Phasehood as defective intervention: Possessor extraction and selective DP islandhood in West Circassian[*]

Ksenia Ershova (kershova@stanford.edu)

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Abstract. This paper presents evidence from West Circassian for an agree-based approach to the islandhood of nominal arguments. In West Circassian, ergative and applied arguments are islands for subextraction, while the absolutive argument is not. Counter to previous approaches, the observed asymmetry does not correlate with movement, phi-agreement, position of merge, or structural complexity. Furthermore, these islandhood effects are absent in long-distance wh-movement and parasitic gap configurations. I argue that these patterns arise as a result of phase edges being opaque for subextraction and phases serving as interveners for agree. The contrast between matrix and embedded contexts is reduced to the difference in the featural content of the probe which drives the wh-movement – in embedded contexts this probe successfully agrees with the lower phase heads, rendering them non-interveners for further syntactic operations. The proposed analysis informs our understanding of phasehood, wh-movement, and islandhood effects cross-linguistically.
Keywords. Wh-movement; possessor extraction; islandhood; Phase Theory; West Circassian.

1 Introduction: Phasehood as intervention and the Edge Condition

Since Chomsky's (1973) Subject Condition, linguistic research has been concerned with accounting for subextraction asymmetries between different types of nominal constituents. One strand of research, which takes root in Ross (1967); Chomsky (1973) has been prevalently concerned with constraints on subextraction out of subjects, as opposed to objects, which are generally transparent for subextraction. The second strand of literature concerns subextraction out of oblique case-marked nominals (Bošković 2018; Branan 2018). There is a parallel between the islandhood of subjects and oblique nominals, in that the latter group is intended to subsume a subclass of subject-type arguments – ergative agents in ergative-absolutive languages. Bošković (2018) in

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particular proposes a unified analysis for the islandhood of e.g. English subjects and oblique case-marked nominals in e.g. Serbo-Croatian, while Branan (2018) proposes an account of oblique DP islands which includes ergative case-marked nominals. The main claim of this paper is that the islandhood of certain types of nominals is best captured by a modified version of the Agree-based theory of phasehood argued for by Rackowski & Richards (2005); Van Urk & Richards (2015); Halpert (2019). In particular, I propose a revised definition of locality for Agree operations, which captures Chomsky's (2000; 2001) generalization that phase edges are opaque for subextraction (named the Edge Condition by Gallego & Uriagereka 2007). Within this approach, the impenetrability of a given phase is treated as a consequence of syntactic intervention, rather than the fact that the constituent in question has been transferred to the interfaces and is no longer visible to the syntactic module. The opaqueness of the phase edge is likewise accounted for via locality and intervention, rather than constraints on computational complexity; cf. Chomsky (2008:147-148). Support for this approach comes from configurations where a phase is made transparent for subextraction when the corresponding phase head is rendered invisible (=inactive) and thus no longer an intervener. This approach implies a notion of dynamic phasehood, with the opacity of a given constituent determined contextually by the larger syntactic structure.[1]

This paper presents evidence for the Agree-based approach to phasehood from West Circassian (also known as Adyghe), a polysynthetic language of the Northwest Caucasian family. In West Circassian, ergative and applied argument DPs are islands for possessor extraction, while absolutive arguments and PPs are not. Puzzlingly, possessor extraction out of ergatives and applied objects is grammatical in configurations involving long distance wh-movement out of an embedded clause, and in parasitic gap configurations, which are otherwise island sensitive. While bearing superficial similarities to cross-linguistically observed constraints, selective DP islandhood in West Circassian cannot be accounted for by earlier analyses of nominal islandhood: constraints on subextraction do not correlate with (i) specifierhood, (ii) oblique or PP-like status, (iii) available versions of subjacency; (iv) moved versus base-generated status, or (v) the syntax of ϕ-agreement. Most notably, all available accounts fall short in accounting for the lack of DP islandhood in embedded CPs.

Building on the idea that phase boundaries play a crucial role in delimiting domains for syntactic operations (Chomsky 2000, *et seq.*), this paper argues that the West Circassian extraction facts provide evidence for phasehood as a consequence of defective intervention, as proposed by Rackowski & Richards (2005). Within this approach, phasehood does not directly correlate with Transfer to the interfaces, as has been argued e.g. by Chomsky (2000, 2001, 2008); Richards (2011); Bošković (2016), among others. Rather, phases are opaque for higher syntactic operations by virtue of intervening in Agree operations triggered by a higher probe, consequently limiting the search space of that probe to the domain above the phase boundary. The crucial evidence for this approach comes from configurations where a phase head has successfully agreed with the higher probe, rendering the corresponding phase inactive for that probe and thus no longer an intervener. In these cases, islandhood effects are ameliorated – in West Circassian, this takes place with wh-extraction out of complement clauses and parasitic gap configurations.

This paper argues that selective islandhood amelioration in West Circassian is connected to the polysynthetic nature of the language: verbal heads generally enter an Agree relation with the highest head in the extended verbal projection (C^0), which gives rise to head movement and sub-

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[1]The idea of dynamic phasehood, although different in assumptions and implementation, has been proposed by den Dikken (2007); Gallego (2010); Bošković (2014).

sequently complex polysynthetic morphological words (see e.g. Roberts 2010 on Agree-triggered head movement). This suggests that cross-linguistic variation in selective DP islandhood effects is due to a combination of variation in the agreement properties of C^0 and whether or not a given verbal head marks a phase edge and thus serves as a potential intervener.

The remainder of the paper is structured as follows. Section 2 provides the necessary background on West Circassian clause structure and the syntax of wh-movement. Section 3 outlines the constraints on possessor extraction in the language. Section 4 discusses the shortcomings of previous accounts of selective DP islandhood and presents the Agree-based analysis of the West Circassian data. Section 5 concludes.

2 Background on West Circassian wh-movement

This section provides the necessary background on West Circassian clause structure and wh-movement configurations.

2.1 Basic clause structure

This subsection provides a brief overview of West Circassian morphosyntax which is necessary for the understanding of wh-extraction.

West Circassian is polysynthetic, with prevalent head marking for predicates, nominal constituents, and postpositions (see Kumakhov 1964; Kumakhov & Vamling 2009; Testelets 2009; Korotkova & Lander 2010; Lander & Letuchiy 2010; Lander 2017; Lander & Testelets 2017, *inter alia*). A predicate expones cross-reference morphology for all participants of the event it denotes; for example, the verb in (1) includes prefixes referencing four participants, from left to right: an absolutive theme, a benefactive applied object, a dative applied object denoting the causee of a transitive base verb, and an ergative agent denoting the causer. The markers referring to the applied objects appear alongside applicative prefixes marking the semantic role of the corresponding applied object. The applicative markers may vary based on the theta-role of the applied object (e.g. benefactive *fe-*, comitative *de-*, locative *š'ə-*, etc.).[2]

(1) sə-   qə- p-   f-   a-   r-   jə-   ʁe-   λeʁʷə -ʁ
    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)

Cross-reference prefixes are strictly ordered in accordance with an ergative alignment system: the personal marker referring to the theme of a transitive verb and the sole argument of an intransitive verb appears in the leftmost position, which is then followed by any cross-reference morphology referring to applied objects, and the marker cross-referencing the ergative agent appears closest to the verbal root (2).

(2)

Absolutive-	Applied object-	Applicative-	Ergative-

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[2]The examples are glossed in accordance with the Leipzig conventions, with the following additions: DIR – directive; DYN – present tense on dynamic verbs; LIM – limitative; MOD – modal future; PR – possessor; RE – refactive.

In the nominal domain, possessed nominals are marked with prefixal cross-reference morphology referring to the possessor; in cases of alienable possession this prefix is followed by the possessive marker *jə-*.[3] An example of an inalienably possessed noun is in (3) and of a noun marked with the alienable possessive marker *jə-* is in (4).

(3) **s**-šəpχʷə-xe-r
    1SG.PR-sister-PL-ABS
    'my sisters'

(4) **t-jə-**ʁʷəneʁʷə-xe-m
    1PL.PR-POSS-neighbor-PL-OBL
    'our neighbors'

The syntax of cross-reference morphology lies outside the scope of this paper. Following (Ershova 2019a,b), I assume that the personal prefixes expone ϕ-agreement between the corresponding argument and a verbal functional projection: v^0 for ergative, Appl^0 for applied arguments, and T^0 for absolutive. However, the analysis discussed here is equally compatible with analyzing these morphemes as clitics or with positing dedicated Agr^0 projections, as e.g. in Ershova (2019b).

West Circassian displays ergative alignment in the domain of case marking as well: the theme of a transitive verb and the single argument of an intransitive verb are marked with the absolutive suffix *-r*, while the ergative agent, as well as any applied objects receive the oblique marker *-m*. Thus, the external argument of the unergative verb *qeŝen* 'dance' in (5a) and the theme of the transitive verb *fepen* 'dress' in (5b) are assigned absolutive case, while the ergative agent in (5b) and the benefactive applied object in (5c) are assigned oblique case.

(5) a. mə pŝaŝe-**r(ABS)**   jane   paje   Ø-qa-ŝʷe
       this girl-**ABS**   3PL.PR+mother for   3ABS-DIR-dance
       'The girl is dancing for her mother.'

    b. s-jə-pŝaŝe-xe-**m(ERG)**   nəsχape-xe-**r(ABS)**   Ø-a-fepa-ʁe-x
       1SG.PR-POSS-girl-PL-**OBL** doll-PL-**ABS**   3ABS-3PL.ERG-dress-PST-PL
       'My daughters dressed the dolls.'

    c. mə č'ale-r(ABS)   bere   Ø-jə-ʔahəl-xe-**m(IO)**   telefon-č'e
       this boy-ABS   much 3SG.PR-POSS-relative-PL-**OBL** telephone-INS
       Ø-a-fe-tj-e-we
       3ABS-3PL.IO-BEN-LOC-DYN-hit
       'This boy calls (lit. rings for) his relatives on the telephone a lot.'

The label *oblique* for the case on ergative agents and applied objects is additionally motivated by the appearance of this case on possessors (6) and complements of postpositions (7).

(6) pŝaŝe-**m** Ø-jə-pŝeŝeʁʷ
     girl-**OBL** 3SG.PR-POSS-female.friend
     'the girl's friend'

(7) mə ŝʷəzə-**m**   paje
     this woman-**OBL** for
     'for this woman'

Following recent work on West Circassian (Rogava & Keraševa 1966; Arkadiev et al. 2009; Arkadiev & Letuchiy 2011; Lander 2012; Letuchiy 2015; Lander & Testelets 2017; Ershova 2019a,b,

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[3]See Gorbunova (2009) on alienable vs. inalienable possession in West Circassian.

2020b, *inter alia*), I uniformly gloss the marker *-m* as *oblique*.[4] The main claims of the paper do not rely on a particular theory of how case is assigned; see Caponigro & Polinsky (2011); Ershova (2019b) on the syntax of case assignment.

Nouns may appear without overt case marking; the lack of case marking is generally associated with indefiniteness. Additionally, possessed nominals in the singular, proper names and personal pronouns generally do not inflect for case (Arkadiev et al. 2009:51-52; Arkadiev & Testelets 2019). Arkadiev & Testelets (2019) suggest that the lack of case marking correlates with a diminished nominal structure; in this paper I assume that all nominals are full DPs regardless of overt case marking, but the present account can easily accommodate the possibility of variable nominal structure, assuming that the edge of the nominal extended projection manifests a phase edge per Bošković (2014). The order of arguments in a full clause is free, but the language is prevalently left-branching, with suffixal case markers, postpositions rather than prepositions, verb-final embedded clauses, and relative clauses to the left of their nominal external head.

2.2 Relative clauses

This subsection outlines the general structure of wh-movement configurations in West Circassian. Wh-movement is observed only in relative clauses: wh-questions and focus and topic constructions are formed on the basis of a pseuducleft which involves relativization (Sumbatova 2009; Caponigro & Polinsky 2011). The syntax of relative clauses in West Circassian has been extensively described in Lander (2009a,b, 2012) and analyzed in Minimalist terms by Caponigro & Polinsky (2011); for a recent discussion see also Ershova (2019a).

Following Caponigro & Polinsky (2011); Ershova (2019a), I assume that relativization in West Circassian involves the movement of a relative operator to Spec,CP. In externally headed relative clauses, the operator is phonologically null, in relative clauses that are considered internally headed (Lander 2009a, 2012) the relative operator is spelled out as the internal head.

Relativization of non-absolutive participants in West Circassian involves the use of a special relativizing morpheme *zǝ-*[5] in place of the regular cross-reference morphology referring to the relativized participant (Lander 2009a, 2012; Caponigro & Polinsky 2011). For example, the ergative agent of the finite predicate in (8a) triggers the third person ergative marker *ǝ-*; if this argument is relativized, the corresponding agreement marker is replaced with *zǝ-* (8b).

(8) a. **mǝ** **č̣'ale-m(ERG)**   ǝ-š   velosjǝped
             this **boy-OBL**   3SG.PR-brother   bicycle

Ø-	Ø-	r-	**jǝ-**	tǝ	-ʁ
3ABS-	3SG.IO-	DAT-	**3SG.ERG-**	give	-PST

            'This boy gave a bicycle to his brother.'

    b. marǝ   [**č̣'al-ew$_i$** t_i(ERG)   ǝ-š   velosjǝped
           here   **boy-ADV**   3SG.PR-brother   bicycle

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[4]But see Caponigro & Polinsky (2011), who posit two homophonous case markers: ergative on agents of transitive verbs and oblique on applied arguments.

[5]In accordance with regular morphophonological rules (Arkadiev et al. 2009:27-29), the prefix *zǝ-* surfaces as *z-* prevocalically or before the glide /j/; the allomorph *ze-* is used to mark a dative applied object.

Ø-	Ø-	je-	**zə-**	tə	-ʁe]	-r
3ABS-	3SG.IO-	DAT-	**WH.ERG-**	give	-PST	-ABS

'Here is the boy that gave a bicycle to his brother.' (Ershova 2019a)

The same pattern can be seen with the relativization of an applied argument: the applied object of the finite predicate in (9a) triggers third person singular agreement; if this argument is relativized, the corresponding agreement marker is once again replaced with *zə-* (9b).

(9) a. **mə č'ele-çəḳʷə-m** Ø-jane Ø- Ø- fe- gʷəbž -zepət

this boy-small-OBL 3SG.PR-mother 3ABS- **3SG.IO-** BEN- angry -always

'His mother is always angry at this boy.'

b. marə [**č'ele- çəḳʷ-ew**ᵢ *t*ᵢ(IO) Ø-jane Ø- **zə-** fe- gʷəbž

this **boy-small-ADV** 3SG.PR-mother 3ABS- **WH.IO-** BEN- angry

-zepətə -re] -r

-always -DYN -ABS

'Here is the boy at whom his mother is always angry.' (Ershova 2019a)

If a possessor is relativized, the cross-reference marker on the possessed nominal is likewise replaced with the marker *zə-*: this is true for both alienable (10) and inalienable possession (11).

