Reciprocal binding in Adyghe and Kabardian and the ban on ergative anaphors*

Suzana Fong
suzana.fong@mun.ca

December 29, 2025

Abstract

According to a High Absolutive analysis of syntactic ergativity, grammatical operations can target intransitive subjects and transitive objects, distinguishing them from transitive subjects, because the former move to a position higher than the latter. A prediction that results from this theory is that an absolutive DP can bind an anaphoric ergative argument as a consequence of moving to a position that c-commands it. While it has been shown that this prediction is not borne out by facts across a range of syntactically ergative languages (Anderson, 1976; Brodkin & Royer, To Appear), reciprocal sentences in Adyghe and Kabardian (Northwest Caucasian) appear to be an exception. The morphosyntax of such constructions suggests that the reciprocal occupies a position that c-commands the absolutive DP that binds it, which would imply that the absolutive DP does indeed move to a higher position. I argue instead that the morphosyntactic properties of Adyghe and Kabardian reciprocal sentences should not be taken at face value. Rather, they are the byproduct of independent principles that regulate syntactic derivations (viz. Last Resort and the rules that govern case assignment), combined with crosslinguistically stable parameters of variation regarding case and nominal licensing. These sentences, thus, also fall under the generalization that absolutive arguments cannot bind an ergative anaphor and, as such, do not provide empirical support for a High Absolutive theory.

Keywords: Adyghe, binding, Circassian, Dependent Case, ergativity, Kabardian, Last Resort, Northwest Caucasian, reciprocal, syntactic ergativity

1 Overview

Syntactic ergativity obtains when some grammatical phenomenon groups together the subject of intransitive verbs and the object of transitive verbs, to the exclusion of the subject of a transitive verb, above and beyond case or agreement morphology (Deal 2015a, 2016; Polinsky 2017, a.m.o). For instance, in Chuj, *Wh*-movement can target the absolutive argument of a transitive verb (1a), but not its ergative counterpart (1b).

(1) a. Mach ix-h-il-a' *pro* t_{mach}? (*Chuj*: Brodkin & Royer To Appear: (7a) and (6a))
who PFV-2SG.ERG-see-TV 2SG.ERG
'Who did you see?'

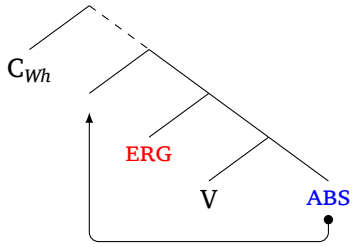
b. * Mach ix-ach-y-ila' t_{mach} *pro*?
who PFV-2SG.ABS-3ERG-see 2SG.ABS
Intended: 'Who saw you?'

The primary theoretical concern in the research on syntactically ergative languages is, thus, the modeling of the syntactic distinction between ergative (henceforth: ERG) vs. absolutive (henceforth: ABS)

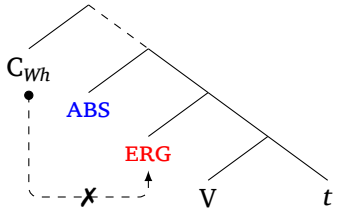
* [Acknowledgments redacted.]

arguments (Polinsky 2017; Deal 2015a, 2016, a.m.o.). According to a High Absolutive (henceforth: HIGH ABS) analysis (Bittner & Hale 1996; Coon *et al.* 2014; Ershova 2019, 2023; Yuan 2018, and references therein), this asymmetry is a consequence of the ABS argument moving to a position that asymmetrically c-commands its ERG counterpart (2a). The moved ABS DP, then, blocks a higher node (e.g. a *Wh*-probe) from reaching the now lower ERG DP (2b).

(2) a. *High ABS movement*

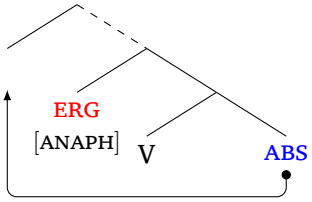


b. *ERG cannot be reached*

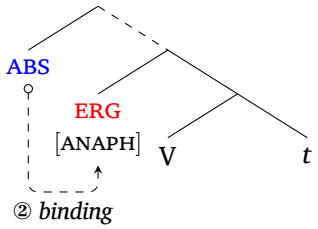


Empirically, a question arises regarding the range of syntactic phenomena that are sensitive to the distinction between ERG and ABS arguments. It is not uncommon for syntactic ergativity to manifest in Ā-phenomena (Polinsky, 2017), e.g. *Wh*-movement, as seen in (1). In fact, Anderson (1976) claims that ergativity does not usually show up in A-type of phenomena, including binding. How would a HIGH ABS theory of syntactic ergativity account for the contrast between A- and Ā-phenomena? Regarding binding specifically, Anderson (1976) and Brodkin & Royer (To Appear) remark that a prediction that emerges from a HIGH ABS theory is that, as a consequence of the ABS DP moving to a position that c-commands the ERG DP, the former should be able to bind the latter:

(3) a.



b.



This prediction does not seem to be borne out by facts. This generalization is stated by Brodkin & Royer (To Appear) as follows:

(4) *The ban on ergative anaphors* (Brodkin & Royer, To Appear: (2))

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

(4) is motivated by data such as (5). We saw in (1) that Chuj is a syntactically ergative language. (5), in turn, indicates that an ERG anaphor cannot be bound by an ABS DP.

(5) * Ix-ach-s-b'ik ha-b'a *pro* (*Chuj*: Brodkin & Royer To Appear: (36a), adapted)
PFV-2SG.ABS-3ERG-wash 2SG.GEN-SELF 2SG.ABS
Literally: 'Yourself washed you.'

Nevertheless, reciprocal binding sentences in Adyghe (6) and Kabardian (7) appear to diverge from the generalization (4), validating the prediction that a HIGH ABS theory would make (3).

(6) a. ŝʷə-t-ɬeʁʷə-ʁ (*Adyghe*, Ershova 2023: (88))
2PL.ABS-1PL.ERG-see-PST
'We saw you.'

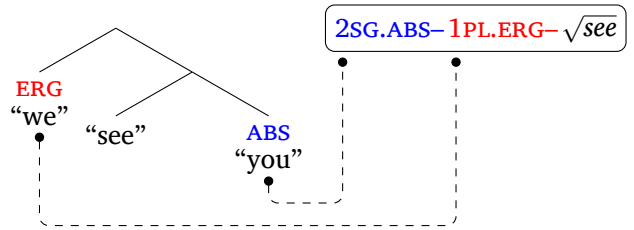
b. te-ze-re-ɬeʁʷə-ʁ
1PL.ABS-RECP-INSTR-see-PST
'We saw each other.'

(7) a. se dəʁʷase wə-s-ʎeʁʷ-a-š' (*Kabardian*)
1SG yesterday 2SG.ABS-1SG.ERG-see-PST-IND
'I saw you yesterday.'

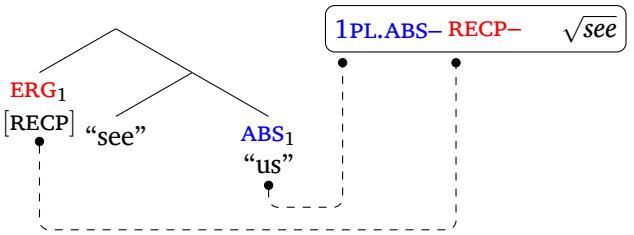
b. de dəʁʷase də-ze-rə-ʎeʁʷ-a-š'
1PL yesterday 1PL.ABS-RECP-INSTR-see-PST-IND
'We saw each other yesterday.'

As we can see in (6a) and (7a), φ-prefixes in the Adyghe and Kabardian verb crossreference ERG and ABS arguments. These prefixes are organized templatically, with the outermost prefix crossreferencing an ABS DP, and an inner prefix crossreferencing an ERG DP. Taken at face value, the order of the verbal prefixes in (6b) and (7b) appear to indicate that, in reciprocal sentences in Adyghe and Kabardian, the reciprocal (henceforth: RECP) is above its antecedent. This view is schematized in the diagrams in (8), which are fleshed out with the Adyghe data in (6) for conspicuousness.

(8)



(= 'We saw you,' (6a))



(= 'We saw each other,' (6b))

The templatic nature of the Adyghe and Kabardian φ-prefix would allow us to reverse-engineer the structure of RECP sentences from their morphosyntax. The RECP's antecedent "we" in (8) is crossreferenced by the outermost ABS φ-prefix. The RECP itself is encoded by a prefix that is closer to the stem, a position otherwise occupied by ERG φ-prefixes.

In the resulting structure, it is the RECP that c-commands its antecedent and not the other way around. Why, then, are (6b) and (7b) grammatical sentences, given standard assumptions about the c-command dependency required for binding? The HIGH ABS analysis proposed in Ershova (2019, 2023) assumes that the RECP is indeed above its ABS antecedent. However, due to the movement depicted in (3a), the ABS antecedent ends up in the appropriate position to c-command and, thus, bind the ERG RECP (3b). The implication from this analysis is that, not only do sentences such as (6b) and (7b) provide a counterexample to the ban against ergative anaphors (4), they also lend further empirical support for a HIGH ABS theory of syntactic ergativity.

In this paper, I argue instead that the morphosyntax of RECP sentences in Adyghe and Kabardian should not be taken at face value. Rather, it is the byproduct of the interaction between: *(i)* commonplace parameters of variation across languages regarding case and nominal licensing, *(ii)* independent principles such as Last Resort, and *(iii)* the independent workings of the rules that govern case assignment. The net result is that, despite appearances, RECP sentences in Adyghe and Kabardian do indeed abide by the ban against ERG anaphors (4) and RECP binding and HIGH ABS movement are, thus, independent of each other, at least in these languages.

This paper is structured as follows. §2 provides a description of the morphosyntax of case and φ-morphology in Adyghe and Kabardian. A particular analysis of case assignment is also offered, since it plays a crucial role in the analysis put forward in §4. §2 includes a cursory analysis of the operations that may result in the templatic morphology of the Circassian verb, though it is provided only for concreteness.

Existing analyses of RECP sentences in Adyghe are summarized and evaluated in §3. §4 comprises an in-depth exploration of the predictions made by the analysis to be proposed, as well as a comparison with previous accounts. §5 concludes with the implications of the proposal to theories of syntactic ergativity.

1.1 Methodology and conventions

Most of the Adyghe and Kabardian data examined in this paper are taken from existing sources. I have uniformized the glosses, using Leipzig conventions. Dropped arguments (*pro*) were added where convenient to render the data more conspicuous. External arguments glossed as "OBL" in the original sources have been changed to "ERG," since these cases are analyzed here as being syncretic (see §2 and fn. 3). Additionally, I supplied a case specification in the gloss of agreement prefixes where they were not present in the original source. Last but not least, for reasons that will become clear in the proposal in §4.1, I have broken down the prefix *zere-*, analyzed as a single morpheme by much Northwest Caucasian literature (e.g. Letuchiy 2007; Ershova 2019, 2023) into *ze-re-* 'RECP-INSTR.' To avoid clutter, these modifications were not flagged, though an 'adapted' can be assumed in the references of all secondary Adyghe and Kabardian data.

Additional data was supplied by two consultants, a native speaker of Adyghe, and a native speaker of Kabardian. They were presented with English prompts and asked to provide an Adyghe or Kabardian translation. Because phonological processes and the range of functions of the RECP prefix *ze-* can obscure the differences between reflexive and RECP sentences in Adyghe (see Ershova 2019, 2023), most RECP sentences were introduced with a context that made the reciprocal construal reading salient. Some of the sentences thus obtained were then manipulated and a grammaticality judgment was requested.

While "Adyghe" and "Kabardian" are endonyms, strictly for convenience reasons, whenever the two languages are referred to collectively in this paper, the term 'Circassian' will be used.

2 Case and *φ*-morphology

Adyghe and Kabardian (Northwest Caucasian, Lander & Arkadiev 2020) are polysynthetic languages with rich *φ*-morphology. This morphosyntax is, of course, an integral part of RECP sentences in these languages and which any analysis should be able to account for. Not only that, it has played a crucial role in the inferences made about RECP sentences, as briefly noted in §1 (see, especially, the diagram in (8)). This section is, thus, dedicated to the case, agreement, and the interaction thereof in Circassian. An analysis based on Dependent Case is also proposed, laying the groundwork for the analysis to be proposed in §4.1, where case is shown to play a crucial role in the distribution of the RECP in Circassian.

Adyghe (9) and Kabardian (10) are a morphologically ergative languages. The transitive object (9a–10a) and the intransitive subject (9b–10b) are suffixed with *-r*, while the transitive subject (9a–10a) bears a separate morpheme, *-m*.

(9) a. ç̆'ale-m pisme-r Ø-j-e-txə (*Adyghe*, Arkadiev & Letuchy 2011: (26))
boy-ERG letter-ABS 3SG.ABS-3SG.ERG-DYN-write
'The boy is writing a letter.'

b. ç̆'ale-r Ø-ma-tx-e
boy-ABS 3SG.ABS-DYN-write-AP
'The boy is writing.'

(10) a. abə-ǎ-m a:-r Ø-ja:-x' (*Kabardian*, Kazenin 2007: (20) and (23))
3-PL-ERG 3SG-ABS 3SG.ABS-3PL.ERG-carry
'They are carrying him.'

b. a:-ǎ-r Ø-šᵅə-s(-xa)-s'
3-PL-ABS 3SG.ABS-PREF-sit-(3PL.ABS)-IND
'They are sitting.'

Moreover, *φ*-prefixes in the Circassian verb crossreference its core and applied arguments. These prefixes are organized in a particular descriptive template (11).

(11) ABS.φ–**OBL.φ**–ERG.φ–$\sqrt{\ldots}$(–3PL.ABS) (based on Kazenin 2007: (8), and Letuchiy 2016: p. 89)

The templatic order of the φ-prefixes is particularly useful in face of the fact that Adyghe (Potsdam & Polinsky, 2012) and Kabardian are rampant *pro*-drop languages. In several of the sentences analyzed in this paper, the case a full DP is marked with is inferred from the prefixes that crossreference them. For instance, in (6a), both arguments of the verb have been dropped, but an ERG/ABS frame can be deduced from the φ-prefixes.

'(–3PL.ABS)' in (11) denotes a suffix that crossreferences a DP with matching features, the equivalent prefix being, in contrast, null (see e.g. (10b)). While this suffix is optional, when it does occur, the presence of a matching DP can be taken for granted. '**OBL.φ**–," in turn, is a cover label for a range of applied arguments, each associated with a particular applicative suffix (e.g. benefactive, instrumental, locative, etc), as well as DPs that are assigned lexical oblique case, and certain causees.

I assume a Dependent Case framework (Marantz 1991; Baker & Vinokurova 2010; Baker 2014; Levin & Preminger 2015, a.m.o), whereby case is assigned according to the Disjunctive Case Hierarchy. For Circassian, I propose the following algorithm:

(12) a. Assign any idiosyncratic lexical (e.g. **OBL**) case.
b. Given two nominals DP1 and DP2, such that *(i)* DP1 c-commands DP2, *(ii)* neither DP1 nor DP2 has been assigned case yet, and *(iii)* 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.
c. Assign unmarked ABS to any DP that has not been assigned case yet.

The DPs referenced in (12b) are called 'case competitors.' As soon as a DP is assigned any case, it is no longer computed by the Disjunctive Case Hierarchy.

Following e.g. Baker (2014), I assume that (12) applies once the smallest phase is built. I assume, additionally, a dynamic approach to phases (Bobaljik & Wurmbrand, 2005; Bošković, 2014; Wurmbrand, 2017; Sheehan & Cyrino, 2023), whereby an XP is not inherently defined as a phase (cf. Chomsky 2001)—rather, whether or not an XP is a phase is a function of the larger configuration where XP is embedded. Specifically, I assume that a *v*P that is the topmost verbal projection is a phase, while a *v*P that is dominated by e.g. a CauseP is not a phase—in this case, CauseP is a phase because it is the topmost verbal projections.

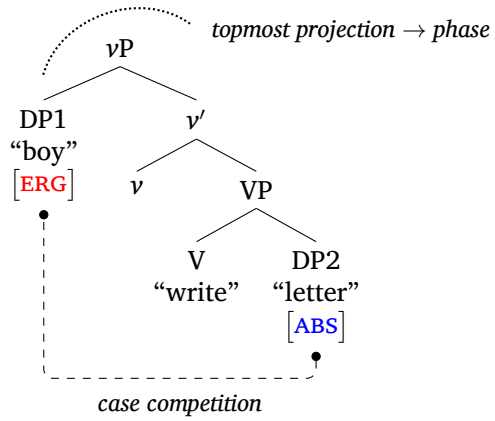
In transitive sentences with an ERG/ABS frame (e.g. (9a) and (10a)), *v*P is the topmost layer of the verb phrase and thus, a phase. Once the *v*P is assembled, the rules in (12) apply. Because there are two DPs in this phase that have not been assigned case yet, they are competitors. By (12b), the subject, being the higher DP, is assigned dependent ERG case. The object is, then, assigned unmarked ABS case, due to the absence of a case competitor (12c)—this is the same case is assigned to an intransitive subject (e.g. (9b) and (10b)).[1]

[1]Case assignment in causativized intransitive sentences such as (i.b) and (ii.b) works in the same way it does in simplex transitive sentences (13).

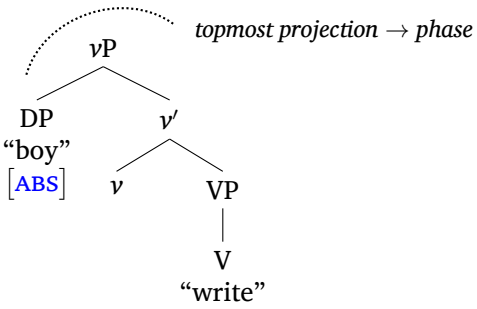
(i) *Adyghe* (Letuchiy, 2015: (9))
a. pŝaŝe-r Ø-ma-ḳʷe
girl-ABS 3SG.ABS-DYN-go
'The girl goes.'
b. čale-m pŝaŝe-r Ø-j-e-ʁa-ḳʷe
boy-ERG girl-ABS 3SG.ABS-3SG.ERG-DYN-CAUS-go
'The boy makes the girl go.'

(ii) *Kabardian* (Kazenin, 2007: (26))
a. *pro* u-o-ḳᵒa
2SG.ABS 2SG.ABS-DYN-go
'You are going.'
b. *pro* *pro* uə-z-o-ɣa-ḳᵒa
1SG.ERG 2SG.ABS 2SG.ABS-1SG.ERG-DYN-CAUS-go
'I am making you go.'

