Contextually determined islandhood and constraints on possessor extraction in West Circassian

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1 Introduction

West Circassian (or Adyghe; Northwest Caucasian):

- polysynthetic, with multiple verbal φ-probes and high degree of synthesis
- syntactically ergative: the absolutive argument moves to c-command the ergative agent (Ershova 2019, 2021a,d)

Possessor extraction is unusually constrained:

- ergative (ERG) and applied argument (IO) DPs are islands
- only with clausebound wh-movement

(1) C_[WH] [DP _ ]_ERG/IO ...

- long-distance wh-movement across a CP boundary allows for direct extraction

(2) ✓ C_[WH] ... [CP [DP _ ]_ERG/IO ...

⇒ Islandhood is contextually determined.

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\text{and shortcomings are solely mine.}\]
Unlike ERG and IO, absolutive (ABS) DPs and PPs are not islands:

- possessor extraction is grammatical from ABS

\[
\text{(3)} \quad \checkmark \quad C_{[\text{wh}]} [\text{DP } \text{tPOSS }]_{\text{ABS}} \ldots
\]

- possessor extraction is grammatical from PP

\[
\text{(4)} \quad \checkmark \quad C_{[\text{wh}]} [\text{PP } \text{[DP } \text{tPOSS }] \text{P}] \ldots
\]

⇒ DP islandhood is sensitive to structural position.

Main claim: islandhood of nominal arguments is best analyzed with a combination of:

- Agree-based theory of phasehood ([Abels](2003)), [Rackowski & Richards](2005), [Van Urk & Richards](2015), [Halpert](2019)

- opacity of phase edges (= the Edge Condition; [Chomsky](2000, 2001))

- Combined via a revised definition of locality for Agree operations.

Phase opacity is a consequence of failure to Agree with the phase head, i.e. phasehood is variable and contextually determined.

Phasehood of a constituent is the result of syntactic intervention for Agree, not transfer to the interfaces; cf. [Chomsky](2000, 2001, 2008), [Richards](2011), [Bošković](2016), a.o.

The Edge Condition is accounted for via locality and intervention, not constraints on computational complexity; cf. [Chomsky](2008:147-148).

The analysis in a nutshell:

- Wh-movement out of a phase is possible if that phase has independently entered Agree with the wh-movement triggering head (C\(^0\)) prior to wh-probing.

- Otherwise, the phase and its edge are opaque for subextraction.

- Ergative and applied argument DPs are merged and licensed at phase edges: Spec,vP and Spec,ApplP; the absolutive argument and PPs are not.

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2 Term coined by [Gallego & Uriagereka](2007), but they do not ultimately endorse this as a standalone constraint on extraction.

3 The idea of dynamic phasehood, although different in assumptions and implementation, has been proposed by [den Dikken](2007), [Gallego](2010), [Bošković](2014).
• Contrast between matrix and embedded clauses:
  – polypersonal agreement and polysynthetic word-formation are licensed by Agree with C₀
  – the wh-feature on matrix C₀ probes prior to the polysynthetic agreement feature, triggering an intervention effect
    ⇒ phase edges are opaque for subextraction
  – in long-distance wh-movement, successive-cyclic movement to embedded Spec,CP is triggered as a last resort after the polysynthetic agreement feature
    ⇒ the lower phase heads do not trigger an intervention effect

Roadmap:
1 Background on West Circassian wh-movement
2 Constraints on possessor extraction
3 The analysis: Agree-based phasehood
4 Conclusion

2 Background on West Circassian wh-movement

2.1 Basic clause structure

• polysynthesis (Kumakhov 1964; Kumakhov & Vamling 2009; Testelets 2009; Korotkova & Lander 2010; Lander & Letuchiy 2010; Lander 2017; Lander & Testelets 2017, inter alia):
  (5) sə- qə- p- f- a- r- jə- b- ə- λεβηζ-β
      1SG.ABS- DIR- 2SG.IO- BEN- 3PL.IO- DAT- 3SG.ERG- CAUS- see -PST
      ‘He showed me to them for your sake.’ (Korotkova & Lander 2010:301)

• ergativity in verbal indexing
  (6) | Absolutive- | Applied object- | Applicative- | Ergative- |
• possessors are cross-referenced on the noun:

(7) s-šɔpɔʷɔxer
\(1SG.PR\)-sister.PL.ABS
‘my sisters’

(8) t-jo-ʁʼoŋerʼɔxem
\(1PL.PR\)-POSS-neighbor.PL.OBL
‘our neighbors’

• ergativity in case marking

- absolutive -\(r\): subject of intransitive verb (9a)
theme of transitive verb (9b)
- oblique -\(m\): agent of transitive verb (9b)
applied objects (9c)
possessors (9d)
complements of postpositions (9e)

(9) a. mə pšː祥e-r(ABS) jane paje Œ-qašʼe
this girl-ABS 3PL.PR+mother for 3ABS-dance
‘The girl is dancing for her mother.’