(10) marə [$_{RC}$ ŝʷəz-ew]ᵢ [$_{DP}$ *t*ᵢ(PR) **z-**jə-pŝaŝe](ABS) dax-ew Ø-qa-ŝʷe-re]

here woman-ADV **WH.PR-**POSS-girl good-ADV 3ABS-DIR-dance-DYN

-r

-ABS

'Here is the woman whose daughter dances well.'

(11) mwarə [$_{RC}$ ŝʷəz-ew]ᵢ [$_{DP}$ *t*ᵢ(PR) **zə-**qʷe](ABS) hapse-m

here woman-ADV **WH.PR-**son prison-OBL

Ø-Ø-č-a-ʒa-ʁe] -r

3ABS-3IO.SG-LOC-3PL.ERG-throw-PST -ABS

'Here is the woman whose son they threw in jail.'

Relativization of an absolutive argument does not trigger overt relativizing morphology; since third person absolutive agreement is phonologically null, this means that the agreement morphology of the predicate heading such a relative clause remains unaltered compared to its finite form. For example, the absolutive external argument of *ceqen* 'bite' triggers null agreement in the finite predicate (12a); if this argument is relativized, this agreement remains null (12b).

(12) a. **ha-r** Ø-jə-xozjajən Ø- Ø- je- ceqa -ʁ

dog-ABS 3SG.PR-POSS-owner **3ABS-** 3SG.IO- DAT- bite -PST

'The dog bit its owner.'

b. se sə-Ø-š'e-š'əne [$_{RC}$ **ha-w**ᵢ *t*ᵢ(ABS) Ø-jə-xozjajən

I 1SG.ABS-3SG.IO-LOC-fear **dog-ADV** 3SG.PR-owner

Ø- Ø- je- ceqa -ʁe] -m

WH.ABS- 3SG.IO- DAT- bite -PST -OBL

'I fear the dog that bit its owner.' (Ershova 2019a)

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Absolutive internal arguments are likewise relativized without overt wh-morphology, as illustrated in (13) for the absolutive theme of *λeʁʷən* 'see'.

(13) marə [_RC_ pŝaŝ-ew_i_ *t*_i_(ABS) bere Ø-jə-ʁʷəneʁʷə-m dež'
here girl-ADV much 3SG.PR-POSS-neighbor-OBL at

Ø-Ø-š'ə-s-λeʁʷə-re] -r
WH.ABS-3SG.IO-LOC-1SG.ERG-see-DYN -ABS

'Here is the girl whom I see at her neighbor's place a lot.'

Following O'Herin (2002) on the related language Abaza, and Caponigro & Polinsky (2011); Ershova (2019a) on West Circassian, the relativization of all types of arguments involves wh-movement and, correspondingly, wh-agreement. The morpheme *zə-* and its null absolutive allomorph (Ø-) are thus the spellout of this wh-agreement.[6] Since there is no overt relative pronoun, the wh-movement is generally covert and can be diagnosed by (i) islandhood sensitivity and (ii) the ability of the moved operator to license parasitic gaps.

Islandhood sensitivity of constructions involving relativization is discussed in Caponigro & Polinsky (2011) and Lander (2012). For example, the relative clause in (14a) contains an operator which binds a trace in the ergative position; the absolutive argument cannot be relativized from within this clause, as shown in (14b). The ungrammaticality of (14b) may be due either to the presence of the wh-operator within the relative clause, or the intervening head of the relative clause; it suffices to note that there is an islandhood effect, and even absolutive arguments which do not trigger overt wh-morphology are subject to it.

(14) a. [_RC_ Op_i_ wəne(ABS) *t*_i_(ERG) Ø- qə- s- fe- **zə-** ŝe -ʁe]
house 3ABS- DIR- 1SG.IO- BEN- **WH.ERG-** do -PST

blaʁe-r sa-pe Ø-q-Ø-jə-fa-ʁ
relative-ABS 1SG.PP-front 3ABS-DIR-3SG.IO-LOC-fall-PST

'I met the relative who built a house for me.'

b. * səd-a [_RC_ Op_j_ [_RC_ Op_i_ *t*_j_(ABS) *t*_i_(ERG) Ø- qə- s- fe- **zə-**
what-Q 3ABS- DIR- 1SG.IO- BEN- **WH.ERG-**

ŝe -ʁe] blaʁe-r sa-pe Ø-q-Ø-jə-fa-ʁe] -r
do -PST relative-ABS 1SG.PP-front 3ABS-DIR-3SG.IO-LOC-fall-PST -ABS

Intended: 'What did I meet the relative who built __ for me?' (Lander 2012:286-287)

The distribution of parasitic gaps in West Circassian is discussed in Ershova (2019a). Parasitic gaps may appear within nominal and clausal constituents and trigger wh-agreement, which appears in addition to the wh-agreement triggered by the licensing gap. For example, the relativized ergative agent of *šxən* 'eat' in (15) triggers wh-agreement on the predicate heading the relative clause.

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[6]See Lander (2009a,b, 2012); Lander & Daniel (2020) for an alternative account where *zə-* is a morphologically expressed relative or resumptive pronoun and absolutive relativization involves a distinct *unmarked* relativization strategy that does not involve the use of any special morphology, overt or otherwise. This paper is compatible with this alternative approach, as long as the absolutive unmarked relativization strategy involves covert wh-movement of the same type as the marked relativization strategy. Since nothing in this account crucially relies on this, a uniform wh-agreement account is chosen as the simpler analytical option.

The ergative agent in the adjunct clause headed by *wəxən* 'finish' is co-indexed with the relativized argument and may in this case be optionally replaced by a parasitic gap, correspondingly triggering wh-agreement on the embedded verb.

(15) marə [$_{RC}$ č'al-ew$_i$ t_i(ERG)   varenje Ø- **zə-**   šxə -re -r
      here   boy-ADV   jam   3ABS- **WH.ERG-** eat -DYN -ABS
      [$_{CP}$ *pro*$_i$(ERG) sʷəpə-r Ø- **ə / zə-**   mə- wəx -ze]]
                  soup-ABS 3ABS- **3SG/WH.ERG-** NEG- finish -CNV
      'Here is the boy who is eating jam without finishing the soup.' (Ershova 2019a)

Crucially, a relativized absolutive argument may likewise license a parasitic gap despite the lack of overt wh-morphology correlating with absolutive relativization. Thus, the absolutive argument of *čəjen* 'sleep' in relativized in (16), and, analogous to the previous example, the co-indexed possessor in the adjunct clause may be optionally replaced with a parasitic gap, triggering wh-agreement in the corresponding nominal.

(16) marə [$_{RC}$ pŝaŝ-ew$_i$ [$_{CP}$ [*pro*$_i$ / __$_{PG}$ **ə / zə-**ŝəpχʷ]   Ø-me-čəje-fe] t_i(ABS)
      here   girl-ADV   **3SG/WH.PR-**sister 3ABS-DYN-sleep-LIM
      nəsχape-m **Ø-**   Ø-   rə- žegʷə -re]   -r
      doll-OBL **WH.ABS-** 3SG.IO- INS- play -DYN -ABS
      'Here is the girl who plays with the doll while her sister sleeps.' (Ershova 2019a)

The nominal head of the relative clause may appear (i) to the right of the relative clause, with the case of the full DP suffixed to the nominal (17) or (ii) to the left of the predicate heading the relative clause, often on the left edge of the clause; in this construction, the case of the full DP appears on the predicate of the relative clause, while the nominal head bears adverbial case (16).

(17) [$_{RC}$ Op$_i$ t_i(ERG)   Ø-jə-ŝhanʁʷənče   Ø- xe- **zə-**   wətə -ʁe] **č̣'ale-r**
                      3SG.PR-POSS-window 3ABS- LOC- **WH.ERG-** break -PST **boy-ABS**
      marə
      here
      'Here is the boy that broke his window.'

The two types of relative clauses differ only in the position of the nominal head – they appear to be semantically equivalent and acceptable in the same range of contexts (Lander 2012:244). As can be seen in (17), the predicate heading the relative clause displays wh-agreement with the relativized participant regardless of the position of the nominal head. While not crucial to the main claim of the paper, I assume following Ershova (2019a) that the adverbial case-marked nominal head is the overt spellout of the relative operator, and label it as such in the examples.

Relative clauses may also be headless, with no overt nominal head. In this case the predicate heading the relative clause shows the same patterns of wh-agreement as in a headed relative clause and carries the case assigned by the matrix verb. For example, in (18) a headless relative clause is used as the indirect object of the matrix verb and is correspondingly marked with oblique case. The predicate in the relative clause is marked with wh-agreement for the relativized participant.

(18) [_RC_ Op_i_ asλan *t*_i_(IO) Ø- **zə-** fae -zepətə] -m ə-š-xe-r
           Aslan   3ABS- **WH.IO**- want -always -OBL 3SG.PR-brother-PL-ABS

Ø-Ø-faj-ep
3ABS-3SG.IO-want-NEG

'[What Aslan always wants] his brothers don't want.' (Ershova 2019a)

Following Caponigro & Polinsky (2011); Ershova (2019a) West Circassian relative clauses are formed via the movement of a relative operator to Spec,CP – this is schematically represented in (19). In externally headed and headless relative clauses, the operator is phonologically null and in internally headed relative clauses, where the nominal head appears within the relative clause and is marked with adverbial case, the internal head is the overt spellout of this operator.

(19)   [_CP_ Op_i_ C[WH] [_TP_ ... *t*_i_ ...]]

With the basic background on West Circassian clause structure and relative clauses in place, the following section presents the core data of the paper – constraints on possessor extraction.

3   Constraints on possessor extraction

This section outlines the constraints on subextraction out of various types of nominal arguments in West Circassian. The constraints outlined here are subject to dialectal variation: Lander (2012) indicates that for the majority of speakers he has consulted possessor extraction is unrestricted and possible for all types of nominal 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, and the analysis proposed here will be solely concerned with this, more restrictive, version of West Circassian. This section is divided into two parts: the first part presents the basic generalizations regarding clausebound possessor extraction and the second part discusses long-distance wh-movement configurations.

3.1   Clausebound possessor extraction

As demonstrated in the previous section, all types of arguments may be relativized: ergative agents (8b), applied objects (9b), and absolutive external (12b) or internal arguments (13). Subextraction from these constituents is, however, restricted. The only type of subextraction that is productive in West Circassian is possessor extraction – there is no non-possessor complement position within a DP, and nominal-internal adjunct postpositional phrases cannot be subextracted from or extracted themselves. For example, the instrumental postposition *-č'e* [7] may be used to mark the DP denoting the subject matter of the lesson in (20a). Attempts to extract the full instrumental phrase (20b) or the possessor within the instrumental phrase (20c) are deemed ungrammatical by speakers.

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[7]The marker *-č'e* displays morphosyntactic properties of both a suffix and a postposition and is standardly assumed to be suffixed to the modified lexical head; see Serdobolskaya & Kuznetsova (2009); Serdobolskaya (2011) for details.

(20) a. [rwesjəje-m(PR)   Ø-jə-tarjəχ]   -č'e](PP)   wərek
         Russia-OBL   3ABS-POSS-history -INS   lesson
         'a lesson in Russian history'

     b. * sədə-m-č'e   [_RC Op_i njewəš' [[_tPP   wərek](ABS)
         what-OBL-INS   tomorrow   lesson
         Ø-t-jə-ʔe-š'tə]   -r
         3ABS-1PL.IO-LOC-be-FUT -ABS
         Intended: 'In what will we have a lesson tomorrow?'

     c. * səd-a   [_RC Op_i [[_t_i(PR) **z-**jə-tarjəχ]   -č'e](PP) wərek](ABS)
         what-Q   **WH.PR-**POSS-history -INS   lesson
         njewəš' Ø-t-jə-ʔe-š'tə]   -r
         tomorrow 3ABS-1PL.IO-LOC-be-FUT -ABS
         Intended: 'In the history of what will we have a lesson tomorrow?'

Since possessor extraction is the only type of wh-movement productively allowed from within nominal constituents, this paper is concerned solely with constraints on this type of subextraction.

If we are to take into account only clausebound wh-movement of possessors, the generalization in (21) holds.

(21) **CONSTRAINT ON POSSESSOR EXTRACTION (PREMILINARY).** A possessor may be extracted only from an absolutive argument; other types of clausal arguments are adjuncts.

Thus, we observed in (10)-(11) that the possessor of an absolutive argument (internal or external) may be successfully relativized. This is in sharp contrast with ergative and applied arguments, i.e. non-absolutive arguments: neither type of DP allows possessor subextraction. For example, (22a) presents an ungrammatical attempt to relativize the possessor from within the DP denoting the ergative agent of *ʔʷen* 'say', as shown in the baseline version of this sentence (22b).

(22) a. * xet-a   [Op_i [_t_i(PR) **z-**jə-č'ale](ERG) dax-ew   wered(ABS)
         who-Q   **WH.PR-**POSS-boy beautiful-ADV song
         Ø-q-ə-ʔʷe-re]   -r
         3ABS-DIR-3SG.ERG-sing-DYN -ABS
         Intended: 'Whose son sings well?'

     b. [mə bzəλfəʁe-m(PR)   **Ø-**jə-č'ale](ERG) dax-ew   wered(ABS)
         this woman-OBL   **3SG.PR-**POSS-boy beautiful-ADV song
         Ø-q-j-e-ʔʷe
         3ABS-DIR-3SG.ERG-DYN-sing
         'This woman's son sings well.'

Possessor extraction out of applied arguments is likewise ungrammatical, regardless of their structural height or theta-role. For example the possessed DP in (23a) is the dative indirect object of the verb *jeċeċen* 'scold' – this verb belongs to a large class of predicates which select for two arguments: an absolutive case-marked agent and an internal oblique case-marked argument that is indexed with applicative morphology, most often, dative *je-*. (23b) shows that the possessor of the applied object cannot be extracted. See Appendix A for additional data showing that this generalization holds for all types of applied argument DPs.

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(23) a. [mwe ŝʷəzə-m(PR) ə-qʷe](IO) č'elejeʁaӡe-r(ABS)
    this woman-OBL **WH.PR-**son teacher-ABS

    Ø-Ø-je-çeça-ʁ
    3ABS-3SG.IO-DAT-scold-PST

    'The teacher scolded this woman's son.'

   b. * mwarə [$_{RC}$ ŝʷəz-ew$_i$ [t_i(PR) **zə-**qʷe](IO) č'elejeʁaӡe-r(ABS)
      here woman-ADV **WH.PR-**son teacher-ABS

      Ø-Ø-je-çeça-ʁe] -r
      3ABS-3SG.IO-DAT-scold-PST -ABS

      Intended: 'Here is the woman whose son the teacher scolded.'

The repair strategy for possessor extraction from non-absolutive arguments is a pseudo-cleft construction, wherein the possessed DP is used as the focus of the pseudo-cleft, with subsequent extraction of the possessor from within this focus DP. For example, the grammatical way of extracting the possessor from the ergative agent in (22b) can be thought of as a two-step process: first, the full ergative DP is relativized, triggering ergative wh-agreement within the corresponding relative clause, and then the possessor is subsequently relativized from the DP which is now in the absolutive position (24).