(13)



(14)



Transitive verbs can also have an ABS/**OBL** frame if they are able to assign lexical case to their object:[2]

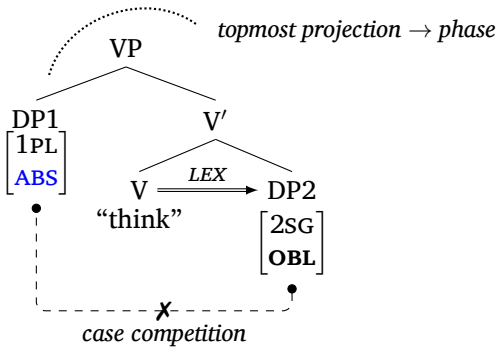
(15) te ***pro*** tə-qə-**we**-g^{w}əpšəsə (*Adyghe*)
1PL 2SG.OBL 1PL.ABS-DIR-2SG.OBL-think
‘We think about you.’

(16) a. marjəje **pjetjer** Ø-**je**-pseλ-a-š’ (*Kabardian*)
Maria.ABS Peter.OBL 3SG.ABS-3SG.OBL-speak-PST-IND
‘Maria spoke to Peter.’

b. wəe **[**$_{\&P}$ **larjəs-re** **mjerjəse-re** **]** w-**a**-xwe-g^{w}əzaʁe
2SG Larise-COORD Merisa-COORD 2SG.ABS-3PL.OBL-DYN-worry
‘You worry about Larise and Merisa.’

The subject is assigned unmarked ABS and not dependent ERG case, as in (13), due to the lack of case competition. First, the object is assigned lexical **OBL** case by predicates such as ‘think’ (15), “speak” (16a), or “worry” (16b), which I assume to be idiosyncratically endowed with this ability. As a result, the object is not longer considered by the Disjunctive Case Hierarchy, causing the competitor-less subject to be assigned unmarked ABS:

(17)



[2]In Circassian linguistics, such predicates are dubbed “inverse verbs.” The term usually refers to “bivalent emotional and mental verbs such as *š’əg^{w}əpšen* ‘forget,’ whose absolutive argument is the stimulus and the oblique argument is the experiencer” (Letuchiy, 2012: fn. 13). Inverse verbs are also sometimes referred to as ‘bivalent intransitives.’ (i) indicates that the ABS argument of the inverse predicate *g^{w}əbžə* ‘angry’ c-commands the **OBL** one:

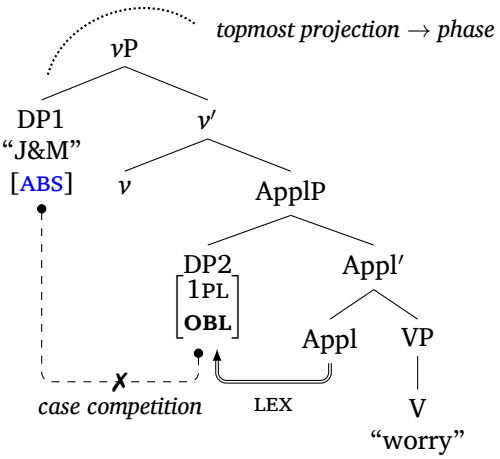
(i) *pro* ***pro***$_{\text{REFL}}$ sə-**z**-fe-g^{w}əbžə-ž’ə (*Adyghe*: Ershova 2023: (14))
1SG.ABS REFL.OBL 1SG.ABS-REFL-BEN-angry-RE
‘I am angry at myself.’

The assignment of lexical case may be "intermediated" by a predicate-specific applicative head, e.g. benefactive:

(18) [&P ǯ'wen-re merjə-re] ***pro*** Ø-qə-**t**-fe-g^{w}əmeč'ə-x (*Adyghe*)
John-COORD Mary-COORD 1PL.OBL 3PL.ABS-DIR-1PL.OBL-BEN-worry-3PL.ABS
'John and Mary worry about us.'

For concreteness, I assume that an ApplP is selected by the predicate and that its head assigns lexical **OBL** to the internal argument of the predicate, along with a θ-role. The additional structure does not affect case assignment, however. In other words, the case calculus in (18) is identical to that in (17) in the relevant respects:

(19)



The causee of a causativized transitive verb can also be marked with **OBL** case,[3] though I argue that this is an instance of dependent (12b) and not lexical (12a) case. (20a) and (21a) are baseline examples and (20b) and (21b), their causative counterparts.

(20) a. pŝaŝe-m wəne-r Ø-j-e-λeʁ^{w}ə (*Adyghe*, (20a) = Arkadiev & Bagirokova 2023: (9))
girl-ERG house-ABS 3SG.ABS-3SG.ERG-DYN-see
'The girl sees the house.'

[3] ERG and **OBL** in Circassian are systematically syncretic—both are exponed by the suffix *–m* in DPs and are also crossreferenced by the same *φ*-prefixes on the verb. ERG/**OBL** syncretism is a crosslinguistically common pattern (Zompì, 2019).
Nonetheless, it is possible to distinguish ERG and **OBL** *φ*-prefixes positionally. First, when both co-occur, the ERG prefix is always closer to the stem than its **OBL** counterpart:

(i) *pro* ***pro*** *pro* w-**je**-s-t-a-s' (*Kabardian*: Kumakhov & Vamling 2009: p. 188)
1SG.ERG 3SG.OBL 2SG.ABS 2SG.ABS-3SG.OBL-1SG.ERG-give-PST-IND
'I gave you to him.'

Second, the position of other verbal prefixes help us solve the indeterminacy of the ERG vs. **OBL** syncretism too. We see in (ii) that the locative prefix *s'(e)* is outside, i.e. to the left of the ERG prefix.

(ii) fəzə-m Ø-[s']-i-ʔ-a-s' (*Kabardian*: Kumakhov & Vamling 2009: p. 179)
woman-ERG 3SG.ABS-LOC-3SG.ERG-move-PST-IND
'The woman rushed away.'

In (iii) below, the locative prefix is present too, though it is inside. Even though *s–* could be the exponent of either an ERG or **OBL** [1SG] DP (see affixes in fn. 4), because the locative prefix is to the right of *s–*, the latter must be an **OBL** prefix.

(iii) **se** we wəne-m wə-**s**-χ^{o}ə-[s'e]-š'e-nu-q'əm (*Kabardian*: Kumakhov & Vamling 2009: p. 189)
1SG 2SG house-OBL 2SG.ABS-1SG.OBL-BEN-LOC-lead-FUT-NEG
'I will not be able to take you into the house.'

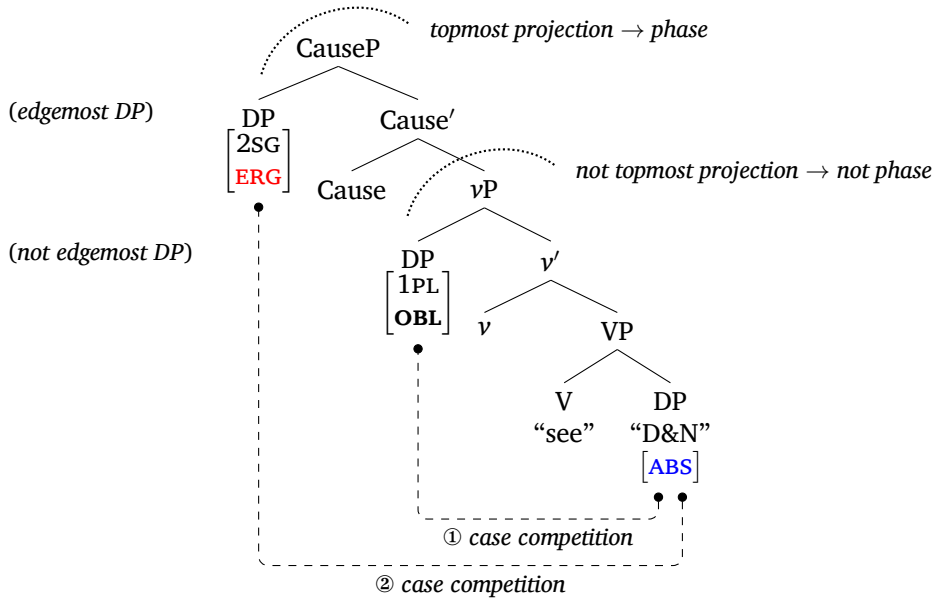
b. we ***pro*** Ø-**te**-b-ʁe-ɬɐʁʷə-ʁe-x [&P dwelet-re nafset-re]
2SG 1PL.OBL 3PL.ABS-1PL.OBL-2SG.ERG-CAUS-see-PST-3PL.ABS Dolet-COORD Nafset-COORD
'You made us see Dolet and Nafset.'

(21) a. a:ǎa-m ua u-a:-cəx (*Kabardian*: (21a) = Kazenin 2007: (2a))
3SG-ERG 2SG 2SG.ABS-3PL.ERG-DYN-know
'They know you.'

b. wəe ***pro*** jeʁeǯ'aḳʷə-xe-r Ø-**sə**-b-ʁe-ɕə-xw-a-š'
2SG 1SG.OBL teacher-PL-ABS 3PL.ABS-1SG.OBL-2SG.ERG-CAUS-know-3PL.ABS-PST-IND
'You made me know the teachers.'

Following the rules in (12), a sentence such as (20b) is derived as follows. Under a dynamic view of phasehood, a causativized *v*P is not a phase, but the topmost CauseP is. There are three DPs in this domain that have not been assigned case yet. Assuming a bottom-up derivation, the underlying theme (viz. 'Dolet and Nafset' in (20b)) and the causee (viz. 'us') are competitors. By (12), the causee is assigned dependent **OBL**, since it is not the edgemost DP in CauseP (i.e. the smallest phase where case is calculated). Next, since the theme has not been assigned any case yet, it can be a competitor for the causer (viz. 'you') as well. The latter is assigned dependent ERG, since it is the edgemost DP at CauseP. Finally, the theme is itself assigned unmarked ABS case.

(22)



That the **OBL** assigned to the causee in (20b) is an instance of dependent and not lexical case is indicated by the fact that, in the absence of a viable competitor, the causee is assigned unmarked ABS case. In (20b) and (21b), a transitive verb with an ERG/ABS frame was causativized and the ABS theme serves as competitor for the causee and the causer. By the logic of the case assignment algorithm (12), if the theme is assigned lexical case, it can no longer feed the assignment of dependent case. This happens when the causativized predicate is able to assign it lexical **OBL**, yielding an ABS/**OBL** frame. As (23b) and (24b) show, the causee (viz. "John and Mary" and "me," respectively) is now marked with ABS (cf. **OBL** in (20b) and (21b)).

(23) a. [&P ǯ'wen-re merjə-re] ***pro*** Ø-qə-**t**-fe-gʷəmeč'ə-x (*Adyghe*)
John-COORD Mary-COORD 1PL.OBL 3PL.ABS-DIR-1PL.OBL-BEN-worry-3PL.ABS
'John and Mary worry about us.'

b. *pro* [&P ǯ'wen-re merjə-re] ***pro***
2SG.ERG John-COORD Mary-COORD 1PL.OBL

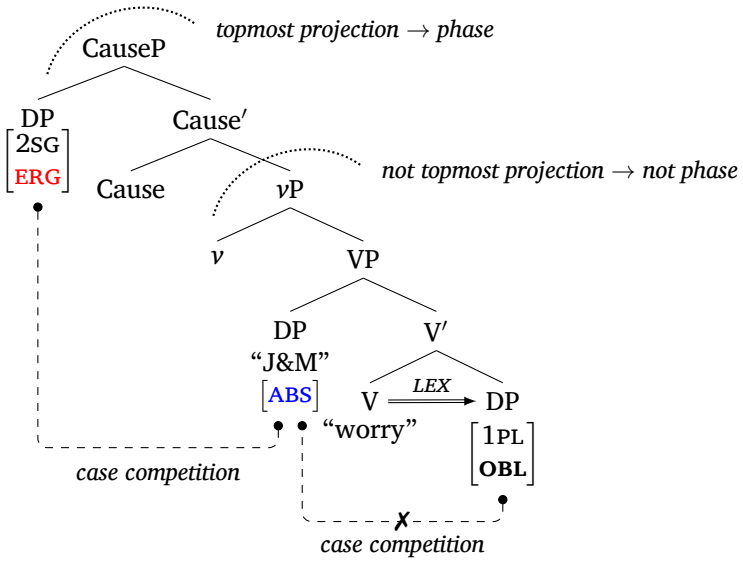
Ø-qə-**t**-fe-b-ʁe-g^{w}əmeč̣ə-ʁe-x
3PL.ABS-DIR-1PL.OBL-BEN-2SG.ERG-CAUS-worry-PST-3PL.ABS
'You made John and Mary worry about us.'

(24) a. marjəje **pjetjer** Ø-**je**-pseλ-a-š' (*Kabardian*)
Maria Peter 3SG.ABS-3SG.OBL-speak-PST-IND
'Maria spoke to Peter.'

b. wəe *pro* **jeʁeǯ'aḳ^{w}ə-em** s-**je**-b-ʁe-pseλ-a-š'
2SG 1SG.ABS teacher-OBL 1SG.ABS-3SG.OBL-2SG.ERG-speak-PST-IND
'You made me speak to the teacher.'

The assignment of lexical **OBL** to the underlying theme renders it inactive to the case assignment algorithm. However, because it has not been assigned case yet, the causee can still be a competitor for the causer. The latter is, thus, assigned dependent ERG case. Lastly, the causee is itself assigned the aforementioned unmarked ABS case:

(25)



The unavailability of **OBL** case to be assigned to the causee in the configuration (25) is precisely what we expect if this instance of **OBL** case is a type of lexical case, since the latter is expected to be preserved across constructions (cf. so-called "quirky case" in Icelandic, Sigurðsson 1992, 2008).

Having analyzed how the case morphology comes about in the Circassian DPs, we can go back to the *φ*-template in (11), which crossreferences these DPs, based on the case they have been assigned. While nothing hinges on this particular choice, I assume the Interaction and Satisfaction (I&S) system in Deal (2015b, 2024, 2025), summarized in (26).

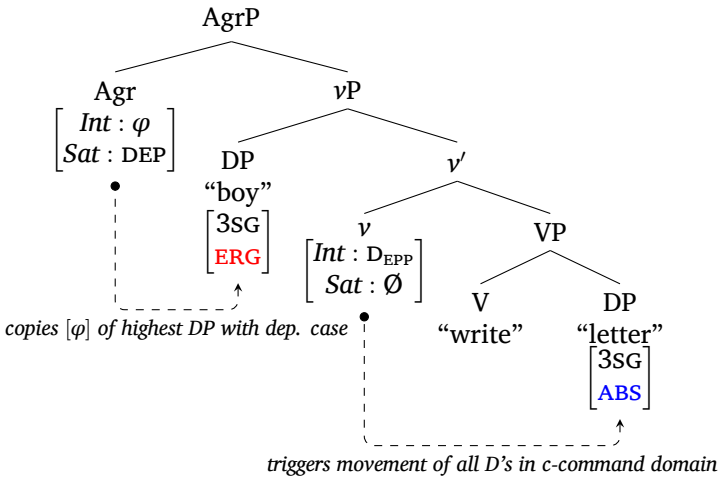
(26) Agree searches the domain of an element H and determines whether copying and/or movement will occur. H is specified for [I]nteraction features and [S]atisfaction features […]. Each syntactic object in the search space is a target. Each target is inspected to determine whether its features should be copied to H ([I]nteraction) and whether consideration of further targets should halt ([S]atisfaction). […]. Features in *int(H)* and *sat(H)* may be specified to trigger movement […].

(based on Deal 2025: (29))

Furthermore, following Driemel *et al.* (2020a,b), I assume that the ERG *φ*-prefix is an instance of true agreement, while ABS and **OBL** *φ*-prefixes are instances of clitic-doubling. I assume, then, an AgrP whose head agrees in *φ*-features with the highest DP that has been assigned dependent case. In I&S terms, this means that Agr Interacts with any DP in its c-command domain that bears *φ*-features, as long as that DP

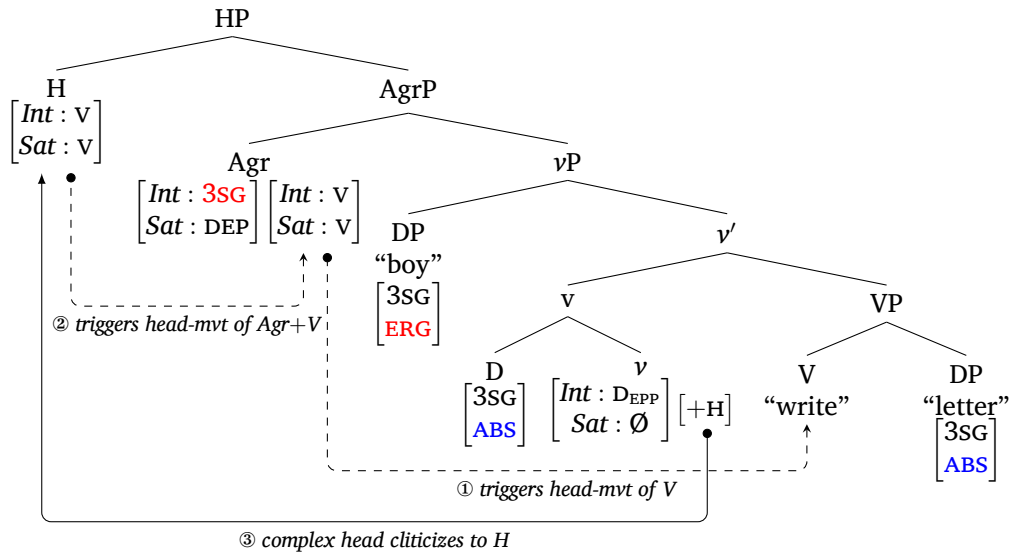
has also been assigned dependent case, i.e. Agr's Satisfaction condition. Likewise, I assume that the head of the *v*P is also a probe, which Agrees with any DP in its c-command domain. In I&S's terms, this means that *v* does not have an Satisfaction condition. Following Harizanov (2014) and Kramer (2014), I assume that clitic doubling consists in the movement of the head of the DP that is doubled. I model the trigger of this instance of head movement as an Interaction condition on *v*: this probe Agrees with any constituent in its c-command domain that bears a D categorial feature and also triggers the movement of its head—in the diagrams to follow, this is requirement is annotated as 'D_{EPP}.' (27) diagrams the assumptions made so far, which represents a transitive sentence such as (9a) for explicitness.