b. sjopšː祥exe-m(ERG) nɔʃapexe-r(ABS)
1SG.PR.girl.PL-OBL doll.PL-ABS
Œ-a-fepaxex
3ABS-3PL.ERG-dress.PST.PL
‘My daughters dressed the dolls.’

c. mə ɛʼal-e-r(ABS) bere jɔʔahxlxe-m(IO)
telefonʃʼe
this boy-ABS much 3SG.PR.relative.PL-OBL telephone.INS
Œ-a-fe-tjewe
3ABS-3PL.IO-BEN-hitPRES
‘This boy calls (lit. rings for) his relatives on the telephone a lot.’

d. pšː祥e-m Œ-jo-pʃːʃeʁw
girl-OBL 3SG.PR-POSS-female.friend
‘the girl’s friend’

e. mə ʃwʼoɔ-м paje
this woman-OBL for
‘for this woman’

• Indefinite nouns, possessed nouns in the singular, proper names and personal pronouns are generally unmarked for case (Arkadiev et al. 2009:51-52; Arkadiev & Testelets 2019).
• West Circassian is a high absolutive language, based on anaphor binding and parasitic gaps (Ershova 2019, 2021a,d)

\[(10)\]

\[
\text{TP} \\
\text{DP(ABS)} \quad \text{T'} \\
\text{vP} \\
\text{DP(ERG)} \quad \text{v'} \quad \text{T} \\
\text{ApplP} \\
\text{DP(10)} \quad \text{Appl'} \\
\text{VP} \\
\text{Appl} \\
\text{<DP(ABS)>} \quad \text{V}
\]

2.2 Relative clauses

Per Lander (2009a,b, 2012); Caponigro & Polinsky (2011); Ershova (2021a)

Relativization is the only type of wh-movement.

\[(11)\] General structure of relative clauses (Caponigro & Polinsky 2011):

\[
[\text{CP OP C[WH]} [\text{TP} \ldots t_i \ldots ]]
\]

$\phi$-agreement referring to the relativized participant replaced by wh-agreement (Caponigro & Polinsky 2011; see also O’Herin 2002; Baier 2018 on Abaza):

$\exists(\exists)$ - ergative agents, applied objects, and possessors

$\emptyset$ - absolutive arguments
Ergative agent:

(12) a. mə ć’ale-mı(ERG) ə-š velosjoped
    this boy-OBL 3SG.PR-brother bicycle
    Ø- Ø- r- jə- tə -u
    3ABS- 3SG.IO- DAT- 3SG.ERG- give -PST
    ‘This boy gave a bicycle to his brother.’

    b. marə ć’al-ew [RC Op; t(ERG) ə-š velosjoped
      here boy-ADV 3SG.PR-brother bicycle
      Ø- Ø- je- ə- tə -be] -r
      3ABS- 3SG.IO- DAT- WH.ERG- give -PST -ABS
      ‘Here is the boy that gave a bicycle to his brother.’

Possessor:

(13) marə ʂ’əz-ew [RC Op; [DP t(PR) ə-ʃ-p ŋaše ] dax-ew
      here woman-ADV WH.PR-POSS-girl good-ADV
      Ø-qa-ʂ’ə-re] -r
      3ABS-DIR-dance-PRES -ABS
      ‘Here is the woman whose daughter dances well.’

Absolutive argument:

(14) a. ha-r Ø-jə-xozjajan Ø- Ø- je- ceqa -u
    dog-ABS 3SG.PR-POSS-owner 3ABS- 3SG.IO- DAT- bite -PST
    ‘The dog bit its owner.’

    b. se səs’e s’ane ha-w [RC Op; t(ABS) Ø-jə-xozjajan
      I fear dog-ADV 3SG.PR-POSS-owner
      Ø- Ø- je- ceqa -be] -m
      WH.ABS- 3SG.IO- DAT- bite -PST -OBL
      ‘I fear the dog that bit its owner.’

    • Nominal head (i) appears to the left of relative clause with -ew (ADV) case marking; (ii) to the right with regular case marking; (iii) is null (in headless relative clauses).

Nominal head to the right of the relative clause:

(15) [RC Op; t(AES) Ø-jə-șhan’ənčę Ø-xe- ə- ze- wə- wə- be]
    3SG.PR-POSS-window 3ABS- LOC- WH.ERG- break -PST
    ć’ale-r marə
    boy-ABS here
    ‘Here is the boy that broke his window.’
Headless relative clause:

\[(16) \quad [_{RC \ Opi} \ as\ Aslan \ &_{i(IO)} \ Ø- \ z\- \ fae \ -zep\-\-短时间内 -m]

Aslan \ 3ABS- WH.IO- want -HABIT -OBL

\[Ø-\-sphere\-r \ fajep\]

3SG.PR-brother-PL-ABS \ don’t want

‘[What Aslan always wants] his brothers don’t want.’