(24) xet-a [Op$_i$ [t_i(PR) **z-**jə-č'ale](ABS) [$_{RC}$ Op$_i$ t_j(ERG) wered(ABS)
    who-Q **WH.PR-**POSS-boy sing

    Ø-qe-**zə-**ʔʷe-re-r]]
    3ABS-DIR-**WH.ERG-**sing-DYN-ABS

    'Whose son sings well. (lit. Whose son is the one who sings well?)'

The same relativization strategy is observed for possessors of applied arguments. Thus, the grammatical way of extracting the possessor of the applied object in (23a) likewise involves a pseudo-cleft wherein the applied object is first relativized, and then the possessor is extracted from the corresponding DP in the absolutive position (25).

(25) mwarə [$_{RC}$ ŝʷəz-ew$_i$ [t_i(PR) **zə-**qʷe](ABS) [$_{RC}$ Op$_j$ t_j(IO)
    here woman-ADV **WH.PR-**son

    č'elejeʁaӡe-r(ABS) Ø-**z-**e-çeça-ʁe-r]]
    teacher-ABS 3ABS-**WH.IO-**DAT-scold-PST-ABS

    lit. 'Here is the woman whose son is the one whom the teacher scolded.'

There is evidence that the constructions in (24)-(25) involve the use of a pseudo-cleft and, correspondingly, two steps of relativization, rather than a type of cyclic wh-agreement, wherein a wh-operator triggers several instances of wh-agreement due to cyclic movement through several phase edges; see e.g. Chung (1998) on Chamorro; McCloskey (2001) on Irish, a.o. The main reason to believe that a pseudocleft construction is involved, also discussed in Ershova (2019a), concerns the impossibility of regular case-marking on the constituent containing the wh-trace of the possessor. While possessed nominals are generally unmarked for case, the plural suffix -*xe* requires an overt case marker even for possessed nominals. Surprisingly, neither the oblique marker -*m*, nor the absolutive marker -*r* are deemed acceptable in the context of wh-extraction from a

non-absolute argument; instead, speakers prefer to drop number marking, since unmarked nominals are not specified for number and may be interpreted as plural (Kumakhov 1971; Arkadiev & Testelets 2019). This is observed for ergative DPs, such as the ergative agent of *ʔ*ʷ*en* 'say' in (26), as well as for applied arguments, as shown for the dative applied object of *jetən* 'give' in (27).

(26) marə [RC ŝʷəz-ew$_i$ [DP t_i(PR) **z**-jə-č'ale / **??z**-jə-č'ale-xe-**r**
here   woman-ADV   **WH.PR**-POSS-boy / **WH.PR**-POSS-boy-PL-**ABS**
/ **??z**-jə-č'ale-xe-**m**]$_j$ [RC Op$_j$ t_j(ERG)   dax-ew   wered
/   **WH.PR**-POSS-boy-PL-**OBL**   pretty-ADV   song
Ø-   qe-   **zə**-   ʔʷe -re]] -r
3ABS- DIR- **WH.ERG**- say -DYN -ABS
'Here is the woman whose children sing well.'

(27) mə bzəλfaʁe-r   arə   [RC Op$_i$ [DP t_i(PR) **z**-je-č'ale   /
this woman-ABS PRED   **WH.PR**-POSS-boy
***z**-jə-č'ale-xe-**r**   / ***z**-jə-č'ale-xe-**m**]$_j$ [RC Op$_j$ t_j(IO)
WH.PR-POSS-boy-PL-**ABS**   **WH.PR**-POSS-boy-PL-**OBL**
velwesjəped   Ø-   **z**-   e-   s-   tə   -ʁe] -r
bicycle   3ABS- **WH.IO**- DAT- 1SG.ERG- give -PST -ABS
'Here is the woman to whose children I gave a bicycle.'

The impossibility of overt case marking on the DP containing the wh-trace in (26)-(27) is in stark contrast with constructions involving possessor extraction from an absolute DP, e.g. the theme of the verb *λeʁ*ʷ*ən* 'see' in (28) – in this case the DP may bear overt absolutive case marking and may not bear oblique case marking, as expected given its syntactic position.

(28) mə bzəλfaʁe-r   arə   [RC Op$_i$ [DP t_i(PR)   **z**-jə-č'ale-xe-**r/*m**](ABS)
this woman-ABS PRED   **WH.PR**-POSS-boy-PL-**ABS/*OBL**
bedzerə-m   Ø-Ø-š'ə-s-λeʁʷə-xe]   -r
market-OBL 3ABS-3SG.IO-LOC-1SG.ERG-see-PL -ABS
'This woman is the one whose sons I saw at the marketplace.'

The presence of a wh-trace within a DP does not necessarily preclude oblique case marking: oblique case may appear on a DP containing a parasitic wh-trace, as e.g. in (29), where the primary gap is in the ergative position, and the applied argument in this case contains a parasitic gap which triggers possessor wh-agreement, but, unlike the DPs in (26)-(27), may be marked with overt oblique case. Oblique case may likewise appear on DPs containing a possessor wh-trace in cases of long-distance extraction; to be discussed below.

(29) xet-a   [RC Op$_i$ bere t_i(ERG)   šəʁən   [DP __PG **z**-jə-sabəj-xe-**m**](IO)   Ø-
who-Q   often   clothing   **WH.PR**-POSS-child-PL-**OBL** 3ABS-
a-   fe-   **zə**-   mə-   šefə -re]   -r
3PL.IO- BEN- **WH.ERG**- NEG- buy -DYN -ABS
'Who$_i$ rarely buys clothes for their$_i$ children?'

The impossibility of overt case marking on the DP containing the wh-trace in (26)-(27) is likely to be a connectivity effect which is otherwise observed in specificational pseudocleft constructions cross-linguistically (Akmajian 1979; Higgins 1979; Declerck 1988; Heycock & Kroch

1999; den Dikken et al. 2000, a.o.). A full analysis of the pseudocleft repair strategy lies outside the scope of this paper: the important point is that the focused DP is promoted to a position where it becomes transparent for subextraction – this may be the position of an absolutive argument of a null predicative copula, as proposed e.g. by Akmajian (1979); Bošković (1997); Heycock & Kroch (1999), or alternatively, a left periphery position of an elided CP per ellipsis-based analyses of specificational pseudoclefts (see e.g. Emonds 1970; Schlenker 2003; den Dikken et al. 2000, a.o. on ellipsis-based analyses generally and den Dikken 2017 on discussion of necessity of raising to the CP periphery per Merchant's (2001) constraints on ellipsis).

To conclude this subsection, possessor extraction is possible only from absolutive DPs, but not from ergative or applied argument DPs. The repair strategy for possessor extraction from non-absolutive DPs involves a pseudo-cleft construction, i.e. a construction that involves the promotion of the constituent containing the wh-trace to an absolutive position. The following subsection discusses a context where this generalization consistently does not hold – long-distance wh-movement and parasitic gap configurations.

3.2   Long-distance possessor extraction and parasitic gaps

With clausebound wh-movement, possessor extraction is possible only for non-absolutive DPs. Surprisingly, this constraint is not observed with long-distance wh-movement from clausal complements and in parasitic gap construction, which are otherwise island sensitive. This subsection first outlines the basic properties of long-distance wh-movement in West Circassian and then proceeds to discuss cases of possessor extraction in these contexts.

3.2.1   Wh-extraction from embedded CPs

Long-distance wh-movement in West Circassian is subject to several constraints which are variable across speakers and dialects; see Lander (2012) for a thorough discussion. For complement clauses in non-absolutive positions, most speakers require the appearance of wh-agreement in both the embedded clause (the initial site of the wh-trace) and on the matrix predicate. The resulting multiple wh-agreement constructions can be divided into two types: (i) proleptic constructions, wherein the embedded wh-trace is parasitic on a relativized proleptic argument in the matrix clause, and (ii) cyclic wh-agreement, wherein the presence of wh-agreement on the matrix predicate is contingent on the presence of the embedded wh-trace. The two can be distinguished by the choice of which wh-marker is optional: in the proleptic construction, it is the embedded wh-marker, in the cyclic wh-agreement construction, it is the matrix wh-marker (for a subset of speakers; for others both markers are obligatory). These two options are illustrated schematically below: (30) represents the proleptic configuration, wherein a dummy argument is relativized in the matrix clause and licenses an optional parasitic gap in the complement clause, and (31) illustrates the configuration involving long-distance cyclic wh-movement, wherein the relativized participant originates in the embedded complement clause and the matrix predicate expones (optional) agreement with this participant.

(30)   [$_{CP}$ Op$_i$ ... <Op$_i$> [$_{CP}$ ... PG$_i$ ...]]   (31)   [$_{CP}$ Op$_i$ ... <Op$_i$> [$_{CP}$ ... <Op$_i$> ...]]

An example of a clearly proleptic construction involving extraction out of an adjunct clause is presented in (32): in order to relativize the applied object of *jepλən* 'look' a dummy benefactive

argument is inserted and relativized in the matrix clause (32a); a parasitic gap is then used in the position of the embedded applied object. Importantly, the benefactive applied argument cannot be licitly used in the declarative version of the corresponding relative clause (32b).

(32) a. pŝaŝ-ew$_i$ [$_{CP}$ __$_{PG}$(IO)   sə-**z**-e-pλ-ze] t_i(IO)
       girl-ADV   1SG.ABS-**WH.IO**-DAT-look-CNV

       sə-**z**-fə-λepewa-ʁe-r
       1SG.ABS-**WH.IO**-BEN-stumble-PST-ABS

       'the girl watching whom I stumbled' (lit. 'the girl for whom I stumbled, watching her')

    b. [$_{CP}$ pŝaŝe-m(IO)   s-**Ø**-je-pλ-ze]
         girl-OBL   1SG.ABS-**3SG.IO**-DAT-look-CNV

       sə-**(*Ø-fə-)**λepewa-ʁ
       1SG.ABS-**(*3SG.IO-BEN-)**-stumble-PST

       'Watching the girl, I stumbled.' (Lander 2012:339)

The distinction between the proleptic construction and long-distance wh-movement is made difficult by the possibility of ambiguous structures for some types of predicates – this is the case for predicates which require the appearance of a wh-marker in the agreement slot referring to the syntactic position of the complement clause, rather than in a clearly proleptic, additional argument position; Lander (2012) considers these to be cases of reanalysis, wherein the complement clause is interpreted as a de facto adjunct. This situation is schematically represented in (33a): a wh-marker appears in the position indexing the embedded complement clause, which is the applied argument position. Unlike in cases of clear long-distance wh-movement, the wh-marker in the embedded clause is optional, which is consistent with the interpretation that this embedded wh-marker is expressing agreement with a parasitic gap. This in turn suggests that there is a proleptic argument in the matrix clause which licenses this parasitic gap (33b). Some speakers, however, allow for the omission of the matrix wh-marker, suggesting that this type of construction may be interpreted as a long-distance wh-movement configuration, as shown in (33c).

(33)   a.   [$_{CP}$ Op$_i$ **WH.IO**-verb ... [$_{CP(IO)}$ ... **WH/3SG**-verb ...]]
       b.   [$_{CP}$ Op$_i$ ... <Op$_i$> ... WH.IO-verb ... [$_{CP(IO)}$ ... PG$_i$ ...]]

       c.   [$_{CP}$ Op$_i$ ... <Op$_i$> ... (WH.IO-)verb ... [$_{CP(IO)}$ ... <Op$_i$> ...]]

An example of a verb that employs this type of proleptic construction is *fejen* 'want', which selects for an absolutive experiencer and an applied argument as the theme: if an argument is extracted from the complement clause, all speakers allow for the appearance of a wh-marker on the matrix predicate; for some speakers, this marker is obligatory, for others, it may be optionally dropped (34a). The optionality of the matrix wh-marker for some speakers is compatible with a structure involving long-distance wh-movement, wherein the relativized participant originates in the embedded clause and undergoes cyclic wh-movement to the matrix clause, triggering optional wh-agreement on the matrix predicate, as shown schematically in (33c). In addition to the long-distance wh-agreement construction, this predicate is compatible with a proleptic construction, wherein there is a single wh-marker on the matrix predicate, while the semantically relativized

argument is expressed as a regular pronoun (34b). As with other proleptic constructions, the wh-trace in the matrix clause may license a parasitic gap in the embedded clause, rendering two wh-markers (34c). Thus, a construction containing two wh-markers is structurally ambiguous between proleptic wh-movement in the matrix clause and a parasitic gap in the embedded clause, and long-distance wh-movement, with a cyclic wh-agreement marker on the matrix predicate.

(34) a. marə [RC λ̣-ewᵢ [CP tᵢ(ERG) mašjəne-r
here   man-ADV   car-ABS
Ø-qə-s-e-**zə**-š'e-n-ew]   sə-**zə/%Ø**-faje]   -r
3ABS-DIR-1SG.IO-DAT-**WH.ERG**-sell-MOD-ADV 1SG.ABS-**WH/3SG.IO**-want -ABS
'Here is the man who I want to sell me the car.'   **long-distance wh-movement**

b. marə [RC λ̣-ewᵢ   tᵢ(IO) [CP proᵢ(ERG) mašjəne-r
here   man-ADV   car-ABS
Ø-qə-s-**jə**-š'e-n-ew]   sə-**zə**-faje]   -r
3ABS-DIR-1SG.IO-**3SG.ERG**-sell-MOD-ADV 1SG.ABS-**WH.IO**-want -ABS
'Here is the man who I want to sell me a car.'   **prolepsis**

c. marə [RC λ̣-ewᵢ   tᵢ(IO) [CP __PG(ERG) mašjəne-r
here   man-ADV   car-ABS
Ø-qə-s-e-**zə**-š'e-n-ew]   sə-**zə**-faje]   -r
3ABS-DIR-1SG.IO-**3SG.ERG**-sell-MOD-ADV 1SG.ABS-**WH.IO**-want -ABS
'Here is the man who I want to sell me the car.'   **prolepsis + parasitic gap**

A predicate that behaves analogously to *fejen* 'want' and will be used in a number of examples in this paper is *jezeš'ən* 'tire of'; see appendix B for details.

Some predicates which select for a complement clause in an applied argument position do not allow for the proleptic or reanalyzed variant of the construction and require long-distance wh-movement: relativization of a participant within the embedded clause is accompanied by obligatory wh-agreement with the corresponding argument, i.e. with an obligatory wh-trace in the embedded clause. An example of such a predicate is *fjež'en* 'begin', which selects for an absolutive external argument and an applied object theme: if the applied argument of *jeχʷenən* 'scold' in the embedded clause is relativized, the matrix predicate expones a wh-agreement marker in the applied object position (23a). Unlike with *fejen* 'want' in (34b), the wh-marker referring to the relativized argument in the embedded clause is obligatory, indicating that this construction unambiguously involves long-distance relativization with cyclic wh-agreement on the matrix predicate.