(27)



I also assume an additional layer in the extended verb phrase, an HP (cf. Arregi & Nevins 2008), the head of which triggers the movement of the closest head that bears a [V] feature. Furthermore, I assume that ABS and **OBL** clitics cliticize to H.. These head movement operations are modeled in terms of different types of features that trigger head movement. H is a probe whose Interaction and Satisfaction conditions are [V]. Because the verbal stem is realized to the right of the ERG *φ*-prefix, I also assume that Agr bears the same feature, so that Agr triggers the movement of V and, subsequently, H triggers the movement the complex head thus formed. *v*, in turn, bears a feature [+H], which causes it to adjoin to H, pied-piping any D that first cliticized to it in (27). With these features, (27) can, then, be revised as in (28), where the result of the Agree operations in (27) is represented as well:

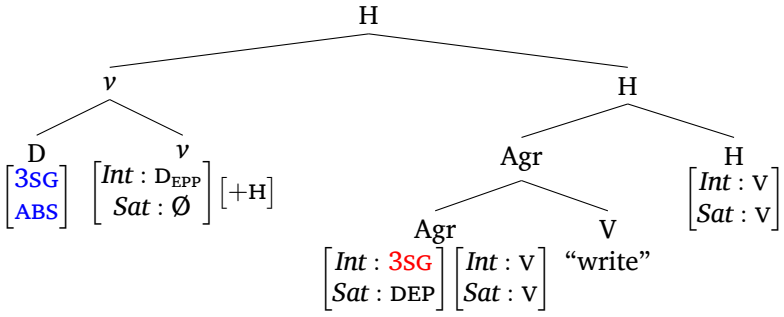
(28)



These operations are intended to capture the Circassian template in (11), where the ERG *φ*-prefix is closer

to the verb stem, while its ABS counterpart is the outermost prefix, with *φ*-prefixes that crossreference **OBL** and applied arguments being stacked between them. The resulting complex head is as follows:

(29)



If we assume the exponents in (30), we can account for the observable order of *φ*-prefixes in a sentence such as (9a).[4]

(30) a. $\begin{bmatrix} Int : \text{V} \\ Sat : \text{V} \end{bmatrix} \leftrightarrow /\text{Ø}/$

b. $\begin{bmatrix} Int : \text{D}_{\text{EPP}} \\ Sat : \text{Ø} \end{bmatrix} \leftrightarrow /\text{Ø}/$

c. $\begin{bmatrix} 3\text{SG} \\ \text{ABS} \end{bmatrix} \leftrightarrow /\text{Ø}/$ (when adjacent to *v*)

d. $[3\text{SG}] \leftrightarrow /\text{j}/$ (elsewhere)

In §4.1, the RECP prefix *ze–* (see e.g. (6b) and (7b)) will be analyzed as one of the exponents of one of the clitics adjoined to H and which crossreferences a phonological null RECP pronoun—when appropriate, for conspicuousness, the latter is represented as 'pro_{RECP}' (see e.g. (86b)).

In this section, a description and analysis was offered of the case morphology of DPs in Circassian, as well as of the characteristic *φ*-template of these languages, with the former being inferrable from the latter. Coupled with a particular proposal about the case properties of the RECP pronoun in Circassian, this analysis will be shown to make correct predictions about the morphosyntax of RECP sentences, while also maintaining standard assumptions about binding.

3 Previous analyses

With this background in place, we can focus on RECP binding in Circassian. To recall, in these sentences, the antecedent of the RECP is marked with ABS, instead of the expected ERG case. Adding to the puzzle, the RECP itself is encoded by the prefix *ze–*, which is closer to the verbal stem, seemingly in replacement of an ERG prefix:[5]

[4]The difference between (30c) and (30d) is intended to capture the fact that ERG and **OBL** are syncretic in Circassian, with their ABS counterpart being exponed with a distinct morpheme. The table below illustrates the *φ*-prefixes in Adyghe (see the Kabardian equivalent in Kumakhov & Vamling 2009: p. 40).

(i)

	SINGULAR		PLURAL	
	ABS	ERG & OBL	ABS	ERG & OBL
1	sə-	s-/z-	tə-	t-/d-
2	wə-	w-/p-/b-	ŝʷə-	ŝʷ-/ẑʷ-
3	Ø-	jə-/ə-	Ø-	a-

(based on Lander & Letuchiy 2017: p. 288)

Insertion rules similar to (30c–30d) can be formulated for all slots in (i).

[5]The same morphosyntax is, of course, found in derived transitives, such as causativized intransitives, which is illustrated with Kabardian below:

(i) a:-ǎa-r Ø-za-ra-γa-dəx'aš$^{\alpha}$ǎ-a:-s' (*Kabardian*: Kazenin 2007: (41b))
3-PL-ABS 3SG.ABS-RECP-CAUS-laugh-PST-IND
'They made each other laugh.'

(31) a. se dəʁʷase wə-s-ɬeʁʷ-a-š’ (*Kabardian*)
1SG yesterday 2SG.ABS-1SG.ERG-see-PST-IND
‘I saw you yesterday.’
b. de dəʁʷase də-ze-rə-ɬeʁʷ-a-š’
1PL yesterday 1PL.ABS-RECP-INSTR-see-PST-IND
‘We saw each other yesterday.’

In this section, we review two existing proposals for the morphosyntax illustrated in (31) (repeated from (7)). In §3.1, an analysis is summarized that accounts for the fact that the RECP is ABS due to a valence-decreasing operation. In §3.2, a HIGH ABS analysis, previewed in §1, is assessed. The advantages and shortcomings of these analyses inform the analysis to be put forth in §4.1.

3.1 Intransitivization analysis

Letuchiy (2007) groups the RECP prefix *ʒe–* along with valence-changing morphemes, such as the causative *ʁe–* (see e.g. (20b) and (21b)). According to Letuchiy, the reciprocal *ʒe–* is, specifically, a valency-decreasing morpheme, in other words, the exponent of an operation that affects the argument structure of some predicate, reducing it by one. For a transitive verb, this means that the verb becomes intransitive. A similar assumption is taken for granted in Kumakhov & Vamling (2009).

A valency-decreasing operation is seemingly well-suited to account for the fact that the RECP’s antecedent in Circassian is marked with ABS case, the same morphology that the subject of inherently intransitive verbs is marked with in ergative languages (see e.g. (9b) and (10b)). This is particularly clear when the antecedent is not a dropped subject, but, rather, a full DP:

(32) zeč’e çəf-xe-r Ø-ze-r-e-ɬeʁʷ-ž’ə-x (*Adyghe*: Arkadiev & Letuchy 2011: (22))
all man-PL-ABS 3PL.ABS-RECP-INSTR-DYN-see-RE-3PL.ABS
‘All the people see each other.’

(33) c’əχº-χe-r Ø-zə-r-o-wəč’ (*Kabardian*: Kumakhov & Vamling 2009: p. 91)
man-PL-ABS 3PL.ABS-RECP-INSTR-DYN-kill
‘People kill each other.’

Indeed, if the RECP antecedent is marked with ERG case, the result is ungrammatical:

(34) * *pro* ze-re-t-ɬeʁʷə-ʁ (*Adyghe*: Ershova 2023: (36b); cf. (6b))
1PL.ERG RECP-INSTR-1PL.ERG-see-PST
Intended: ‘We saw each other.’

For comparison, (35b) illustrates an instance of a RECP affix in Warlpiri (viz. *–nyanu*) that cannot be analyzed as the exponent of an intransitivization process—the antecedent is marked with the ERG case that we expect from a language with ergative alignment (35a).

(35) a. Ngarrka-jarra-rlu ka-pala-jana paka-rni (*Warlpiri*: Nordlinger 2023: (18), adapted)
man-DU-ERG IPFV-3DU.SBJ-3PL.OBJ strike-NPST
‘The (two) men are striking them (e.g., the dogs).’
b. Ngarrka-jarra-rlu ka-pala-**nyanu** paka-rni
man-DU-ERG IPFV-3DU.SBJ-RR strike-NPST
‘The (two) men are striking each other.’

Nonetheless, there are a few arguments against an intransitivization analysis. The discussion to follow continues the arguments already raised by Ershova (2019: §3.2.3). First, the order of valence-changing affixes reflects their semantic scope (i.e. the Mirror Principle, Baker 1985). However, irrespective of the scope of reciprocalization and causativization the *φ*-prefixes in Adyghe (36) and Kabardian (37) appear in the same order. In (36–37), the (a) example is the result of reciprocalizing a causativized predicate, while the (b) example is the result of causativizing a reciprocalized predicate. Regardless, in both examples, the causative prefix is immediately adjacent to the root, while the RECP prefix is outside of both.

(36) a. te š'eʁen-xe-r Ø-**ze**-re-d-ʁe-š'efə-ž'ə-ʁe-x
1PL.ERG good-PL-ABS 3PL.ABS-RECP-INSTR-1PL.ERG-CAUS-buy-RE-PST-3PL.ABS
(*Adyghe*: Letuchiy 2013: (22))
'We made each other buy goods.'

b. [&P čətəwə-m-re ha-m-re] Ø-**ze**-re-z-ʁe-λeʁʷə-ʁe-x
cat-OBL-COORD dog-OBL-COORD 3PL.ABS-RECP-INSTR-1SG.ERG-CAUS-see-PERF-3PL.ABS
(Letuchiy, 2015: (20))
'I made the cat and the dog see each other.'

(37) a. [&P marjəje-re pjetjer-re] jeʁeǯ'aqʷəe-xe-r
Maria-COORD Peter-COORD teacher-PL-ABS
Ø-**zə**-r-a-ʁe-çə-xw-a-š' (*Kabardian*)
3PL.ABS-RECP-INSTR-3PL.ERG-CAUS-know-3PL.ABS-PST-IND
"Maria and Peter made each other know the teachers.'

b. wəe [&P larjəs-re mjerjəse-re]
2SG Larise-COORD Merisa-COORD
Ø-**ze**-rə-b-ʁe-çə-xw-a-š'
3PL.ABS-RECP-INSTR-2SG.ERG-CAUS-know-3PL.ABS-PST-IND
'You made Larise and Merisa know each other.'

Second, at least one non-derivational prefix may intervene between the causative prefix *ʁe–* and the RECP prefix *ze–*, viz, the ERG *φ*-prefix in (36–37).[6] Under the assumption that true derivational affixes tend to be closer to the stem (Haspelmath & Müller-Bardey, 2004), it would be unexpected for an inflectional affix such as a *φ*-prefix to be inside the RECP affix if the latter were an instance of a valence-changing affix.

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:

(38) te [SC *pro*RECP ʔʷəš-ew] tə-**ze**-re-λəte-ž'ə (*Adyghe*)
1PL.ABS RECP clever-ADV 1PL.ABS-RECP-INSTR-consider-RE
'We consider each other clever.'

In (38), 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.

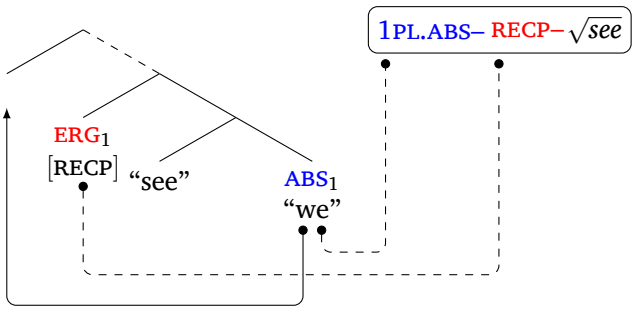
In brief, while an intransitivization analysis of RECP sentences in Circassian provides a straightforward explanation for the unexpected ABS case that the RECP's antecedent is marked with, the behavior of the RECP prefix *ze–* is not consistent with that of truly derivational affixes. In the next section, we review an analysis of the Circassian RECP that does not involve valence-decreasing.

3.2 High absolutive analysis

An analysis that does not run into the issues an intransitivization account does is the HIGH ABS analysis pursued by Ershova (2019, 2023). According to a HIGH ABS analysis, the fact that the RECP's antecedent is ABS is not a byproduct of a valence-changing operation. Rather, it is a consequence of that DP being base-generated as an object that is c-commanded by the RECP—transitive objects are, of course, marked with ABS case (see e.g. (9a) and (10a)). This assumption is also consistent with the fact that the RECP prefix is closer to the stem, seemingly replacing an ERG *φ*-prefix (see the *φ*-template in (11)). The structural configuration necessary for binding would be the result of the ABS antecedent undergoing HIGH ABS movement to a position where it can c-command the RECP, thereby binding it:

[6] The *INSTR* prefix *re–* also separates the causative and RECP prefix. It is discussed in §4.1, and especially in Appendix A.

(39)



(= ‘We saw each other,’ (31))

High ABS mvt. allowing for RECP binding

This analysis faces conceptual and empirical challenges. First, under a HIGH ABS analysis, movement is modeled as a necessary condition for binding, in divergence from similar patterns found in analogous constructions elsewhere. Relatedly, not all instances of RECP binding require HIGH ABS movement in Adyghe. A HIGH ABS analysis implies, thus, a teleological grammar. Last but not least, the purported HIGH ABS movement that is a precursor for Circassian RECP binding may overgenerate, predicting a well-formed sentence where the moving ABS DP crosses more than one RECP.

3.2.1 Movement as a condition for binding and teleology

Because a HIGH ABS analysis takes for granted that the φ-morphology of RECP sentences reflects their underlying structure (39), it implies that movement is a necessary condition for RECP binding: if the antecedent is marked ABS because it is base-generated as an object and, in addition, if the RECP is crossreferenced by a prefix closer to the stem because it is an ERG subject, then HIGH ABS movement is unavoidable—if the ABS DP remained in situ in (39), a sentence such as (31) would be incorrectly predicted to be ungrammatical due to a Condition A violation.

A-movement is well-known to create new antecedents for binding. In e.g. Hindi, local scrambling of the object over the subject allows a RECP contained in the latter to be bound:

binding after scrambling

(40) [$_{DP}$ raam aur prataap]-ko ek-duusre-kii bahinõ-ne $t_{R\&P}$ maaraa (*Hindi*: Keine 2018: (11b))
Ram and Pratap -ACC each.other’s sisters-ERG hit
Ram and Pratap$_1$, each other$_1$’s sisters hit t_1.’

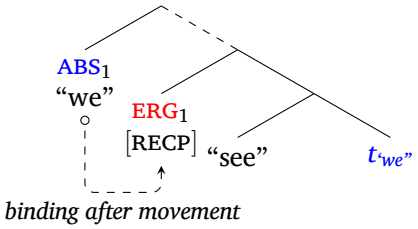
Nevertheless, even in languages where A-movement *can* create new antecedents for binding, movement is not a *necessary* condition, provided that the appropriate configuration for binding obtains first. In (41), the RECP to be bound is now contained in the object. The subject can, thus, bind the RECP without the movement operation we see in (40).

binding without scrambling

(41) unhõ-ne [$_{DP}$ ek-duusre-ke bhaaiyõ-ko] maaraa (*Hindi*: M. Chaturvedi, p.c.)
they-ERG each.other’s brothers-ACC hit
‘They hit each other’s brothers.’

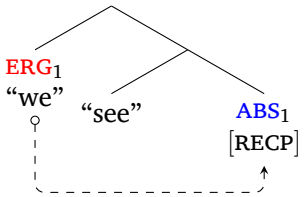
Why, then, must the derivation of a RECP sentence in Circassian have (42) as its underlying form? In other words, why does the structure (43) result in ungrammaticality (see (34))?

(42)



binding after movement

(43)



binding without movement

Theoretically, even if we put aside the question as to why movement should be a pre-condition for RECP binding, the derivation implied in a HIGH ABS analysis results in a configuration that is ruled out by independent well-formedness conditions imposed on chains (Rizzi 1986, see also McGinnis 2004). According to Rizzi, a chain of coindexed nodes must contain at most one θ- and at most one case position. Support for this requirement is provided by contrasts such as the following:

(44) Gianni { gli / *si } è stato affidato t_{Gianni} (*Italian*: Rizzi 1986: (9a), (10a), adapted)
Gianni to.him to.himself was been entrusted
‘Gianni$_1$ was entrusted to him$_2$/*himself$_1$.’

In (44), a chain is formed that contains *Gianni* and its trace *t*, as well as the reflexive *si*, which *Gianni* binds. This chain is ill-formed because it contains more than θ- and case positions. As we can see in (39), a HIGH ABS analysis implies a derivation that has the same configuration that underlies the ungrammatical version of (44).

As a matter of fact, RECP binding in Adyghe (45) and Kabardian (46) is indeed possible *without* HIGH ABS movement, exactly as depicted in (43). For instance, in causative sentences where the RECP’s antecedent is the ERG causer (45–46), binding is independent of HIGH ABS movement (i.e. the movement of “goods,” “Adyghe language,” “teachers,” and “you,” respectively).

(45) a. te š’eʁen-xe-r Ø-ze-re-d-ʁe-š’efə-ž’ə-ʁe-x
1PL.ERG good-PL-ABS 3PL.ABS-RECP-INSTR-1PL.ERG-CAUS-buy-RE-PST-3PL.ABS
(*Adyghe*: Letuchiy 2013: (22))
‘We made each other buy goods.’

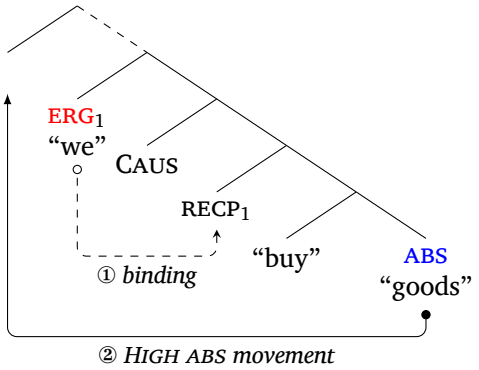
b. [&P šə-re šəpχ^{w}ə-re] č’ef-ew adəga-bze-r
brother-COORD sister-COORD joyful-ADV Adyghe-language-ABS
Ø-ze-r-a-ʁa-ʂe (Vydrin, 2008: (13))
3SG.ABS-RECP-INSTR-3PL.ERG-CAUS-know
‘The brother and the sister made each other know Adyghe joyfully.’

(46) a. [&P marjəje-re pjetjer-re] jeʁeǯ’aḳ^{w}əe-xe-r
Maria-COORD Peter-COORD teacher-PL-ABS
Ø-zə-r-a-ʁe-ɕə-xw-a-š’ (*Kabardian*)
3PL.ABS-RECP-INSTR-3PL.ERG-CAUS-know-3PL.ABS-PST-IND
‘Maria and Peter made each other know the teachers.’

b. [sjə ade ane-m] *pro* wə-z-r-a-ʁe-ʎeя^{w}-a-š’
1SG.POSS mother father-ERG 2SG.ABS 2SG.ABS-RECP-INSTR-3PL.ERG-CAUS-see-PST-IND
‘My parents made each other see you.’

For concreteness, a sentence like (45a) could be schematized as follows:

(47)



There must be, thus, a contrast between (34), where an ERG DP cannot be an antecedent for a RECP, and (45–46), where the ERG causer plays exactly this role. According to a HIGH ABS analysis, the former requires movement of the ABS antecedent as a precursor for binding, while, in the latter, these must independent operations. A HIGH ABS analysis implies, then, a teleological grammar that “knows” when a RECP antecedent must be base-generated in a configuration where it is assigned the case usually associated with an object in a lower position and, thus, when movement is a necessary condition for RECP binding, given this initial configuration. Likewise, the grammar must “know” when an antecedent can bear the expected ERG case and bind a RECP independently of movement. In §4.1, I propose an analysis where the grammar where, in principle, both (42) or (43) could be derived, but independent principles determine whether or not these configurations result in grammaticality.

3.2.2 Double binding

Besides the conceptual concern of implying a teleological grammar, an empirical challenge can be leveraged against a HIGH ABS analysis as well. In principle, if more than one variable is crossed by the movement of a DP, all these variables could be bound by that DP in its new position. However, HIGH ABS movement in Circassian does not result in multiple binding.

