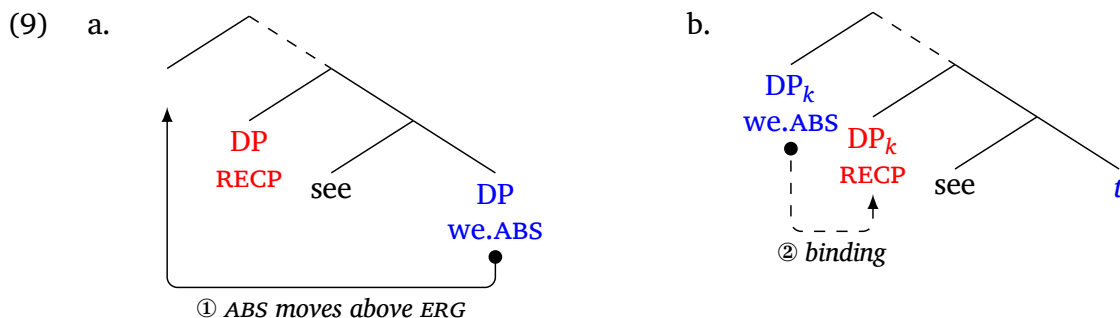
- As we can see in (5a) and (6a), φ -prefixes in the verb crossreference **ERG** and **ABS** arguments and they occur in a particular template:

(7) $\boxed{\varphi.ABS-\varphi.ERG-\sqrt{\dots}}$

- Taken at face value, the order of verbal prefixes in (5b) and (6b) appear to indicate that, in reciprocal sentences in Adyghe and Kabardian, the **RECP is above its antecedent**.



- Ershova (2019, 2023): reciprocal binding in Adyghe provides empirical support for a HIGH ABS analysis of syntactic ergativity in this language. Binding obtains as a consequence of HIGH ABS movement of the antecedent (9).



- According to (9), in (5b), RECP is base-generated in the position usually occupied by ERG agents, while the antecedent is base-generated in the position usually occupied by ABS themes.

(5) b. **te-ze-re-λeβ^{wə}-β**
 1PL.ABS-RECP-INSTR-see-PST
 ‘We saw each other.’

- I argue instead that the morphosyntax of reciprocal sentences such as (5b) and (6b) is the byproduct of the interaction between:
 - ▶ The case properties of the RECP pronoun in these languages,
 - ▶ Independent economy principles such as Last Resort, and
 - ▶ Independent principles that regulate case assignment.
- RECP binding and HIGH ABS movement are, thus, independent of each other in Adyghe and Kabardian.
 - ➡ Despite appearances, reciprocal sentences in Adyghe and Kabardian also abide by *The ban on ERG anaphors* (4).

- Adyghe and Kabardian are morphologically ergative languages.

- (10) a. $\check{\zeta}'ale-m$ $pisme-r$ $\emptyset-j-e-tx\emptyset$ (Adyghe)
 boy-ERG letter-ABS 3SG.ABS-3SG.ERG-DYN-write
 ‘The boy is writing a letter.’
 b. $\check{\zeta}'ale-r$ $\emptyset-ma-tx-e$
 boy-ABS 3SG.ABS-DYN-write-AP
 ‘The boy is writing.’ [Arkadiev & Letuchy 2011]

- Furthermore, φ -prefixes in the verb crossreference core and oblique arguments (which include applied arguments, indirect objects, and certain causees), in a particular template:²

- (11) $ABS.\varphi-OBL.\varphi-ERG.\varphi-CAUS-\sqrt{\dots}$ (-3PL.ABS) [based on Letuchiy 2016]

²For particular analyses of these φ -prefixes, see Ershova (2019), Driemel et al. (2020, 2021), and Fong (In Prep.), the latter of which is summarized in the Appendix [↗](#).

- For reasons that will become clearer, I assume a **Dependent Case** framework (Marantz, 1991), whereby case is assigned according to a *Disjunctive Hierarchy*.
- For Adyghe and Kabardian, I propose the algorithm in (12).³

³I also assume a Contextual or Dynamic definition of phases. See discussion in Fong (In Prep.).

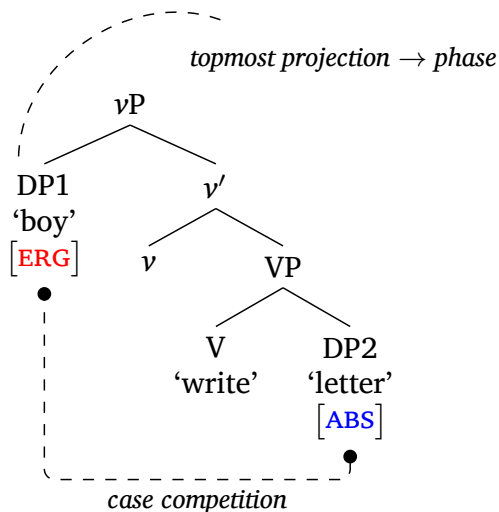
(12) *Case Disjunctive Hierarchy*

- ① Assign any idiosyncratic lexical **OBL** case.
- ② Given two nominals DP1 and DP2, such that
 - a. DP1 c-commands DP2,
 - b. neither DP1 nor DP2 has been assigned case yet, and
 - c. DP1 and DP2 are contained in the same smallest phase *Ph*,
 assign dependent **ERG** to DP1 if DP1 is at the edge of *Ph*, otherwise assign dependent **obl** to DP1.
- ③ Assign unmarked **ABS** to any DP that has not been assigned case yet.

- At ②, DP2 is a **case competitor** for the assignment of dependent **ERG** to DP1.

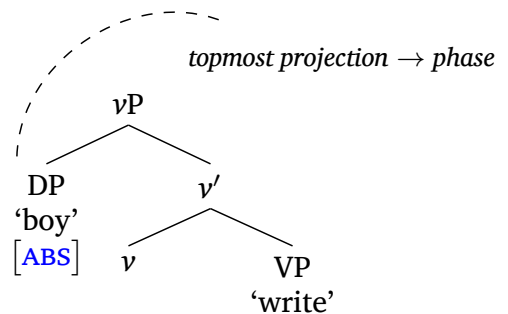
- **ERG/ABS** transitive (10a) and **ABS** intransitive (10b) sentences:

(13)



- ① No lexical **OBL**.
- ② Dependent **ERG** assigned to subject.
- ③ Unmarked **ABS** assigned to object.

(14)

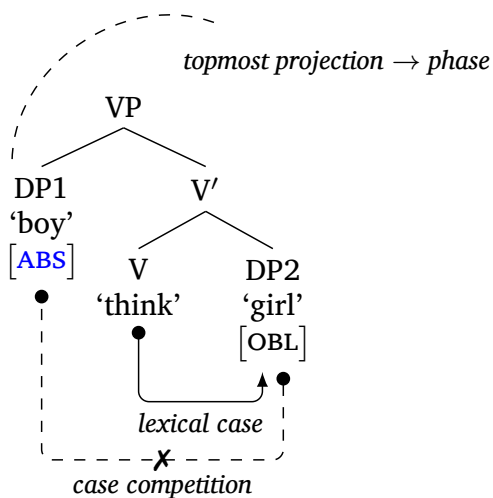


- ① No lexical **OBL**.
- ② No dependent **ERG**.
- ③ Unmarked **ABS** assigned to subject.

- ABS/OBL sentences:

(15) **č'ale-r pšaše-m Ø-je-g^wəpšəse**
 guy-ABS girl-OBL 3SG.ABS-3SG.OBL-think
 'The guy is thinking about the girl.'

[Arkadiev & Bagirokova 2023]



- 1 'Think' assigns lexical OBL to object.
- 2 No dependent ERG.
- 3 Unmarked ABS assigned to subject.

- Dependent OBL in sentences with three DPs, e.g. causativization of transitive verb:⁴

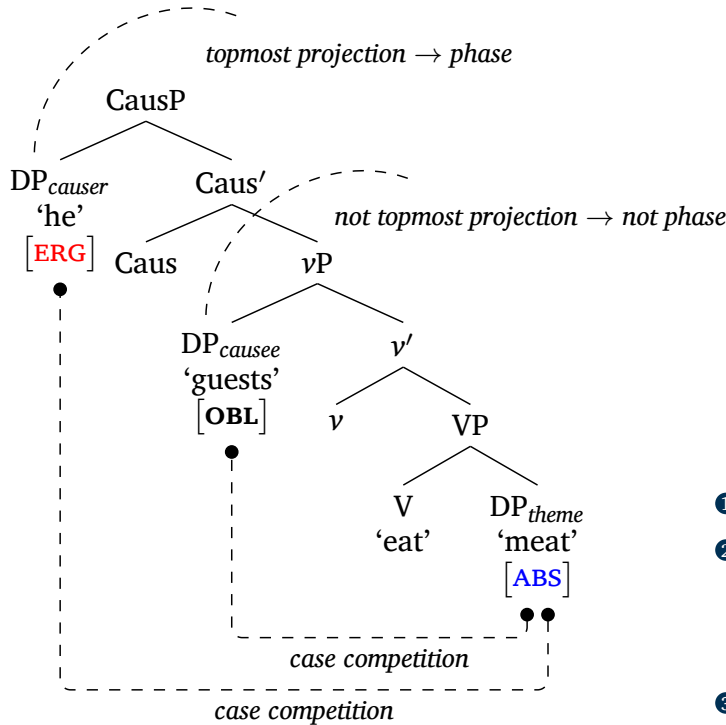
(16) a. **hač'e-xe-m lə Ø-a-šxə**
 guest-PL-ERG meat 3SG.ABS-3PL.ERG-eat
 'The guests are eating meat.'

b. **a-š' hač'e-xe-m lə Ø-a-r-j-e-ka-šxə**
 3SG-ERG guest-PL-OBL meat 3SG.ABS-3PL.OBL-OPV-3SG.ERG-DYN-CAUS-eat
 'He is making the guests eat meat.'