(35) a. xet-a [RC Opᵢ we [CP tᵢ(IO) wə-**z**-e-χʷenə-n-ew]
who-Q   you   2SG.ABS-**WH.IO**-DAT-scold-MOD-ADV
wə-**zə**-f-je-ž'a-ʁe]   -r
2SG.ABS-**WH.IO**-BEN-DAT-begin-PST -ABS
'Who did you begin to scold?'

b. * xet-a [RC Opᵢ we tᵢ(IO) [CP proᵢ(IO) w-**Ø**-je-χʷenə-n-ew]
who-Q   you   2SG.ABS-**3SG.IO**-scold-MOD-ADV
wə-**zə**-f-je-ž'a-ʁe]   -r
2SG.ABS-**WH.IO**-BEN-DAT-begin-PST -ABS
Intended: lit. 'For whom did you begin to scold them?'

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Finally, if a complement clause is in the absolutive position, no overt wh-marker is required in the matrix clause. Since both wh-agreement and regular third person agreement for absolutive arguments is phonologically null, it is impossible to diagnose the presence of wh-agreement on the matrix predicate. However, for most predicates which select for a complement clause in the absolutive position, the only available analysis of wh-movement involving an embedded constituent is long-distance extraction, since the wh-marker in the embedded clause is in this case obligatory. For example, this is true for *jeʁež'en* 'begin': if the applied argument of the predicate *š'ətχʷən* 'praise' is relativized, the corresponding wh-agreement marker appears on the embedded predicate (36a); a version of this sentence where the embedded wh-marker is absent and there is a presumed absolutive proleptic argument in the matrix clause is ungrammatical (36b).

(36) a. xet-a   [$_{RC}$ Op$_i$ we   [$_{CP}$ t_i(IO)   wə-**z**-š'ə-tχʷə-n-ew]
          who-Q   you   2SG.ABS-**WH.IO**-LOC-praise-MOD-ADV
          Ø-je-b-ʁe-ž'a-ʁe]   -r
          3ABS-DAT-2SG.ERG-CAUS-begin-PST -ABS
          'Who did you begin to praise?'

      b. * xet-a   [$_{RC}$ Op$_i$ we t_i(ABS?) [$_{CP}$ *pro*$_i$(IO)   wə-**Ø**-š'ə-tχʷə-n-ew]
          who-Q   you   2SG.ABS-**3SG.IO**-LOC-praise-MOD-ADV
          Ø-je-b-ʁe-ž'a-ʁe]   -r
          WH.ABS-DAT-2SG.ERG-CAUS-begin-PST -ABS
          Intended: lit. 'For whom did you begin to praise them?'

Another predicate that selects for an absolutive clausal complement and behaves in the same manner as *jeʁež'en* 'begin' in regards to subextraction is *den* 'allow'; see Appendix B for details.

Importantly for the discussion of possessor extraction, both parasitic gap constructions which are licensed by a proleptic argument in the matrix clause and long-distance wh-movement configurations involve operator movement within the embedded clause and are island sensitive. As discussed in Ershova (2019a), parasitic gap constructions, of which proleptic constructions are a subtype, are generally island sensitive: there cannot be more than one island boundary between the licensing and parasitic gaps. Thus, based on the constraints on possessor extraction outlined in subsection 3.1 the expectation is that the same types of nominal arguments should behave as islands in parasitic gap and long-distance wh-movement configurations as with cases of clausebound wh-movement. This, however, is not the case, as discussed in the following subsection.

3.2.2   Possessor extraction in embedded clauses

Importantly for the discussion of possessor extraction, both proleptic constructions and long-distance wh-movement configurations are expected to display island sensitivity. Possessor extraction, however, behaves in a markedly different manner in embedded contexts compared to clausebound wh-movement discussed in subsection 3.1, and the generalization concerns whether or not the wh-trace in question appears in the same clause as the wh-movement triggering C^0. That is, non-absolutive DPs behave as islands only if they are clausemates of the type of C^0 which heads a relative clause and drives wh-operator movement. A revised version of the constraint on possessor extraction is presented in (37).

(37) **CONSTRAINT ON POSSESSOR EXTRACTION (FINAL).** Non-absolutive DPs behave as islands if they appear within the same clause (CP) as the wh-movement triggering C^0.

This effect is illustrated below for various types of embedded clause contexts; I focus primarily on long-distance wh-movement cases, since they present a particularly compelling case for treating the observed islandhood effects as a consequence of local interactions between the corresponding DP and the closest C^0, and since, unlike parasitic gap configurations, they do not leave open the possibility of an alternative account which would not involve wh-movement in the embedded clause. The same generalizations concerning DP islandhood effects are observed in parasitic gap configurations as well.

If a possessor is extracted from within an applied argument or ergative DP within an embedded CP, no repair strategy is necessary – the corresponding argument may be extracted directly. This is observed robustly for various types of embedding predicates: ones which allow only for long-distance wh-movement and ones which are compatible with a proleptic construction. For example, in (38) the possessor of the applied object of *fetjewen* 'call' is relativized; since the corresponding predicate is in turn embedded in the complement CP of *jeʁež'en* 'begin', this wh-movement is grammatical. Likewise, in (39) the possessor of the ergative agent of *ʔʷen* 'sing' is directly relativized, triggering corresponding wh-agreement on the possessed nominal. Since the DP appears within the complement CP of *den* 'allow', once again, this extraction is perfectly grammatical. (40) illustrates the same point with regards to possessor extraction from within an applied argument – in this case, the dative addressee of the verb *jetən* 'give'.

(38) marə [RC ŝʷəz-ew$_i$ [CP [DP t_i(PR)   **z-**jə-pŝaŝe](IO)
    here   woman-ADV   **WH.PR-**POSS-girl
    sə-Ø-fə-tje-we-n-ew]   Ø-je-z-ʁe-ž'a-ʁe]   -r
    1SG.ABS-3SG.IO-BEN-LOC-hit-MOD-ADV 3ABS-DAT-3SG.ERG-CAUS-begin-PST -ABS
    lit. 'Here is the woman whose I began to call __ daughter.'

(39) xet-a   [RC Op$_i$ [CP [DP t_i(PR)   **z-**jə-sabəj-xe-m](ERG)   wered(ABS)
    who-Q   **WH.PR-**POSS-child-PL-OBL   song
    Ø-q-a-ʔʷe-n-ew]   Ø-wə-mə-de-re]   -r
    3ABS-DIR-3PL.ERG-say-MOD-ADV 3ABS-2SG.ERG-NEG-consent-DYN -ABS
    lit. 'Whose did you not consent for __ children to sing?'

(40) marə [RC ŝʷəz-ew$_i$ [CP [DP t_i(IO)   **z-**jə-sabəj-xe-m](IO)
    here   woman-ADV   **WH.PR-**POSS-child-PL-OBL
    s-jə-aχš'e-xe-r(ABS)   Ø-a-r-a-tə-n-ew]
    1SG.PR-POSS-money-PL-ABS 3ABS-3PL.IO-DAT-3PL.ERG-give-MOD-ADV
    Ø-sə-mə-da-ʁe]   -r
    3ABS-1SG.ERG-NEG-consent-PST -ABS
    lit. 'Here is the woman whose I did not allow to give my money to __ kids.'

The lack of islandhood effect with ergative and applied argument DPs in embedded CPs is robustly observed with various types of predicates. Below are some examples with CP-embedding verbs which are ambiguous between a proleptic and long-distance wh-movement configuration: *fejen* 'want' and *jezeš'ən* 'tire of'. As with the verbs discussed above, ergative and applied argument DPs do not display islandhood effects in these contexts. For example, in (41) the possessor of

the ergative agent of *šten* 'take' is successfully relativized from the clausal complement of the verb *fejen* 'want'. In (42) the possessor of the dative addressee of *jeʒen* 'call' is relativized, once again within a CP which is embedded under *fejen* 'want'. Finally, (43) demonstrates that the possessor of an applied argument may be relativized, when embedded under the verb *jezeš'ən* 'tire of'.

(41) marə [RC bzəλfəʁ-ew_i [CP [DP *t*_i(PR) **z-**jə-č'ale](ERG) s-jə-txəλ-xe-r
     here   woman-ADV   **WH.PR-**POSS-boy 1SG.PR-POSS-book-PL-ABS
     Ø-ə-šte-n-ew]   sə-z-fe-mə-je]   -r
     3ABS-3SG.ERG-take-MOD-ADV 1SG.ABS-WH.IO-BEN-NEG-want -ABS
     lit. 'Here is the woman whose I don't want __ son to take my books.'

(42) xet-a [RC Op_i [CP [DP *t*_i(IO) **z-**jə-pŝaŝe]
     who-Q   **WH.PR-**POSS-girl
     wə-q-Ø-je-ʒe-n-ew]   wə-zə-faje]   -r
     2SG.ABS-DIR-3SG.IO-DAT-call-MOD-ADV 2SG.ABS-WH.IO-want -ABS
     lit. 'Whose do you want to call for __ daughter?'

(43) marə [RC ŝʷəz-ew_i [CP [DP *t*_i(IO) **z-**jə-sabəj-xe-m](IO) aχš'e
     here   woman-ADV   **WH.PR-**POSS-child-PL-OBL money
     Ø-q-ja-s-tə-n-ew]   sə-z-e-zeš'ə-ʁe]   -r
     3ABS-DIR-3PL.IO+DAT-1SG.ERG-give-MOD-ADV 1SG.ABS-WH.IO-DAT-tire.of-PST -ABS
     'Here is the woman whose I'm tired of giving money to __ children.'

Finally, to provide a complete picture of this phenomenon, DP islandhood is likewise not observed in clear parasitic gap configurations. For example, the ergative trace in (44) licenses a parasitic gap in place of the possessor within the ergative DP in the adjunct clause; the appearance of the parasitic gap is grammatical in this position, indicating that the ergative DP is not behaving as an island in this case. Likewise, an ergative trace in (45) licenses a parasitic gap within the applied object of *λəpλen* 'watch' in (45), once again indicating that the applied object DP does not behave as an island in this case.

(44) marə [RC pŝaŝ-ew_i [CP [DP __PG(PR) **z-**jane](ERG) məʔerəse-xe-r
     here   girl-ADV   **WH.PR-**mother apple-PL-ABS
     Ø-q-j-e-šəpə-fe]   *t*_i(ERG) laʁe-xe-r
     3ABS-DIR-3SG.ERG-DYN-collect-LIM   dish-PL-ABS
     Ø-**zə-**thač'ə-ž'ə-xe-re]   -r
     3ABS-**WH.ERG-**wash-RE-PL-DYN -ABS
     'Here is the girl who is washing the dishes while her mother is picking apples.'

(45) marə [RC pŝaŝ-ew_i [RC [DP __PG(PR) **zə-**š](IO)
     here   girl-ADV   **WH.PR-**brother
     sə-Ø-λ-e-pλe-fe]   *t*_i(ERG) məʔerəse-xe-r
     1SG.ABS-3SG.IO-LOC-DYN-look-LIM   apple-PL-ABS
     Ø-**zə-**š'e-re]   -r
     3ABS-**WH.ERG-**sell-DYN -ABS
     'Here is the girl who is selling apples while I watch her brother.'

This subsection has demonstrated that ergative and applied argument DPs do not display islandhood effects in embedded CPs, in long-distance wh-movement configurations or parasitic gap configurations, suggesting that the type of CP the DP appears in conditions whether or not that DP will behave as an island for possessor extraction.

3.3 Constraints on possessor extraction: Summary

To summarize this section, possessor extraction is grammatical only out of a subset of argument DPs: while absolutive DPs are not islands for subextraction, ergative and applied argument DPs are opaque for possessor extraction. This contrast is further complicated by the observation that the islandhood effect disappears in embedded CPs: complements which allow for long-distance wh-movement and parasitic gap configurations – in this case, possessor extraction is grammatical out of all types of argument DPs regardless of their syntactic role. Since the DPs in question trigger the same type of ϕ-agreement and are assigned the same case marking in the embedded CP contexts, the only tangible difference between the contexts triggering islandhood effects and ones which do not trigger an islandhood effect is in the flavor of the projection heading the CP – C^0. In particular, an islandhood effect is observed only if the wh-movement triggering C^0 is merged in the same clause as the DP in question. In all other cases – long-distance wh-movement cases and parasitic gap configurations – there is a CP boundary between the wh-movement triggering C^0 and the base position of the moved wh-operator. The following section argues that the observed variable islandhood effect provides evidence for an Agree-based model of phase domains, wherein phases are defined by their capacity to serve as defective interveners.

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

This section outlines the main proposal of this paper: selective DP islandhood effects in West Circassian provide evidence for an Agree-based model of syntactic domains and phase boundaries following Rackowski & Richards (2005); Van Urk & Richards (2015); Halpert (2019). In particular, the islandhood of ergative and applied argument DPs is governed by the agreement properties of C^0 and the heads that select for the corresponding arguments: v^0 and $Appl^0$ respectively. Within this approach, v^0 and $Appl^0$ head syntactic units which may be moved, thus marking potential phase boundaries. The ergative agent and the applied argument are merged as specifiers of these heads, i.e. at the corresponding phase edges. While the edge may be agreed with and undergo movement to a higher position, the internal contents of the phase edge is opaque for syntactic operations per Chomsky (2008) – this effect has been called the Edge Condition by Gallego & Uriagereka (2007). This condition on subextraction from phase edges can be readily captured by a modified definition of 'closest' from Rackowski & Richards (2005), providing a principled explanation for this effect that does not require appealing to computational complexity; cf. e.g. Chomsky (2008:147-148). In order to convincingly argue for the necessity of an Agree-based model of phasehood, we must first consider alternative explanations for the observed DP islandhood effects. The following subsection discusses the shortcomings of previous accounts of selective DP islandhood, which standardly rely on the structural properties of the DPs in question or the syntactic relations they enter with other heads in the structure. In the approach advocated here, the islandhood of a DP is conditioned by its position at the edge of a phase and the agreement properties of the corresponding phase head.

4.1 Previous accounts of selective DP islandhood

This subsection discusses the shortcomings of previous analyses of selective DP islandhood in respect to the West Circassian data, showing that the observed effects cannot be due to (i) the specifierhood of the corresponding arguments; (ii) their moved status; (iii) the agreement properties of the DPs in question; (iv) or their oblique or PP-like status. The inadequacy of previous proposals in regards to this data calls for a novel understanding of selective DP islandhood in terms of dynamic phasehood, the Edge Condition, and intervention for Agree.

Firstly, the islandhood of ergative and applied argument DPs cannot be connected to their ungoverned (specifier) status, as was originally argued by Huang (1982), and taken up in various forms in subsequent literature (Takahashi 1994; Stepanov 2001, a.o.; see also discussion in Gallego & Uriagereka 2007). While it is fairly uncontroversial to assume that the ergative agent is the specifier of v^0 and the applied argument is merged as the specifier of $Appl^0$, this structural property alone cannot explain the observed islandhood effects, because the absolutive DP, which is always transparent for subextraction, may be introduced as an external argument, i.e. the specifier of v^0. This high specifier position is especially evident for verbs which select for an applied argument alongside the absolutive agent: in addition to semantic considerations that an agent is unlikely to be introduced as a complement of the lexical verb (i.e. in a position associated with internal arguments), it is clear from reflexive binding patterns that the absolutive argument is introduced structurally higher than the applied object. This is shown in (46): here, the absolutive agent of *qeŝᵂen* 'dance' binds a reflexive pronoun in the position of the benefactive applied argument – this is evident from the appearance of specialized reflexive agreement in the morphological position associated with applied object agreement; for evidence that this marker is an agreement reflex see Ershova (2019b, 2020a). We saw in (10) that the absolutive argument of *qeŝᵂen* 'dance' does not display islandhood effects: a possessor may be readily extracted from this DP.