Syntax of relative clauses, per O’Herin (2002) on Abaza, Caponigro & Polinsky (2011); Ershova (2021a) on West Circassian:

- Relativization of all types of arguments involves wh-movement and wh-agreement: Ø- for absolutive and z\- for all other arguments.\(^4\)
- There is no overt relative pronoun, i.e. the wh-movement is covert and can be diagnosed by (i) islandhood sensitivity and (ii) the ability of the moved operator to license parasitic gaps (see Appendix A).

3 Constraints on possessor extraction

Summary of the data:

- ergative and applied arguments are islands for clausebound possessor extraction
- the islandhood of ERG and IO DPs is ameliorated in long-distance wh-movement configurations
- absolutive DPs and PPs are not islands

3.1 Clausebound possessor extraction

- Possessor extraction is the only type of productive wh-movement from within nominal constituents.
- Generalization for clause-bound wh-movement:

\[(17) \quad \text{CONSTRAINT ON POSSESSOR EXTRACTION (PREMILINARY).} \quad \text{Ergative and applied argument DPs are islands for subextraction; absolutive DPs and PPs are not.}\]

\(^4\) See Lander (2009a,b, 2012); Lander & Daniel (2020) for an alternative analysis of z\- as a morphologically expressed relative or resumptive pronoun.

\(^5\) The constraints outlined here are subject to dialectal variation. E.g. the majority of speakers Lander (2012) consulted allow possessor extraction from all types of arguments, and a small set of speakers disallow possessor extraction from non-absolutive arguments. The speakers that I consulted for this project uniformly disallow possessor extraction from non-absolutive arguments; see conclusion for account of variation.
possessor extraction from ergative external argument \(\rightarrow\) pseudocleft repair\(^6\)

(18) a. \([\text{mwe} \; ^{\text{w}}\text{az-ew}]\; [\text{PR}] \; ^{\text{w}}\text{q-e}]\; [\text{IO}] \; ^{\text{c}}\text{e}^{\text{e}}\text{leje}^{\text{e}}\text{m}^{\text{e}}-\text{r}]\) dax-ew \; wered(\text{ABS}) \;
this \; \text{woman-OBL} \; \text{WH.PR-son} \; \text{teacher-ABS} \;
\; \text{Ø-Ø-je-čeča-ᵦ} \;
\text{3ABS-3SG.IO-DAT-scold-PST} \;
‘The teacher scolded this woman’s son.’

b. * \([\text{mwar} \; ^{\text{w}}\text{az-ew}]\; [\text{PR}] \; ^{\text{w}}\text{q-e}]\; [\text{IO}] \; ^{\text{c}}\text{e}^{\text{e}}\text{leje}^{\text{e}}\text{m}^{\text{e}}-\text{r}]\) dax-ew \; wered(\text{ABS}) \;
here \; \text{woman-ADV} \; \text{WH.PR-son} \; \text{teacher-ABS} \;
\; \text{Ø-Ø-je-čeča-ᵦ} \;
\text{3ABS-3SG.IO-DAT-scold-PST} \; \text{-ABS} \;
Intended: ‘Here is the woman whose son the teacher scolded.’

c. \([\text{mwar} \; ^{\text{w}}\text{az-ew}]\; [\text{PR}] \; ^{\text{w}}\text{q-e}]\; [\text{IO}] \; ^{\text{c}}\text{e}^{\text{e}}\text{leje}^{\text{e}}\text{m}^{\text{e}}-\text{r}]\) dax-ew \; wered(\text{ABS}) \;
here \; \text{woman-ADV} \; \text{WH.PR-son} \; \text{teacher-ABS} \;
\; \text{Ø-z-e-čeča-ᵦ} \;
\text{3ABS-WH.IO-DAT-scold-PST-ABS} \;
‘Here is the woman whose son is the one whom the teacher scolded.’

possession extraction out of applied argument\(^7\)

(19) a. \([\text{mwe} \; ^{\text{w}}\text{az-ew}]\; [\text{PR}] \; ^{\text{w}}\text{q-e}]\; [\text{IO}] \; ^{\text{c}}\text{e}^{\text{e}}\text{leje}^{\text{e}}\text{m}^{\text{e}}-\text{r}]\) dax-ew \; wered(\text{ABS}) \;
this \; \text{woman-OBL} \; \text{WH.PR-son} \; \text{teacher-ABS} \;
\; \text{3ABS-DIR-3SG.ERG-PRES-sing} \;
‘This woman’s son sings well.’

b. * \([\text{mwar} \; ^{\text{w}}\text{az-ew}]\; [\text{PR}] \; ^{\text{w}}\text{q-e}]\; [\text{IO}] \; ^{\text{c}}\text{e}^{\text{e}}\text{leje}^{\text{e}}\text{m}^{\text{e}}-\text{r}]\) dax-ew \; wered(\text{ABS}) \;
here \; \text{woman-ADV} \; \text{WH.PR-son} \; \text{teacher-ABS} \;
\; \text{3ABS-DIR-3SG.ERG-sing-PRES} \; \text{-ABS} \;
Intended: ‘Whose son sings well?’

