1 Introduction

West Circassian (Adyghe): Northwest Caucasian, polysynthetic, ergative alignment, radical pro-drop

Data from the Khatazhukaj rural settlement, Republic of Adygea, Russia, unless otherwise indicated.[1]

Reflexive and reciprocal binding expressed **morphologically**:
personal prefix replaced with prefix for anaphor ($\phi \rightarrow$ REFL/ REC)

Puzzle #1: **"Backward binding" for reciprocals**

1. In an ERG-ABS frame, reciprocal marker *ze(re)-* replaces the **ergative** marker (Letuchiy 2010).

Order of prefixes for ERG-ABS frame:

(1) | **Theme-** | **Agent-** | Tense- | Root |
     |---|---|---|---|
     | we- | t- | e- | ṣ̂e |
     | 2SG.ABS- | 1PL.ERG- | DYN- | know |

‘We know you.’

Reciprocal: ABS>ERG

(2) a. | tə- | **zer-** | e- | ṣ̂e |
        |---|---|---|---|
        | 1PL.ABS- | **REC.ERG-** | DYN- | know |

‘We know each other.’

b. * | **ze-** | t- | e- | ṣ̂e |
     |---|---|---|---|
     | **REC.ABS-** | 1PL.ERG- | DYN- | know |

2. In an ERG-IO$_i$-ABS$_i$ frame, reciprocal marker replaces the **applied object** marker.

Glosses: ABSolutive; BENefactive; DIRective; ERGative; IO–indirect object; MALefactive; OBLique; PLural; DYN–present tense; PST–past tense; RECiprocal; REFLexive; SG–singular.

Order of prefixes for ERG-IO-ABS frame:

(3) | **Theme-** | **Applicative-** | | **Agent-** | Root | -Tense |
     |---|---|---|---|---|---|
     | tə- | qə- | p- | f- | jə- | š'a | -ʁ |
     | 1PL.ABS- | DIR- | 2SG.IO- | BEN- | 3SG.ERG- | bring | -PST |

‘S/he brought us to you.’

Reciprocal: ABS(object)>IO

(4) a. | tə- | **ze-** | f- | jə- | š'a | -ʁ |
        |---|---|---|---|---|---|
        | 1PL.ABS- | **REC.IO-** | BEN- | 3SG.ERG- | bring | -PST |

‘S/he brought us together (lit. to each other).’

b. * | **ze-** | t- | f- | jə- | š'a | -ʁ |
     |---|---|---|---|---|---|
     | **REC.ABS-** | 1PL.IO- | BEN- | 3SG.ERG- | bring | -PST |

Main Claim:

- Despite appearances, reciprocal binding is established via **c-command**.

- ABS>ERG/IO, because West Circassian is **syntactically ergative**: **DP$_{ABS}$ moves to Spec,TP.**

Puzzle #2: Reflexives and syntactic accusativity

In an ERG-ABS frame, reflexive marker *zə-* replaces the **absolutive** marker.

Reflexive: ERG>ABS

(5) | | **Theme-** | **Agent-** | Root | -Tense |
     |---|---|---|---|---|
     | a. | **zə-** | s- | thač'ə | -ʁ |
     | | **REFL.ABS-** | 1SG.ERG- | wash | -PST |
     | b. * | sə- | **zə-** | thač'ə | -ʁ |
     | | 1SG.ABS- | **REFL.ERG-** | wash | -PST |

‘I washed myself.’

Claim #2:

Reflexives are **local subject oriented** = can only be bound by a **non-derived** subject.

DP$_{ABS}$ in Spec,TP is derived $\Rightarrow$ cannot bind a reflexive.

2 Reciprocal binding is via c-command

1. In an ABS-IO frame (ABS=agent; IO=theme), reciprocal marker replaces the **indirect object** marker.

Order of prefixes for ABS-IO frame:

(6) **Agent-**   **Theme-** Root
    t-   ja-   pλə
    1PL.ABS- 3PL.IO- look
    'We are looking at them.'

Reciprocal:ABS>IO

(7) a.   tə-   **z-**   e-   pλə
          1PL.ABS- **REC.IO-**   DYN-   look
     b. * **ze-**   t-   e-   pλə
          REC.ABS- 1PL.IO-   DYN-   look
          'We are looking at each other.'

2. In an ERG$_i$-IO$_i$-ABS frame, reciprocal marker replaces the **applied object** marker.

Reciprocal: ERG>IO

(8) **Theme-** **IO-**   **Agent-** Tense- Root
    Ø-   **ze-**   t-   e-   tə
    3ABS-   **REC.IO-** 1PL.ERG- DYN-   give
    'We are giving it to each other.'