[Letuchiy 2014]

⁴ERG and OBL in Adyghe and Kabardian are syncretic, a crosslinguistically common pattern (Zompì, 2019). Additionally, I also assume that OBL in these languages can be either lexical or dependent case. See support for this distinction in Fong (In Prep.).

(17)

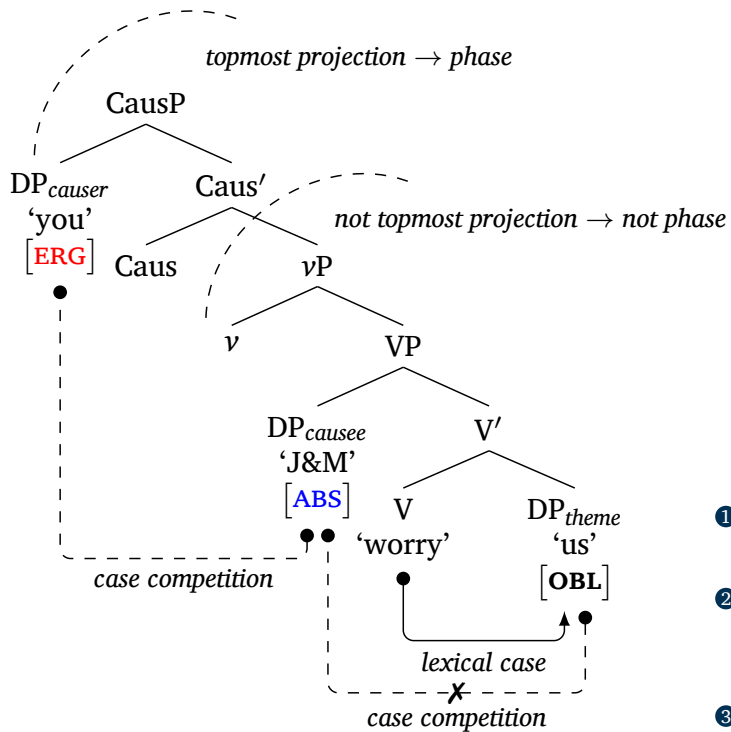


- ① No lexical OBL.
- ② a. Dependent OBL assigned to causee.
b. Dependent ERG assigned to causer.
- ③ Unmarked ABS assigned to underlying theme.

- That the OBL assigned to the causee in (16b) is an instance of dependent case, is indicated by the fact that, in the absence of a viable competitor, the causee is assigned unmarked ABS.

- (18) a. [_{&P} ʒ'wen-re merjə-re] *pro*
 John-COORD Mary-COORD 1PL.OBL
 Ø-qə-t-fe-g^wəmeç'ə-x ('worry:' ABS/OBL)
 3PL.ABS-DIR-1PL.OBL-BEN-worry-PL.3ABS
 'John and Mary worry about us.'
- b. *pro* [_{&P} ʒ'wen-re merjə-re] *pro*
 2SG.ERG John-COORD Mary-COORD 1PL.OBL
 Ø-qə-t-fe-b-ʁe-g^wəmeçə-ʁe-x ('worry' causativized)
 3PL.ABS-DIR-1PL.OBL-BEN-2SG.ERG-CAUS-worry-PST-PL.3ABS
 'You made John and Mary worry about us.'

(19)



- ① 'Worry' assigns lexical **OBL** to underlying theme.
- ② a. Dependent **OBL**.
b. Dependent **ERG** assigned to causer.
- ③ Unmarked **ABS** assigned to causee.

- Coupled with a particular proposal about the case properties of the RECP pronoun in Adyghe and Kabardian, this analysis will be shown to make correct predictions about the morphosyntax of reciprocal sentences in Adyghe and Kabardian, while also maintaining standard assumptions about binding.

- As mentioned above, according to a HIGH ABS analysis of RECP binding in Adyghe, (5b) is analyzed as the result of the movement of the ABS antecedent to a position that is higher than the ERG antecedent.

- (5) a. $\text{\$}^w\text{\textcircled{a}}\text{-t-}\lambda\text{e}\text{\textcircled{b}}^w\text{\textcircled{a}}\text{-}\text{\textcircled{b}}$
 2PL.ABS-1PL.ERG-see-PST
 ‘We saw you.’
- b. $\text{te-ze-re-}\lambda\text{e}\text{\textcircled{b}}^w\text{\textcircled{a}}\text{-}\text{\textcircled{b}}$
 1PL.ABS-RECP-INSTR-see-PST
 ‘We saw each other.’

[Ershova 2023]

- Such a HIGH ABS analysis faces empirical and theoretical challenges:
 - ▶ Movement is a necessary condition for binding in some sentences, in divergence from similar patterns found in analogous constructions elsewhere.
 - ▶ Not all instances of RECP binding require HIGH ABS movement in Adyghe. A HIGH ABS analysis implies, thus, a teleological grammar.
 - ▶ “Double binding” predicted to be grammatical, contrary to fact.

- For transitive verbs with an ERG/ABS pattern (e.g. ‘see’), the antecedent of a reciprocal must be assigned ABS (20a) and cannot be assigned the expected ERG (20b).

- (20) a. $\text{pro te-ze-re-}\lambda\text{e}\text{\textcircled{b}}^w\text{\textcircled{a}}\text{-}\text{\textcircled{b}}$
 1PL.ABS 1PL.ABS-RECP-INSTR-see-PST
 ‘We saw each other.’
- b. * $\text{pro ze-re-t-}\lambda\text{e}\text{\textcircled{b}}^w\text{\textcircled{a}}\text{-}\text{\textcircled{b}}$
 1PL.ERG RECP-INSTR-1PL.ERG-see-PST
 Intended: ‘We saw each other.’

[Ershova 2023]

- This is particularly clear when the antecedent is an overt DP:

- (21) $\text{ze}\check{\text{c}}^{\text{e}}\text{ }\check{\text{c}}\text{a}\text{f-xe-r}\quad \emptyset\text{-ze-r-e-}\lambda\text{e}\text{\textcircled{b}}^w\text{-}\check{\text{z}}^{\text{e}}\text{\textcircled{a}}\text{-}\text{\textcircled{x}}$
 all man-PL-ABS 3PL.ABS-RECP-INSTR-DYN-see-RE-3PL.ABS
 ‘All the people see each other.’

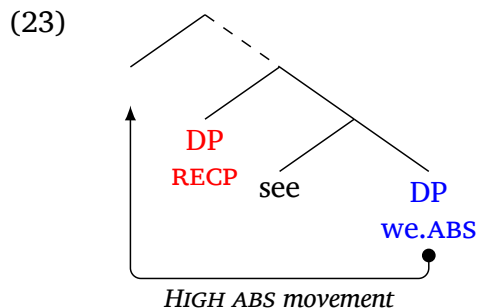
[Arkadiev & Letuchy 2011]

- Furthermore, the RECP prefix is closer to the stem. The φ -prefix that crossreferences an **ERG** argument is also closer to the stem.⁵

- (22) a. ABS. φ -OBL. φ -ERG. φ - CAUS- $\sqrt{\dots}$ (-3PL.ABS)
 b. ABS. φ - RECP- $\sqrt{\dots}$

⁵This description is revised in the current analysis. See the Appendix ↗.

- In order to capture these morphosyntactic properties, a HIGH ABS analysis assumes that the underlying structure of a reciprocal sentence would be as in (23), where the RECP is base-generated above its antecedent.



- ▶ The antecedent would be necessarily **ABS** because it is a theme.
- ▶ The RECP prefix occupies an **ERG** φ -slot because it is a subject.
- Given this underlying structure, HIGH ABS movement is a necessary condition for RECP binding.

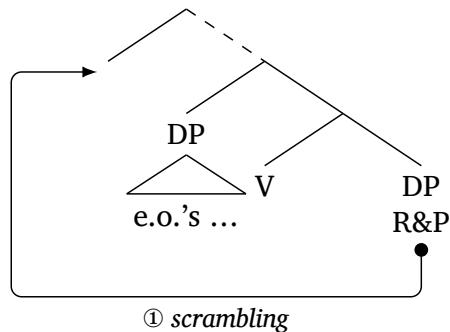
- A-movement is well-known to create new antecedents for binding, e.g.:

(24) *Hindi*

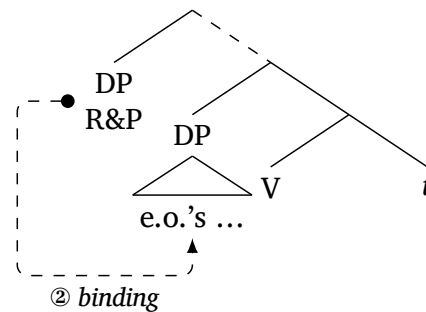
[_{DP} raam aur prataap-ko] ek-duusre-kii bahinō-ne __ maaraa.
 Ram and Pratap-ACC each.other's sisters-ERG hit
 Ram and Pratap₁, each other₁'s sisters hit __.'