c. \([\text{mwar} \; ^{\text{w}}\text{az-ew}]\; [\text{PR}] \; ^{\text{w}}\text{q-e}]\; [\text{IO}] \; ^{\text{c}}\text{e}^{\text{e}}\text{leje}^{\text{e}}\text{m}^{\text{e}}-\text{r}]\) dax-ew \; wered(\text{ABS}) \;
here \; \text{woman-ADV} \; \text{WH.PR-son} \; \text{teacher-ABS} \;
\; \text{3ABS-DIR-WH.ERG-sing-PRES-ABS} \;
‘Whose son sings well. (lit. Whose son is the one who sings well?)’

\(^6\)See Ershova (2021a,c) for evidence that this is a pseudocleft.
\(^7\)See Appendix B for other types of applied arguments.
possessor extraction from absolutive external argument

(20) marø ūwaz-ew [RC Op, [DP t_i(PR) z-jø-pšaše ] dax-ew
here woman-ADV WH.PR-POSS-girl good-ADV
Ø-qa-ūw-e-re] -r
3ABS-DIR-dance-PRES -ABS
‘Here is the woman whose daughter dances well.’

possessor extraction from absolutive internal argument

(21) mwarø ūwaz-ew [DP t_i(PR) zø-qw=e ](ABS) hapse-m
here woman-ADV WH.PR-son prison-OBL
Ø-Ø-č-a-ø-æ-re -r
3ABS-3IO.SG-LOC-3PL.ERG-throw-PST -ABS
‘Here is the woman whose son they threw in jail.’

possessor extraction from PP

(22) mə pšøšø-žø-jø-r aɾø [RC Op, [PP t_i(PR) z-jane ] paże ]
this girl-small-ABS PRED WH.PR-mother for
høøw Œ-b-ţæ-ţ’a-œ-re ] -r
bread 3ABS-2SG.ERG-CAUS-boil-PST -ABS
‘This is the girl for whose mother you baked some bread.’

3.2 Long-distance possessor extraction

Based on long-distance wh-movement, revised generalization on possessor extraction:

(23) CONSTRAINT ON POSSESSOR EXTRACTION (FINAL). Ergative and applied argument DPs are islands if they appear within the same clause (CP) as the wh-movement triggering C^0.

Example of (non-possessor) long-distance wh-movement:

(24) xet-a [RC Op, we [CP t_i(IO) wø-zø'-ţø-ţɔwæ-ø-n-ew ]
who-Q you 2SG.ABS-WH.IO-LOC-praise-MOD-ADV
Ø-je-b-ţæ-ţ’a-œ-re ] -r
3ABS-DAT-2SG.ERG-CAUS-begin-PST -ABS
‘Who did you begin to praise?’
✓ long-distance wh-movement from ergative external argument (→ no islandhood effect)

(25) xet-a [RC Op_i [CP [DP t_i(PR) z-jɔ-sabɔj-xe-m ](ERG) wered(ABS) WH.PR-POSS-child-PL-OBL song]
who-Q Ø-q-a-ʔw-e-n-ew ] Ø-wɔ-mɔ-de-re ] -r
3ABS-DIR-3PL.ERG-say-MOD-ADV 3ABS-2SG.ERG-NEG-consent-PRES -ABS
lit. ‘Whose did you not consent for _ children to sing?’

✓ long-distance wh-movement from applied argument (→ no islandhood effect)

(26) marɔ [RC ʔwɔz-ew_i [CP [DP t_i(PR) z-jɔ-pʃaʃe ](IO) here woman-ADV WH.PR-POSS-girl
sɔ-Ő-fɔ-tje-we-n-ew ] 1SG.ABS-3SG.IO-BEN-LOC-hit-MOD-ADV
Ø-je-z-ɛɛ-ʔa-ɛɛ ] -r
3ABS-DAT-3SG.ERG-CAUS-begin-PST -ABS
lit. ‘Here is the woman whose I began to call _ daughter.’

Summary:

• Ergative and applied argument DPs are islands for clausebound possessor extraction, but not in long-distance movement configurations.

• Absolutive DPs and PPs are not islands for subextraction.

4 Agree-based phasehood, locality, and the Edge Condition

The proposal:

Selective DP islandhood effects in West Circassian provide evidence for an Agree-based model of syntactic domains and phase boundaries (Abels 2003; Rackowski & Richards 2005; Van Urk & Richards 2015; Halpert 2019):

• Islandhood of DP_{ERG} and DP_{IO} depends on agreement properties of C^0 and the heads that select for the corresponding arguments: v^0 and Appl^0 respectively.