(46) *pro*ᵢ(ABS) *refl*ᵢ(IO) sə-   qə- **zə-**   fe- ŝᵂe -ž'ə -ʁ
                              1SG.ABS- DIR- **REFL.IO-** BEN- dance -RE -PST

       'I danced for myself / for my own benefit.'

West Circassian reflexives are local subject oriented, which means that they are bound by the highest argument in vP; see Ershova (2019b, 2020a) for discussion and evidence. It is thus impossible for the absolutive agent to have merged as a complement and moved to a position c-commanding the applied object. This rules out the possibility that absolutive case-marked arguments are uniformly merged as complements, and thus does not allow for a clear contrast between absolutive and non-absolutive arguments based on their complement versus specifier status.

The islandhood of ergative and applied argument DPs cannot be connected to the moved status of the corresponding arguments; cf. Boeckx (2003); Bošković (2018): there is no evidence that the ergative agent or applied object systematically move, and, on the contrary, there is evidence that the absolutive DP *does* move from a position within vP to Spec,TP. Ershova (2019b, 2020a) argues based on reciprocal binding facts that the absolutive argument moves to a position c-commanding the ergative agent. Like reflexives, reciprocals are generally phonologically null and trigger specialized reciprocal agreement on the predicate; this agreement marker appears in the position corresponding to the syntactic role of the bound argument. Unlike reflexives, reciprocals are general anaphors, meaning that they are sensitive to c-command relations within the clause, but need not be bound by the highest argument in vP. For example, if an applied argument

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is used with the verb *kʷen* 'yell', it triggers ϕ-agreement to the immediate left of the corresponding applicative marker – in this case *tje-* (47a). The agent of this verb triggers absolutive agreement, exponed as the leftmost prefix on the verb. In order to express reciprocal co-indexation between the absolutive external argument and the applied argument, the applied argument is replaced with a null reciprocal pronoun, as expected given standard assumptions about the argument structure, and this pronoun triggers specialized agreement in the prefixal position associated with applied object agreement – immediately to the left of the applicative marker *tje-* (47b). Agreement with the absolutive external argument remains intact, indicating that the absolutive argument is present in the structure and functioning in this case as the antecedent.

(47) a. səd-a **ŝʷə-** qə- č'ə- **t-** tje- kʷe -re -r
   what-Q **2PL.ABS-** DIR- RSN- **1PL.IO-** LOC- yell -DYN -ABS

   'Why are you yelling at us? (lit. What is the reason you are yelling at us?)'

   b. səd-a **ŝʷə-** č'ə- **ze-** tje- kʷe -re -r
   what-Q **2PL.ABS-** RSN- **REC.IO-** LOC- yell -DYN -ABS

   'Why are you yelling at each other?'

Crucially, an absolutive argument functions as the antecedent for reciprocal pronouns even if it is the theme of a transitive verb, i.e. an internal argument. For example, the verb *λeʁʷən* 'see' in (48a) selects for an ergative agent which is indexed with the first person plural prefix immediately to the left of the verbal root and an absolutive theme, which is indexed by the leftmost agreement prefix – in this case, second person plural. In order to convey a reciprocal meaning of this action, the phonologically null reciprocal pronoun appears in the ergative position – this is evident from the position of the reciprocal agreement marker *zere-* immediately to the left of the verbal root and from the fact that agreement with the antecedent is exponed in the absolutive position. This leads us to the conclusion that the absolutive theme c-commands the ergative agent.

(48) a. ŝʷə- t- λeʁʷə -ʁ   b. te- **zere-** λeʁʷə -ʁ
   2PL.ABS- 1PL.ERG- see -PST   1PL.ABS- **REC.ERG-** see -PST

   'We saw you.'   'We saw each other.'

The same is observed with a verb such as *š'en* 'bring' in (49a) which selects for an ergative agent, absolutive theme, and benefactive applied object: in order to co-index the absolutive theme and applied object, the bound reciprocal pronoun appears in the applied object position, indicating that the absolutive theme c-commands the position of the applied argument (49b).

(49) a. wə- qə- s- f- jə- š'a -ʁ
   1SG.ABS- DIR- 1SG.IO- BEN- 3SG.ERG- bring -PST

   'S/he brought you to me.' (Rogava & Keraševa 1966:137)

   b. 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).'

Other evidence for a derived high position of the absolutive argument comes from conditions on parasitic gap licensing; for details see Ershova (2019a). Ershova (2019b,a, 2020a) proposes that this high position is derived via movement to a position c-commanding the ergative agent and any

applied arguments and posits Spec,TP as the landing site. As discussed in this paper, we have seen that absolutive arguments are uniformly accessible for possessor extraction, despite their moved status, while the ergative and applied argument DPs, despite providing no evidence for undergoing movement, are islands. A possibility of reconciling the West Circassian subextraction data with movement-based approaches to DP islandhood would be to consider the data provided here as evidence against the previously proposed raising of the absolutive argument. The main issue of taking up such an approach, however, is that even if we were to discard a high absolutive analysis of the West Circassian clause and assume that absolutive arguments remain in-situ in their base-generated positions, we would not be any closer to accounting for the observed islandhood facts: as discussed above in this section, absolutive arguments are not uniformly merged in the same position and may be merged as external arguments – tangibly the same position as occupied by the ergative agent of a transitive verb.

The West Circassian islandhood facts cannot be easily captured within an agreement-based account of selective DP islandhood. There are two potentially incompatible approaches to the role of agreement in subextraction asymmetries: Gallego & Uriagereka (2007); Gallego (2010) propose that the Subject Condition is a consequence of the subject DP entering a ϕ-agreement relation with T^0 ('agreement freezing'), while Branan (2018) argues that ϕ-agreement may 'unlock' a DP phase for subextraction. The latter account is based on the Agree-based model of phasehood proposed by Rackowski & Richards (2005) and is particularly aimed to explain the ban on possessor extraction from oblique case-marked DPs, including ergative DPs in a subset of morphologically ergative languages. While both types of approaches successfully account for the data discussed in the corresponding papers, they cannot be extended to account for the West Circassian subextraction facts: West Circassian is polysynthetic and, as we have observed throughout this paper, all types of arguments – absolutive, ergative, and applied – trigger overt ϕ-agreement on the predicate. Thus, while displaying an asymmetry in terms of accessibility for subextraction, these arguments behave in an identical way in regards to ϕ-agreement.[8] The analysis proposed here is similar to Branan's (2018) in connecting dynamic phasehood with the presence or absence of an agreement relation; in contrast to their account, this paper ties selective DP islandhood to the appearance of that DP at the edge of a phase, rather than the phasehood of the DP itself, and subsequently to the agreement properties of the larger phase this DP appears in.

It is likewise not possible to connect the islandhood of the ergative and applied argument DPs to their oblique case marking or the internal structure of the constituents in question. One possible av-

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[8]One possible difference between absolutive arguments and other types of DPs is in the use of a suffixal plural agreement marker *-xe* that is standardly labeled as cross-referencing third person plural absolutive arguments (see e.g. Rogava & Keraševa 1966:135-170; Kumakhov 1971:30-31; Arkadiev et al. 2009:47). However, some speakers (including those who disallow possessor extraction from non-absolutive DPs) allow for the use of this affix to cross-reference non-absolutive plural participants as well; for example, the appearance of the plural suffix in (i) is triggered by the ergative DP *mə haxem* 'these dogs'.

(i)   mə ha-xe-m(ERG)   sə-q-a-λeʁʷə-**x**
       this dog-PL-OBL   1SG.ABS-DIR-3PL.ERG-see-**PL**
       'These dogs see me.'

Most importantly, there is no contrast between the use of this marker in contexts where non-absolutive DPs trigger islandhood effects and contexts where they do not (embedded CPs), thus ruling out any connection between its use and the observed islandhood asymmetries.

enue for such an approach lies in Polinsky's (2016) proposal that for a subset of ergative-absolutive languages, the ergative DP is syntactically a PP, i.e. it includes an additional P^0 projection which is absent in absolutive arguments – this is meant to account for the inaccessibility of the ergative DP for A′-movement (syntactic ergativity in the narrow sense per Polinsky 2017). A reasonable prediction of such an analysis is that the ergative argument (and in West Circassian – the applied argument), being a PP, is opaque for subextraction, while the absolutive argument, being a simple DP, is not. This approach, however, cannot be applied to West Circassian. Firstly, West Circassian does not display properties of a typical ergative PP language (Polinsky 2016:151-154): the ergative DP in the language displays properties of a true argument in the domains of binding, control, and raising. Secondly, even if considered language-internally, ergative and applied argument DPs do not pattern in a similar way to true PPs: unlike non-absolutive arguments, PPs are not islands for subextraction, further making a parallel between oblique case-marked nominals and true PPs unlikely. Below are examples demonstrating that PPs, unlike ergative and applied argument DPs, are not subject to constraints on subextraction. In (50) the possessor of the complement selected by the postposition *paje* 'for' is relativized, as evinced by the wh-agreement with the corresponding wh-trace on the possessed nominal.

(50)   mə pŝeŝe-ẑəje-r   arə   [$_{RC}$ Op$_i$ [$_{PP}$ [$_{DP}$ t_i(PR) **z-**jane]   paje]   haləʁ^w
       this girl-small-ABS   PRED   **WH.PR-**mother for   bread
       Ø-b-ʁe-ž'a-ʁe]   -r
       3ABS-2SG.ERG-CAUS-boil-PST -ABS
       'This is the girl for whose mother you baked some bread.'

Finally, while the analysis proposed in this paper capitalized on the phasehood of the constituents containing the island DPs, it is not sufficient to appeal to subjacency or the number of crossed phase boundaries (or barriers), as posited in earlier work (Chomsky 1973 *et seq.*). Given that the absolutive DP, as discussed above, moves to a position outside of vP, while the ergative and applied argument DPs remain in-situ within vP, a reasonable hypothesis would be to derive the islandhood of ergative and applied argument DPs from their appearance within the vP phase. In terms of a subjacency account, one might assume that the impossibility of possessor extraction from within an ergative DP is due to the fact that the possessor must cross two phase boundaries in order to move to Spec,CP: DP and vP (51). However, this explanation falsely predicts that subextraction out of a DP that is embedded within another DP to be impossible (52).

(51)   [$_{CP}$ ... [$_{vP}$ [$_{DP}$ **whP** ...   (52)   [$_{DP}$ [$_{DP}$ **whP**

Such movement is in fact perfectly grammatical. Recall that absolutive arguments are generally accessible for subextraction, as shown in (10)-(11). Extraction of a possessor within the possessor DP of an absolutive argument is likewise possible, despite the movement path crossing two DP boundaries, i.e. despite this being a putative subjacency violation: this is shown for an absolutive theme in (53) and for an absolutive external argument in (54).

(53)   xet-a   [$_{RC}$ Op$_i$ [$_{DP}$ [$_{DP}$ t_i(PR) **zə-**šəpχ^w]   Ø-jə-λ](ABS)   məjeq^{w}a
       who-Q   **WH.PR-**sister 3SG.PR-POSS-man Maykop
       pe(IO)   Ø-Ø-š'ə-p-λeʁ^{w}ə-ʁe] -r
       3ABS-3SG.IO-LOC-2SG.ERG-see-PST -ABS

'Whose sister's husband did you see in Maykop?'

(54) marə [RC pŝaŝ-ew_i [DP [DP t_i(PR) **zə-šəpχ^w**](PR) Ø-jə-pŝeŝeʁ^wə](ABS)
here girl-ADV **WH.PR-**sister 3SG.PR-POSS-girlfriend

dexe-ded-ew Ø-qa-ŝ^we-re] -r
beautiful-very-ADV 3ABS-DIR-dance-DYN -ABS

'Here is the girl whose sister's friend dances very beautifully.'

As expected, this type of extraction from within a possessor is not possible for ergative or applied argument DPs, which must be promoted to an absolutive position with the pseudocleft repair strategy used for simple possessor extraction. This is shown in (55): direct relativization out of the possessor of an ergative DP – here the agent of the verb *ʔ^wen* 'say' – is ungrammatical (55a); as a repair strategy, a pseudocleft is formed, wherein the ergative participant is relativized, and then the wh-operator may be extracted from within the focused DP (55b). If we assume that the repair strategy involves promotion to an absolutive case-marked position, the grammaticality of (55b) parallels the grammaticality of extraction from possessors within absolutive DPs more generally, as in (53)-(54).

(55) a. * marə [RC pŝaŝ-ew_i [DP [DP t_i(PR) **zə-ŝəpχ^w**](PR) Ø-jə-pŝeŝeʁ^w](ERG)
here girl-ADV **WH.PR-**sister 3SG.PR-POSS-friend

dexe-ded-ew wered Ø-q-ə-ʔ^we-re] -r
beautiful-very-ADV song 3ABS-DIR-3SG.ERG-say-DYN -ABS

Intended: 'Here is the girl whose sister's friend sings very beautifully.'

b. marə [RC pŝaŝ-ew_i [DP [DP t_i(PR) **zə-ŝəpχ^w**](PR) Ø-je-pŝeŝeʁ^w](ABS)
here girl-ADV **WH.PR-**sister 3SG.PR-POSS-friend

[RC Op_j t_j(ERG) dexe-ded-ew wered Ø-qe-**zə-**ʔ^we-re]] -r
beautiful-very-ADV song 3ABS-DIR-**WH.ERG-**say-DYN -ABS

lit. 'Here is the girl whose sister's friend is the one who sings very beautifully.'

The possibility of extraction from within a possessor of an absolutive DP has several consequences for our understanding of subextraction asymmetries. First, as discussed above, the islandhood of ergative and applied argument DPs cannot be accounted for with simple subjacency: under such an account, extraction from a DP embedded within another DP should not be possible. Second, assuming that both DP and vP are phases, there must a systematic difference between the syntactic properties of a possessor DP and an applied argument or ergative DP, which allows for the observed differences between the two types of arguments. I propose that this difference lies in the position of merge: while ergative and applied argument DPs are merged at phase edges (Spec,vP and Spec,ApplP respectively), possessors are introduced below the DP phase edge via a dedicated Poss^0 head. This allows for the cyclic extraction of a possessor from the edge of the embedded possessor to the edge of the absolutive DP, and subsequently, to Spec,CP (56).

(56) [CP Op_i ... [DP <Op_i> [PossP [DP <Op_i> [PossP <Op_i> ...

The problem with the ergative and applied argument DPs is not that they appear within a phase, but that they are merged at the *edge* of a phase – vP and ApplP respectively, and this structural prop-

erty renders them opaque for subextraction, as proposed for phase edges by Chomsky (2008) (Gallego & Uriagereka's (2007) Edge Condition). The following section presents an analysis which accounts for this property of phase edges by appealing to locality constraints on Agree.