In (48), “us”is an ABS antecedent that binds the RECP.

(48) tə-ze-f-jə-š’a-ʁ (*Adyghe*: Ershova 2023: (37b))
1PL.ABS-RECP-BEN-3SG.ERG-bring-PST
‘She brought us to each other.’

In a HIGH ABS analysis of (48), “us”moves to a position above the ERG subject and, by extension, the RECP, thereby binding the latter:

(49) [TP us-ABS [vP she-ERG bring RECP-BEN *t*]] (based on Ershova 2023: fig. 7)
② *binding*
① *High ABS movement*

Following this logic, if the ERG position itself were occupied by another RECP, it would also fall under the c-command domain of the moving ABS antecedent. In (49), the position the RECP occupies is an indirect object, as inferrable from the fact that it is crossreferenced by an **OBL** φ-prefix, while the theme is the ABS DP that would bind the RECP as a consequence of HIGH ABS movement. This leaves us with the ERG position, a position that a HIGH ABS analysis attributes to a RECP in transitive sentences, as schematized in (39). The result is (50), where HIGH ABS movement crosses the two RECP’s.

(50) [TP us-ABS [vP RECP-ERG bring RECP-BEN *t*]]
② *binding*
② *binding*
① *High ABS movement*

As such, "us" is expected to be able to bind both instances of RECP in its movement path. However, the result is ungrammatical in both Adyghe (51) and Kabardian (52):[7]

(51) * tə-ze-f-ze-š'a-ʁ (*Adyghe*)
1PL.ABS-RECP-BEN-RECP-bring-PST
Intended: 'We brought each other to other' (*Literally*: 'Each other brought us to each other.')

(52) * də-**ze**-xwə-**ze**-ša (*Kabardian*)
1PL.ABS-RECP-BEN-RECP-bring
Intended: 'They brought each other to each other' (*Literally*: 'Each other brought them to each other.')

In sum, by linking movement of an ABS DP to RECP binding, a HIGH ABS analysis overgenerates the possibility of an ABS antecedent binding several RECP's in its movement path.

3.3 Interim conclusion

The discussion of existing accounts of the dumbfounding morphosyntax of RECP binding sentences in Circassian leads us to the following desiderata:

(53) a. Certain RECP sentences in Circassian appear to be intransitive.[8] Because the RECP prefix *re–* does not display the behavior of a true valence-changing morpheme (e.g. the causative *ʁe–*), an analysis of these sentences must account for their intransitive morphosyntax without resorting to an intransitivization morphological operation.

b. Data like (45–46) indicate that there is no inherent restriction against an ERG DP binding a RECP in Adyghe and Kabardian. However, there is still an asymmetry between (45–46), on the one hand, and (34), on the other, where an ERG DP cannot be an antecedent for a RECP. These facts suggest a dissociation between the morphosyntax of RECP sentences, specifically, the case of the antecedent, and the syntactic dependency responsible for binding—presumably, the latter is uniform, irrespective of its exponence. As such, an analysis of RECP sentences in Circassian must account for a DP's ability to bind a RECP in disassociation of the case that this DP is marked with.

In the next section, an analysis is proposed that fulfills these desiderata.

4 Analysis

4.1 Main components of the proposal

Following recent work on binding (Quicoli, 2008; Despić, 2015; Charnavel & Sportiche, 2016; Brodkin & Royer, To Appear), I assume that a binding domain is the smallest phase that contains an anaphor and a c-commanding antecedent, e.g. *v*P, and, furthermore, that binding takes place as soon as possible, provided that all conditions for binding are met. The latter can be taken as a particular instantiation of a more general requirement, such as the Earliness Principle (Pesetsky & Torrego, 2001).

[7] The meaning provided to (51) is analogous to that provided to simplex RECP sentences, e.g. (6b), repeated below.

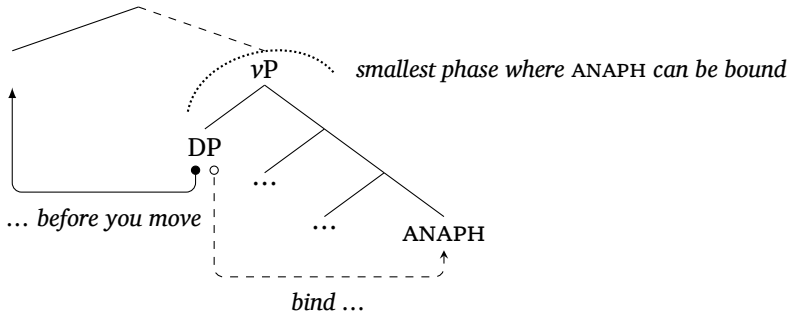
(i) te-ze-re-λeʁʷə-ʁ
1PL.ABS-RECP-INSTR-see-PST
'We saw each other.'

(ii) [TP us-ABS [vP see RECP *t*]]
② *binding*
① *High ABS mvt*

Under a HIGH ABS analysis, (i) would have the structure in (ii), where the RECP is translated as the object of "see" even though it is base-generated as an ERG subject. By the same reasoning, the ERG RECP in (48) is also construed as the object of "bring." In other words, (48) (see also (68) below) cannot be ruled out because their meaning is ill-formed.

[8] This description only applies to RECP sentences where the verb is transitive. We already saw three-argument configurations where there remains an ERG subject, e.g. the causatives in (45–46) and the ditransitive sentence in (48). The analysis to be proposed will account for the full range of data, irrespective of whether or not they resemble intransitive sentences.

(54)



For instance, in the Hindi sentence in (41) above, binding does not require local scrambling because, at the smallest *v*P phase that contains the subject 'they' and the RECP contained in the object, the former can bind the latter. In contrast, in (40), this is not possible in the base-generation configuration, but subsequent movement creates the configuration necessary for binding to go through. Nonetheless, as soon as this configuration is achieved, binding still takes place as soon as possible.

Moreover, I assume that these conditions are obeyed universally. This means that, in Circassian, RECP binding must take place as soon as possible too, before HIGH ABS movement has the chance to apply. As a result, even if the RECP's antecedent is marked with ABS morphology, binding cannot rely on movement, so long as the configuration that necessary for binding to be possible obtains first.

Taken together, the logic of these assumptions leads us to seek a different source for the morphosyntax that characterizes RECP sentences in Circassian. This is a departure from the HIGH ABS analysis reviewed in §3.2, where the *φ*- and case morphology of such sentences is taken at face value and employed as critical support for the assumption that HIGH ABS movement is necessary for binding. I propose, instead, that the morphosyntax of RECP is epiphenomenal. It is the byproduct of: (*i)* the case properties of the RECP pronoun, (*ii)* independent principles such as Last Resort, and (*iii)* the independent workings of case assignment, specifically the algorithm in (12).

I propose that what is "at fault" in RECP sentences in Circassian is the RECP pronoun itself:

(55) a. The RECP pronoun in Adyghe and Kabardian is unable to participate in the Disjunctive Case Hierarchy (12).

b. Nonetheless, the RECP pronoun is assigned oblique case by an instrumental ApplP as a Last Resort licensing strategy, unless it can be assigned case independently.

Underlying (55b) is the assumption that some principle of the grammar requires that nominal expressions be assigned case in order to be licensed, viz. the Case Filter:

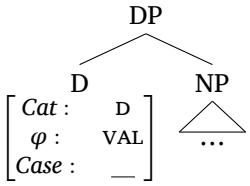
(56) *Case Filter* (Chomsky, 1981: p. 49, adapted)

*NP/DP if NP/DP has phonetic content and has no Case.

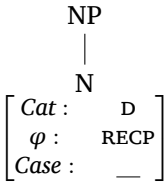
Likewise, I take it for granted that the assignment of case, as dictated by the Disjunctive Case Hierarchy (12), result in the satisfaction of the Case Filter (Levin, 2015).

The nominal structures in (57–58) complete the set of assumptions necessary for the derivation of RECP sentences to be carried out in the remainder of this section.

(57) *Full nominal*



(58) *Reciprocal pronoun*



While the full nominal (57) is larger than the RECP (58), both contain a category feature *D*, which plays a role in the clitic doubling that appears in the Circassian verbal complex (see §2)—both types of nominal

expressions are crossreferenced by verbal prefixes. By the same token, both nominals bear an unvalued case feature and must, thus, comply with the Case Filter (56).

In what follows, I provide empirical support for the proposals (55a–55b) and demonstrate how they account for a range of properties of RECP sentences in Circassian, eschewing the need for unorthodox assumptions about binding and its relationship to movement. Recall from (32–33) vs (34), partially repeated below, that the antecedent of a RECP in Adyghe must be marked ABS and cannot be marked with the expected ERG case.

(59) a. *pro* te-ze-re-ɬeʁʷə-ʁ (*Adyghe*: Ershova 2023: (88a))
1PL.ABS 1PL.ABS-RECP-INSTR-see-PST
'We saw each other.'

b. * *pro* ze-re-t-ɬeʁʷə-ʁ (Ershova, 2023: (36b))
1PL.ERG RECP-INSTR-1PL.ERG-see-PST
Intended: 'We saw each other.'

This pattern is reminiscent of the morphosyntax of pseudo noun incorporation (PNI) in e.g. Niuean. When an object is PNI-ed (60b), the subject is assigned ABS case, instead of the expected ERG case (60a). In Niuean PNI, The case of the transitive object is correlated with word order: Niuean being a predicate-initial language, sentences usually exhibit VSO order (60a), and the object bears explicit ABS morphology. However, if the object is PNI-ed, it must be both caseless and adjacent to the sentence-inital predicate (60b).

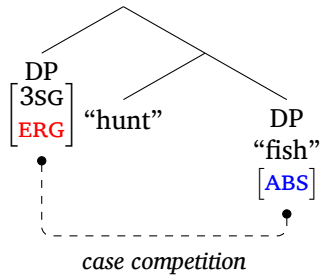
(60) a. Takafaga tūmau nī [e ia] [**e tau ika**] (*Niuean*: Massam 2001: (5a–5b), adapted)
hunt always EMPH ERG he ABS PL fish
'He is always hunting fish.'

b. Takafaga [**ika**] tūmau nī [a ia]
hunt fish always EMPH ABS he
'He is fish-hunting.'

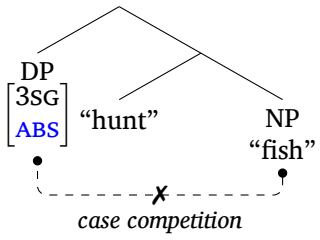
In Massam's (2001) analysis, a Nieuan object undergoes PNI when it is "deficient" and, thus, unable to check off an ABS case feature. In Dependent Case terms, this proposal can be translated as the PNI-ed object not being visible to the case assignment algorithm (12). Furthermore, I follow Levin (2015) in assuming that PNI occurs as a Last Resort strategy to license a nominal that cannot otherwise be assigned case. In (60b), the PNI-ed object ends up adjacent to the verb so that it can be licensed in the absence of case, disrupting the VSO order that is otherwise characteristic of Niuean.

The contrast between (60a) and (60b) under this analysis can be schematized as in (61–62), where, for concreteness, 'NP' denotes a nominal that is case-deficient and, hence, must be licensed by some means other than case assignment.

(61) *Both arguments are DPs* (e.g. (60a))



(62) *Pseudo Noun Incorporation* (e.g. (60b))



While Circassian RECP binding and Niuean PNI are altogether unrelated phenomena, (59) and (60) are similar in that, in both, a correlation holds between the "special status" of the object and the fact that the transitive subject is no longer marked with the expected ERG case, but, rather, with ABS case. Given this similarity, I propose that the RECP pronoun in Circassian is also case-deficient (55a), i.e. it is not visible to the case assignment algorithm (12). Furthermore, I assume that languages differ in the strategy employed

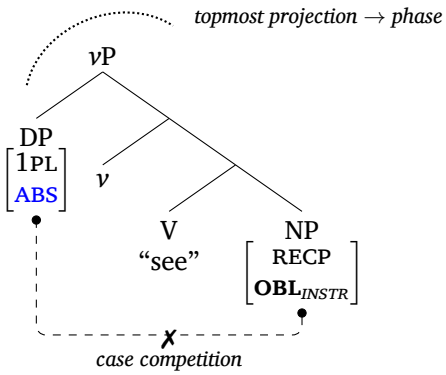
to license a nominal that cannot be assigned case by the usual means available to a given language. For instance, while Niuean employs predicate-adjacency to license a PNI-ed object, in a language like English, a preposition may be inserted as a Last Resort strategy to assign case to a DP. Under this view, in (63b), the occurrence of the "dummy" preposition *of* would be triggered because a noun cannot assign accusative case to its object, unlike its verbal counterpart (63a).

(63) a. They constructed (*of) the city.
b. construction *(of) the city

For Circassian, I propose that the language-specific strategy to license the case-deficient RECP pronoun is the occurrence of an instrumental (henceforth: *INSTR*) ApplP, the head of which is able to assign **OBL** case (55b).

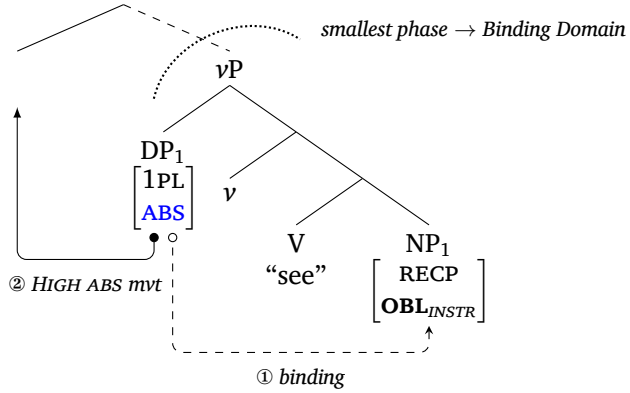
Focusing on case assignment, a RECP sentence in Circassian is, thus, derived as in (64), which represents sentence (59a)—a full derivation is laid out in §4.2. In (64), the antecedent "we" and the RECP are generated as the external and internal arguments of the verb "see," respectively. As soon as the *v*P phase is assembled, the case assignment algorithm (12) applies. Given the proposal that the RECP is "case-deficient" (55a), it cannot be a case competitor for the subject, its antecedent. As a result the latter cannot be assigned the expected dependent ERG (cf. the calculus of a standard ERG/ABS frame in (13)). By the case assignment rules (12), the RECP's antecedent is assigned unmarked ABS instead.

(64)



The smallest phase *v*P is not only the domain of case assignment, it is also the minimal structure where binding is computed (54). The ABS subject binds the RECP, following standard assumptions about binding. Even if we assume that a HIGH ABS analysis is correct for syntactic ergativity in Circassian, it takes place independently of binding (65). In fact, keeping a bottom-up derivation, if HIGH ABS displacement targets a position above the *v*P (Ershova, 2019), then this movement has to take place after the RECP has already been bound.

(65)



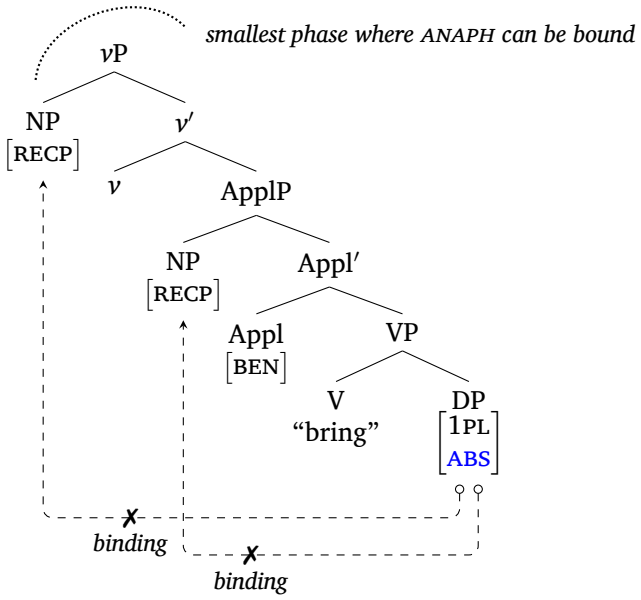
In this section, based on the empirical similarity between the case properties of Circassian RECP sentences and Niuean PNI, I proposed that the morphosyntax of the latter is the byproduct of the case deficiency of the RECP pronoun in Circassian—the unexpected ABS case that the RECP's antecedent is marked with is the byproduct of such deficiency. Importantly, once the "exceptionality" of the Circassian RECP pronoun is taken into account, no further assumptions are necessary: both case assignment and binding follow standard rules, and, crucially, no movement is necessary for the RECP to be bound.

4.1.1 Double binding

At this juncture, we have the ingredients necessary to compare how the present analysis' account of double binding, and that implied by a HIGH ABS theory. As discussed in §3.2.2, the latter predicts that HIGH ABS movement should be able to bind any number of anaphors on its path. This prediction is not borne out by facts, as indicated by (51).

Under the analysis advocated for here, (51) corresponds to the structure in (66). The ABS DP is interpreted as a theme, so it is base-generated at the direct object position of "bring." One of the RECP-s in (51) is interpreted as an indirect object marked with benefactive morphology, so it is represented as an argument of a corresponding ApplP. Finally, the remaining RECP can only be generated at the external argument position. Following the assumptions laid out in §4.1, the *v*P thus projected is the Binding Domain where the RECP's should be bound. The only possible antecedent in this domain would be the ABS theme. Given this configuration, (51) is straightforwardly ruled out due to a Condition A violation.

(66)



Even if we maintain a HIGH ABS analysis for syntactic ergativity in Circassian, argued for on independent grounds in Ershova (2021) for Adyghe, under the assumptions made here, binding would take place before this movement. This is the claim already made in Brodkin & Royer (To Appear): by assuming that binding takes place early in the derivation, we can account for the ungrammaticality of configurations such as (51), while also maintaining a HIGH ABS theory of syntactic ergativity.

Alternatively, one could argue that (51) is independently ruled out on morphological grounds. As discussed in the appendix, previous analyses take *re* to be an unanalyzable part of the RECP prefix, which would have two allomorphs, *zere–* and *ze–*. (51) could, then, be ill-formed due to the mis-selection of the RECP allomorph. This alternative analysis cannot be maintained either. (68) is another three-argument configuration, just as (51), with an ABS theme and RECP's occupying the remaining higher argument positions. In (68), all logically possible combinations of *ze–* and *re–* are attempted. Since all possibilities are uniformly ungrammatical, their ill-formedness cannot be the result of some morphological constraint.