[Keine 2018]

(25) a. *Base-generation*



b. *Result of A-scrambling*

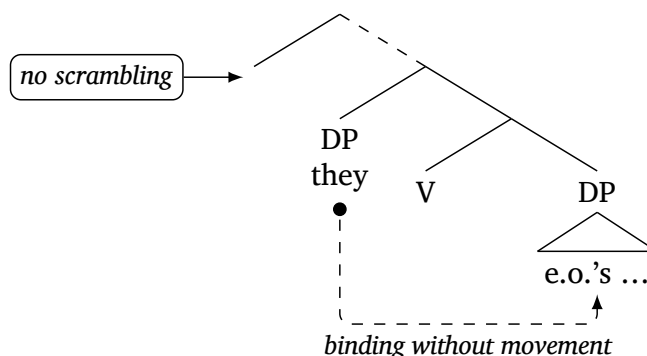


- But even in languages where A-movement *can* create new antecedents for binding, movement is not a *necessary* condition, provided that the appropriate configuration for binding obtains:

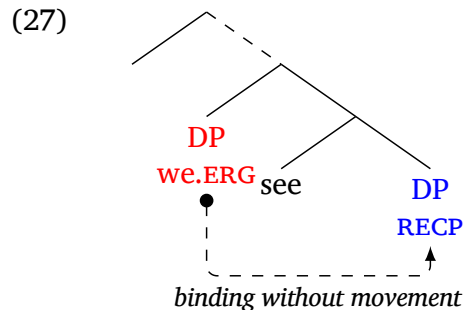
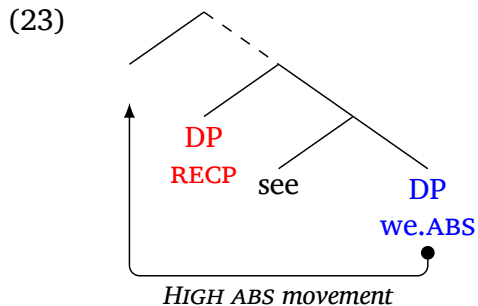
(26) *Hindi*

unhō-ne [_{DP} ek-duusre-ke bhaaiyō-ko] maaraa.
 they-ERG each.other's brothers-ACC hit
 'They hit each other's brothers'

[M. Chaturvedi, p.c.]



- Why, then, must the derivation of a reciprocal sentence in Adyghe have (23) as its underlying form?



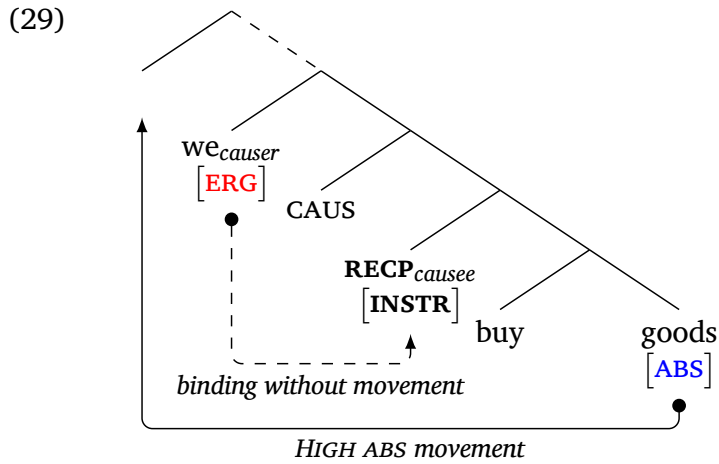
- In other words, why does the underlying structure (27) result in ungrammaticality (cf. (20b))?

- RECP binding in Adyghe (28) and Kabardian is in fact possible without HIGH ABS movement.
- In e.g. causative sentences where the RECP's antecedent is the **ERG** causer, binding is independent of HIGH ABS movement.

(28) a. **te** **š'ekən-xe-r**
 1PL.ERG good-PL-ABS
∅-ze-re-d-ɣe-š'efə-ž'ə-ɣe-x
 3PL.ABS-RECP-INSTR-1PL.ERG-CAUS-buy-RE-PST-3PL.ABS
 'We made each other buy goods.' [Letuchiy 2013]

b. [_{&P} **šə-re** **šəpχ^wə-re**] č'ef-ew **adəga-bze-r**
 brother-COORD sister-COORD joyful-ADV Adyghe-language-ABS
∅-ze-r-a-ɣa-š'e
 3SG.ABS-RECP-INSTR-3PL.ERG-CAUS-know
 'The brother and the sister made each other know Adyghe joyfully.'
[Vydrin 2008]

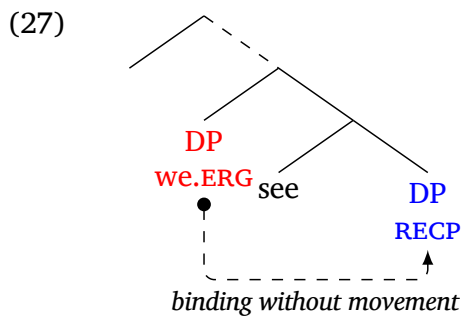
- These causative sentences can be represented as follows:⁶



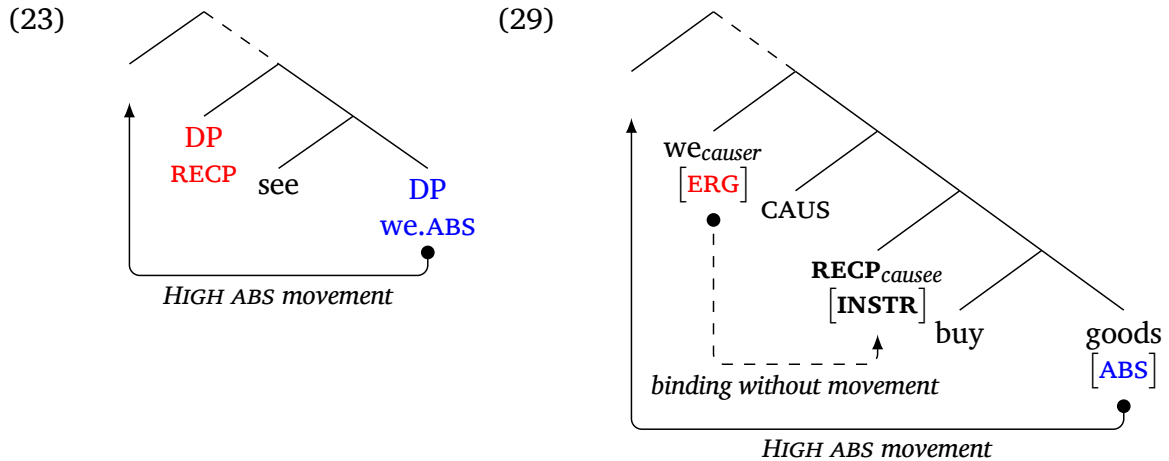
- ▶ The causer ‘we’ binds the RECP causee, and the DP that undergoes HIGH ABS movement is a third element (i.e. the underlying theme ‘goods’).

⁶The *INSTR* assigned to RECP will be discussed in the Proposal [↗](#).

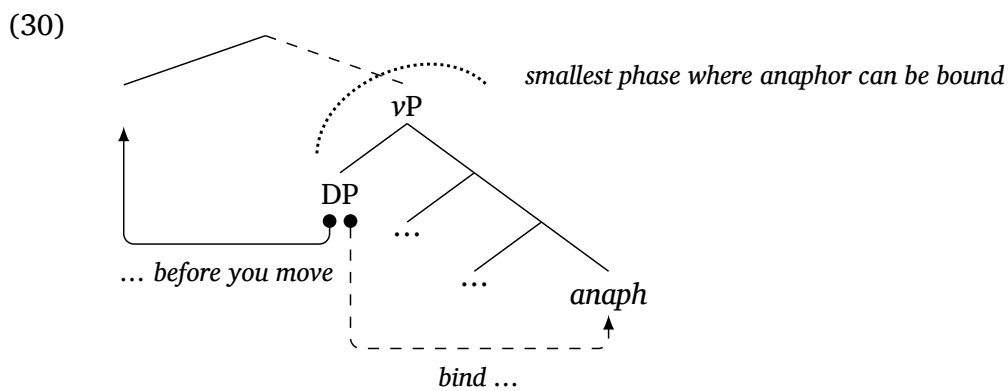
- If RECP binding can be done without movement, then how would a HIGH ABS analysis exclude an underlying structure like (27)?



- Relatedly, a HIGH ABS analysis implies that the Adyghe and Kabardian grammar “knows” when movement is a necessary condition for binding (23) and when it is not (29).



- In contrast, in the analysis to be proposed, in keeping with current assumptions, binding takes place as soon as possible.



- Such a principle holds uniformly and across languages. No grammar has to “know” if movement has to take place beforehand or not.