In addition to the considerations discussed in this subsection, existing approaches to selective DP islandhood fall short of accounting for the contrast between clausebound wh-movement and long-distance wh-movement, i.e. that these islandhood effects are ameliorated in the latter configuration: (i) there is no evidence to suggest that the DPs in question occupy different structural positions in the embedded versus matrix cases; (ii) there are no differences in terms of case assignment or agreement properties between matrix and embedded cases; (iii) the only tangible difference between the two contexts is in the featural content of C^0: only wh-C^0 gives rise to the observed islandhood effects. The following subsection lays out the details of the analysis proposed in this paper: selective DP islandhood in West Circassian is a consequence of phases serving as interveners for Agree, and when these phases are rendered 'inactive' and thus invisible to the probe in question, which I argue is the case in long-distance wh-movement configurations, the islandhood effects are no longer observed.

4.2 Agree-based phasehood and intervention

This subsection lays out the details of the view of phases as interveners for Agree and how such an analysis may successfully account for the patterns observed with selective DP islandhood in West Circassian. Based on agreement patterns in Tagalog long-distance wh-movement configurations, Rackowski & Richards (2005) propose that phases may be made transparent for subextraction if they enter an independent agreement relation with the head that attracts the extracted element. In Tagalog, this readily explains why extraction out of embedded clauses requires v^0 to agree with the embedded clause, which is manifested via special morphology on the predicate. I argue that the same analysis may be employed to account for (i) why ergative and applied argument DPs in West Circassian are islands, and absolutive DPs are not; and (ii) why these islandhood effects are not observed in embedded clauses.

Following Chomsky (2000, 2001), Rackowski & Richards (2005) assume that all and only phases may undergo syntactic movement. This means that for any movement-triggering operation, any phase acts as a potential goal, and, given the standard assumption that movement operations are subject to strict locality constraints, only the *closest* goal may successfully satisfy the feature on the movement probe. The current proposal aims to capture the Edge Condition, i.e. the generalization that phase edges are opaque for subextraction under this same understanding of locality by augmenting the definition of *closest* proposed by Rackowski & Richards (2005:579) to include dominance as a potential type of intervention (57).

(57) **Modified definition of *closest* from Rackowski & Richards (2005:579); my addition is in boldface**:
   A goal α is the closest one to a given probe if there is no distinct goal β such that for some **distinct** X (X a head or maximal projection), X c-commands **or dominates** α but does not c-command **or dominate** β.

The original definition captured both Shortest Attract and the A-over-A Condition; the additions proposed here aim to also account for the Edge Condition. In order to understand the

proposed system, a few additional assumptions must be put in place. The following assumptions are taken directly from Rackowski & Richards (2005:582):

(58) a. A probe must Agree with the *closest* goal α that *can move*.

  b. A goal α *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).

Assumptions (58a)-(58b) predict that a phase, being a potential goal for any Agree operation, will either enter a successful Agree relation with a higher probe, or trigger an intervention effect if it cannot be successfully agreed with. Assumption (58c), which is based on Richards's (1998) Principle of Minimal Compliance, predicts that a phase may be rendered transparent for further probing (i.e. a non-intervener), if the probe in question has successfully agreed with that phase in a different feature. Rackowski & Richards (2005) connect the accessibility of direct objects for subextraction to the fact that these objects agree with v^0 on independent grounds, thus allowing for v^0 to probe for the wh-element inside the direct objects. Subjects, they argue, are inaccessible due to the lack of such an agreement relation between subjects and v^0. However, the original definition of *closest* does not necessarily rule out extraction out of subjects as the authors intended – in particular, if subjects happen to be merged at the phase edge – Spec,vP – and the only structural relation relevant for defining *closest* is c-command, subextraction out of subjects is falsely predicted to be possible. This is because the original definition was meant to crucially capture the accessibility of the phase edge for extraction – per this definition, the phase edge is equidistant with the phase to the higher goal. For example, when the probe P in (59) probes, both the phase vP and its specifier DP$_1$ are accessible goals. This is because there is no distinct head X or maximal projection XP which c-commands DP in Spec,vP and does not c-command vP. Unfortunately, at face value, this allows for infinite recursive probing into the specifier of the specifier of a given phase: the DP$_2$ in the specifier position of DP$_1$ likewise is not c-commanded by any X or XP which does not c-command vP, and likewise, the same applies for whP in the specifier of DP$_2$. Thus, within the structure in (59) there are four equidistant goals for P: vP, DP$_1$, DP$_2$, and whP. The modified version of the definition of closest in (57) intends to rule this out: by appealing to dominance, the search domain of probe P in (59) is constrained to vP and DP$_1$, i.e. the phase and its immediate edge, but the internal structure of the edge is no longer accessible. This is because for DP$_1$, there is no distinct X or XP which dominates DP$_1$, but does not dominate vP (vP itself, while dominating DP$_1$, does not count, because it is indistinct from one of the goals in question). DP$_2$, on the other hand, is dominated by DP$_1$, while vP is not – DP$_2$ and any lower specifiers are thus not accessible goals for this Agree operation, thus capturing the Edge Condition as desired.[9]

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[9]The current account differs from Van Urk & Richards (2015), which also builds on an Agree-based approach to phasehood, in explicitly banning subextraction from phase edges. Van Urk & Richards (2015), on the contrary, argue that subextraction from CP constituents in Dinka is accompanied by movement of the CP in question to the phase edge – a purported violation of the Edge Condition. As discussed by the authors (fn.32 on page 144), the head that triggers subextraction in this case is the same head that attracts the CP to its specifier (v^0), and within a definition of *closest* which appeals to strict c-command as in (57) this requires probing into the lower copy of the moved CP rather than the higher copy in Spec,vP. Thus, a potential violation of the Edge Condition as in Dinka is possible if the constituent in question has moved to the phase edge and there is a lower copy that is accessible to the probe in question.
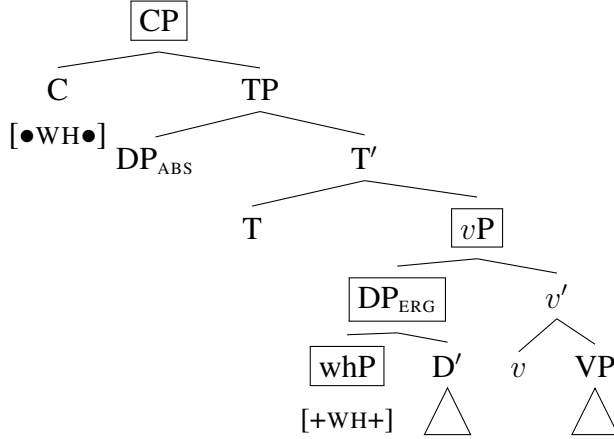
(59)

CP

C　…

*v*P

DP₁　*v*′

DP₂　D′　*v*　VP

whP　D′
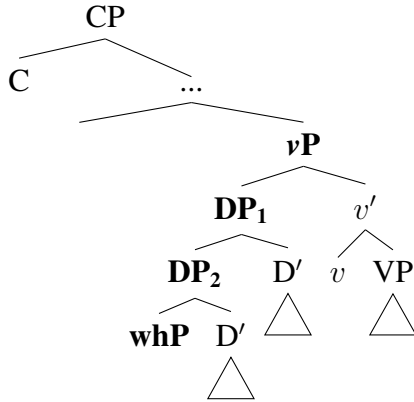
Following Heck & Müller (2007); Müller (2010), a.o. I distinguish between two types of Probe features: Agree features labeled as ∗F∗, which trigger agreement without movement, and structure-building features labeled as •F•, which trigger external or internal Merge. Probe features may be hierarchically ordered and only the highest feature in the hierarchy is visible for syntactic operations per Georgi & Müller (2010); Müller (2010); Martinović (2015); Ershova (2019b). I also assume that features may be specified as 'movement-type' (labeled here as +F+), meaning that they must enter an Agree relation with a corresponding structure-building feature in order to converge – standard WH-features are assumed to be this type of movement feature. Finally, in order to allow for cyclic A′-movement through phase edges, as is generally assumed in Phase Theory (see e.g. Chomsky 2000, 2001, 2008), at the time a phase is formed a structure-building edge feature may be inserted to trigger movement of a movement-feature bearing goal to the edge of this phase. Following Chomsky (2008) and counter to Heck & Müller (2003); Müller (2010, 2011), I assume that this feature is inserted *after* all other featural requirements of the phase head are satisfied.

All things being equal, the opacity of a given constituent for subextraction is due to that constituent being a phase, i.e. a potential goal for the movement-triggering (structure-building) probe. Following standard assumptions about phasehood (Chomsky 2000, 2001, *et seq.*), I take CP, *v*P (regardless of transitivity; Legate 2003), and DP to be phases. Additionally, following McGinnis (2000, 2001), ApplP – the projection which introduces the applied argument – is also a phase.
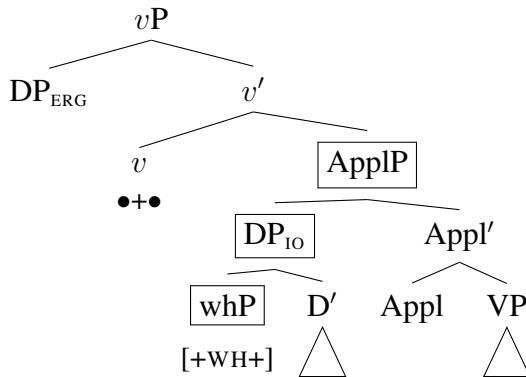
Under this system, the ergative DP is an island due to its position at the edge of the *v*P phase. This is shown in (60): C^0 probes with the [•WH•] feature, and the possessor within the ergative DP bears the matching [+WH+] feature. Given the definition of *closest* in (57), there are two eligible goals for C^0: the *v*P phase and the DP at the edge of this phase. Since there is no distinct X or XP which c-commands or dominates this DP, it is equidistant with *v*P to the probe. Both of these phrases dominate the matching feature, but cannot move to satisfy the feature requirement on C^0 because the feature is too far embedded and would require massive pied-piping, which is not observed in the language – in West Circassian, a structure-building feature may only target the smallest maximal projection containing a movement goal feature. The possessor within the ergative DP is eligible to move to the edge of the DP phase due to the insertion of an edge feature on D^0 (this mechanism will be discussed more below). However, it is still too far from C^0 to be an eligible goal. In particular, *v*P serves as an intervener, because the ergative DP dominates the possessor DP, but does not dominate *v*P. Thus, the possessor is trapped within the ergative DP, deriving the observed islandhood effect.
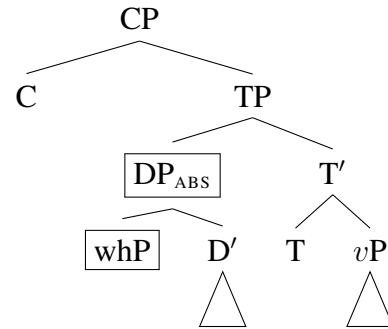
27

(60)

```
                CP
            ┌────┴────┐
            C         TP
         [●WH●]  ┌─────┴─────┐
              DP_ABS         T′
                         ┌────┴────┐
                         T        vP
                              ┌────┴────┐
                           DP_ERG       v′
                         ┌────┴────┐  ┌──┴──┐
                       whP    D′   v   VP
                     [+WH+]   △         △
```

An applied object is an island for similar reasons, the main difference being that subextraction from within an applied argument must be established lower in the structure – at the time the next phase (vP) is formed. Since phases are standardly assumed to host escape positions on their edges, and operators may move cyclically through these intermediate positions, there must be a mechanism of inserting an edge feature for this type of cyclic movement when necessary. I assume that this happens at the time vP is formed – the presence of an unchecked movement feature (+F+) in the search domain of the phase head triggers the insertion of a last resort edge feature which does not check the movement feature, but simply attracts the corresponding goal to the phase edge – I will label this last resort feature as [●+●]. This feature would allow for the extraction of, for example, the applied argument: if the applied object bears a [+WH+] feature at the time vP is formed, this would trigger the insertion of [●+●] on v^0, and since the applied argument is in the specifier of the ApplP phase, it is equidistant with this phase to the higher probe and may successfully move to Spec,vP. This allows the higher probe on C^0 to attract the corresponding wh-operator to its specifier. However, a possessor within the applied object is no longer within the search space of v^0, as shown in (61): ApplP serves as a defective intervener, because the DP containing the possessor (the applied argument) dominates the whP in the possessor position, but does not dominate ApplP.

(61)

```
              vP
         ┌─────┴─────┐
      DP_ERG         v′
                 ┌────┴────┐
                 v        ApplP
               ●+●     ┌────┴────┐
                     DP_IO      Appl′
                   ┌───┴───┐  ┌───┴───┐
                 whP   D′  Appl   VP
               [+WH+]  △          △
```

(62)

```
              CP
         ┌─────┴─────┐
         C          TP
               ┌─────┴─────┐
            DP_ABS         T′
          ┌───┴───┐     ┌───┼───┐
        whP   D′   T    vP
              △          △
```

Finally, an absolutive DP is not an island for subextraction due to the lack of phase boundaries between the corresponding DP and C^0 which triggers the wh-movement: as discussed in subsection 4.1, the absolutive DP moves out of vP to Spec,TP, as shown in (62). In this case, the

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absolutive DP itself and the possessor in Spec,DP are equidistant goals to the probe in C^0, which means that the possessor is free to move.

Thus, the understanding of phases as interveners for Agree and the definition of closest in (57) account for the islandhood asymmetries observed in simple clauses. So far, however, one could imagine alternative accounts which would not necessarily appeal to agreement as the defining factor in the opacity of syntactic domains. The following subsection presents compelling evidence that the agreement-based approach successfully accounts for the West Circassian data where other analyses fall short by explaining for the cases where DP islandhood effects are not observed: in cases of long-distance wh-movement and parasitic gap configurations.

## 4.3   Unlocking phases via polysynthesis and the edge feature

As discussed above, agreement between v^0 and the direct object is one type of agree operation which can render the CP or DP in the direct object position transparent for subextraction. What then is the relevant agree operation for West Circassian selective DP islandhood, and how is West Circassian different from other languages where selective DP islandhood has been scrutinized? Recall that ergative and applied argument DPs behave as islands for subextraction if there is no clausal boundary between them and the wh-feature bearing C^0; if, on the other hand, the relevant DP is embedded in a CP which is not headed by a wh-C^0, the DP no longer behaves as an island. The featural content on C^0 is the only tangible difference between the two contexts: the DPs in question are assigned the same case, trigger the same ϕ-agreement and appear to occupy identical syntactic positions in the two contexts. It is reasonable then to tie the islandhood of the DPs in question to the featural content on C^0. I propose that the relevant feature on C^0 is an agreement feature which probes for lower projections in the extended verbal domain, labeled $[*V*]$.

I propose that the presence of $[*V*]$ on C^0 in West Circassian is connected to the polysynthetic nature of the language. In particular, the $[*V*]$ feature on C^0 is the driver of head movement which gives rise to the morphologically complex polysynthetic verbal form. Ershova (2020b) provides evidence for word formation via head movement in the West Circassian verbal domain, but remains agnostic as to whether this operation belongs in the narrow syntax as argued e.g. by Koopman (1984); Travis (1984); Baker (1988); Kayne (1994); Roberts (2010); Arregi & Pietraszko (2020), a.o., or is established post-syntactically (Chomsky 2001; Embick & Noyer 2001; Harizanov & Gribanova 2019). A feature-driven account of head movement requires placing this operation in the narrow syntax, and the fact that head movement must be driven by C^0, rather than cyclically by the immediately c-commanding head, narrows down the analytical options to Roberts's (2010) approach; see also Biberauer et al. (2014) on applying this approach to polysynthetic languages.