• v^0 and Appl^0 are phase heads; DP_{ERG} and DP_{IO} are merged at the phase edges.

• The internal contents of the phase edge are opaque for syntactic operations per Chomsky (2008).
• If \( v^0 \) and \( \text{Appl}^0 \) have successfully agreed with wh-movement triggering \( C^0 \), they do not behave as phases and their phase edge is correspondingly accessible for subextraction.

Existing analyses of selective DP islandhood cannot account for West Circassian data:

• islandhood as a result of subjacency violations = too many phase boundaries crossed (Chomsky 1973 et seq.).

• islandhood connected to ungoverned (specifier) status of DP (Huang 1982; Taka-hashi 1994; Stepanov 2001)

• moved DPs are islands (Boeckx 2003; Bošković 2018)

• DPs that have been agreed with are islands (Gallego & Uriagereka 2007; Gallego 2010)

• DPs that have not been agreed with are islands (Branan 2018)

• non-absolutive DPs are structurally larger than absolutive DP (= PPs); cf. Polinsky (2016)

Each of these approaches faces problems in accounting for the basic contrast: ABS DPs and PPs versus ERG and IO DPs; see Ershova (2021c).

More importantly: Cannot explain lack of islandhood effect with long-distance wh-movement from embedded CP.

*Embedded and matrix CPs are structurally identical: no difference in argument licensing, case or agreement properties.

4.1 Agree-based phasehood and intervention

Rackowski & Richards's (2005) Agree-based phasehood:

• Phases may be made transparent for subextraction if they enter an independent agreement relation with the head that attracts the extracted element.

• All and only phases may undergo syntactic movement, per Chomsky (2000, 2001).

• For any movement-triggering operation, any phase acts as a potential goal.

• Per standard locality constraints, only the closest goal may successfully satisfy the feature on the movement probe.
• If the closest goal cannot satisfy the feature on the movement probe, defective intervention is triggered, resulting in ungrammaticality.

• Theoretical assumptions from Rackowski & Richards (2005:582):

(27) a. A probe must Agree with the closest goal \( \alpha \) that can move.

b. A goal \( \alpha \) can move if it is a phase.

c. Once a probe \( P \) is related by Agree with a goal \( G \), \( P \) can ignore \( G \) for the rest of the derivation (Richards 1998; Hiraiwa 2001).

My additions to Rackowski & Richards (2005):

• To capture the Edge Condition:

(28) Modified definition of closest from Rackowski & Richards (2005:579); my addition is in boldface:

A goal \( \alpha \) is the closest one to a given probe if there is no distinct goal \( \beta \) such that for some distinct \( X \) (\( X \) a head or maximal projection), \( X \) c-commands or dominates \( \alpha \) but does not c-command or dominate \( \beta \).

E.g. if \( vP \) is a phase, only DP1 in Spec, \( vP \) can undergo movement; any constituent embedded within DP1 (e.g. DP2 or whP) is inaccessible for extraction:

(29)

• Two types of probe features (Heck & Müller 2007; Müller 2010, a.o.):

Agree \(*F*\) trigger agreement without movement

Structure-building \( \bullet F \bullet \) trigger external or internal Merge

\(^8\)Only in the case of an unsatisfied movement feature; failed agree that does not require movement does not necessarily result in ungrammaticality (Preminger 2014).
• Probe features are hierarchically ordered and only the highest feature in the hierarchy is visible for syntactic operations per Georgi & Müller (2010); Müller (2010); Martinović (2015); Ershova (2019).

• Goal features may be specified as ‘movement-type’ (labeled here as +F+): they must be checked by a structure-building feature.

• For successive cyclic A′-movement through phase edges (see e.g. Chomsky 2000, 2001, 2008):
  At the time a phase is formed, a structure-building edge feature (•+•) may be added to the phase head to trigger movement of the corresponding goal to the phase edge. This edge feature is inserted after all other featural requirements of the phase head are satisfied, per Chomsky (2008) and counter to Heck & Müller (2003); Müller (2010, 2011).


  *possessor extraction from ergative DP:

(30)

```
  CP
   \   /
  C   TP
     \ /
    DP_{ABS} T'
     \ /
      T
       \ /
      vP
        \ /
       D' wP
          \ /
         [+WH+] v' VP
```

• C⁰ probes with the [•WH•] feature, and the possessor within the ergative DP bears the matching [+WH+] feature.

• There are two eligible goals for C⁰: the vP phase and the DP at the edge of this phase.

• vP and DP cannot move because this requires pied-piping ([+WH+] is embedded), which is disallowed in West Circassian.

• The possessor in DP_{ERG} is not an eligible goal: vP is an intervener.