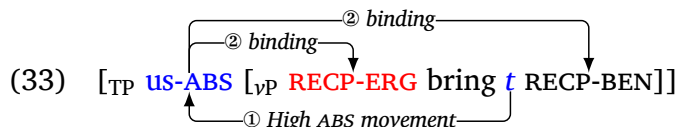
- A-movement that creates new antecedents for binding should in principle be able to bind any number of variables on its path.
- HIGH ABS movement, however, does not result in multiple binding.

- (31) a. $m\grave{a}$ $sab\grave{e}j\grave{e}-r$ $\grave{e}-\check{s}\acute{e}p\chi^w$ $\emptyset-q-\acute{e}-\check{s}'a-\varkappa$
 this child-ABS 3SG.POSS-sister 3SG.ABS-DIR-3SG.ERG-bring-PST
 ‘Her sister brought this child.’ [Ershova 2023]
- b. $t\grave{e}$ -ze-f- $j\acute{e}-\check{s}'a-\varkappa$
 1PL.ABS-RECP-BEN-3SG.ERG-bring-PST
 ‘She brought us to each other.’ [Ershova 2023]
- c. * $t\grave{e}$ -ze-f-ze- $\check{s}'a-\varkappa$
 1PL.ABS-RECP-BEN-RECP-bring-PST
 Intended: ‘We brought each other to other.’
 (Lit.: ‘Each other brought us to each other.’)

- A HIGH ABS analysis of (31b):



- Following the same logic, double binding in (31c) would then be as follows:

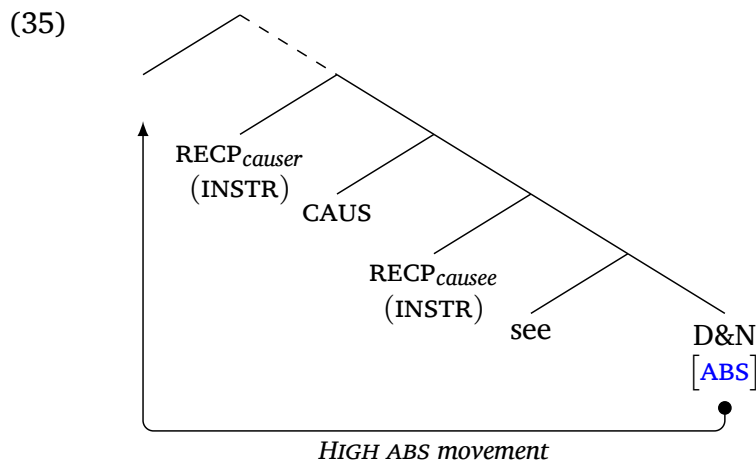


- ▶ As a consequence of HIGH ABS movement, ‘us’ would be able to bind both instances of RECP, predicting that (31c) is grammatical, contrary to fact.

- As we are going to see later, the RECP prefix can be followed by an instrumental prefix *re-*. If multiple binding is attempted, the result is always ungrammatical, irrespective of the presence of *re-*:

- (34) [_{&P} *dwelet-re* *nafset-re*] ...
 Dolet-COORD Nafset-COORD
- a. * ... \emptyset -ze-ze-*ve*- $\lambda e\beta^w$ -*ve*-x
 3PL.ABS-RECP-RECP-CAUS-see-PST-3PL.ABS
 - b. * ... \emptyset -ze-*re*-ze-*ve*- $\lambda e\beta^w$ -*ve*-x
 3PL.ABS-RECP-INSTR-RECP-CAUS-see-PST-3PL.ABS
 - c. * ... \emptyset -ze-ze-*re*-*ve*- $\lambda e\beta^w$ -*ve*-x
 3PL.ABS-RECP-see-PST-3PL.ABS
 - d. * ... \emptyset -ze-*re*-ze-*re*-*ve*- $\lambda e\beta^w$ -*ve*-x
 3PL.ABS-RECP-INSTR-RECP-INSTR-CAUS-see-PST-3PL.ABS
- Intended: ‘Dolet and Nafset made each other see each other.’
 (Lit.: ‘Each other made each other see Dolet and Nafset.’)

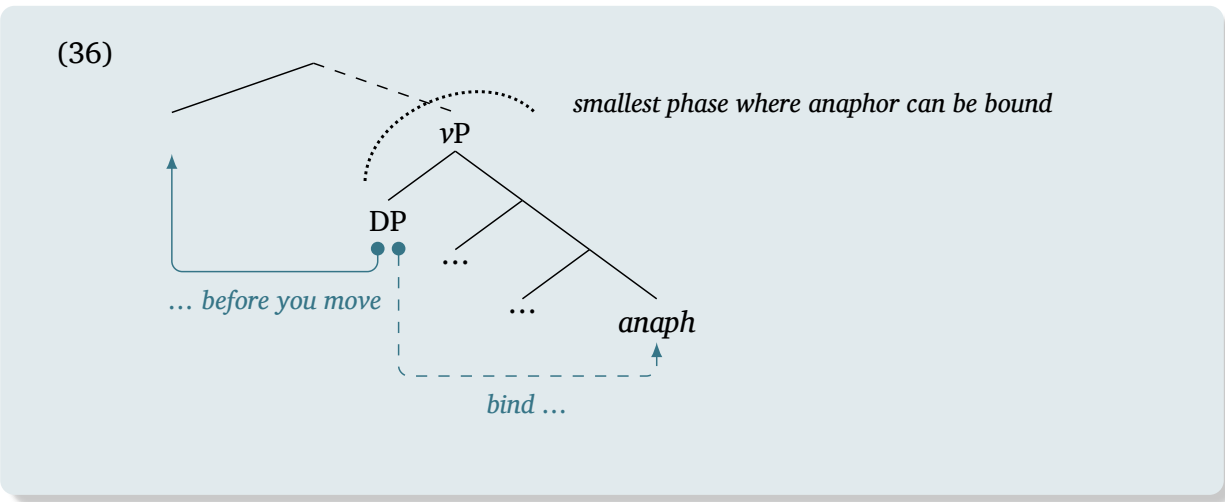
- The sentences in (34) can be represented as follows:



- ▶ The ABS underlying theme would undergo movement to a position above all arguments, whence it should be able to bind all RECP’s on its path.
- ▶ This prediction is not borne out by facts.

- A HIGH ABS analysis faces theoretical and empirical challenges.
- In the next section, I propose an analysis where binding is uniform and the dumbfounding morphosyntax of RECP binding sentences in Adyghe and Kabardian is the byproduct of independent factors.

- Following recent work on binding (Quicoli, 2008; Despić, 2015; Charnavel & Dominique, 2016; Brodtkin & Royer, 2024: a.o.), I assume that a binding domain is the smallest phase that contains an anaphor and a c-commanding antecedent.
- Furthermore, binding takes place as soon as possible, provided that all conditions for binding are met.



- The morphosyntactic properties of certain reciprocal sentences in Adyghe and Kabardian makes the underlying structure look as though it is RECP which c-commands its antecedent.
- This morphosyntax will not be taken at face value and be analyzed as the byproduct of:
 - ▶ Case properties of RECP
 - ▶ Independent principles
 - Last Resort
 - Disjunctive Case Hierarchy

Case deficiency and Last Resort *INSTR*

- (37) a. The RECP pronoun in Adyghe and Kabardian is unable to participate in the Case Disjunctive Hierarchy.
- b. The RECP pronoun is assigned *INSTR* as a Last Resort licensing strategy, unless it can be assigned lexical case independently.

- Recall: the antecedent of a RECP in Adyghe and Kabardian must be assigned **ABS** and cannot be assigned the expected **ERG**.

- (20) a. *pro* *te-ze-re-λeβ^wə-β*
 1PL.ABS 1PL.ABS-RECP-INSTR-see-PST
 ‘We saw each other.’
- b. **pro* *ze-re-t-λeβ^wə-β*.
 1PL.ERG RECP-INSTR-1PL.ERG-see-PST
 Intended: ‘We saw each other.’

[Ershova 2023]

- This is reminiscent of the morphosyntax of **pseudo noun incorporation** (PNI) in Niuean.
- When an object is PNI-ed (38b), the subject is assigned **ABS**, instead of the expected **ERG** (38a).⁷

(38) *Niuean*

- a. Takafaga tūmau nī [e ia] [e tau ika]
 hunt always EMPH ERG he ABS PL fish
 ‘He is always hunting fish.’
- b. Takafaga [ika] tūmau nī [a ia].
 hunt fish always EMPH ABS he
 ‘He is fish-hunting.’

[Massam 2001]

⁷Importantly, even though a PNI sentence has intransitive morphosyntax, the sentence is still transitive, in the sense that the object of the verb is represented in the syntactic structure. For arguments against an intransitivization analysis of reciprocal sentences in Adyghe, see the Appendix [↗](#).

- Licensing and ‘deficiency:’
 - ▶ Massam (2001): an object undergoes PNI when it is deficient.
 - In Dependent Case terms: this object is not visible to the Disjunctive Case Hierarchy.
 - ▶ Levin (2015): PNI occurs as a Last Resort strategy to license a nominal that cannot otherwise be assigned case.