(67) [$_{\&P}$ dwelet-re nafset-re] … (*Adyghe*)
Dolet-COORD Nafset-COORD

(68) a. * … Ø-ze-ze-ʁe-ʎeʁʷə-ʁe-x
3PL.ABS-RECP-RECP-CAUS-see-PST-3PL.ABS

b. * … Ø-ze-**re**-ze-ʁe-ʎeʁʷə-ʁe-x
3PL.ABS-RECP-INSTR-RECP-CAUS-see-PST-3PL.ABS

c. * … Ø-ze-ze-**re**-ʁe-ʎeʁʷə-ʁe-x
3PL.ABS-RECP-see-PST-3PL.ABS

d. * … Ø-ze-**re**-ze-**re**-ʁe-ʎeʁʷə-ʁe-x
3PL.ABS-RECP-INSTR-RECP-INSTR-CAUS-see-PST-3PL.ABS

Intended: 'Dolet and Nafset made each other see each other.' (*Literally*: 'Each other made each other see Dolet and Nafset.')

The ungrammaticality of all sentences in (68) is correctly predicted by the analysis proposed here: all sentences in (68) are exponents of the underlying structure in (66), which runs afoul of Condition A.

The next section offers the full derivation of a Circassian RECP sentence. In the subsequent sections, further details and predictions of the analysis proposed here are explored.

4.2 The derivation of reciprocal sentences

In this section, we run through the full derivation of a Circassian RECP sentence, taking into account the proposal about the RECP pronoun just made in §4.1, as well as the analysis put forth in §2 regarding the case and agreement system of these languages.

I take for granted for now that the Circassian RECP is assigned **OBL** case by an *INSTR* Appl head inserted by Last Resort, deferring the support for this claim to §4.3. According to the analysis proposed here, inasmuch as the workings of the Circassian *INSTR* ApplP plays a critical role in the derivation of RECP sentences, we start with the derivation of the non-RECP sentence (69), which illustrates the general usage of the *INSTR* applicative *re–* in Adyghe. It assigns **OBL** to the applied argument "hoe" obligatorily. Furthermore, the applied argument is crossreferenced by a matching *φ*-prefix on the verb, preceded by the *INSTR* prefix itself.

(69) ç̣ale-m **šʷəʔanə**-*(**m**) xatə-r Ø-**je**-r-ə-pç̣a-ʁ
boy-ERG hoe-*(OBL) orchard-ABS 3SG.ABS-3SG.OBL-INSTR-3SG.ERG-weed-PST
(*Adyghe*: Caponigro & Polinsky 2011: (23))

'The young man was weeding the orchard with a hoe.'

I propose the structure in (70) for a sentence like (69). Following Caponigro & Polinsky (2011: p. 79f), I assume that the *INSTR* prefix *re–* is the head of an ApplP located between *v*P and VP, and that it assigns **OBL** to the applied DP in its Spec position.[9] In consonance with the case and agreement system laid out in §2, I assume an AgrP and an HP dominating the *v*P thus formed. Agr Agrees with the ERG subject and H triggers the head movement of the complex head Agr+V. *v*, furthermore, triggers the clitic doubling of all

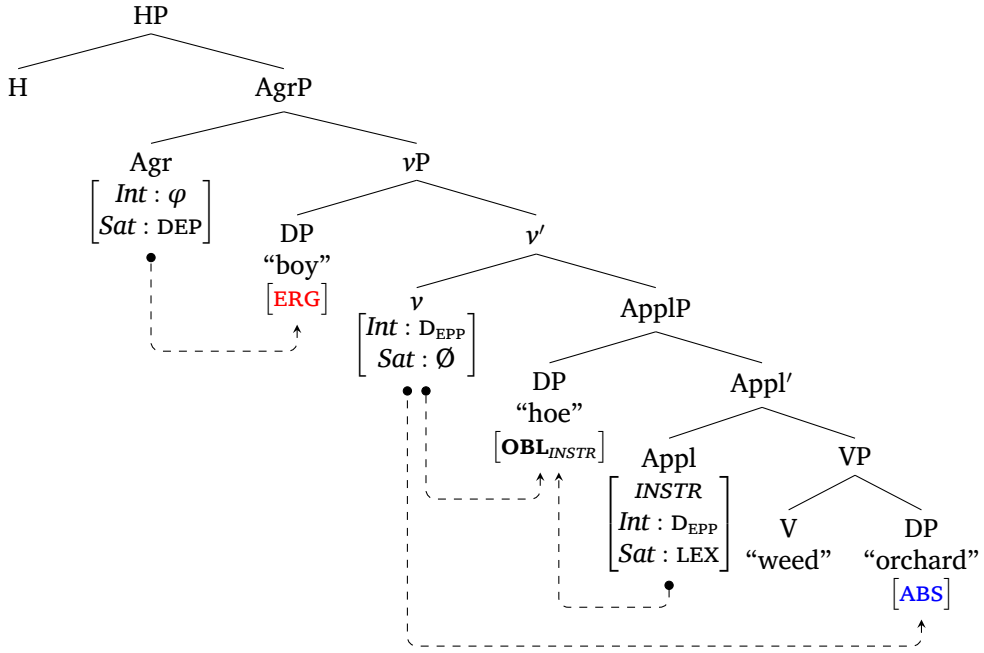
[9] Indication that the **OBL** case that the applied DP in is marked with in (69) is an instance of lexical case and not of dependent case (see §2) is provided by the fact that intransitives can be applicativized, as we can see in (i), where the *INSTR* phrase "forest" retains **OBL** case.

(i) məzə-m Ø-ḳ-wecə-rə-ç̌'ə-ʁe-x (*Adyghe*: Lander & Letuchiy 2010: (11))
forest-OBL 3SG.ABS-LOC-INSTR-go-PST-3PL.ABS
'They went through the inner part of the forest.'

In the case system proposed here (see (12)), dependent **OBL** case is an "intermediate" case, requiring the presence of a case competitor, along with another, higher DP. In an intransitive construction such as (i), one of the DPs is missing, leaving us with lexical **OBL** case, which relies solely on the idiosyncratic case assignment abilities of some head.

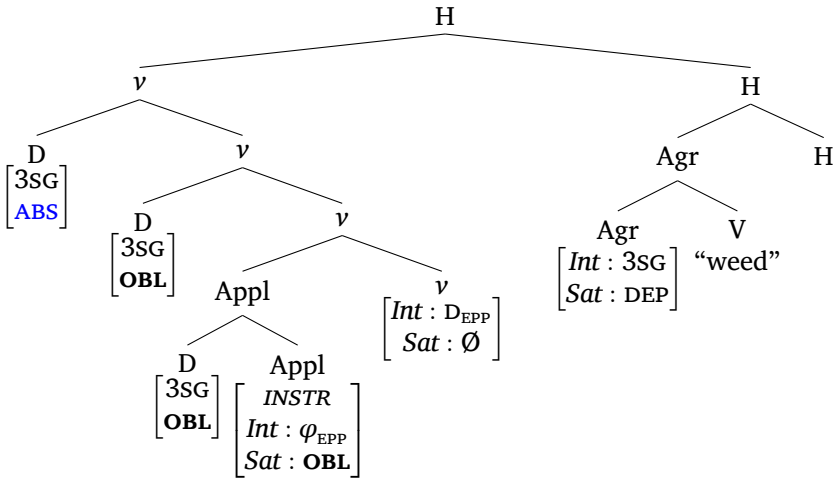
D heads in its c-command domain. Given the presence of the *INSTR* prefix in the verbal complex, I assume that Appl itself triggers the clitic doubling of its argument at Spec-ApplP.[10]

(70)



Incorporating the head movement features assumed in §2, Agr triggers the movement of the stem, and, subsequently, H triggers the movement of the complex head Agr+V. Prior to this, because the Appl head itself, by assumption, bears its own "clitic doubling feature" (viz. $[D_{epp}]$, it Agrees with, and clitic-doubles its own applied argument—Agree between them is ensured by Appl's Satisfaction condition. Subsequently, when *v* probes its c-command domain, it finds the applied argument's D cliticized to Appl. Assuming that excorporation is prohibited, *v* triggers the movement of the complex head $[_{\text{Appl}}\ \text{Appl} + D_{INSTR}]$. (71) is a simplified structure of the resulting complex head H. (For simplicity, feature sets that correspond to a null exponent (30) were omitted.)

(71)



The rule (72), which deletes a clitic out of pair of D heads with identical features, along with the Vocabulary Items in (73) accounts for the morpheme order we observe in the verbal complex in (69).

[10] In (70), we can assume that Appl searches it c-command domain first. Subsequently, given the absence of a DP that complies with its Satisfaction condition (viz. a DP goal that has been assigned lexical case), it probes "upwards," in a cyclic manner (Béjar & Rezac, 2009). Appl then Agrees with its own applied argument, halting the search.

(72) $\begin{bmatrix}\text{D}\\ \alpha\end{bmatrix}\begin{bmatrix}\text{D}\\ \beta\end{bmatrix} \Rightarrow \begin{bmatrix}\text{D}\\ \alpha\end{bmatrix}$, if $\alpha = \beta$

(73) a. $\begin{bmatrix}\text{3SG}\\ \text{ABS}\end{bmatrix} \rightarrow$ /Ø/

b. $\begin{bmatrix}\text{3SG}\end{bmatrix} \rightarrow$ /je–/

c. $\begin{bmatrix}\textit{INSTR}\end{bmatrix} \rightarrow$ /re–/

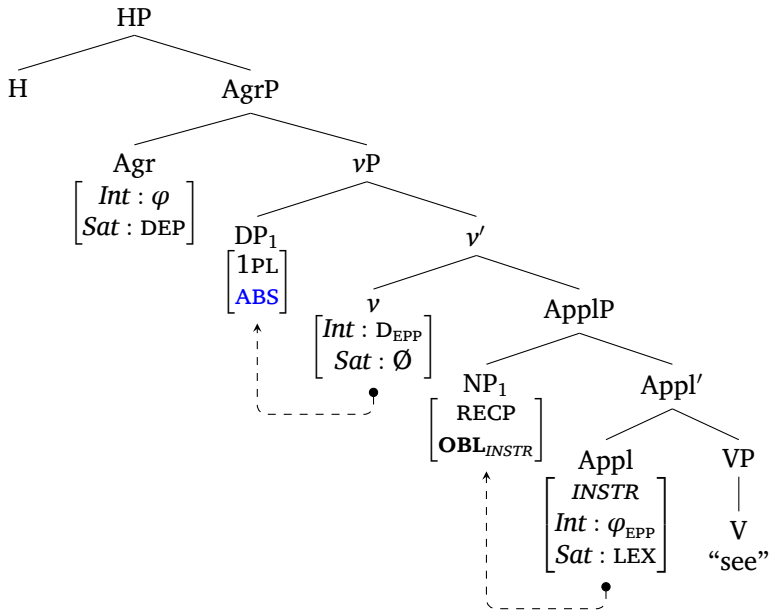
We can now turn to the derivation of a RECP sentence such as (74), repeated from (31).

(74) de dəʁʷase də-ze-rə-ɬeʁʷ-a-š' (*Kabardian*)
1PL yesterday 1PL.ABS-RECP-INSTR-see-PST-IND
'We saw each other yesterday.'

The Last Resort assignment of **OBL** case to the Circassian RECP pronoun is modeled in terms of the optional occurrence in the Numeration.[11] of the *INSTR* Appl that assigns such case Independent principles regulate whether or not the resulting derivation converges. If the *INSTR* Appl is not present in the Numeration, the derivation of a RECP sentence in Circassian yields an ungrammatical result—as we are going to see in §4.3.2 (see esp. (86b)), the *INSTR* Appl is obligatory in RECP sentences. Specifically, the derivation crashes due to a violation of the Case Filter (56). To the contrary, if the *INSTR* Appl does occur in the Numeration, the derivation converges, inasmuch as the RECP pronoun can be assigned case (viz. **OBL**), in compliance with the Case Filter.

(75) represents the derivation where the Numeration does contain an *INSTR* Appl, so that the RECP pronoun can be licensed with **OBL** case. Case assignment takes place as depicted in (64), with the antecedent being assigned unmarked ABS due to the absence of a viable case competitor. The *INSTR* Appl is a probe that Agrees with its own argument, in this case the RECP. *v*, in turn, is an insatiable probe that Agrees with the ABS antecedent. Since *v* is specifically searching with a goal that bears a [D] feature, a feature that the deficient RECP lacks (55a), *v* does not Agree with RECP. Agr is also a probe. However, due to the absence of a DP bearing dependent case in (75), it does not Agree with any goal—assuming that Agree is a fallible operation (Preminger, 2014), the fact that Agr does not find an appropriate goal to Interact with does not yield an ungrammatical result.

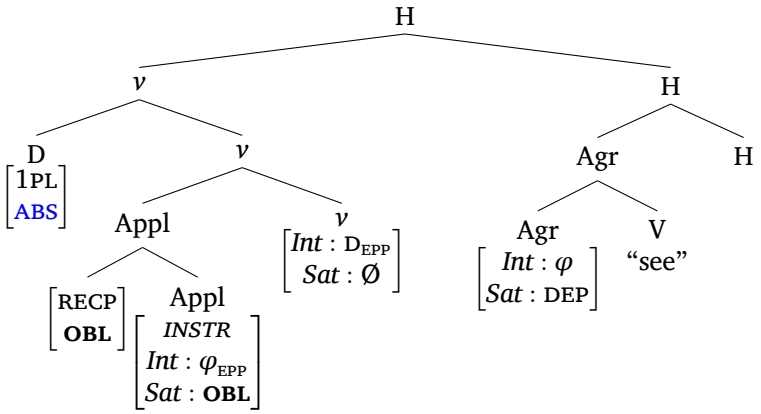
(75)



[11] "Let us take a numeration to be a set of pairs (LI, *i*), where LI is an item of the lexicon and *i* is its index, understood to be the number of times that LI is selected. Take A [i.e. some array of lexical choices] to be (at least) a numeration N; C_{HL} [i.e. the computational system for human language] maps N to (π,λ). The procedure C_{HL} selects an item from N and reduces its index by 1, then performing permissible computations. A computation constructed by C_{HL} does not count as a derivation at all, let alone a convergent one, unless all indices are reduced to zero" (Chomsky, 1995: p. 207).

The result of the application of the different instances of head movement proposed in §2 is as follows:

(76)



The relevant exponents for (76) are listed in (77–78).

(77) a. $\begin{bmatrix}\text{1PL}\\ \text{ABS}\end{bmatrix} \Rightarrow$ /də–/

b. $\begin{bmatrix}\textit{Int} : \varphi\\ \textit{Sat} : \text{DEP}\end{bmatrix} \Rightarrow$ /Ø/

c. $[\textit{INSTR}] \Rightarrow$ /rə–/

(78) a. $[\text{RECP}] \Rightarrow$ /Ø/ (when adjacent to [+V])

b. $[\text{RECP}] \Rightarrow$ /ze–/

(77b) is the exponent of an Agr probe that does not Agree with any goal. I assume that the RECP pronoun is null (78a), *ze–* (78b) being the exponent of the feature [RECP] in the verbal complex—a similar assumption has already been made by Ershova (2019).

The analysis proposed here, thus, accounts for the morphosyntax of RECP sentences such as (74). In what follows, we turn to the empirical motivation that supports the claim that *rə–* in (74) is the exponent of an *INSTR* applicative head inserted in the derivation as a Last Resort strategy to case-license the Circassian RECP.

4.3 Last Resort instrumental applicative

Left unmentioned thus far is the language-specific strategy to license the RECP, viz. the Last Resort assignment of **OBL** case by an *INSTR* applicative head. In the derivation sketched in (64), while the RECP cannot be a case competitor, it is still assigned **OBL** case by the *INSTR* applicative in order to be licensed (55b). *INSTR* assignment in this derivation can be analogized to the verb-adjacency that licenses a PNI-ed object in Niuean, or the insertion of *of* in English complements to nouns.

In this section, empirical support is provided from multiple fronts that this proposal is on the right track. First, we show that the occurrence of Last Resort applicative phrases is generally available in Circassian. Second, a comparison between reflexive and RECP sentences in Adyghe indicate that the *INSTR* prefix *re–* is prohibited in the former, but obligatory in the latter. Furthermore, reflexive sentences also display the expected morphosyntax, in that the reflexive's antecedent is crossreferenced by an ERG prefix, and not by an ABS prefix, contrasting with its RECP counterpart. I show that this correlation is not accidental. Rather, it is the result of the RECP pronoun being "deficient" in the sense stated in §4.1. By extension, the equivalent reflexive pronoun, must not be deficient in this way, so that it can both be a case competitor for its antecedent, while also eschewing Last Resort **OBL**$_{INSTR}$. Finally, we show that the obligatoriness of the *INSTR* prefix *re–* in RECP sentences should be relativized to a particular configuration: **OBL**$_{INSTR}$ is prohibited whenever there is an independent source of case for the RECP, viz. whenever the RECP is subcategorized by a verb that is able to assign lexical case to its internal argument. Once again, this distribution is shown to be predictable from the analysis proposed: lexical case is standardly assumed to be assigned along with a θ-role. In the case assignment system laid out in §2, the case algorithm (12) only applies at the phase level,

after θ-role and, thus, after lexical case assignment. As soon as the RECP is assigned lexical case, **OBL**$_{INSTR}$ assignment, being a Last Resort licensing strategy, becomes superfluous and, therefore, prohibited.

4.3.1 ApplP insertion as a Last Resort licensing strategy

As briefly alluded to in §4.1, the proposals made in (55) are consistent with the idiosyncrasies exhibited by nominals *across* languages: certain nominals are "deficient" in some way and also trigger the employment of additional, language-specific licensing mechanisms. Likewise, the particular strategy employed in the licensing of the Circassian RECP pronoun, viz. the assignment of **OBL**$_{INSTR}$ case, is also consistent with licensing strategies found *within* these languages.

At least in Adyghe, applicatives may occur in relative clauses where the head of the relative is an implicit argument (79a). Importantly, outside of a relative clause, the implicit argument cannot occur with the same applicative (79b).[12]

(79) a. ***pro*** [$_{RC}$ sə-zə-**de**-kʷa-ʁe-r] (*Adyghe*: Lander 2009: (16))
LOC 1SG.ABS-REL.OBL-LOC-go-PST-ABS
'the place where I went'

b. *pro* ***pro*** sə-(*Ø-**de**)-kʷa-ʁ
1SG LOC 1SG.ABS-(*3SG.OBL-LOC-)-go-PST
'I went (there).'

A similar pair is found in (80), where the applicative is a benefactive:

(80) a. pŝaŝ-ew [$_{RC}$ sə-z-e-pλ-ze sə-z-**fə**-λepewa-ʁe-r]
girl-PRED 1SG.ABS-REL.OBL-OPV-look-CVB 1SG.ABS-REL.OBL-BEN-stumble-PS-ABS
(*Adyghe*: Lander 2009: (23–22))
'the girl such that while looking at her I stumbled (*lit.* for her)'

b. pŝaŝe-m s-Ø-je-pλ-ze sə(*-Ø-**fə**-)λepewa-ʁ
girl-OBL 1SG.ABS-3SG.OBL-OPV-look-CVB 1SG.ABS(*3SG.OBL-BEN-)stumble-PST
'While looking at the girl, I stumbled.'