Under the analysis proposed by Roberts (2010), head movement is an alternative to phrasal movement which happens in strictly constrained circumstances: an Agree operation between a probe and a goal may result in head movement (i.e. the formation of a complex head which includes the featural content of both the head and the probe), if the featural content of the goal comprises a proper subset of the featural content of the probe. Crucially, since head movement happens as a result of an Agree operation, is it not subject the Head Movement Constraint (Travis 1984 *et seq.*) and may be long-distance, as long as the projections between the probe and goal do not act as interveners. Coupled with the possibility of Multiple Agree, i.e. a single probe agreeing with all goals (Hiraiwa 2001, 2005; Zeijlstra 2004; Nevins 2007, 2011), a single head may drive

what appears to be successive head movement of the lower functional projections.[10]

For example, a structure of the form presented in (63) would trigger successive probing by C^0 with the $[*V*]$ feature, attracting each of the lower verbal projections to form a single complex head. Per the system devised by Rackowski & Richards (2005), the successive probing by C^0 is made possible by the fact that every verbal head bears a matching feature and successfully agrees with the probe. This in turn makes that goal invisible for the next probing cycle, making the lower functional head an eligible goal, allowing C^0 to probe for v^0, $Appl^0$, and V^0.

(63) $[_{CP} C_{[*V*]} [_{TP} T_{[V]} [_{vP} v_{[V]} [_{ApplP} Appl_{[V]} [_{VP} V_{[V]} ...$
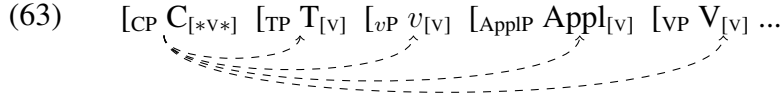
The lack of DP islandhood effects in embedded clauses is due to (i) the presence of the agreement feature $[*V*]$ and (ii) the absence of the wh-movement triggering feature $[\bullet WH \bullet]$ on the embedded C^0 – in this case, the wh-feature bearing C^0 is in the higher clause. Agreement with the lower verbal functional projections expands the search domain of embedded C^0 to include the vP and ApplP phases and, most importantly for our purposes, the internal contents of the corresponding phase edges. The insertion of the last resort edge feature at the time the embedded CP is formed allows for the extraction of the corresponding wh-operator, even if it is embedded within the ergative or applied argument DP, since these DPs are no longer opaque for extraction.

Successful subextraction from an ergative DP in an embedded clause is illustrated in (64): the embedded C^0 does not bear a $\bullet WH \bullet$ feature, so the first feature it probes with is the verbal agreement feature $[*V*]$. As discussed above, this feature keeps probing as long as there are eligible goals in the structure, so it first agrees with T^0, and then v^0. Once C^0 has agreed with v^0, vP can be ignored by C^0 for any future agree operations. Since vP is no longer an intervener for probes on C^0, this means that not only the ergative DP at the edge of vP becomes part of the search space for C^0, but also the specifier of the ergative DP, which in this case contains the possessor whP. In the presence of the movement feature $[+WH+]$ within its search space, C^0 is assigned the last resort edge feature $[\bullet + \bullet]$, which attracts the possessor to the embedded Spec,CP. Since (i) the whP is now at the edge of CP and (ii) CP is a complement of a phase, and not an edge, the whP is free to move to the higher phase edge, triggered by the higher phase head's edge feature (65).[11] The position of Spec,vP, being equidistant to any higher probe with the vP itself, is accessible for further extraction to the specifier of the wh-feature bearing C^0, thus deriving a grammatical structure wherein the possessor of the ergative DP in the embedded clause is extracted.

[10]In order to preserve Rackowski & Richards's (2005) assumption that only phases are allowed to move we may posit that all terminal nodes are trivially phases.

[11]Whether or not CPs which trigger applied object agreement (such as the complement of *fjež'en* 'begin' or *fejen* 'want') occupy the same structural positions as DPs triggering applied object agreement is a question for future research. Given that predicates like *fejen* 'want' allow for a proleptic construction, where the applied object position is occupied by a wh-trace, I assume that the CP does not occupy Spec,ApplP, like an applied object DP would.

(64)
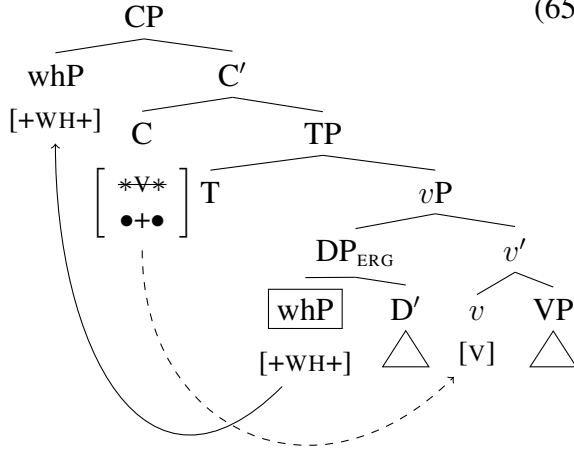
(65)
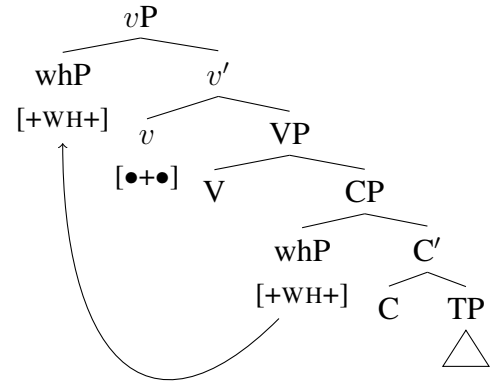
Extraction from an applied object proceeds in a similar fashion: once again, embedded C^0 in this case does not bear a [●WH●] feature and instead probes with the agree feature [∗V∗]. As discussed above, this feature probes multiple times as long as there are eligible goals in its search domain, and if it agrees with a phase head, the corresponding phase becomes transparent for further probing. Thus, after C^0 agrees with v^0 it is free to search for goals within its complement and agree with the lower phase head – $Appl^0$ (66).

(66)
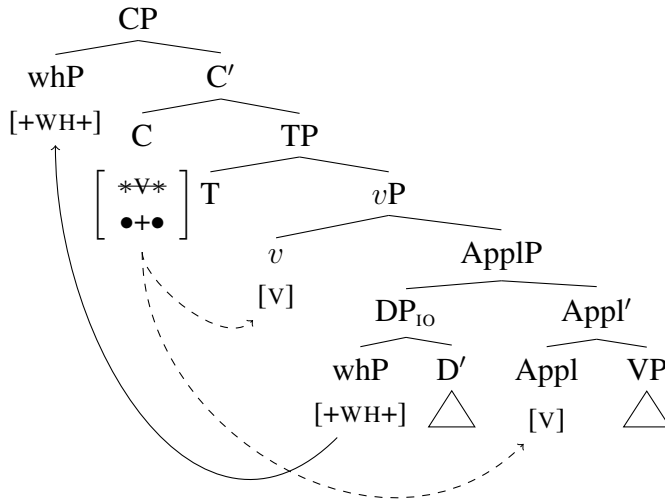
Now that C^0 has agreed with $Appl^0$, ApplP can be ignored by this probe for further operations, which means that when CP is formed, the possessor in the specifier of the applied argument DP is visible to the probe on C^0, a last resort edge feature is inserted and the possessor successfully moves to Spec,CP. One unusual assumption this system makes is that the whP, despite being extracted out of vP, does not stop over in Spec,vP, but moves directly to Spec,CP – this is possible because vP does not behave as a phase for the purposes of the probe on C^0 and its complement is directly visible for subextraction. After the possessor phrase moves to the specifier of the embedded CP, the remainder of the derivation proceeds in the same manner as with the possessor of an ergative DP – the wh-phrase in Spec,CP is visible to the higher phase head (v^0) and can successfully move to Spec,vP and then subsequently be probed by the wh-C^0 in that higher clause (65).

In parasitic gap configurations, the derivation proceeds in the same manner within the embedded clause – following Chomsky (1986); Postal (1998); Nissenbaum (2000), I take parasitic gaps to be traces of a null wh-operator which moves locally within the constituent hosting the parasitic gap. I assume, following Nissenbaum (2000), that this movement is necessary for interpretive reasons. Importantly, the C^0 heading the embedded clause does not bear the wh-movement feature [●WH●], meaning that syntactically, the movement of the operator to Spec,CP in the embedded clause is achieved via the last resort edge feature, as in the cases of long-distance wh-movement.

Returning to cases of clausebound possessor extraction where ergative and applied argument DPs behave as islands, we are now faced with the question: if C^0 hosts the agreement feature [∗V∗] which allows for the subextraction of possessors from these constituents in embedded contexts, why doesn't this feature allow for possessor extraction in matrix contexts? The answer is simply in the ordering of the probe features: just as in embedded contexts, the wh-C^0 bears the agreement feature [∗V∗] which triggers head movement to form the complex predicate observed on the surface. In contrast to embedded contexts, wh-C^0 also hosts the structure-building feature [●WH●], which is responsible for triggering wh-movement, and this feature is ordered *before* the agreement feature in the hierarchy of features on C^0. Since the agreement probe which can successfully agree with v^0 and Appl^0 is ordered *after* the wh-probe, the corresponding phases (vP and ApplP) behave as interveners for the wh-probe, rendering the corresponding structures ungrammatical.

To summarize this section, an agree-based analysis of phasehood as intervention can successfully account for the puzzling variable islandhood of DP arguments in West Circassian. Ergative and applied argument DPs behave as islands for extraction in contexts where they must be directly probed by a wh-probe, rather than a last-resort edge feature. This is best captured within a system of dynamic phasehood, wherein a phase may cease to behave as one for the purposes of movement and agreement, if it has entered an agree relation with a higher probe. One important aspect of this approach is that phasehood and domain opacity is then relativized to a particular probe: if a phase XP has successfully agreed with a probe Y, this makes the corresponding phase transparent for probing *only by Y*, and it is still expected to behave as a phase for other probes in the structure.

5   Conclusion

In regards to subextraction, 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). Even if the variable islandhood of these arguments is set aside, the observed constraints on extraction are difficult to account for with existing analyses of selective DP islandhood. The DPs which display islandhood effects are not moved constituents and they do not systematically contrast with non-island DPs in structural status (specifier versus complement), cannot be analyzed as involving additional functional structure (e.g. as PPs), and display the same agreement patterns as non-island DPs. This paper argues that the observed islandhood effects are a result of the arguments in question being merged at phase edges, rendering the internal structure of the corresponding DPs opaque for subextraction. Crucially, 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. I propose that the lack of islandhood effects in embedded clauses is connected to the polysynthetic nature of the language, coupled with a set of assumptions about

ordering probe features. In particular, C^0 uniformly hosts an agreement feature $[*V*]$, which agrees with all the lower heads in the verbal extended projection – per Roberts (2010), this agreement triggers head movement to C^0, resulting in a morphologically complex predicate. A wh-movement triggering C^0, however, first probes with the wh-movement feature $[\bullet WH\bullet]$, and the lower phases – vP and ApplP – serve as interveners, disallowing for the subextraction out of their edges, i.e. the ergative and applied argument DPs. In an embedded context, on the other hand, C^0 does not host a wh-movement feature and probes directly with the verbal agreement feature $[*V*]$, successfully agreeing with v^0 and $Appl^0$ and corresponding expanding the search domain for this C^0 to include the internal structure of the phase edges. Cyclic wh-movement is then achieved via a last resort edge feature, which is inserted at the time a given phase is formed, allowing for the grammatical subextraction out of constituents which behave as islands in simple clause cases.

The presented analysis confirms the correlation between agreement properties and phasehood, as proposed by Rackowski & Richards (2005); Van Urk & Richards (2015); Halpert (2019), but disengages islandhood of arguments or adjuncts from their agreement properties, in contrast to e.g. Boeckx (2003); Gallego & Uriagereka (2007); Branan (2018). Instead, the analysis capitalizes on the agreement properties of the head triggering wh-movement and the verbal phases which contain the corresponding island constituents. This suggests that the presence of absence of ϕ-agreement per se does not correlate with extraction properties. Rather, if the head that triggers ϕ-agreement also triggers wh-movement, a correlation may be observed. In West Circassian, the two phenomena do not correlate: C^0 triggers wh-movement, but is unlikely to be responsible for ϕ-agreement.

The agree-based model of phasehood fits in well with the idea of that phasehood is contextually determined and is dynamic, with the same constituent acting as a phase in one syntactic configuration, but failing to display the same phase-like properties in another configuration; see e.g. den Dikken (2007); Gallego (2010); Bošković (2014). The implementation proposed here, however, differs from previous proposals in implementation and the set of predictions. Cross-linguistically, the structural effects of agree-based phasehood may differ based on (i) the presence or absence of ameliorating agreement features on the movement-triggering probe, coupled with (ii) the features present on the phase heads in question.

The variable islandhood effects in West Circassian emphasize the important difference between a semantically contentful wh-feature bearing C^0 and a phase head with a last resort edge feature. This is a desirable outcome, since both a syntactic and semantic distinction must be made between heads which *drive* movement and heads which *allow* movement to their edges when necessary (see discussion e.g. in Heck & Müller 2003). While providing an account for the islandhood effects of argument DPs, this approach leaves open the possibility that other types of syntactic islands, such as e.g. wh-islands and adjuncts, must be accounted for via independent means.

References

Akmajian, Adrian. 1979. *Aspects of the grammar of focus in English*. Garland.

Arkadiev, Peter M. & Alexander B. Letuchiy. 2011. Prefixes and suffixes in the Adyghe polysynthetic wordform: Types of interaction. In *Languages and cultures in the Caucasus*, eds. Vittorio S. Tomelleri, Manana Topadze & Anna Lukianowicz, 495–514. Otto Sagner.

Arkadiev, Peter M. & Yakov G. Testelets. 2019. Differential nominal marking in Circassian. *Studies in Language* 43 (3): 715–751.

Arkadiev, P. M., Yu. A. Lander, A. B. Letuchiy, N. R. Sumbatova & Ya. G. Testelets. 2009. Vvedenije. Osnovnyje svedenija ob adygejskom jazyke [Introduction: Basic information on Adyghe]. In *Aspekty polisintetizma: Očerki po grammatike adygejskogo jazyka*, ed. Ya. G. Testelets, 17–120. Moscow: RGGU.

Arregi, Karlos & Asia Pietraszko. 2020. The ups and downs of head displacement. *Linguistic Inquiry. Early Access*. doi:10.1162/ling$_{a0}$0377.

Baker, Mark C. 1988. *Incorporation. A Theory of Grammatical Function Changing*. Chicago/London: University of Chicago Press.