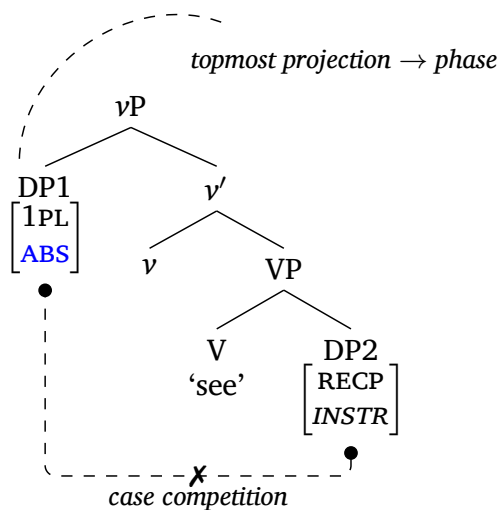
RECP pronoun in Adyghe and Kabardian

- Analogously to the PNI-ed object, the RECP pronoun in Adyghe and Kabardian is not visible to the Case Disjunctive Hierarchy.
- Nonetheless, it must be assigned case in order to be licensed.
- *INSTR* case is assigned to it as a Last Resort licensing strategy.⁸

⁸This means that the reciprocal prefix *re-* does not occupy the **ERG** φ -slot. See Appendix [8](#).

- A reciprocal sentence in Adyghe and Kabardian is derived as follows:

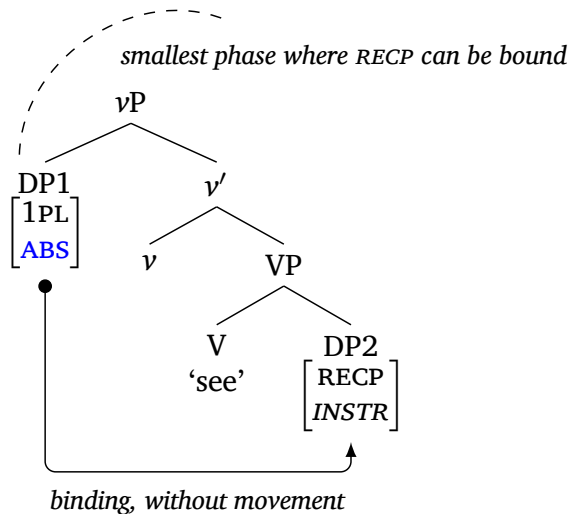
(39) **te-ze-re-λeβ^{wə}-β**
 1PL.ABS-RECP-INSTR-see-PST
 ‘We saw each other.’



- 1 a. No lexical **OBL**.
 b. Last Resort *INSTR* assigned to RECP.
- 2 Dependent **ERG**.
- 3 Unmarked **ABS** assigned to subject.

- According to this analysis, the RECP’s antecedent is assigned **ABS** because there is no case competitor—the RECP is assigned Last Resort *INSTR*, in accordance with (37).
- Furthermore, binding takes place at the *vP* level, the smallest phase that contains the RECP, as well as a c-commanding antecedent.

(40)



- RECP binding in Adyghe and Kabardian is ordinary and follows universal principles that regulate binding:
 - ▶ The antecedent is above the RECP.
 - ▶ Binding takes place as soon as possible and the grammar does not have to “know” when HIGH ABS movement is a pre-condition for binding.
- The unordinary-looking morphosyntax of reciprocal sentences in Adyghe and Kabardian is a byproduct of an idiosyncratic property of RECP pronouns in these languages.

- That it is not far-fetched to attribute such an idiosyncratic property to the RECP pronoun is suggested by the fact that reflexive binding in Adyghe and Kabardian has ordinary morphosyntax:⁹

- (41) a. $w\text{ə-t}\text{ə-w}\text{ə}\text{ʔa-}\text{ɛ}$ *baseline*
 2SG.ABS-1PL.ERG-wound-PST
 ‘We wounded you.’
- b. $z\text{ə-t}\text{ə-w}\text{ə}\text{ʔa-}\text{ɛ}$ *reflexive*
 REFL-1PL.ERG-wound-PST
 ‘We wounded ourselves.’
- c. $t\text{ə-ze-re-w}\text{ə}\text{ʔa-}\text{ɛ}$ *reciprocal*
 1PL.ABS-RECP-INSTR-wound-PST
 ‘We wounded each other.’

[Arkadiev & Letuchy 2011]

⁹For an analysis of reflexive binding in Adyghe, see Ershova (2019, 2023).

- The asymmetry between reflexive (41b) and reciprocal (41c) binding sentences can be construed as follows:
 - ▶ Reflexive pronoun: a full DP that is visible to the Case Disjunctive Hierarchy, which is, thus, able to be a case competitor for its antecedent.
 - ERG antecedent
 - ▶ Reciprocal pronoun: case-deficient, which is, thus, unable to be a case competitor for its antecedent.
 - ABS antecedent

- Indeed, while *INSTR* is obligatory in reciprocal binding sentences (42), it is prohibited in reflexive binding sentences (43):

(42) *Reciprocal sentence: INSTR obligatory*

te **pro**_{RECP} **tə-qe-ze-***(**re**)-)λeɸ^{wə}-ɸ
 1PL.ABS RECP.INSTR 1PL.ABS-DIR-RECP-*(INSTR-)see-PST
 ‘We saw each other.’

(43) *Reflexive sentence: INSTR prohibited*

a. **pro** **pro**_{REFL} zə-**t**-λeɸ^{wə}-ɸ
 1PL.ERG REFL.ABS REFL-1PL.ERG-see-PST
 ‘We saw ourselves.’

[Ershova 2019]

b. * **te** **pro**_{REFL} **tə-zə-**(**re**)-λeɸ^{wə}-ɸ
 1PL.ABS REFL.INSTR 1PL.ABS-REFL-INSTR-see-PST
 Intended: ‘We saw ourselves.’

- Following Ershova (2019), I assume that the reciprocal prefix *ze-* is the exponent of φ -agreement with the RECP pronoun (44a).¹⁰
- The pronoun is itself phonologically null (44b).

(44) a. [RECP] ↔ ze / ___ φ _{PROBE}

(45) a. i. [1SG] ↔ sə / ___ φ _{PROBE}

ii. [1SG] ↔ s / ___ Agr

b. [RECP] ↔ ∅

b. [1SG] ↔ se

- The exponents in (44) are analogous to the exponents of other pronouns and corresponding φ -agreement affixes in Adyghe/Kabardian (45).

¹⁰See details in the Appendix [↗](#).

- If there is some independent source of licensing for RECP, *INSTR* is not required and is, thus, prohibited, since this is a Last Resort strategy.
- The antecedent of a RECP can be assigned **ERG**, as long as there is a case competitor for it.
 - ▶ The case competitor can be added via valency-increasing, e.g. in causative sentences.
 - ▶ But: even in such sentences, if potential competitors are taken out from the Case Disjunctive Hierarchy, the RECP's antecedent remains **ABS**.

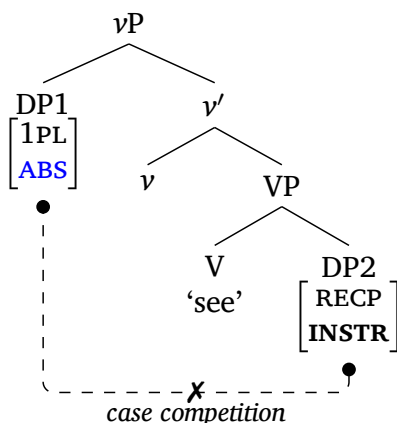
- As we saw in (14), there are predicates that are able to assign lexical case to their object.
 - ▣ **ABS/OBL**, instead of **ERG/ABS**.
- **Prediction**: if the object is RECP, then it is assigned lexical **OBL**, dispensing with Last Resort *INSTR*. This prediction is borne out by facts.

(46) *Kabardian* (similar data in *Adyghe*)

- a. **marjəje pjetjer Ø-je**-pseλ-a-š' ('speak:' ABS/OBL)
 Maria.ABS Peter.OBL 3SG.ABS-3SG.OBL-speak-PST-IND
 'Maria spoke to Peter.'
- b. [**&P marjəje-re pjetjer-re**] **pro**_{RECP}
 Maria-COORD Peter-COORD RECP.OBL
Ø-ze-psaλ-a-**xe**-š' (RECP assigned OBL)
 3PL.ABS-RECP-speak-PST-3PL.ABS-IND
 'Maria and Peter spoke to each other.'
- c. * **pro** **pro**_{RECP}
 3PL.ABS RECP.INSTR
Ø-ze-[ra]-p-seλ-a-**xe**-š' (INSTR prohibited)
 3PL.ABS-RECP-INSTR-speak-PST-3PL.ABS-IND
 Intended: 'They talked to each other.'

- For **ERG/ABS** verbs, *INSTR* is obligatorily assigned to RECP because, otherwise, RECP cannot be licensed.

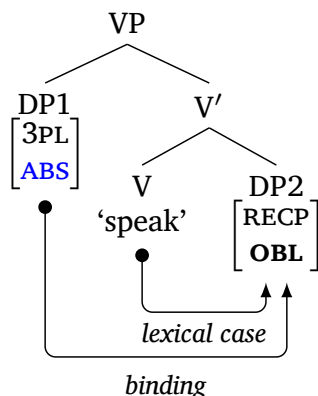
(47) **te** **pro**_{RECP} **tə-qe-ze**-(re-)λeβ^{wə}-β
 1PL.ABS RECP.INSTR 1PL.ABS-DIR-RECP-*(INSTR-)see-PST
 'We saw each other.'