Lander (2009) suggests that the occurrence of the applicative in (79–80) is justified by the need to license an argument in the relative clause. Outside of relatives, the argument is licensed by other means, thereby dispensing with the need for the applicative. Under Minimalist terms, the distribution of these applicatives can be said to be regulated by Last Resort: they can be resorted to, but only if a more general means of nominal licensing becomes unavailable.

I contend that the occurrence of an *INSTR* applicative that assigns **OBL** case to the RECP pronoun in Circassian obeys the same economy restriction. A prediction that this Last Resort-based analysis makes is that, if there is some other source of licensing available, **OBL**$_{INSTR}$ case becomes unnecessary and is, thus, prohibited, just as in (79b–80b). We will see in §4.3.2 that this pattern is consistent with the behavior of reflexive pronouns in Adyghe. Unlike its RECP counterpart, a reflexive pronoun must be an apt case competitor, since its antecedent is assigned dependent ERG (85b). This implies that the reflexive is visible to the case assignment algorithm (12). As such, it can be assigned case and, thus licensed, by the mechanical workings of (12). Hence, the assignment of *INSTR* is superfluous and, being a Last Resort licensing strategy, it is prohibited (86a).

This prediction is also borne out by the distribution of *INSTR* in configurations where lexical case is available. As we saw in (15–16b), certain predicates in Circassian are endowed with the ability to assign lexical case to their objects—their subjects, as a consequence, end up with ABS (17). Since lexical case is

[12] There is no independent ban against the combination between a null agreement prefix and an applicative prefix:

(i) a. se Ali-jəm sə-Ø-**fə**-laʒə
1SG Ali-OBL 1SG.ABS-3SG-BEN-study
'I study for Ali.' (Driemel *et al.*, 2020a: (13c))

b. se-Ø-**š'ə**-gʷəʁʷe-ž'ə
1SG.ABS-3SG-LOC-rely-RE
'I rely on him.' (Letuchiy, 2007: (25a))

assigned idiosyncratically by a verb to its argument along with a θ-role, if the object of that verb is a RECP, it will be assigned lexical case. Assuming that lexical case suffices to license a nominal in Circassian, Last Resort *INSTR* should be dispensed with. This prediction is corroborated by facts. Adyghe 'think' (15) and Kabardian "speak" (16a) are verbs with an ABS/**OBL** frame. (81–82) show that, only in the absence of the *INSTR* prefix that indicates the assignment of **OBL**$_{INSTR}$ case to RECP, is a sentence grammatical.[13]

(81) a. [$_{\&P}$ dwelet-re nafset-re] ***pro***$_{\text{RECP}}$ Ø-**ze**-g^{w}əpšəsə-ž'ə zepətəx (*Adyghe*)
Dolet-COORD Nafset-COORD RECP.OBL 3PL.ABS-RECP-think-RE all.the.time
'Dolet and Nafset think about each other all the time.'

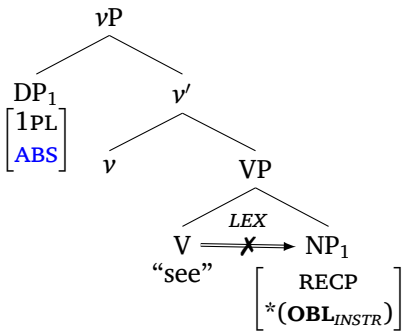
b. * [$_{\&P}$ dwelet-re nafset-re] *pro*$_{\text{RECP}}$ ze-re-g^{w}əpšəsə-ž'ə
Dolet-COORD Nafset-COORD RECP.INSTR RECP-INSTR-think-RE
Intended: 'Dolet and Nafset think about each other.'

(82) a. [$_{\&P}$ marjəje-re pjetjer-re] ***pro***$_{\text{RECP}}$ Ø-**ze**-psaλ-a-xe-š' (*Kabardian*)
Maria-COORD Peter-COORD RECP.OBL 3PL.ABS-RECP-speak-PST-3PL.ABS-IND
'Maria and Peter spoke to each other.'

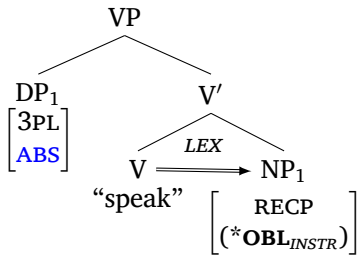
b. * *pro* *pro*$_{\text{RECP}}$ Ø-ze-ra-p-seλ-a-xe-š'
3PL.ABS RECP.INSTR 3PL.ABS-RECP-INSTR-speak-PST-3PL.ABS-IND
Intended: 'They spoke to each other.'

In sum, *INSTR* assignment to the RECP is obligatory when there is no independent licensing mechanism available to a RECP (83), but prohibited otherwise (84):

(83) *No LEX case: INSTR obligatory* (e.g. (86b))



(84) *Yes LEX case: INSTR prohibited* (e.g. (81–82))



In what follows, we will see that this correlation persists in different environments. In other words, the next two sections provide converging support to the proposal that the RECP pronoun must be licensed and that the assignment of **OBL**$_{INSTR}$ is a Last Resort operation.

4.3.2 Reflexive vs. reciprocal pronouns in Circassian

Suggestion that the derivation of RECP sentences in Circassian involve some additional requirement is further provided by the contrast between RECP and reflexive sentences in these languages. (For a detailed analysis of reflexive binding in Adyghe, see Ershova (2019, 2023).) The Adyghe reflexive sentence (85b) has the same morphosyntax as the baseline (85a), at least regarding the fact that the antecedent "we" is crossreferenced by an ERG prefix. In RECP sentences (85c), however, as mentioned above, the antecedent is crossreferenced by an ABS prefix. Additionally, the relative position of the reflexive and RECP prefixes

[13] Recall that lexical case assignment can also be "intermediated" by a predicate-specific ApplP. Adyghe "worry" (18) falls under this pattern. Regardless, *INSTR* is still prohibited:

(i) te ǯ'ənes tə-ze-(*re-)fe-g^{w}əmeč'-əž'ə (*Adyghe*)
1PL still 1PL.ABS-RECP-(*INSTR-)BEN-worry-PRES
'We are still worried about each other.'

in verbal affixes is also distinct: the reflexive prefix is the outermost one in (85b), which is not the case for its RECP counterpart in (85c).

(85) a. wə-tə-wəʔa-ʁ (*Adyghe*: Arkadiev & Letuchy 2011: (18a–c))
2SG.ABS-1PL.ERG-wound-PST
'We wounded you.'

b. zə-tə-wəʔa-ʁ
REFL-1PL.ERG-wound-PST
'We wounded ourselves.'

c. tə-ze-re-wəʔa-ʁ
1PL.ABS-RECP-INSTR-wound-PST
'We wounded each other.'

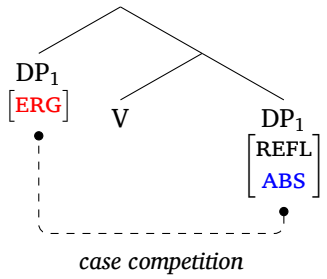
Reflexive and RECP sentences differ with respect to the occurrence of the *INSTR* prefix *re–*. In fact, the presence of the *INSTR re–* is obligatory in RECP sentences (86b), while it is prohibited in their reflexive counterpart (86a):

(86) a. * te ***pro***$_{\text{REFL}}$ tə-zə-re-λeʁʷə-ʁ (*Adyghe*)
1PL.ABS REFL.INSTR 1PL.ABS-REFL-INSTR-see-PST
Intended: 'We saw ourselves.' (cf. (85b))

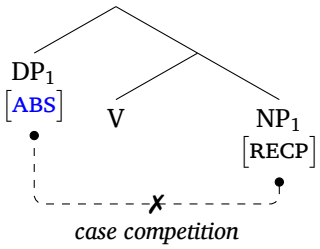
b. te ***pro***$_{\text{RECP}}$ tə-qe-ze-*(re-)λeʁʷə-ʁ
1PL.ABS RECP.INSTR 1PL.ABS-DIR-RECP-*(INSTR-)see-PST
'We saw each other.'

Expanding on the analogy between the morphosyntax of PNI in Niuean (60) and the morphosyntax of of RECP and, now, reflexive binding in Circassian, the asymmetry between reflexive (85b) and RECP (85c) binding sentences can be construed as follows. The reflexive pronoun is a full DP that is visible to the case assignment algorithm (12) and is, thus, able to feed dependent ERG case to its antecedent (87), just as a non-PNI-ed object in Niuean. In contrast, as we saw above, the RECP is case-deficient, hence why its antecedent is assigned unmarked ABS (88), just as in PNI sentences.

(87) *Reflexive sentence* (cf. (61))



(88) *Reciprocal sentence* (cf. (62))



According to the analysis proposed here, the difference between (86b) and (86a) is straightforward: **OBL**$_{INSTR}$ case is obligatorily assigned to the RECP because it cannot be licensed otherwise. In contrast, a reflexive is not deficient, so not only can it be a case competitor for its antecedent, it also dispenses with any additional case assignment strategy—it is assigned case via the ordinary workings of the case assignment algorithm (12).

In the next section, we will see that the correlation between the distribution of the *INSTR* prefix *re–* and the case assignment properties of the sentence where a RECP pronoun occurs is reproduced, *mutatis mutandis*, in ditransitive constructions.

4.3.3 Ditransitives

Converging evidence that the assignment of **OBL**$_{INSTR}$ case is a Last Resort operation is provided by ditransitive sentences. In such constructions, we see the same correlation between the distribution of Last Resort

INSTR and the availability of lexical case that was investigated in the causative constructions above.

In the Adyghe example (89a), the goal argument of the ditransitive predicate is marked with **OBL** case, as we can infer from the *φ*-prefix that crossreferences this argument. By assumption, **OBL** case is assigned idiosyncratically by 'give.' In (89b), the goal that takes up this lexical case is a RECP. Given the availability of an independent case source, Last Resort *INSTR* is dispensed with, hence the absence of the prefix *re–*.

(89) a. (…) *pro* ***pro*** konfet Ø-qə-**ŝ^{w}**-a-tə-š'-ep
3PL.ERG 2PL.OBL sweets 3PL.ABS-DIR-2PL.OBL-3PL.ERG-give-IRR-NEG
(*Adyghe*: Vydrin 2008: (19))

'(…) They will not give you the sweets.'

b. te ***pro***$_{\text{RECP}}$ ŝ^{w}əhaftən-xe-r Ø-**ze**-t-e-tə-ž'ə (Letuchiy, 2013: (20))
1PL RECP gift-PL-ABS 3PL.ABS-RECP.OBL-1PL.ERG-DYN-give-RE
'We gave presents to each other.'

In contrast, in the Kabardian sentence (90b), the RECP is interpreted as the theme of 'give.' The theme of a ditransitive predicate is marked with ABS, as we can see in both (89a) and (90a). There is, thus, no lexical case assigned to the RECP in (90b)—rather, it is the goal *a:-bə* 'him' which is assigned lexical **OBL** case. In this configuration, Last Resort *INSTR* is predicted to be called for. This prediction is borne out by the facts, as the prefix *rə–* does occur in adjacency with the RECP *za–* in (90b).

(90) a. *pro* ***pro*** *pro* Ø-**fa**-s-t-a:-s'
1SG.ERG 2PL.OBL 3SG.ABS 3SG.ABS-2PL.OBL-1SG.ERG-give-PST-IND
(*Kabardian*: Kazenin 2007: (11), (36b))

'I gave this to you.'

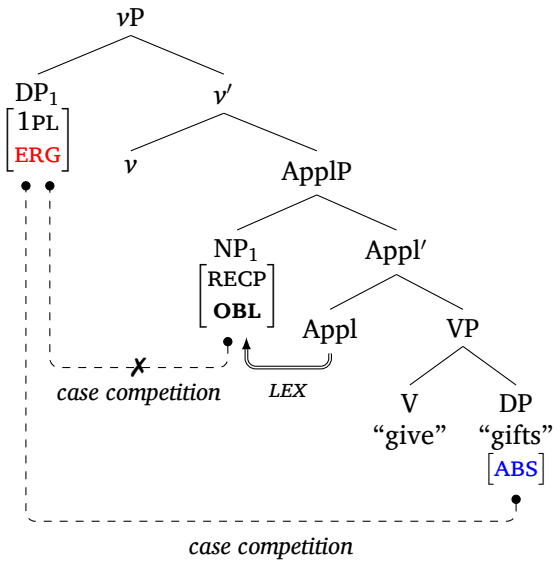
b. a:-ǎa-r **a:-bə** *pro*$_{\text{RECP}}$ Ø-**jə**-za-rə-t-a:-s'
3-PL-ABS 3-OBL RECP 3PL.ABS-3SG.OBL-RECP-INSTR-give-PST-IND
'They gave each other to him.'

The contrast between (90b), where **OBL**$_{INSTR}$ case does not occur, and (89b), where it does, is fully expected from the analysis proposed here: **OBL**$_{INSTR}$ case, being a Last Resort option, only appears when there is no independent source of case for the RECP. This is the situation when the RECP is the theme (90b), but not when it is a goal (89b).

Remarkably, the subject of "give" in (90b) is not marked with ERG, as we see in all other examples, viz. (89a–89b) and, importantly, in (90a), another RECP example—rather, it is marked with ABS case. The correlation between the case that RECP is assigned and the case that the subject is assigned is also fully predictable by the analysis proposed in this paper.

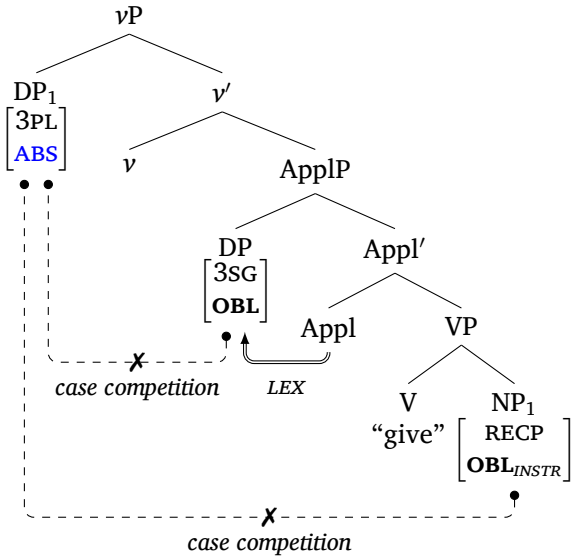
Following Ershova (2019), I assume that ditransitives in Circassian project an ApplP between the *v*P and VP layers and where the goal argument is generated. Additionally, I assume that it is Appl which assigns lexical **OBL** case to the goal. (89b) and (90b) are diagrammed in (91) and (92), respectively. In (91), where the RECP is the goal argument at Spec-ApplP, Last Resort **OBL**$_{INSTR}$ case assignment is not triggered because the RECP is assigned lexical **OBL** case by Appl. The subject is assigned ERG because the theme is available as a case competitor for it—the latter feeds the assignment of dependent ERG case to the former prior to being assigned unmarked ABS case.

(91)



However, in (92), the RECP is in the theme position. Last Resort *INSTR* is called for in this configuration, since the lexical **OBL** case assigned by the ditransitive predicate is now taken up by “him.” Because both objects are assigned some case, the subject does not c-command any case-less DP and, hence, can only end up with unmarked ABS case.

(92)



In sum, the presence of the *INSTR* applicative prefix and the availability of lexical oblique case are mutually exclusive in Circassian RECP sentences. This can be demonstrated by ditransitive constructions, if we swap the RECP around—it is only assigned Last Resort **OBL** case by an *INSTR* Appl if it is not assigned the **OBL** case that is inherent to two-place predicates. We will see in the next section (§4.4) that the contrast between (89b) and (90b) is reproduced in sentences where a verb that is able to assign lexical case to its object is causativized.

4.4 The case of the reciprocal’s antecedent

Having substantiated the claim that the Circassian RECP is assigned Last Resort **OBL**$_{INSTR}$, we now turn to the case that its antecedent is marked with. Recall from §3 that existing analyses focus on the fact that the RECP’s antecedent is often marked with ABS case. However, the analysis proposed here predicts that,

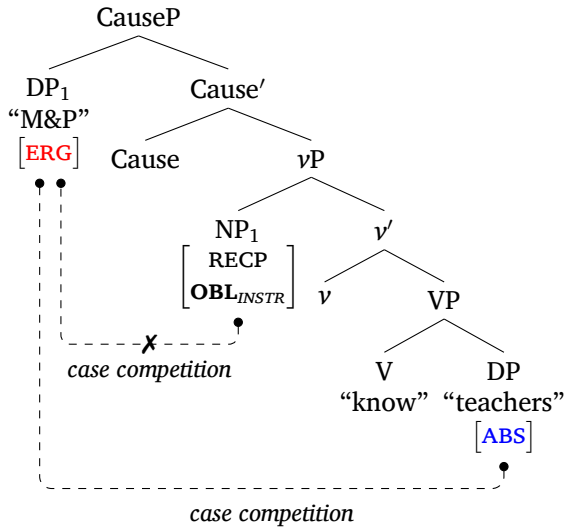
if a case competitor is provided to the RECP's antecedent, it can be assigned dependent ERG case. Due to the presence of a proper case competitor, the RECP's inability to act as one is moot. This is exactly what happens in the causative sentences (45) and (46), the latter of which are repeated (and modified) below.

(93) a. [&P marjəje-re pjetjer-re] ***pro***$_{\text{RECP}}$ jeʁeʒ'aḳʷəe-xe-r
Maria-COORD Peter-COORD RECP.INSTR teacher-PL-ABS
Ø-zə-r-a-ʁe-ɕə-xw-a-š' (*Kabardian*)
3PL.ABS-RECP-INSTR-3PL.ERG-CAUS-know-3PL.ABS-PST-IND
'Maria and Peter made each other know the teachers.'

b. sjə ade ane-m ***pro***$_{\text{RECP}}$ *pro*
1SG.POSS mother father-ERG RECP.INSTR 2SG.ABS
wə-z-r-a-ʁe-λeʁʷ-a-š'
2SG.ABS-RECP-INSTR-3PL.ERG-CAUS-see-PST-IND
'My parents made each other see you.'

A sentence like (93a) is derived as follows. The RECP is the causee. It cannot be a case competitor for the causer, its antecedent, just as in the simplex transitive depicted in (64). However, unlike what happens in the latter, the RECP's antecedent in (93a) does not end up with unmarked ABS because there is a *third* nominal in this sentence, viz. the underlying theme. The latter can act as a case competitor for the RECP's antecedent, so that it is assigned dependent ERG case.

(94)



In the present analysis, no stipulation is made regarding the case that the RECP's antecedent is assigned: it is a consequence of the mechanical workings of the case assignment rules (12). In other words, both case assignment and binding are assumed to be ateleological: whether the RECP's antecedent in particular languages (e.g. Adyghe and Kabardian) is marked with ERG or ABS case is simply a byproduct of how case assignment works (12) (specifically, whether or not a case competitor is available), combined with attested parameters of crosslinguistic variation regarding case and nominal licensing.