Directionality of reciprocal binding:

| Agent		IO		Theme
ERG	>	IO	<	**ABS**
ERG			<	**ABS**
ABS	>			IO

$\Big\}$ **ABS** > **ERG** > **IO**

⇒ **DP$_{ABS}$ c-commands DP$_{ERG}$ and DP$_{IO}$**

3 Deriving a high absolutive

- **Ergative DP and IO** are assigned inherent case by Voice^0 and Appl^0 and **remain in-situ within VoiceP** (Legate 2008; Pylkkänen 2008).

- **DP$_{ABS}$** is assigned structural case by T^0 and **raises to Spec,TP** to satisfy [EPP].

- Other evidence for high ABS: conditions on parasitic gap licensing (Ershova 2017).

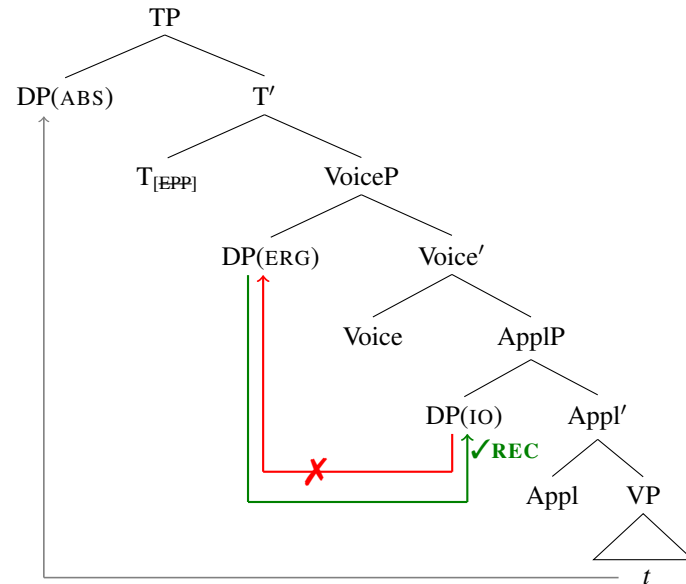- Previous proposals of high ABS: Bittner & Hale (1996); Aldridge (2008); Coon et al. (2014), a.o.

(9) ERG-ABS frame (2): ✓ absolutive > ergative, * ergative > absolutive
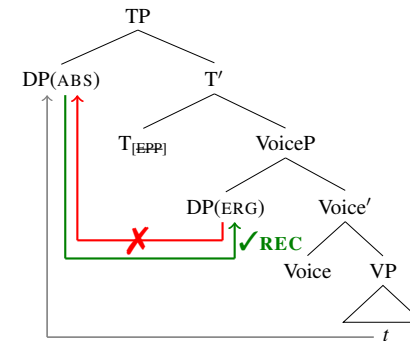
(10) ERG-IO$_i$-ABS$_i$ frame (4): ✓ absolutive > IO, * IO > absolutive
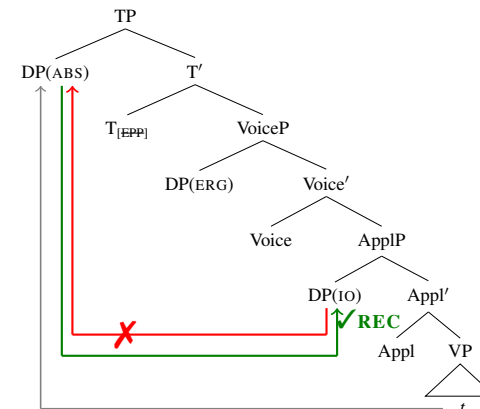
(11) ERG_i-IO_i-ABS frame (8): ✓ ergative > IO, * IO > ergative

4 Reflexives are local subject oriented

Problem: Reflexives behave as if DP_{ERG} c-commands DP_{ABS} (5).

Answer: High position of DP_{ABS} is **derived** + reflexives may only be bound by **non-derived** subjects.

West Circassian reflexive *zǝ-*:

1. cannot be used to mark co-reference between two non-subject arguments in an ERG-IO-ABS frame

Reflexive: *IO>ABS(object)

(12)   **$z_{i/*j}$-** a_j-   fe- s_i-   thač'ǝ -ʁ
       REFL.ABS- 3PL.IO- BEN- 1SG.ERG- wash   -PST

   a. 'I washed myself for them.'
   b. * 'I washed them for themselves.'