- ① a. No lexical **OBL**.
 b. Last Resort *INSTR* assigned to RECP.
- ② Dependent **ERG**.
- ③ Unmarked **ABS** assigned to subject.

- Conversely, for **ABS/OBL** verbs, *INSTR* is prohibited in RECP because RECP is already assigned lexical case, dispensing with Last Resort *INSTR*.

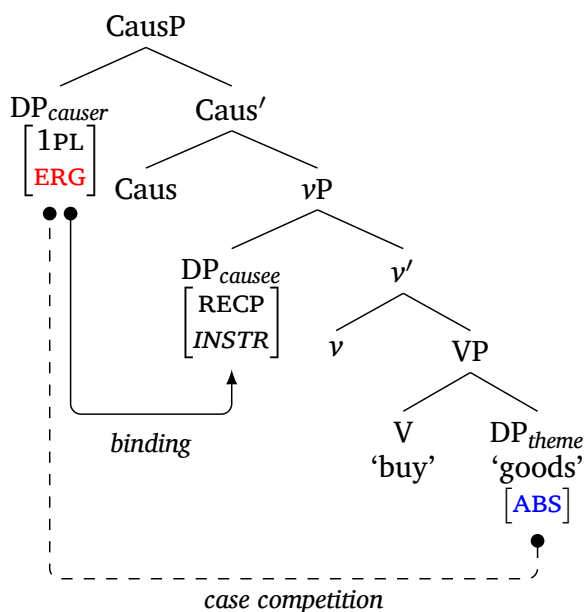
(48) * *pro* *pro*_{RECP} \emptyset -ze-ra-p-seλ-a-xe-š'
 3PL.ABS RECP.INSTR 3PL.ABS-RECP-INSTR-speak-PST-3PL.ABS-IND
 Intended: 'They talked to each other.'



- ① a. 'Speak' assigns lexical **OBL** to RECP.
 b. Last Resort *INSTR* assigned to RECP.
- ② Dependent **ERG**.
- ③ Unmarked **ABS** assigned to subject.

- According to the analysis proposed here, the RECP's antecedent is assigned unmarked **ABS** because RECP is not a viable case competitor.
- **Prediction:** the RECP's antecedent can be assigned dependent **ERG** as long as a case competitor is available.
- The prediction is borne out in causativized transitives: third DP, besides RECP and its antecedent, so it can serve as a case competitor for the latter.

(49) **te** *pro*_{RECP} š'eken-xe-r Ø-ze-re-d-ke-š'efə-ž'ə-be-x
 1PL.ERG RECP.INSTR good-PL-ABS 3PL.ABS-RECP-INSTR-1PL.ERG-CAUS-buy-RE-PST-3PL.ABS
 'We made each other buy goods.'¹¹

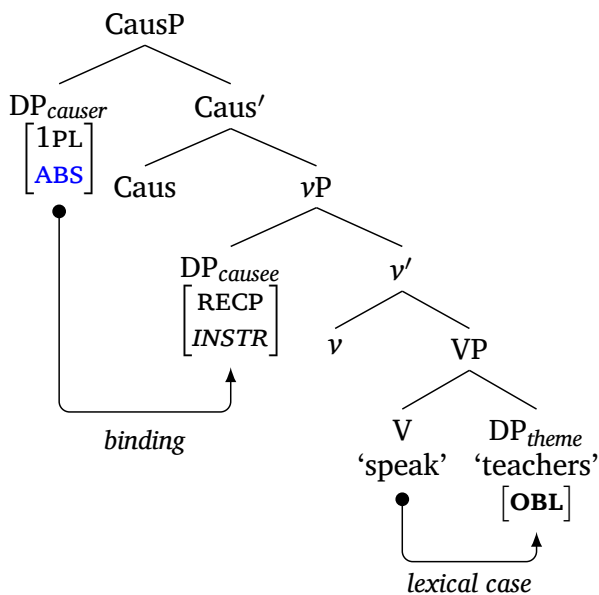


- ① a. No lexical **OBL**.
 b. Last Resort *INSTR* assigned to RECP.
- ② a. Dependent **OBL**.
 b. Dependent **ERG** assigned to causer.
- ③ Unmarked **ABS** assigned to underlying theme.

¹¹If RECP is underlying theme, the antecedent is also **ERG**, via competition with the causee. See Appendix 7.

- **Prediction:** if the would-be case competitor for the RECP's antecedent is taken out of the Case Disjunctive Hierarchy, it is again assigned unmarked **ABS**.
- This prediction is borne out in causative sentences where the verb assigns lexical **OBL** to its theme.
 - ➡ Assignment of **OBL** to theme renders it unable to be a case competitor for RECP's antecedent.

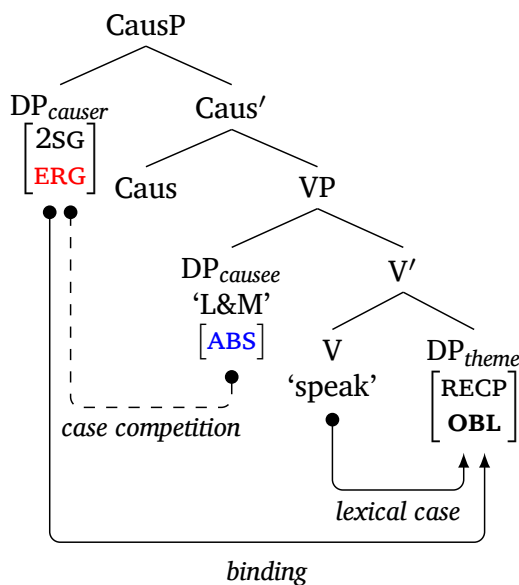
- (50) *de* *pro_{reCP}* *jeɾeʒ'aklwə-ex-em də-ze-r-je-ke-pseλ-a-š'*
 1PL.ABS RECP.INSTR teacher-PL-OBL 1PL.ABS-RECP-INSTR-3PL.OBL-CAUS-speak-PST-IND
 'We made each other speak to the teachers.' (Kabardian)



- ① a. 'Speak' assigns lexical **OBL** to underlying theme.
 b. Last Resort *INSTR* assigned to RECP.
- ② a. Dependent **OBL**.
 b. Dependent **ERG**.
- ③ Unmarked **ABS** assigned to causer.

- RECP's antecedent (in (50), also the causer) is assigned because there is no case competitor:
 - ▶ Causee RECP is assigned Last Resort *INSTR*, by (37).
 - ▶ Underlying theme is assigned lexical **OBL** by the verb.
- **Prediction:** if RECP is underlying theme and, thus, takes up lexical **OBL**, there is again a case competitor for its antecedent, viz. the causee.

- (51) *wæ* [_{&P} *mjerjəse-re larjəs-re*] *pro*_{RECP} *∅-ze-b-ʁe-pseλ-a-š'*
 2SG.ERG Larise-COORD Merisa-COORD RECP.OBL 3PL.ABS-RECP-2SG.ERG-CAUS-speak-PST-IND
 'You made Merisa and Larise speak to each other.' (Kabardian)



- ① a. 'Speak' assigns lexical **OBL** to RECP.
 b. Last Resort *INSTR*.
- ② a. Dependent **OBL**.
 b. Dependent **ERG** assigned to causer.
- ③ Unmarked **ABS** assigned to causee.

- Despite appearances, reciprocal sentences in Adyghe and Kabardian are ordinary.
- As in other languages, RECP can be uniformly generated below its antecedent, and binding can take place as early as possible.
- The particular morphosyntax that these sentences exhibit is a byproduct of:
 - ▶ The case deficiency of the RECP pronoun in Adyghe and Kabardian.
 - ▶ The strategy employed to license it (*viz.* Last Resort *INSTR*).

- The Ban on ergative anaphors (4) holds of Adyghe and Kabardian too.

(4) *The ban on ergative anaphors*

In many ergative languages, [reflexive] anaphors cannot surface as ergative external arguments.

[Brodkin & Royer 2024]

- Reciprocal binding in Adyghe and Kabardian does not provide empirical support for a HIGH ABS theory of syntactic ergativity, nor for the claim that syntactic ergativity can be exhibited in an A-type of phenomenon.

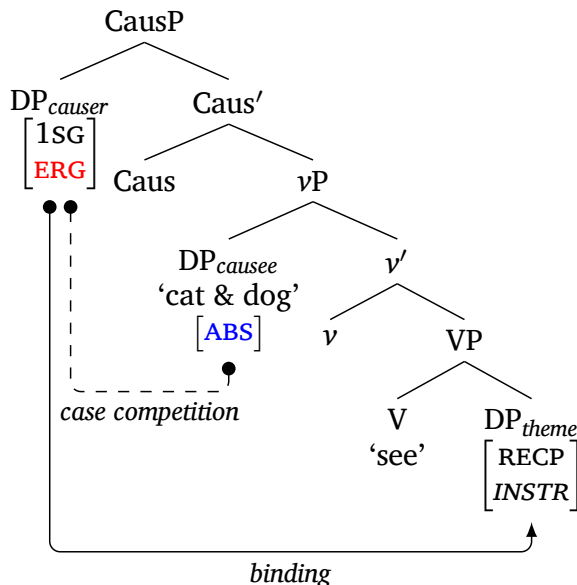
Thank you!