• ⇒ The possessor is trapped within the ergative DP.
*possessor extraction from applied argument:

(31)

\[ \begin{array}{c}
  vP \\
  \text{DP}_{\text{ERG}} \\
  v' \\
  v \\
  \text{ApplP} \\
  \text{DP}_{10} \\
  \text{whP} \\
  [+WH+] \\
  D' \\
  \text{Appl} \\
  \text{VP} \\
  \text{ Spec,} vP \end{array} \]

- Movement of possessor from DP$_{10}$ must pass through Spec, $vP$ (a phase edge).
- Movement to Spec, $vP$ is triggered by the successive cyclic edge feature $[\star\star\star]$.
- ApplP is an intervener for the movement of the possessor from DP$_{10}$.
- $\Rightarrow$ the possessor is trapped, triggering an islandhood effect.

✓ possessor extraction from absolutive DP:

no phase boundaries between DP$_{\text{ABS}}$ and C$^0$.

(32)

\[ \begin{array}{c}
  \text{CP} \\
  C \\
  \text{TP} \\
  \text{DP}_{\text{ABS}} \\
  \text{whP} \\
  [+WH+] \\
  D' \\
  T' \\
  vP \end{array} \]
✓ possessor extraction from PP:

- possessor moves to edge of DP and PP via edge feature

(33)

\[ \text{PP} \]

\[ \text{whP} \quad [+\text{WH+}] \]

\[ \text{P}' \]

\[ \text{DP} \]

\[ <\text{whP}> \]

\[ \text{PossP} \quad \text{D} \quad [+\text{WH+}] \]

\[ <\text{whP}> \]

- PP is not at phase edge → accessible for probing by \( v^0 \)
- \( \Rightarrow \) possessor may be extracted from PP

(34)

\[ \text{vP} \]

\[ \text{whP} \quad [+\text{WH+}] \]

\[ \text{v'} \]

\[ \text{DP(ERG)} \]

\[ <\text{whP}> \]

\[ \text{v'} \]

\[ \text{VP} \quad [+\text{WH+}] \]

\[ \text{PP} \]

\[ \text{VP} \quad [+\text{WH+}] \]

\[ \text{P}' \]

Summary so far: Agree-based phasehood + Edge Condition can explain basic contrast between ERG and IO DPs and ABS DPs and PPs

Upcoming: Evidence for phasehood as intervention for Agree – no islandhood effect if phase successfully agrees.
4.2 Unlocking phases via polysynthesis and the edge feature

The puzzle: Why are ergative and applied argument DPs transparent for subextraction in long-distance wh-movement configurations?

\[\text{(35) } \text{ xet-a } [_{RC} \text{ Op}_i \ [_{CP} \text{ t}_i(\text{PR}) \ z-j-o-sab\text{-}o\text{-xe}\text{-}m ](\text{ERG}) \ \text{ wered(ABS)} \ \text{ WH.PR}\text{-POSS\text{-}child\text{-}PL\text{-}OBL song} \ \text{ -r} \ \text{Ø-wɔ-mo\text{-de-}re] -ABS 3ABS\text{-DIR\text{-}3PL.ERG\text{-say\text{-MOD\text{-ADV} 3ABS\text{-2SG.ERG\text{-NEG\text{-consent\text{-PRES} -ABS lit. 'Whose did you not consent for _ children to sing?'}}}}\]

✓ long-distance possessor extraction from ergative DP

Rackowski & Richards (2005): in Tagalog agreement between \(v^0\) and direct object unlocks direct object CP for subextraction.

My proposal: In West Circassian, agreement between \(C^0\) and lower verbal phase heads (\(v^0\) and Appl\(^0\)) unlocks \(vP\) and ApplP (and, correspondingly, their edges) for subextraction.

- Agreement between \(C^0\), \(v^0\) and Appl\(^0\) is connected to polysynthetic morphology.
- Head movement to \(C^0\) is triggered by agreement in the feature \([V]\):
  - \(C^0\) has the agreement feature \([*V*]\)
  - all other verbal projections bear the corresponding goal feature \([V]\)
  - See e.g. Roberts (2010) for Agree-driven head movement and Biberauer et al. (2014) on applying this approach to polysynthetic languages.

\[\text{(36) } [_{CP} \text{ C}[^*V*] \ [_{TP} T[V] \ [_{vP} T[V] \ [\text{ApplP Appl}[V] \ [_{VP} V[V] \ldots \Rightarrow \text{complex head: } C+T+v+\text{Appl+V}}\]

• See Ershova (2021b) on licensing polypersonal agreement on \(v^0\) and Appl\(^0\) via agreement with \(C^0\).

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9This analysis requires placing concatenative head movement in the narrow syntax per e.g. Koopman (1984); Travis (1984); Baker (1988); Kayne (1994); Roberts (2010); Arregi & Pietraszko (2021) and counter to e.g. Chomsky (2001); Embick & Noyer (2001); Harizanov & Gribanova (2019). See Roberts (2010) on differentiating Agree-driven phrase and head movement.
Why are there no DP islandhood effects in embedded clauses?