If the underlying arguments of a causative sentence such as (93b) swap positions, the RECP, now interpreted as a theme, is still followed by an *INSTR* prefix. More precisely, the RECP is now bound by the causee, which is marked with ABS case, while the causer surfaces with ERG case:

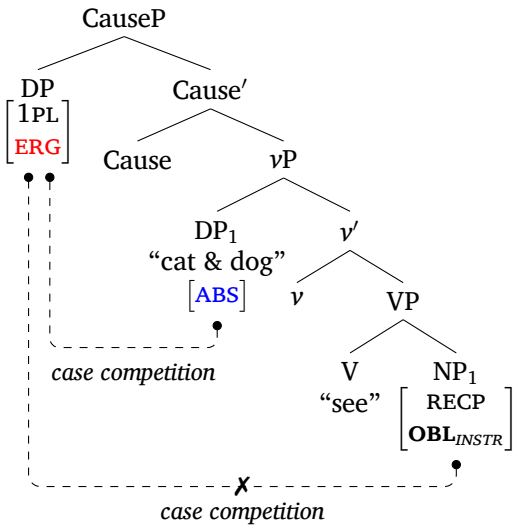
(95) *pro* [&P čətəwə-m-re ha-m-re] ***pro***$_{\text{RECP}}$
1SG.ERG cat-OBL-COORD dog-OBL-COORD RECP.INSTR
Ø-**ze**-re-z-ʁe-λeʁʷə-ʁe-x (*Adyghe*: Letuchiy 2015: (20))
3PL.ABS-RECP-INSTR-1SG.ERG-CAUS-see-PERF-3PL.ABS
'I made the cat and the dog see each other.'

(96) a. wəe [&P larjəs-re mjerjəse-re] ***pro***$_{\text{RECP}}$
2SG Larise-COORD Merisa-COORD RECP.INSTR
Ø-**ze**-rə-b-ʁe-çə-xw-a-š’ (*Kabardian*)
3PL.ABS-RECP-INSTR-2SG.ERG-CAUS-know-PST-IND
‘You made Larise and Merisa know each other.’

b. [sjə ane ade]-m *pro* ***pro***$_{\text{RECP}}$
1SG.POSS mother father -ERG 1PL.ABS RECP.INSTR
də-**ze**-r-a-ʁe-ɬeʁʷ-a-š’
1PL.ABS-RECP-INSTR-3PL.ERG-CAUS-see-PST-IND
‘My parents made us see each other.’

Just as in (93b), the RECP is assigned Last Resort **OBL**$_{INSTR}$ case because, otherwise, there is no other way for the derivation to comply with the Case Filter (56). Now, the causee is the antecedent for the RECP. This c-command relationship is a necessary, though not sufficient condition for the causee to be assigned the “intermediate” dependent case, i.e. **OBL**$_{\text{DEP}}$ (12b), inasmuch as the RECP is not an apt case competitor. Nonetheless, the causee can itself be a competitor for the assignment of dependent ERG case to the causer, before it gets assigned unmarked ABS case:

(97)



A related prediction is that, if the would-be case competitor for the RECP’s antecedent is taken out of the Case Disjunctive Hierarchy, the antecedent is expected to be assigned unmarked ABS again. This prediction can be tested in causative sentences where the verb assigns lexical **OBL** case to its theme: the assignment of **OBL** to the theme renders it unable to be a case competitor for the RECP’s antecedent. The Kabardian data in (98–99) show that this prediction is borne out: “Speak” (98) and “worry” (99) are predicates that are able to assign lexical case to their objects, yielding an ABS/**OBL** frame (cf. (16a) and (16b), respectively). (98a) and (99a) are causative sentences based on these verbs. Last, but not least, (98) and (99b) are variants of these sentences where the causee argument is a RECP.

(98) a. wəe *pro* **jeʁeǯ’aḳʷə-em** s-**je**-b-ʁe-pseɬ-a-š’ (*Kabardian*)
2SG 1SG.ABS teacher-OBL 1SG.ABS-3SG.OBL-2SG.ERG-speak-PST-IND
‘You made me speak to the teacher.’

b. de *pro*$_{\text{RECP}}$ **jeʁeǯ’aklwə-ex-em** də-ze-r-**je**-ʁe-pseɬ-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.’

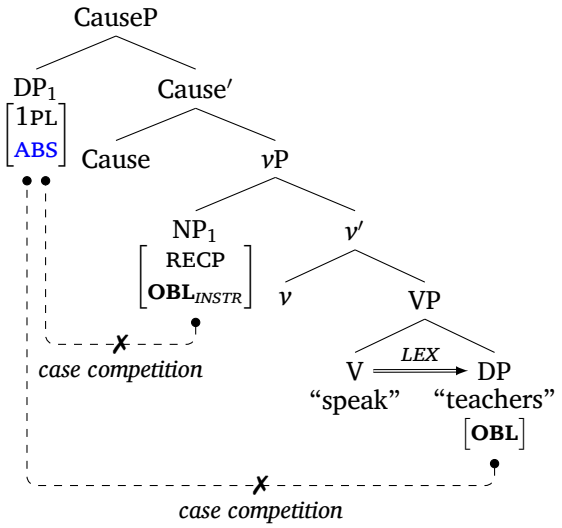
(99) a. de jeʁeǯ’aklwə-ex-em ekzamjen-əm šʼha d-a-ʁe-gʷəzaʁe (*Kabardian*)
1PL teacher-PL-ERG exam-OBL about 1PL.ABS-3PL.ERG-CAUS-worry
‘The teachers made us worry about the exam.’

b. de **ekzamjen-əm š'ha** də-ze-r-ə-ʁe-gʷəzeʁ-a-š'
1PL exam-OBL about 1PL.ABS-RECP-INSTR-3SG.OBL-CAUS-worry-PST-IND
'We made each other worry about the exam.'

Notwithstanding the similarity in the argument structure of each pair of sentences above, their case patterns is different. When neither of underlying arguments of "speak" (98a) or "worry" (99a) is a RECP, the causer is marked ERG, while the underlying arguments retain the ABS/**OBL** frame, as predicted by the Dependent Case analysis developed in §2. As we saw in (25)), the underlying theme is assigned idiosyncratic lexical case by the predicate that has been causativized. Subsequently, the underlying subject feeds dependent ERG in the causer and is, then, assigned unmarked ABS case. However, when the causee is a RECP, the causer is marked ABS case. Notably, the RECP itself is assigned *INSTR*, as we can we infer from the presence of the prefix *re–*.

According to the analysis proposed here, the fact that the RECP's antecedent surfaces with ABS case does not have anything to do with HIGH ABS movement—indeed, any case that it can be marked with is predictable from the Dependent Case system outlined in §2. It is assigned ERG whenever a case competitor is available to feed dependent ERG, as in (93) above, but assigned unmarked ABS otherwise. In (98b) and (99b), the underlying theme is not an apt case competitor for the RECP's antecedent because it is assigned lexical **OBL** case. The RECP cannot feed dependent ERG to its antecedent because it is unable to be a case competitor (55a). The antecedent is, then, left with unmarked ABS case:

(100)



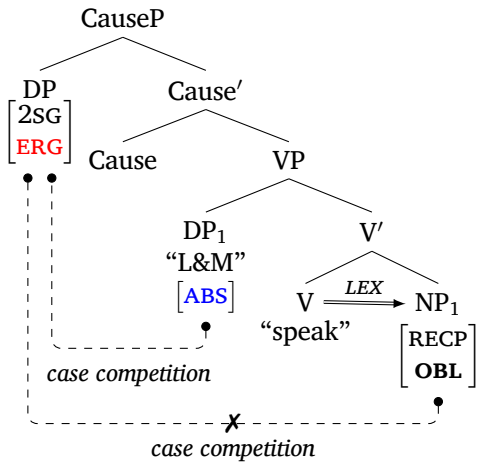
A further prediction that the analysis put forward here makes is that dependent ERG case assignment should be available in the same configuration where a verb with an ABS/**OBL** frame is causativized, as long as a DP is left without case at the point where ERG case assignment is calculated. This is possible when the RECP is not the underlying subject, as in (98b) and (99b), but, rather, the underlying theme:

(101) se [&P ǯ'wen-re merjə-re] ***pro***$_{\text{RECP}}$
1SG John-COORD Mary-COORD RECP.OBL
Ø-**ze**-fe-z-ʁe-gʷəmeč'ə-ʁe-x (*Adyghe*; cf. (23a–23b))
3PL.ABS-RECP-BEN-1SG.ERG-CAUS-worry-PST-3PL.ABS
'I made John and Mary worry about each other.'

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

In (101–102), the RECP takes up the lexical case that the causativized predicate idiosyncratically assigns to its theme. This leaves the underlying subject (i.e. the causee) free to be a case competitor for ERG case in the causer, before it is assigned unmarked ABS case. As predicted by the proposal made in §4.3, inasmuch as **OBL**$_{INSTR}$ case assignment is a Last Resort operation, because the RECP is assigned lexical case, the *INSTR* prefix *re–* does not appear in (101–102).

(103)



In this derivation, the RECP's antecedent is the causee. The ABS case it is assigned is once again fully predictable from the analysis proposed here.

The availability of lexical case to the RECP pronoun in three-argument constructions and the case that the remaining DPs are marked with are far from coincidental: the patterns that we see in the causative sentences (89b)/(90b) and (101)/(102) are reproduced, respectively, in the ditransitive sentences (90b) and (89b). In brief: if lexical case is assigned to the RECP, the subject, i.e. the highest DP across these constructions, ends up with ERG case because the intermediate DP (i.e. either the causee or the ditransitive goal) can be a case competitor for it. Conversely, if the lexical case is assigned to the lowest DP across these constructions, then only unmarked ABS case can be assigned to the highest DP, since neither the just-mentioned lowest DP nor the intermediate RECP are case competitors, the latter of which being assigned Last Resort **OBL**$_{INSTR}$ case.

4.4.1 Interim summary

The table in (104) summarizes the full range of data predicted by the analysis put forward in this paper.

(104)

			DP1	DP2	DP3	E.g.	
a.	V_{trans}	Baseline	-	ERG	ABS	(31a)	
b.		RECP theme (DP3)	-	ABS^1	*INSTR*^{1}	(31b)	
c.	Caus–ed V_{trans}	Baseline	ERG	**OBL**$_{dep}$	ABS	(20b)	
d.		RECP theme (DP3)	ERG	ABS^1	*INSTR*^{1}	(95)	
e.		RECP causee (DP2)	ERG^1	*INSTR*^{1}	ABS	(93)	
f.	V_{lex}	Baseline	-	ABS	**OBL**$_{lex}$	(23a)	
g.		RECP theme (DP3)	-	ABS^1	**OBL**$_{lex}^1$	(81)	
h.	Caus–ed V_{lex}	Baseline	ERG	ABS	**OBL**$_{lex}$	(23b)	
i.		RECP theme (DP3)	ERG	ABS^1	**OBL**$_{lex}^1$	(101)	(see also (89b))
j.		RECP causee (DP2)	ABS^1	*INSTR*^{1}	**OBL**$_{lex}$	(98)	(see also (90b))

(104a–104b) comprise the basic patterns analyzed in this paper and which much of the literature on Circassian RECP sentences focuses on. The expected ERG case is supplanted by ABS case in the RECP antecedent, which led alternative accounts to posit an intransitivization operation §3.1, or assume an underlying structure where the antecedent was base-generated lower than the RECP it binds §3.2. In the analysis proposed

here, in contrast, neither strategy is necessary: the RECP's antecedent is marked with ABS case simply because the RECP cannot feed dependent case assignment. This analysis predicts that the RECP's antecedent can be assigned ERG, so long as there is another nominal in the same clause that is an apt case competitor. This is exactly what we find in causativized sentences where the RECP is the causee bound by the causer (104d). In this configuration, the former's inability to be a case competitor for the latter is overcome by the presence of the underlying theme argument of the causativized predicate.

The current analysis makes a series of further predictions that are borne out in three-argument constructions such as causatives. To the best of my knowledge, these constructions are not addressed by other accounts. In same construction where a transitive predicate with an ERG/ABS frame is causativized, if the RECP is the underlying theme bound by the causee (104e), the analysis proposed here predicts that the antecedent should be marked with ABS case. The causee is ordinarily assigned dependent **OBL** case in causatives. However, since the nominal it c-commands is not visible to the Disjunctive Case Hierarchy, it is predicted to surface with unmarked ABS instead. This prediction is borne out by facts. Moreover, the analysis put forward here also leads to the expectation that, irrespective of whether the RECP is the causee or underlying theme, it should be assigned the **OBL** case that a Last Resort *INSTR* Appl assigns—without this strategy, the RECP would be left unlicensed.

This is not what happens when lexical case becomes available. In this scenario, the current proposal also makes explicit predictions that are shown to be empirically sound. First, when a transitive verb is idiosyncratically able to assign **OBL** case to its theme (104f), Last Resort $\textbf{OBL}_{INSTR}$ case assigned by the corresponding ApplP is predicted to be unnecessary and, thus, prohibited. This prediction is borne out by the facts (104g). When a verb with an ABS/**OBL** frame is causativized (104h), if the RECP is the underlying theme that takes up the inherent **OBL** case (104j), the remainder of the derivation results identical to that of causativized simplex transitives (104e): the causee does not have an apt case competitor, either because the RECP theme is assigned Last Resort (104e) or inherent **OBL** case (104j). Nonetheless, in both configurations, the ABS causee can still feed the assignment of dependent ERG case to the causer, prior to being assigned unmarked case. Strikingly, when it is the RECP which occupies the causee position, because the RECP is itself assigned Last Resort **OBL**, while the underlying theme is assigned lexical **OBL**, no case competitor is left for the causer. As a result, the RECP's antecedent is again assigned unmarked ABS case (104i)—in the causativized simplex transitive counterpart (104e), ERG is still possible due to the fact that the underling theme remains caseless throughout the derivation.

Importantly, the case patterns summarized in (104a–104j) are fully predictable, given the Dependent Case framework assumed here, along with the features proposed for the RECP pronoun—no teleological grammar is implied in the account of the case that the RECP's antecedent surfaces with (cf. §3.2.1).

5 Conclusion

This paper set out to fulfill the desiderata in (53). The analysis proposed here predicts that, if a case competitor is provided to the RECP's antecedent, it can be assigned dependent ERG case. Due to the presence of a proper case competitor, the RECP's inability to act as one is moot. The fact that RECP sentences in Circassian resemble intransitive constructions is a byproduct of the proposed RECP pronoun's inability to feed the assignment of dependent ERG case to its antecedent. As a result, this DP ends up marked with ABS case, the same case that intransitive subjects are marked with. Underlyingly, however, a RECP sentence in Adyghe and Kabardian has a transitive configuration, which no intransitivization operation applies to. Furthermore, by incorporating a Dependent Case framework, the analysis put forth in this paper predicts that a RECP antecedent can be marked with ERG case, as long as there is another DP in the clause which, unlike the RECP, is able to act as a case competitor for it. In fact, as demonstrated in §4.4, the present analysis can account for a range of RECP sentences, with different case frames. Despite the overt morphosyntactic differences among these sentences, under the analysis proposed here, the RECP is bound by its antecedent, irrespective of the case that the latter is marked with.

Despite appearances, RECP sentences in Circassian are, thus, ordinary. As in other languages, the 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: *(i)* the case properties of the RECP pronoun, *(ii)* the strategy employed to license it (viz. Last Resort **OBL** case assignment by an *INSTR* Appl),

and *(iii)* the independent workings of the Disjunctive Case Hierarchy (12). As such, we can conclude that the Ban on ergative anaphors (4) holds of Adyghe and Kabardian too.

This paper can perhaps be taken as an instantiation of the duality that often characterizes linguistic phenomena: a superficially intricate pattern is often underlyingly simpler than meets the eye. In other words, RECP sentences in Circassian showcase the joint workings of a limited set of universal principles and well-established aspects of crosslinguistic variation.

A The internal structure of the reciprocal prefix

The analysis advocated for in this paper provides an empirically adequate account of the distribution of the *INSTR* prefix *ze–* as well. In the table in (104), it is implied by the occurrence of '*INSTR*' in the DP slot occupied by the RECP. Alternatively said, the analysis I propose implies a particular view of the morphological composition of the verb in RECP sentences in Circassian. (105i) is a baseline sentence that illustrates the *φ*-template empirically observed in Circassian. (105ii) represents the morphosyntax of RECP sentences, as analyzed by Letuchiy (2007), Kazenin (2007), as well as by the HIGH ABS approach put forward by Ershova (2019, 2023). (105iii), in turn, represents the morphological analysis assumed in Lander & Arkadiev (2020) and in the present paper.

(105) i. *pro* *pro* ŝʷə-t-λeʁʷə-ʁ
1P.ERG 2PL.ABS 2PL.ABS-1PL.ERG-see-PST
'We saw you.'

ii. *pro*$_{\text{RECP}}$ *pro* te-zere-λeʁʷə-ʁ
RECP.ERG 1PL.ABS 1PL.ABS-RECP-see-PST

iii. *pro* ***pro***$_{\textbf{RECP}}$ te-**ze**-**re**-λeʁʷə-ʁ
1PL.ABS RECP.INSTR 1PL.ABS-RECP-INSTR-see-PST
'We saw each other.'

As we can infer from (105ii–105iii), the analyses of "We saw each other" in (105ii) and (105iii) differ with respect to *(i)* the position of the reciprocal prefix within the Circassian *φ*-template, and *(ii)* the internal composition of the string *zere*.

The *φ*-templates in (105) are reproduced and stacked together in (106) for ease of comparison regarding these two parameters. (106i) diagrams the template of *φ*-prefixes empirically observed in Circassian (cf. (105i)). (106ii) is the template assumed by the aforementioned previous analyses, where the RECP prefix is assumed to replace the *φ*-prefix that crossreferences ERG arguments (cf. (105ii)) and, furthermore, *zere–* is assumed to be a single morpheme without internal structure. By contrast, (106iii) represents the morphosyntax implied in the present analysis (cf. (105iii)). The RECP prefix occurs not in the ERG *φ*-slot, but, rather, in an **OBL** *φ*-slot and. Moreover, *ze–re–* is morphologically analyzed into a RECP prefix followed by the *INSTR* prefix argued for in §4.3 above.

(106) i. ABS.*φ*– **OBL.*φ*–** ERG.*φ*– $\sqrt{\dots}$ (*φ-template of Adyghe and Kabardian*)

ii. ABS.*φ*– RECP– $\sqrt{\dots}$ (*φ-template implicit in HIGH ABS analysis)*

iii. ABS.*φ*– **RECP–*INSTR*–** $\sqrt{\dots}$ (*φ-template assumed in present analysis*)

Proponents of the monomorphemic analysis in (106ii) are likewise characterized by the assumption that there is an alternation between *zere–* and *ze–*, both of which are monomorphemic. According to Ershova (2019, 2023), *zere–* and *ze–* are allomorphs of the RECP *φ*-prefix: the former occurs in an ergative or causee position, while the latter occurs in an applied object position—in the terminology adopted in this paper, this means the object position of a verb that is able to assign lexical case. Similarly, Letuchiy (2007: p. 789) relates the distribution of *zere–* and *ze–* to the argument structure of the verb the RECP is an argument of: "[u]nlike transitives, inverse verbs never take the reciprocal marker *zərə–*. […] the marker *zərə–* is used only when the base verb is transitive and the reciprocal derivative is intransitive." Kazenin (2007: p. 751) makes the same argument structure-based assumption for Kabardian. The author also assumes that

the allomorphy is conditioned by the nature of the verb that a RECP is an argument of. Specifically, *za–* is utilized when the verb is a two-place intransitive predicate, which is referred to as a transitive verb that assigns lexical case to its object, yielding an ABS/**OBL** frame.