First and foremost, thank you to R. Khuranova and R. Kanshau for sharing their knowledge with me. Without their partnership, this work would not be possible. I am indebted to Yury Lander and Peter Arkadiev for their insights and for generously sharing their vast knowledge of Adyghe and Kabardian with me. Finally, I thank audiences at MUN and at Yale for taking the time to hear previous versions of this work and for their feedback.

- For completeness, in a causative sentence where the verb has an **ERG**/**ABS** pattern, and the RECP is the underlying theme, case assignment goes as follows:

(52) *pro* [_{&P} *čətəwə-m-re* *ha-m-re*] *pro*_{RECP}
 1SG.ERG cat-OBL-COORD dog-OBL-COORD RECP.INSTR
 Ø-ze-re-z-ʁe-λeʁ^wə-ʁe-x
 3PL.ABS-RECP-INSTR-1SG.ERG-CAUS-see-PERF-PL
 ‘I made the cat and the dog see each other.’

[Letuchiy 2014]



1. a. No lexical **OBL**.
 b. Last Resort **INSTR** assigned to RECP.
2. a. No Dependent **OBL**.
 b. Dependent **ERG** assigned to causer.
3. Unmarked **ABS** assigned to causee.

- (53a) is the template of φ -prefixes in Adyghe and Kabardian, and (53b) is the template assumed by previous analyses for reciprocal sentences, where the RECP prefix is assumed to replace the φ -prefix that crossreferences **ERG** arguments.

(53) a. **ABS.** φ -**OBL.** φ -**ERG.** φ - CAUS- $\sqrt{\dots}$ (-**3PL.ABS**)
 b. **ABS.** φ - **RECP**- $\sqrt{\dots}$

- According to the analysis proposed here, the RECP prefix actually occupies a slot for a φ -prefix that crossreferences oblique arguments, since it is assigned Last Resort *INSTR* (54b).

(54) a. **ABS.** φ -**OBL.** φ -**ERG.** φ - CAUS- $\sqrt{\dots}$ (-**3PL.ABS**)
 b. **ABS.** φ -**RECP**- $\sqrt{\dots}$

- The relative positions of the morphemes in (53b) and (54b) are the same.
- But (54b) explicitly predicts that an **ERG** φ -prefix is possible, alongside the RECP prefix.¹²
- This prediction is borne out by facts in e.g. causative sentences.

(55) a. **te** *pro*_{RECP} **š'eken-xe-r**
 1PL.ERG RECP.INSTR good-PL-ABS
Ø-ze-re-d-βe-š'efə-ž'ə-βe-x
 3PL.ABS-RECP-INSTR-1PL.ERG-CAUS-buy-RE-PST-3PL.ABS
 'We made each other buy goods.'

[Letuchiy 2013]

b. *pro* [_{&P} **čətəwə-m-re** **ha-m-re**] *pro*_{RECP}
 1SG.ERG cat-OBL-COORD dog-OBL-COORD RECP.INSTR
Ø-ze-re-z-βe-λeβ^wə-βe-x
 3PL.ABS-RECP-INSTR-1SG.ERG-CAUS-see-PERF-PL
 'I made the cat and the dog see each other.'

[Letuchiy 2014]

¹²This configuration is *compatible* with a HIGH ABS analysis, but not directly predicted by it, since this type of analysis does not straightforwardly state when HIGH ABS movement is a pre-condition for RECP binding and when it is not—see previous discussion ↗.

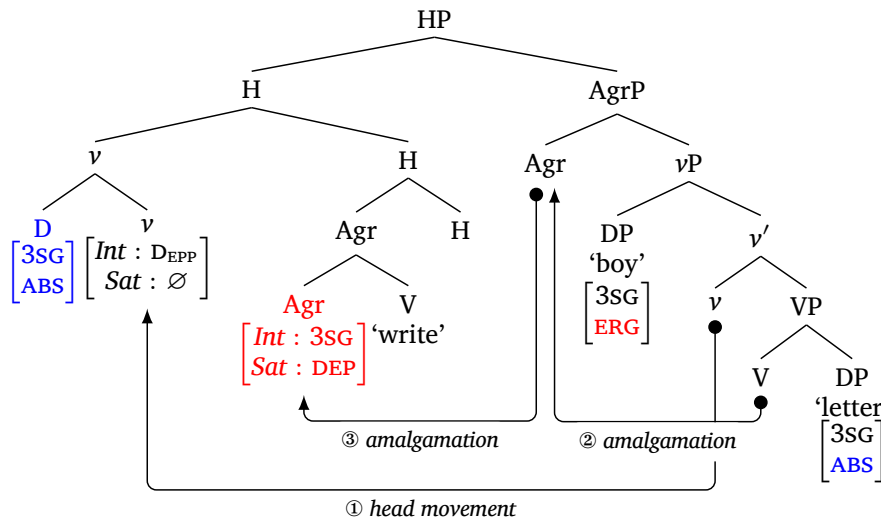
- It is noteworthy that both sentences in (55) have the same φ -prefixes, irrespective of whether the RECP is interpreted as the causee (55a), or as the underlying theme (55b).

- (56) a. $ABS.\varphi_{theme} - RECP_{causee} - ERG.\varphi_{causer} - CAUS - \sqrt{\dots}$ [= (55a)]
 b. $ABS.\varphi_{causee} - RECP_{theme} - ERG.\varphi_{causer} - CAUS - \sqrt{\dots}$ [= (55b)]

- Thus, unlike what the HIGH ABS analysis proposed in Ershova (2019, 2023) claims, the position of the reciprocal prefix does not track the position occupied by the RECP pronoun it crossreferences.

- For concreteness, following Driemel et al. (2020, 2021), I assume that the **ERG** φ -prefix is an instance of true agreement (specifically, Agree with Agr in (57)), and that **ABS** and **OBL** φ -prefixes are instances of clitic-doubling.
- The verb then undergoes head movement (more precisely, Amalgamation, defined in Harizanov & Gribanova 2019) and adjoins to the head H, the target of clitic-doubling.

(57)



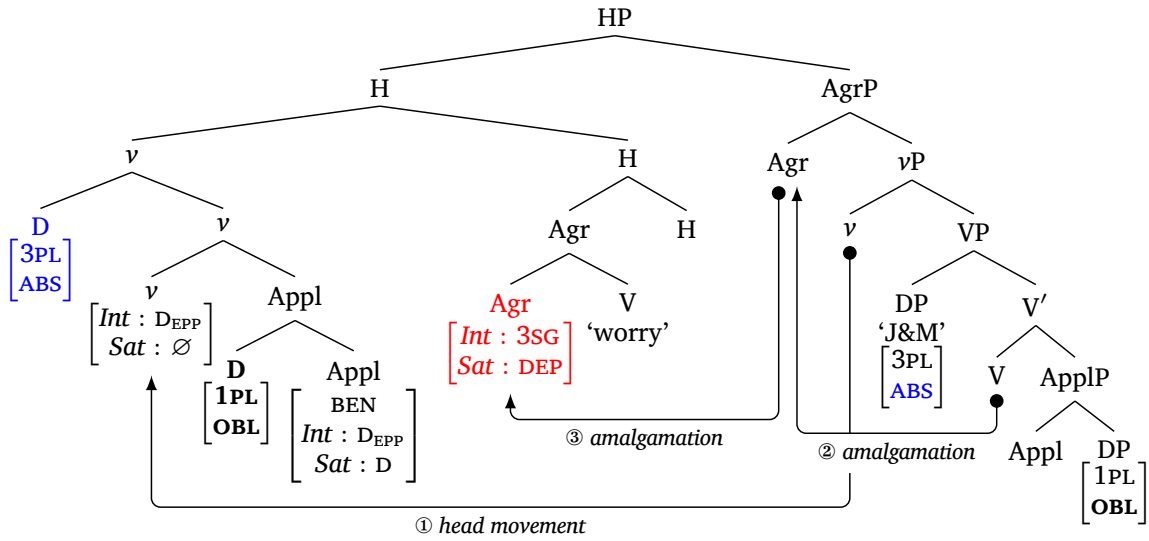
- In Adyghe and Kabardian, φ -prefixes that crossreference applied arguments (including RECP that was assigned *INSTR*) are immediately followed by an applicative prefix.

(58) sə-qə-t-**de**-p-**fə**-r-a-ka-že-š'tə-**κ**
 1SG.ABS-DIR-1PL.IO-COM-2SG.IO-BEN-3SG.IO-3PL.ERG-CAUS- read.AP-AUX--PST
 'They were making me read it to you together with us.'