Reflexive: *ABS(object)>IO

(13) $Ø_j$-   **$zǝ_{i/*j}$-**   fe- s_i-   thač'ǝ -ʁe -x
       3ABS- **REFL.IO-** BEN- 1SG.ERG- wash   -PST -PL

   a. 'I washed them for myself.'
   b. * 'I washed them for themselves.'

Compare with reciprocal marking co-reference of IO and ABS(object) in (4).

2. for an unaccusative verb with high applicative, may replace **absolutive theme** marker (14)*

   *(14b) is reanalysis: applicative boosts agentive interpretation, unaccusative → unergative

   Compare with unergative verb (15): reflexive **cannot** replace absolutive agent marker.

Reflexive: unaccusative + applicative

(14) | | **Theme-** | **IO-** | | | |
|---|---|---|---|---|---|
| a. | **zǝ-** | s- | ŝ^{w}e- | š'tǝ | -ʁ |
| | **REFL.ABS-** | 1SG.IO- | MAL- | freeze | -PST |
| b. ? | sǝ- | **zǝ-** | ŝ^{w}e- | š'tǝ | -ʁ |
| | 1SG.ABS- | **REFL.IO-** | MAL- | freeze | -PST |

'I froze against my will.'

Reflexive: unergative + applicative

(15) | | **Agent-** | | **IO-** | | |
|---|---|---|---|---|---|
| a. * | **zǝ-** | qǝ- | s- | fe- | ŝ^{w}ež'ǝʁ |
| | **REFL.ABS-** | DIR- | 1SG.IO- | BEN- | dance.PST |
| b. | sǝ- | qǝ- | **zǝ-** | fe- | ŝ^{w}ež'ǝʁ |
| | 1SG.ABS- | DIR- | **REFL.IO-** | BEN- | dance.PST |

'I danced for myself.'

5 Local subject oriented reflexives in other languages

E.g. *se/si* in French and Italian (Rizzi 1986; Sportiche 2014, a.o.); *-koL* in Kannada (Lidz 1996, 2001)
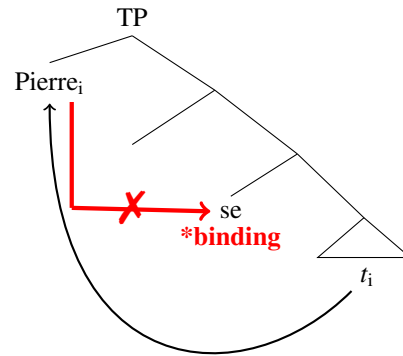
French *se* (Sportiche 2014:104):

Can be bound by a deep subject:

(16) Jean$_j$ **se$_j$** présente Pierre
Jean **to-himself** introduces Pierre

Cannot be bound by a derived subject:

(17) * Pierre$_i$ **se$_i$** sera
Pierre **to-himself** will-be
présenté
introduced

(18) A derived subject cannot bind *se* (17):

(19) Licensing reflexive *zə*- via Voice^0 (12):

7 Implications

Syntactic ergativity effects in anaphor binding necessitate a **structural account**.

DP$_{ABS}$ is the **surface subject** of the clause: it c-commands all other arguments, including DP$_{ERG}$.
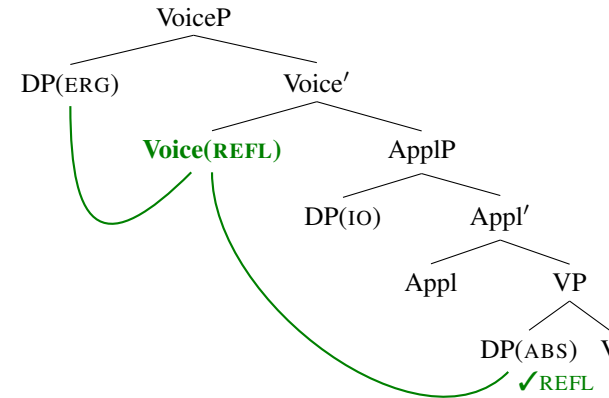
6 Reflexive Voice^0

Building on Labelle (2008); Sportiche (2014); Ahn (2015)

- *zə*- is a reflex of agreement with a semantically vacuous DP (= without an index)

- Reflexive Voice^0:

  1. Introduces the external argument
  2. Licenses the reflexive via feature [REFL]
  3. Establishes identity between missing internal argument **and external argument**

REFL = semantically vacuous DP:

- Triggers agreement and is assigned case like other DPs
  $\Rightarrow$ accounts for position of *zə*-

- Does not have an index
  $\Rightarrow$ does not trigger Condition B/C violation when REFL moves to Spec,TP.

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