The goals of this appendix are twofold. First, it discusses the implications of the competing assumption that *ze–re–* is not internally complex. Second, it provides empirical arguments against the conditioning factors that regulate the occurrence of *zere–* vs. *ze–*, as they are proposed by the allomorphy analysis described above.

A general objection against the above-mentioned allomorphy-based analyses has to do with the locality that is usually characteristic of alternations of this type. Recall that Letuchiy (2007), Kazenin (2007), and Ershova (2019, 2023) argue that the alternation between *zere–* and *ze–* is regulated by the verb a RECP is an argument of, specifically, its argument structure. Allomorphy is usually taken to be conditioned by locality (see Choi & Harley 2019 and references therein), oftentimes, strictly so (Embick, 2010; Bobaljik, 2012). However, as we can see from examples such as (107), where the verbal complex of (45a) is reproduced, *zere–* and the verb do not have to be adjacent–other morphemes, such as an ERG *φ*-prefix and a causative prefix, can intervene between them.

(107) Ø-**ze**-**re**-*d*-*ʁe*-**š'efə**-ž'ə-ʁe-x
Ø– **ze**– **re**– *d*– *ʁe*– **š'efə** –ž'ə –ʁe –x
3PL.ABS– RECP– INSTR– 1PL.ERG– CAUS– buy –RE –PST –3PL.ABS
'We made each other buy goods.'

Furthermore, even if we were to assume that the contrast between *zere–* and *ze–* was the result of allomorphy, the conditioning environments proposed for them is also empirically inadequate. For instance, Ershova (2019, 2023) claims that *zere–* is only found in ERG or causee position. However, in (96b), the RECP is interpreted as the theme of the causativized verb and not as the causee, and, yet, *re–* is still present.

(108) [sjə ane ade]-m *pro* ***pro***$_{\text{RECP}}$
1SG.POSS mother father -ERG 1PL.ABS RECP.INSTR
də-**ze**-r-a-ʁe-ʎeʁʷ-a-š' (*Kabardian*)
1PL.ABS-RECP-INSTR-3PL.ERG-CAUS-see-PST-IND
'My parents made us see each other.'

Likewise, Letuchiy (2007), Kazenin (2007), and Ershova (2019, 2023) all tie the distribution of *ze–* to verbs that are able to assign lexical case. In (109), where the verbal complex from (98b) is repeated, "speak" is a predicate with an ABS/**OBL** frame (see (16a)), *zere–* still occurs.

(109) də-ze-r-je-ʁe-pseʎ-a-š'
1PL.ABS-RECP-INSTR-3PL.ERG-CAUS-speak-PST-IND
'We made each other speak to the teachers.'

In contrast, according to the analysis proposed in this paper, *ze–re–* and *ze–* are not related because of allomorphy. Rather, their relation is one of containment: the latter is contained in the former. An argument in favor of separating *ze–* and *re–* is provided by the fact that these morphemes can occur without adjacency (110). As observed by Lander & Letuchiy (2010), the inadvertitive prefix *ʔeč'e–* can intervene between *ze–* and *re–*.

(110) tə-**ze**-ʔeč'e-**re**-wəʔa-ʁ (*Adyghe*: Lander & Letuchiy 2010: (10))
1PL.ABS-RECP-INADV-INSTR-wound-PST
'We wounded each other accidentally.'

The separability of *ze–* and *re–* is straightforward to the analysis proposed here.

Additionally, the particular form of these morphemes is also fully predictable from the analysis put forward here: as discussed in §4.3, *re–* occur due to the assignment of **OBL**$_{INSTR}$ case as a Last Resort strategy to license the RECP. In other words, the distribution of *re–* is fully predictable from case assignment rules: *re–* occurs whenever there is no independent source of case assignment to the RECP, a possibility when

it is the argument of a verb that is able to assign lexical case. The present analysis *does* make reference to predicates with an ABS/**OBL** frame, but only indirectly: unlike what happens in the analysis discussed above that are based on allomorphy, the occurrence of *ze–* is not a direct reflex of the presence of such a predicate in the verbal complex. As such, the present proposal is able to predict data like (109), where the RECP is a causee: *ze–re–* (and not *ze–*) occurs because, despite the lexical case that the predicate is able to assign goes to the underlying theme and not to the causee (i.e. the RECP).

References

Anderson, Stephen R. 1976. On the notion of subject in ergative languages. *In:* Li, Charles N. (ed), *Subject and topic*. Academic Press.

Arkadiev, Peter, & Bagirokova, Irina. 2023. Bivalent patterns in Adyghe (West Circassian). *In:* Saj, Sergej Sergeevič (ed), *BivalTyp: Typological database of bivalent verbs and their encoding frames*. Institute for Linguistic Studies Russian Academy of Sciences. Available at `https://www.bivaltyp.info`. Accessed 2025–09-29.

Arkadiev, Peter, & Letuchy, Alexander. 2011. Prefixes and suffixes in the Adyghe polysynthetic wordform: Types of interaction. *Pages 496–514 of:* Vittorio, Tomelleri, Manana, Topadze, & Anna, Lukianowicz (eds), *Languages and cultures in the Caucasus*.

Arregi, Karlos, & Nevins, Andrew. 2008. Agreement and clitic restrictions in Basque. *Pages 49–85 of:* Hrafnbjargarson, Gunnar Hrafn, Fischer, Susann, & D'Alessandro, Roberta (eds), *Agreement restrictions*. Walter de Gruyter.

Baker, C Mark. 2014. On dependent ergative case (in Shipibo) and its derivation by phase. *Linguistic inquiry*, **45**(3), 341–379. DOI: `https://doi.org/10.1162/LING_a_00159`.

Baker, Mark. 1985. The mirror principle and morphosyntactic explanation. *Linguistic Inquiry*, **16**(3), 373–415.

Baker, Mark C., & Vinokurova, Nadya. 2010. Two modalities of case assignment: Case in Sakha. *Natural Language & Linguistic Theory*, **28**, 593–642. DOI: `https://doi.org/10.1007/s11049-010-9105-1`.

Béjar, Susana, & Rezac, Milan. 2009. Cyclic agree. *Linguistic Inquiry*, **40**(1), 35–73. DOI: `https://doi.org/10.1162/ling.2009.40.1.35`.

Bittner, Maria, & Hale, Ken. 1996. The structural determination of case and agreement. *Linguistic Inquiry*, 1–68.

Bobaljik, Jonathan David. 2012. *Universals in comparative morphology: Suppletion, superlatives, and the structure of words*. MIT Press.

Bobaljik, Jonathan David, & Wurmbrand, Susi. 2005. The domain of agreement. *Natural Language & Linguistic Theory*, **23**(4), 809–865. DOI: `https://doi.org/10.1007/s11049-004-3792-4`.

Bošković, Željko. 2014. Now I'm a phase, now I'm not a phase: On the variability of phases with extraction and ellipsis. *Linguistic Inquiry*, **45**(1), 27–89. DOI: `https://doi.org/10.1162/LING_a_00148`.

Brodkin, Dan, & Royer, Justin. To Appear. *Explaining the ban on ergative anaphors*. *Glossa*.

Caponigro, Ivano, & Polinsky, Maria. 2011. Relative embeddings: A Circassian puzzle for the syntax/semantics interface. *Natural language & Linguistic Theory*, **29**, 71–122. DOI: `https://doi.org/10.1007/s11049-011-9121-9`.

Charnavel, Isabelle, & Sportiche, Dominique. 2016. Anaphor binding: What French inanimate anaphors show. *Linguistic Inquiry*, **47**(1), 35–87. DOI: `https://doi.org/10.1162/LING_a_00204`.

Choi, Jaehoon, & Harley, Heidi. 2019. Locality domains and morphological rules: Phases, heads, node-sprouting and suppletion in Korean honorification. *Natural Language & Linguistic Theory*, **37**, 1319–1365. DOI: `https://doi.org/10.1007/s11049-018-09438-3`.

Chomsky, Noam. 1981. *Lectures on government and binding*. Walter de Gruyter.

Chomsky, Noam. 1995. *The Minimalist Program*. MIT Press.

Chomsky, Noam. 2001. Derivation by phase. *Pages 1–52 of:* Kenstowicz, Michael (ed), *Ken Hale: A life in language*. Cambridge, MA: MIT Press.

Coon, Jessica, Pedro, Pedro Mateo, & Preminger, Omer. 2014. The role of case in A-bar extraction asymmetries: Evidence from Mayan. *Linguistic Variation*, **14**(2), 179–242. DOI: `https://doi.org/10.1075/lv.14.2.01coo`.

Deal, Amy Rose. 2015a. Ergativity. *In:* Alexiadou, Artemis, & Kiss, Tibor (eds), *Syntax-theory and analysis: an international handbook*. De Gruyter Mouton.

Deal, Amy Rose. 2015b. Interaction and satisfaction in φ-agreement. *Pages 179–192 of:* Bui, Thuy, & Ozyildiz, Deniz (eds), *Proceedings of NELS*, vol. 45.

Deal, Amy Rose. 2016. Syntactic ergativity: Analysis and identification. *Annual Review of Linguistics*, **2**, 165–185. DOI: https://doi.org/10.1146/annurev-linguistics-011415-040642.

Deal, Amy Rose. 2024. Interaction, satisfaction, and the PCC. *Linguistic Inquiry*, 1–56. DOI: https://doi.org/10.1162/ling_a_00455.

Deal, Amy Rose. 2025. Current models of Agree. *Berkeley Papers in Formal Linguistics*, **4**(1). Available at: https://escholarship.org/uc/item/9g76n758.

Despić, Miloje. 2015. Phases, reflexives, and definiteness. *Syntax*, **18**(3), 201–234. DOI: https://doi.org/10.1111/synt.12031.

Driemel, Imke, Özdemir, Ahmet Bilal, & Popp, Marie-Luise. 2020a. *Direction towards Person: Canonical inverse and reverse PCC in Adyghe*. Ms., Humboldt-Universität zu Berlin and Universität Leipzig. https://ling.auf.net/lingbuzz/005552.

Driemel, Imke, Özdemir, Ahmet Bilal, & Popp, Marie-Luise. 2020b. A repair for PCC and inverse contexts in Adyghe. *Page 183 of: North East Linguistic Society (NELS)*, vol. 50.

Embick, David. 2010. *Localism versus globalism in morphology and phonology*. Vol. 60. MIT Press.

Ershova, Ksenia. 2021. Diagnosing Clause Structure in a Polysynthetic Language: Wh-Agreement and Parasitic Gaps in West Circassian. *Linguistic Inquiry*, **52**(1), 1–38. DOI: https://doi.org/10.1162/ling_a_00371.

Ershova, Ksenia. 2023. Syntactic ergativity and the theory of subjecthood: Evidence from anaphor binding in West Circassian. *Language*, **99**(2), 193–241. DOI: https://doi.org/10.1353/lan.2023.a900086.

Ershova, Ksenia Alexeyevna. 2019. *Syntactic ergativity in West Circassian*. Ph.D. thesis, The University of Chicago. DOI: https://doi.org/10.6082/uchicago.1848.

Harizanov, Boris. 2014. Clitic doubling at the syntax-morphophonology interface: A-movement and morphological merger in Bulgarian. *Natural Language & Linguistic Theory*, **32**, 1033–1088. DOI: https://doi.org/10.1007/s11049-014-9249-5.

Haspelmath, Martin, & Müller-Bardey, Thomas. 2004. Valency change. *Morphology: A handbook on inflection and word formation*, **2**, 1130–1145.

Kazenin, Konstantin I. 2007. Reciprocals, comitatives, sociatives, and reflexives in Kabardian. *In:* Nedjalkov, Vladimir P. (ed), *Reciprocal constructions*. John Benjamins Publishing Company. DOI: https://doi.org/10.1075/tsl.71.24kaz.

Keine, Stefan. 2018. Case vs. positions in the locality of A-movement. *Glossa: a journal of general linguistics*, **3**(1). DOI: https://doi.org/10.5334/gjgl.520.

Kramer, Ruth. 2014. Clitic doubling or object agreement: The view from Amharic. *Natural Language & Linguistic Theory*, **32**, 593–634. DOI: https://doi.org/10.1007/s11049-014-9233-0.

Kumakhov, Mukhadin, & Vamling, Karina. 2009. *Circassian clause structure*. Caucasus studies, vol. 1. School of International Migration and Ethnic Relations, Malmö University.

Lander, Yury. 2009. *Unexpected applicatives and morphological compositionality in Adyghe*. In *Conference on Morphology of the World's Languages*. University of Leipzig.

Lander, Yury, & Arkadiev, Peter. 2020. The Northwest Caucasian languages. *In:* Polinsky, Maria (ed), *The Oxford handbook of languages of the Caucasus*. Oxford University Press.

Lander, Yury, & Letuchiy, Alexander. 2010. Kinds of recursion in Adyghe morphology. *Pages 263–284 of:* Hulst, Harry van der (ed), *Recursion and human language*. De Gruyter Mouton.

Lander, Yury, & Letuchiy, Alexander. 2017. Valency-decreasing operations in a valency-increasing language? *Pages 285–304 of:* González, Albert Álvarez, & Navarro, Ía (eds), *Verb valency changes: Theoretical and typological perspectives*. John Benjamins.

Letuchiy, Aexander. 2015. The causative derivation and ordering of morphosyntactic operations in Adyghe. *In:* Manova, Stela (ed), *Affix ordering across languages and frameworks*. Oxford University Press.

Letuchiy, Alexander. 2007. Reciprocals, reflexives, comitatives, and sociatives in Adyghe. *In:* Nedjalkov, Vladimir P. (ed), *Reciprocal constructions*. John Benjamins Publishing Company. DOI: https://doi.org/10.1075/tsl.71.25let.

Letuchiy, Alexander. 2013. Verb classes in Adyghe: Derivational vs. nonderivational criteria. *Linguistics*, **51**(4), 729–766. DOI: https://doi.org/10.1515/ling-2013-0029.
Letuchiy, Alexander. 2016. Agreement with complement clauses in Adyghe. *Rhema*, 83–104.
Letuchiy, Alexander B. 2012. Ergativity in the Adyghe system of valency-changing derivations. *Pages 323–354 of:* Authier, Gilles, & Haude, Katharina (eds), *Ergativity, Valency and Voice. Berlin, New York: Mouton de Gruyter*. Walter de Gruyter.
Levin, Theodore, & Preminger, Omer. 2015. Case in Sakha: Are two modalities really necessary? *Natural Language & Linguistic Theory*, **33**, 231–250. DOI: https://doi.org/10.1007/s11049-014-9250-z.
Levin, Theodore Frank. 2015. *Licensing without case*. Ph.D. thesis, Massachusetts Institute of Technology. Available at: https://dspace.mit.edu/handle/1721.1/101451.
Marantz, Alec. 1991. Case and licensing. *Page 234–253 of:* Westphal, German, Ao, Benjamin, & Chae, Hee-Rahk (eds), *Proceedings of the Eighth Eastern States Conference on Linguistics*. Ohio State University, Department of Linguistics. Reprinted in *Arguments and Case: Explaining Burzio's Generalization*, ed. by Eric Reuland, 11–30. Amsterdam: John Benjamins (2000).
Massam, Diane. 2001. Pseudo noun incorporation in Niuean. *Natural Language & Linguistic Theory*, **19**(1), 153–197. DOI: https://doi.org/10.1023/A:1006465130442.
McGinnis, Martha. 2004. Lethal Ambiguity. *Linguistic Inquiry*, **35**(1), 47–95. DOI: https://doi.org/10.1162/002438904322793347.
Nordlinger, Rachel. 2023. The Typology of Reciprocal Constructions. *Annual Review of Linguistics*, **9**, 71–91. DOI: https://doi.org/10.1146/annurev-linguistics-022421-064006.
Pesetsky, David, & Torrego, Esther. 2001. T-to-C movement: Causes and consequences. *In:* Kenstowicz, Michael (ed), *Ken Hale: a Life in Language*. MIT Press.
Polinsky, Maria. 2017. Syntactic ergativity. *The Wiley Blackwell Companion to Syntax, Second Edition*, 1–37. DOI: https://doi.org/10.1002/9781118358733.wbsyncom051.
Potsdam, Eric, & Polinsky, Maria. 2012. Backward raising. *Syntax*, **15**(1), 75–108. DOI: https://doi.org/10.1111/j.1467-9612.2011.00158.x.
Preminger, Omer. 2014. *Agreement and its failures*. Vol. 68. MIT press.
Quicoli, Carlos. 2008. Anaphora by phase. *Syntax*, **11**(3), 299–329. DOI: https://doi-org.libproxy.mit.edu/10.1111/j.1467-9612.2008.00116.x.
Rizzi, Luigi. 1986. On Chain Formation. *Pages 65–95 of:* Borer, Hagit (ed), *The Syntax of Pronominal Clitics*. Academic Press.
Sheehan, Michelle, & Cyrino, Sonia. 2023. Restrictions on long passives in English and Brazilian Portuguese: a phase-based account. *Linguistic Inquiry*, 1–35. DOI: https://doi.org/10.1162/ling_a_00482.
Sigurðsson, Halldór Ármann. 1992. The case of quirky subjects. *Working Papers in Scandinavian Syntax*, **49**. Lund University.
Sigurðsson, Halldór Ármann. 2008. The case of PRO. *Natural Language & Linguistic Theory*, **26**(2), 403–450. DOI: https://doi.org/10.1007/s11049-008-9040-6.
Vydrin, Arseniy. 2008. Are there depictives in Adyghe? *Page 423–445 of:* Schroeder, Christoph, Hentschel, Gerd, & Boeder, Winfried (eds), *Secondary predicates in Eastern European languages and beyond. Studia Slavica Oldenburgensia*. Oldenburg: BIS-Verlag der Carl von Ossietzky Universität Oldenburg.
Wurmbrand, Susi. 2017. Stripping and topless complements. *Linguistic Inquiry*, **48**(2), 341–366. DOI: https://doi.org/10.1162/LING_a_00245.
Yuan, Michelle. 2018. *Dimensions of ergativity in Inuit: Theory and microvariation*. Ph.D. thesis, Massachusetts Institute of Technology. Available at: https://dspace.mit.edu/handle/1721.1/122054.
Zompì, Stanislao. 2019. Ergative is not inherent: Evidence from* ABA in suppletion and syncretism. *Glossa: a journal of general linguistics*, **4**(1). DOI: https://doi.org/10.5334/gjgl.816.