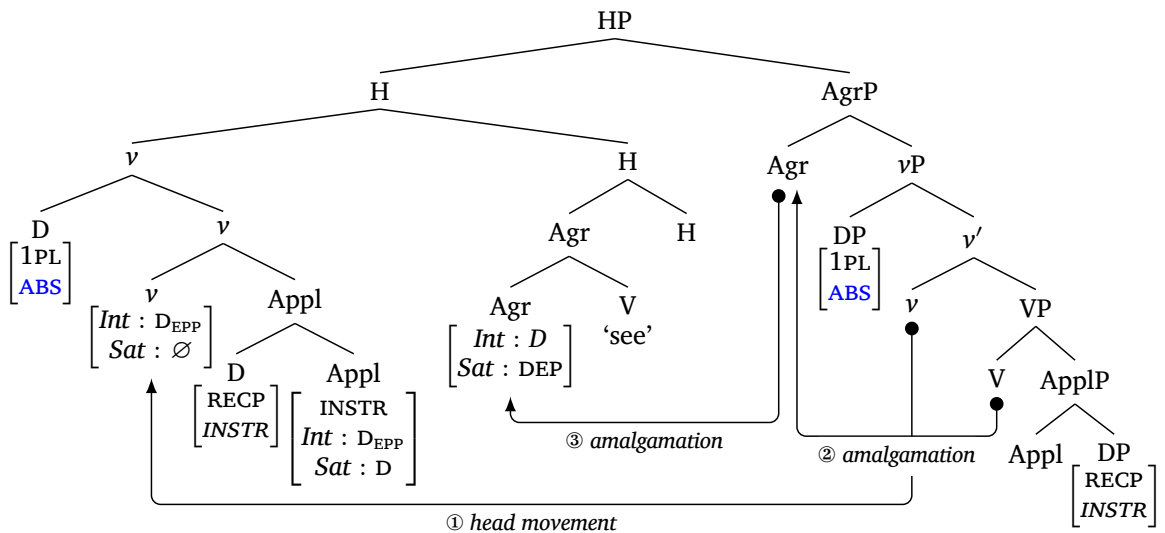
[Lander & Letuchiy 2010]

- I analyze this as the result of Appl Agreeing with its argument first, triggering clitic-doubling. Subsequently, the complex head Appl undergoes clitic-doubling to H.

(59)



(60) Reciprocal sentence, e.g. (39):



- Besides a HIGH ABS analysis, the morphosyntax of reciprocal binding sentences in Adyghe has been analyzed in terms of intransitivization (Letuchiy, 2007).
- A valency-decreasing operation is particularly well-suited to account for the fact that a reciprocal sentence in Adyghe has an ABS subject (i.e. the antecedent).
 - ▶ Indeed, an intransitive subject ergative languages is marked ABS (see (10)).

- However, there are a few arguments against an intransitivization analysis for reciprocal sentences in Adyghe and Kabardian.
 - ▶ See Ershova (2019, 2023) for additional discussion.

- First, irrespective of the scope of reciprocalization and causativization the φ -prefixes appear in the same order.

- (56') a. CAUS \rightarrow RECP: [causer.PL₁ CAUSE [each other₁ v ...]]
 ABS. φ _{theme}-RECP_{causee}-ERG. φ _{causer}-CAUS- $\sqrt{\dots}$ [= (55a)]
- b. RECP \rightarrow CAUS: [causer.SG/PL CAUSE [causee.PL₁ v each other₁]]
 ABS. φ _{causee}-RECP_{theme}-ERG. φ _{causer}-CAUS- $\sqrt{\dots}$ [= (55b)]

- This contrasts with languages where causativization and reciprocalization are both instances of valency-changing operations, expounded by derivational affixes.
- In e.g. Quechua, the semantic scope of these operations is reflected by the morpheme (i.e. the Mirror Principle, Baker 1985):

(61) *Quechua*

- a. REFL \rightarrow CAUS: [causer CAUSE [causee₁ v self₁]]
 mayla-**ku-chi**-n.
 wash-REFL-CAUS-3SG
 'He causes someone_i to wash themselves_i.'
- b. CAUS \rightarrow REFL: [causer₁ CAUSE [self₁ v ...]]
 mayla-**chi-ku**-n.
 wash-CAUS-REFL-3SG
 'He_i causes himself_i to wash someone.'

- Second, true derivational affixes of the valency-changing type tend to be closer to the stem (Haspelmath et al., 2004).
 - ▶ This is indeed what we see in Quechua (61), where the reflexive and causative suffixes are closer to the stem, with subject agreement being outside of both.
- Conversely, in Adyghe and Kabardian, the causative prefix is adjacent to the stem, while the RECP prefix occurs alongside other φ -prefixes, which are farther from the stem.

- Third, at least in Adyghe, the RECP pronoun does not have to be an argument of the verb to which the RECP prefix is affixed:

(62) **te** [_{SC} **pro**_{RECP} ʔ^wəʃ-ew] **tə-ze-re-λəte-ž'ə**
 1PL.ABS RECP.INSTR clever-ADV 1PL.ABS-RECP-INSTR-consider-RE
 'We consider each other clever.'

- ▶ In (62), the RECP pronoun is the subject of the predication (a “small clause”) subcategorized for by ‘consider.’
- ▶ Presumably, this verb is still transitive, despite the fact that the RECP *ze-* is affixed to it.

- In the present analysis, the intransitive-looking morphosyntax of reciprocal binding sentences in Adyghe and Kabardian (when the verb has an **ERG/ABS** pattern) does not result from a valency-decreasing operation.
- Just as in Niuean PNI (38), there is no change in the argument structure of the verb. The morphosyntax of the sentence is the byproduct of the strategy employed to license a case-deficient element
 - ▶ Niuean: PNI-ed object is not a viable competitor to feed **ERG**, and is licensed via adjacency with the verb.
 - ▶ Adyghe and Kabardian: RECP is not a viable competitor to feed **ERG**, and is licensed via Last Resort *INSTR* assignment.

- Ershova (2019, 2023) takes *zere-* to be a monomorphemic string and, furthermore, that *ze-* and *zere-* are allomorphs:
 - ▶ *ze-*: applied object position¹³
 - ▶ *zere-*: ergative or causee position.
- Conversely, in the present analysis, *ze-re-* is taken to be a φ -prefix that indicates Agree with the RECP pronoun, followed by an *INSTR* prefix (i.e. ‘RECP-INSTR-’).

¹³In the terminology adopted in this paper, this means the object position of a verb that is able to assign lexical case.

- Empirically, an argument in favor of separating *ze-* and *re-* is provided by the fact that these morphemes can occur separately (63b).

- (63) a. $t\grave{a}$ -**ze-re**-wəʔa- κ
 1PL.ABS-RECP-INSTR-wound-PST
 ‘We wounded each other.’
 b. $t\grave{a}$ -**ze-**ʔeç'e-**re**-wəʔa- κ
 1PL.ABS-RECP-INADV-INSTR-wound-PST
 ‘We wounded each other accidentally.’

[Lander & Letuchiy 2010]

- Theoretically, the claim that *ze-* and *zere-* are allomorphs can raise suspicion because there does not seem to be a unique context where *ze-* (or *zere-*) occurs.
- For instance, *ze-* can be adjacent to a an applicative prefix (64a) or not (64b).

- (64) a. te **pro**_{RECP} ž'ənes $t\grave{a}$ -ze-fe-g^{wə}meç'-əž'ə (Adyghe)
 1PL.ABS RECP.OBL still 1PL.ABS-RECP-BEN-worry-PRES
 ‘We still worry about each other.’
 b. [_{&P} $marjəje$ -re $pjetjer$ -re] **pro**_{RECP}
 Maria-COORD Peter-COORD RECP.OBL
 \emptyset -ze-psaλ-a-xe-š' (Kabardian)
 3PL.ABS-RECP-speak-PST-3PL.ABS-IND
 ‘Maria and Peter spoke to each other.’

- As mentioned above, *zere-* is taken to be the allomorph that occurs in ergative or causee position.
- Once again, there does not appear to be a unified context of occurrence for the purported *zere-*.
- In principle, either *ze-* or *zere-* could be taken to be an elsewhere allomorph. However, this could not hold of both simultaneously.

- Relatedly, allomorphy is usually taken to be conditionally locally (see e.g. Choi & Harley 2019 and references therein).
- Because, as just mentioned, there is no single context that unifies the occurrence of either *ze-* or *zere-*, there does not appear to be a viable way to state a local conditioning environment for the occurrence of either.

- Conversely, the present analysis can readily account for the non-contiguous occurrence of *ze-* and *re-* in (63b) because these are taken to be separate morphemes.
- In the present analysis, there is no allomorphy:
 - ▶ *ze-* is always a φ -prefix that crossreferences a (null) RECP pronoun.
 - ▶ The distribution of *re-* in turn is predictable from when Last Resort *INSTR* assignment is triggered:
 - If lexical **OBL** is available to RECP, Last Resort *INSTR* is not called for \rightarrow (**re-*).
 - Otherwise, Last Resort *INSTR* needed to license RECP, by (37) \rightarrow **re-*.

- To recall, a HIGH ABS analysis predicts that HIGH ABS movement should be able to bind any number of anaphors on its path.

(65) * $t\alpha$ -ze-f-ze-š'a- κ
 1PL.ABS-RECP-BEN-RECP-bring-PST
 Intended: 'We brought each other to other.'
 (Lit.: 'Each other brought us to each other.')

- The current analysis does not make this prediction.
- Under commonplace assumptions about binding, a sentence like (65) is predicted to be ungrammatical simply because the higher RECP (i.e. the one crossreferenced by the *ze-* prefix closer to the stem) cannot be bound.
 - ▶ This is a straightforward Condition A violation.

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