A combination of two factors:

1. the presence of the agreement feature [∗∀∗] on embedded C₀
2. the absence of the wh-movement triggering feature [•∀[,•] on embedded C₀
   (the [•∀[,•] feature is on matrix C₀)

✓ long-distance possessor extraction from ergative DP

- Embedded C₀ agrees with v₀
- vP is transparent for further probing by C₀
- C₀ attracts whP with edge feature [+F+]

(37)

\[
\begin{array}{c}
\text{CP} \\
\text{whP} \\
\text{C′}
\end{array}
\] 
\[
\begin{array}{c}
\text{CP} \\
\text{whP} \\
\text{C′}
\end{array}
\]

\[
\begin{array}{c}
\text{C} \\
\text{TP} \\
\text{T}
\end{array}
\] 
\[
\begin{array}{c}
\text{C} \\
\text{TP} \\
\text{T}
\end{array}
\]

\[
\begin{array}{c}
\text{DP}_{\text{ERG}} \\
\text{vP}
\end{array}
\] 
\[
\begin{array}{c}
\text{DP}_{\text{ERG}} \\
\text{vP}
\end{array}
\]

\[
\begin{array}{c}
\text{whP} \\
\text{[+WH+ +V∗]} \\
\text{vP}
\end{array}
\] 
\[
\begin{array}{c}
\text{whP} \\
\text{[+WH+ +V∗]} \\
\text{vP}
\end{array}
\]

\[
\begin{array}{c}
\text{whP} \\
\text{D′} \\
\text{v}
\end{array}
\] 
\[
\begin{array}{c}
\text{whP} \\
\text{D′} \\
\text{v}
\end{array}
\]

\[
\begin{array}{c}
\text{VP} \\
\text{vP}
\end{array}
\] 
\[
\begin{array}{c}
\text{VP} \\
\text{vP}
\end{array}
\]

- whP moves from embedded Spec,CP to Spec,vP via successive cyclic movement
- Spec,vP is an eligible goal for [•∀[,•] on matrix C₀

(38)

\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\] 
\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\]

\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\] 
\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\]

\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\] 
\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\]

\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\] 
\[
\begin{array}{c}
\text{vP} \\
\text{whP} \\
\text{[+WH+ +V∗] vP}
\end{array}
\]
long-distance possessor movement from applied argument

- embedded $C^0$ agrees in $[v]$ with $v$, and subsequently $\text{Appl}^0$
- whP within applied argument is attracted to embedded Spec,CP with edge feature $[\text{\textbullet}+\text{\textbullet}]$

\begin{equation}
(39)
\end{equation}

Difference with clausebound extraction:

- matrix $C^0$ also hosts the $[\text{*v*}]$ feature
- but matrix $C^0$ also hosts $[\text{\textbullet wh\textbullet}]$, which probes prior to $[\text{\textbullet v*}]$
- $\Rightarrow$ intervention effect with lower phase heads

5 Conclusion

- West Circassian DP arguments display a puzzling combination of syntactic effects: ergative and applied argument DPs are islands for extraction, but only when they are clausemates of the wh-movement triggering head ($C^0$).
- A DP becomes an island if merged at a phase edge, rendering the internal structure of the corresponding DPs opaque for subextraction.
- The amelioration of the islandhood effects in embedded contexts provides evidence of an agree-based model of phasehood, where phases behave as opaque domains due to them serving as interveners for the probe in question.
- The unusual dynamic/selective DP islandhood is connected to polysynthesis: $C^0$ agrees with all the lower heads in the verbal extended projection, triggering head movement to $C^0$ and resulting in a morphologically complex predicate.
• As a polysynthetic language, West Circassian presents novel evidence for an Agree-based theory of phasehood, per Rackowski & Richards (2005); Van Urk & Richards (2015); Halpert (2019).

• Constraints on possessor extraction are an unconventional syntactic ergativity effect: ERG is an island for subextraction, but ABS is not.

Appendices

A Diagnosing covert wh-movement

Wh-movement is island sensitive:

\[
\begin{align*}
\text{(40) a. } & [\text{RC Op}_1 \ w\text{one(ABS)} \ t_i(\text{ERG}) \ \Ø-q\-s-f\-z\-\text{e} \ \text{house} & 3\text{ABS- DIR- 1SG.IO- BEN- WH.ERG- do} \\
& \text{-r } \text{bla}\-\text{e- } \text{sa-pe} & \Ø-q-\Ø-\text{fa- } \text{-PST relative-ABS 1SG.PP-front 3ABS-DIR-3SG.IO-LOC-fall-PST} \\
& \text{-r } \text{I met the relative who built a house for me.'} \\
\text{b. * s\-d-a} & [\text{RC Op}_1 \ t_2(\text{ABS}) \ t_i(\text{ERG}) \ \Ø-q\-s-f\-z\-\text{e} \ \text{-PST relative-ABS 1SG.PP-front} \\
& \Ø-q-\Ø-\text{fa- } \text{ Intended: ‘What did I meet the relative who built _ for me?’} (\text{Lander 2012:286-287}) \\
& \text{-r } \text{3ABS-DIR-3SG.IO-LOC-fall-PST -ABS} \\
\end{align*}
\]

Wh-movement can license parasitic gaps (Ershova 2021a).

• ergative trace licenses a parasitic gap in the adjunct clause:

\[
\begin{align*}
\text{(41) mar\- [RC ç’al-ew}_i \ t_i(\text{ERG}) \ varenje \ Ø- z\-\text{e- } \text{re} \\
& \text{here boy-ADV jam 3ABS- WH.ERG- eat -PRES} \\
& \text{-r } \text{[CP pro}_1(\text{ERG}) \ s\-\text{ar-r } \Ø- \ a/ z\-\text{a- } \text{mo- w\- } \text{-ze]} \\
& \text{-ABS soup-ABS 3ABS- 3SG/WH.ERG- NEG- finish -CNV} \\
& \text{‘Here is the boy who is eating jam without finishing the soup.’} (\text{Ershova 2021a}) \\
\end{align*}
\]

• absolutive trace licenses a parasitic gap in the adjunct clause:
‘Here is the girl who plays with the doll while her sister sleeps.’ (Ershova 2021a)

B Possessor extraction is ungrammatical from all types of applied argument DPs

Experiencer of two-place unaccusative verb: baseline (43a); possessor extraction is ungrammatical (43b); pseudocleft repair strategy (43c).

(43) a. [ma bzəʁɔбе-м(PR) Ө-jo-pšaše ](IO)
   this woman-OBL WH.PR-POSS-girl
   1SG.ABS-3SG.IO-LOC-forget-PST
   ‘This woman’s daughter forgot about me.’

b. * ma bzəʁɔбе-r аро [RC Op₁ [ t₁(PR) z-jo-pšaše ](IO)
   this woman-PRED WH.PR-POSS-girl
   1SG.ABS-3SG.IO-LOC-forget-PST -ABS
   Intended: ‘This woman is the one whose daughter forgot about me.’

c. mə bzəʁɔбе-r аро [RC Op₁ [ t₁(PR) z-jo-pšaše ](ABS)
   this woman-ABS PRED WH.PR-POSS-girl
   [RC Op₁ t₁(IO) ə-ʊ-z-ʃ-ɛ-ɛ-ɪpʃa-ɪɛ-ɛ-r ]
   1SG.ABS-WH.IO-LOC-forget-PST-ABS
   lit. ‘This woman is the one whose daughter is the one who forgot about me.’

Indirect object of di-transitive verb: baseline (44a); possessor extraction is ungrammatical (44b); pseudocleft repair strategy (44c).

(44) a. se(ERG) źegʷaλɛ-r(ABS)
   I toy-ABS
   Ө-Ө-je-s-to-ɪ
   3ABS-3SG.IO-DAT-1SG.ERG-give-PST
   č’ele-ɑkʷə-m(PR) ə-š ](IO)
   boy-small-OBL 3SG.PR-brother
   ‘I gave the toy to the boy’s brother.’

Intended: ‘Here is the boy to whose brother I gave the toy.’

c. mwarø [RC ű ele-cök w-ewi [ t₁(PR) źo-š ](ABS) [RC Opj t₁(IO) here boy-small-ADV WH.PR-brother źeg w-ale-r(ABS) Œ-z-e-s-tœ-œ toy-ABS 3ABS-WH.IO-DAT-1SG.ERG-give-PST-ABS

lit. ‘Here is the boy whose brother is the one to whom I gave the toy.’

High applicative: baseline (45a); possessor extraction is ungrammatical (45b); pseudo-cleft repair strategy (45c).

(45) a. se(ERG) wered(ABS) [ mwe źw azØ-m(PR) Œ-jo-c’æale ](IO) I song this woman-OBL 3SG.PR-POSS-boy Œ-qa-Œ-fe-s-?w’a-œ 3ABS-DIR-3SG.IO-BEN-1SG.ERG-say-PST

‘I sang for this woman’s son.’

b. * mar ø [RC źw az-ewi [ t₁(PR) zj-o-c’æale ](IO) wered(ABS) here woman-ADV WH.PR-POSS-boy song Œ-qa-Œ-fe-s-?w’a-œ 3ABS-DIR-3SG.IO-BEN-1SG.ERG-say-PST -ABS

Intended: ‘Here is the woman for whose son I sang.’

c. mar ø [RC źw az-ewi [ t₁(PR) zj-o-c’æale ](ABS) [RC Opj t₁(IO) here woman-ADV WH.PR-POSS-boy Œ-œe-zØ-fe-s-?w’a-œ-r ] 3ABS-DIR-WH.IO-BEN-1SG.ERG-say-PST-ABS

lit. ‘Here is the woman whose son is the one for whom I sang.’

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