Biberauer, Theresa, Anders Holmberg, Ian Roberts & Michelle Sheehan. 2014. Complexity in comparative syntax: the view from modern parametric theory. In *Measuring grammatical complexity*, eds. Laurel B. Preston & Frederick J. Newmeyer. OUP.

Boeckx, Cedric. 2003. *Islands and chains: Resumption as stranding*. John Benjamins.

Bošković, Željko. 1997. Pseudoclefts. *Studia Linguistica* 51: 235–277.

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.

Bošković, Željko. 2016. What is sent to spell-out is phases, not phasal complements. *Linguistica* 56 (1): 25–66.

Bošković, Željko. 2018. On extraction out of inherently case-marked elements. In *Proceedings of FASL 25*, eds. Wayles Browne, Miloje Despic, Naomi Enzinna, Simone Harmath-de Lemos, Robin Karlin & Draga Zec, 57–78. Michigan Slavic Publications.

Branan, Kenyon. 2018. Attraction at a distance: Ā-movement and case. *Linguistic Inquiry* 49 (3): 409–440.

Caponigro, Ivano & Maria Polinsky. 2011. Relative embeddings: A Circassian puzzle for the syntax/semantics interface. *NLLT* 29(1): 71–122.

Chomsky, Noam. 1973. Conditions on transformations. In *A festschrift for Morris Halle*, eds. Stephen Anderson & Paul Kiparsky, 232–286. Holt, Rinehart & Winston.

Chomsky, Noam. 1986. *Barriers*. MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: the framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, eds. Roger Martin, David Michaels & Juan Uriagereka, 89–155. MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz. MIT Press.

Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory*, eds. Robert Freidin, Carlos P. Otero & Maria Luisa Zubizarreta, 133–166. MIT Press.

Chung, Sandra. 1998. *Design of agreement: Evidence from Chamorro*. University of Chicago Press.

Declerck, Renaat. 1988. *Studies in copular sentences, clefts and pseudo-clefts*. Leuven University Press / Foris.

den Dikken, Marcel. 2007. Phase extension: Contours of a theory of the role of head movement in phrasal extraction. *Theoretical Linguistics* 33: 1–41.

den Dikken, Marcel. 2017. Pseudoclefts and other specificational sentences, 2nd edn. In *The Wiley Blackwell companion to syntax*, eds. Martin Everaert & Hank van Riemsdijk. John Wiley & Sons, Inc.

den Dikken, Marcel, André Meinunger & Chris Wilder. 2000. Pseudoclefts and ellipsis. *Studia Linguistica* 54: 41–89.

Embick, David & Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32: 555–595.

Emonds, Joseph. 1970. Root and structure-preserving transformations. PhD diss, MIT.

Ershova, Ksenia. 2019a. Diagnosing clause structure in a polysynthetic language: Wh-agreement and parasitic gaps in West Circassian. *Linguistic Inquiry (Early Access)*. doi:10.1162/ling$_{a0}$0371.

Ershova, Ksenia. 2019b. Syntactic ergativity in West Circassian. PhD diss, University of Chicago.

Ershova, Ksenia. 2020a. Syntactic ergativity and the theory of subjecthood: Evidence from anaphor binding in West Circassian. Ms. `https://ling.auf.net/lingbuzz/005168`.

Ershova, Ksenia. 2020b. Two paths to polysynthesis: Evidence from West Circassian nominalizations. *Natural Language and Lingustic Theory* 38: 425–475. doi:10.1007/s11049-019-09455-w.

Gallego, Ángel J. 2010. *Phase theory*. John Benjamins.

Gallego, Ángel J. & Juan Uriagereka. 2007. Conditions on sub-extraction. In *Coreference, modality, and focus: Studies on the syntax-semantics interface*, eds. Luis Eguren & Olga Fernández-Soriano, 45–70. John Benjamins.

Georgi, Doreen & Gereon Müller. 2010. Noun phrase structure by reprojection. *Syntax* 13: 1–36.

Gorbunova, I. M. 2009. Possessivnye konstrukcii [possessive constructions]. In *Aspekty polisintetizma: Očerki po grammatike adygejskogo jazyka*, ed. Ya. G. Testelets, 146–165. Moscow: RGGU.

Halpert, Claire. 2019. Raising, unphased. *Natural Language and Linguistic Theory* 37: 123–165.

Harizanov, Boris & Vera Gribanova. 2019. Whither head movement? *Natural Language and Linguistic Theory* 37: 461–522.

Heck, Fabian & Gereon Müller. 2003. Derivational optimization of wh-movement. *Linguistic Analysis* 33: 97–148.

Heck, Fabian & Gereon Müller. 2007. Extremely local optimization. In *Proceedings of WECOL34*, eds. Erin Bainbridge & Brian Agbayani, 170–182.

Heycock, Caroline & Anthony Kroch. 1999. Pseudo-cleft connectivity: Implications for the LF interface level. *Linguistic Inquiry* 30: 365–397.

Higgins, F. Roger. 1979. *The pseudo-cleft construction in English*. Garland.

Hiraiwa, Ken. 2001. Multiple Agree and the Defective Intervention Constraint in Japanese. In *The proceedings of HUMIT 2000*, eds. Ora Matushansky, Albert Costa, Javier Martin-Gonzalez, Lance Nathan & Adam Szczegielniak, 67–80. MITWPL.

Hiraiwa, Ken. 2005. Dimensions of symmetry in syntax: agreement and clausal architecture. PhD diss, MIT.

Huang, Cheng-Teh James. 1982. Logical relations in Chinese and the theory of grammar. PhD diss, MIT.

Kayne, Richard. 1994. *The antisymmetry of syntax*. MIT Press.

Koopman, Hilda. 1984. The syntax of verbs: From verb movement rules in the Kru languages to Universal Grammar. PhD diss, Tilburg University.

Korotkova, Natalia & Yury Lander. 2010. Deriving affix ordering in polysynthesis: Evidence from Adyghe. *Morphology* 20: 299–319.

Kumakhov, M. A. 1964. *Morfologija adygskix jazykov: sinxronno-diaxronnaja xarakteristika [Morphology of Circassian languages: synchronic and diachronic description]*. Kabardino-Balkarskoe knižnoe izdatelstvo.

Kumakhov, M. A. 1971. *Slovoizmenenie adygskix jazykov [Inflection in Circassian languages]*. Nauka.

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

Lander, Yury. 2009a. Množestvennaja reljativizacija: podlinnaja i mnimaja [Multiple relativization: genuine and imaginary]. In *Aspekty polisintetizma: Očerki po grammatike adygejskogo jazyka*, ed. Ya. G. Testelets, 612–653. Moscow: RGGU.

Lander, Yury. 2009b. Subject properties of the Adyghe absolutive: Evidence from relatives. Ms..

Lander, Yury. 2012. Reljativizacija v polisintetičeskom jazyke: adygejskie otnositel'nye konstrukcii v tipologičeskoj perspektive [Relativization in a polysynthetic language: Adyghe relative clauses in a typological perspective]. PhD diss, Russian State University for the Humanities.

Lander, Yury. 2017. Nominal complex in West Circassian: Between morphology and syntax. *Studies in Language* 41 (1): 76–98.

Lander, Yury & Michael Daniel. 2020. West Caucasian relative pronouns as resumptives. *Linguistics (Ahead of Print)*. doi:10.1515/ling-2020-2003.

Lander, Yury & Alexander Letuchiy. 2010. Kinds of recursion in Adyghe morphology. In *Recursion and Human Language*, ed. Harry van der Hulst, 263–284. De Gruyter Mouton.

Lander, Yury A. & Yakov G. Testelets. 2017. Adyghe (Northwest Caucasian). In *The Oxford handbook of polysynthesis*, eds. Michael Fortescue, Marianne Mithun & Nicholas Evans, 948–970. Oxford University Press.

Legate, Julie Anne. 2003. Some interface properties of the phase. *Linguistic Inquiry* 34.3: 506–516.

Letuchiy, Alexander. 2015. Scope versus ordering of operations: causativization and ordering of valency-changing operations in Adyghe. In *Affix ordering across languages and frameworks*, ed. Stela Manova. Oxford University Press.

Martinović, Martina. 2015. Feature geometry and head-splitting: Evidence from the Wolof clausal periphery. PhD diss, University of Chicago.

McCloskey, Jim. 2001. The morphosyntax of wh-extraction in Irish. *Journal of Linguistics* 37 (1): 67–100.

McGinnis, Martha. 2000. Phases and the syntax of applicatives. In *NELS 31*, eds. Min-Joo Kim & Uri Strauss, 333–349. GLSA.

McGinnis, Martha. 2001. Variation in the phase structure of applicatives. *Linguistic Variation Yearbook* 1: 105–146.

Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands and the theory of ellipsis*. Oxford University Press.

Müller, Gereon. 2010. On deriving CED effects from the PIC. *Linguistic Inquiry* 41 (1): 35–82.

Müller, Gereon. 2011. *Constraints on displacement: A phase-based approach*. John Benjamins.

Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language & Linguistic Theory* 25 (2): 273–313.

Nevins, Andrew. 2011. Multiple agree with clitics: Person complementarity vs. omnivorous number. *Natural Language and Linguistic Theory* 29 (4): 939–971.

Nissenbaum, Jonathan W. 2000. Investigations of covert phrase movement. PhD diss, MIT.

O'Herin, Brian. 2002. *Case and agreement in abaza*. SIL International / University of Texas at Arlington.

Polinsky, Maria. 2016. *Deconstructing ergativity: Two types of ergative languages and their features*. Oxford University Press.

Polinsky, Maria. 2017. Syntactic ergativity, 2nd edn. In *The Wiley blackwell Companion to Syntax*, eds. Martin Everaert & Henk van Riemsdijk. Wiley.

Postal, Paul. 1998. *Three investigations of extraction*. MIT Press.

Rackowski, Andrea & Norvin Richards. 2005. Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry* 36 (4): 565–599.

Richards, Marc. 2011. Deriving the edge: What's in a phase? *Syntax* 14: 74–95.

Richards, Norvin. 1998. The Principle of Minimal Compliance. *Linguistic Inquiry* 29: 599–629.

Roberts, Ian. 2010. *Agreement and head movement: Clitics, incorporation, and defective goals*. The MIT Press.

Rogava, G. V. & Z. I. Keraševa. 1966. *Grammatika adygejskogo jazyka [The grammar of Adyghe]*. Krasnodarskoe knižnoe isdatelstvo.

Ross, John Robert. 1967. Constraints on variables in syntax. PhD diss, MIT.

Schlenker, Philippe. 2003. Clausal equations: A note on the connectivity problem. *Natural Language & Linguistic Theory* 21: 157–214.

Serdobolskaya, Natalia. 2011. Grammaticalization patterns of the Adyghe instrumental case. In *Languages and cultures in the Caucasus*, 515–539. München – Berlin: Verlag Otto Sagner.

Serdobolskaya, N. V. & J. L. Kuznetsova. 2009. Dvojnoje padežnoje markirovanije: unikal'nyj slučaj adygejskogo jazyka [Double case marking: the unique case of Adyghe]. In *Aspekty polisintetizma: Očerki po grammatike adygejskogo jazyka*, ed. Ya. G. Testelets, 166–200. Moscow: RGGU.

Stepanov, Arthur. 2001. Cyclic domains in syntactic theory. PhD diss, University of Connecticut.

Sumbatova, Nina. 2009. Kommunikativnaja struktura adygejskogo predloženija [Information structure of the Adyghe sentence]. In *Aspekty polisintetizma: Očerki po grammatike adygejskogo jazyka*, ed. Ya. G. Testelets, 559–611. Moscow: RGGU.

Takahashi, Daiko. 1994. Minimality of movement. PhD diss, University of Connecticut.

Testelets, Ya. G., ed. 2009. *Aspekty polisintetizma: Očerki po grammatike adygejskogo jazyka [Aspects of polysynthesis: Sketches on the grammar of Adyghe]*. Moscow: RGGU.

Travis, Lisa deMena. 1984. Parameters and effects of word order variation. PhD diss, MIT.

van Urk, Coppe & Norvin Richards. 2015. Two components of long-distance extraction: Successive cyclicity in Dinka. *Linguistic Inquiry* 46 (1): 113–155.

Zeijlstra, Hedde. 2004. *Sentential negation and negative concord*. LOT.

Appendices

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

Experiencer of two-place unaccusative verb: baseline (67a); possessor extraction is ungrammatical (67b); pseudocleft repair strategy (67c).

(67) a. [mə bzəλfaʁe-m(PR) **Ø-**jə-pŝaŝe](IO) sə-Ø-š'ə-ʁʷəpša-ʁ
        this woman-OBL **WH.PR-**POSS-girl 1SG.ABS-3SG.IO-LOC-forget-PST
        'This woman's daughter forgot about me.'

    b. * mə bzəλfəʁe-r arə [$_{RC}$ Op$_i$ [t_i(PR) **z-**jə-pŝaŝe](IO)
        this woman PRED **WH.PR-**POSS-girl
        sə-Ø-š'ə-ʁʷəpša-ʁe] -r
        1SG.ABS-3SG.IO-LOC-forget-PST -ABS
        Intended: 'This woman is the one whose daughter forgot about me.'

    c. mə bzəλfəʁe-r arə [$_{RC}$ Op$_i$ [t_i(PR) **z-**jə-pŝaŝe](ABS) [$_{RC}$ Op$_j$ t_j(IO)
        this woman-ABS PRED **WH.PR-**POSS-girl
        sə-**z-**š'ə-ʁʷəpša-ʁe-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 (68a); possessor extraction is ungrammatical (68b); pseudocleft repair strategy (68c).

(68) a. se(ERG) ʒegʷaλe-r(ABS) Ø-Ø-je-s-tə-ʁ
        I toy-ABS 3ABS-3SG.IO-DAT-1SG.ERG-give-PST
        [č'ele-çəḳʷə-m(PR) ə-š](IO)
        boy-small-OBL **3SG.PR-**brother
        'I gave the toy to the boy's brother.'

    b. * mwarə [$_{RC}$ č'ele-çəḳʷ-ew$_i$ [t_i(PR) **zə-**š](IO) ʒegʷaλe-r(ABS)
        here boy-small-ADV **WH.PR-**brother toy-ABS
        Ø-Ø-je-s-tə-ʁe] -r
        3ABS-3SG.IO-DAT-1SG.ERG-give-PST -ABS
        Intended: 'Here is the boy to whose brother I gave the toy.'

c. mwarə [$_{RC}$ č'ele-çək̇ʷ-ew$_i$ [t_i(PR) **zə-š**](ABS) [$_{RC}$ Op$_j$ t_j(IO)
    here   boy-small-ADV   **WH.PR**-brother

     žegʷaλe-r(ABS)   Ø-**z**-e-s-tə-ʁe-r]]
    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 (69a); possessor extraction is ungrammatical (69b); pseudocleft repair strategy (69c).

(69)   a. se(ERG)   wered(ABS)   [mwe ŝʷəzə-m(PR)   **Ø-**j-ə-č'ale](IO)
          I   song   this woman-OBL   **3SG.PR**-POSS-boy

          Ø-qə-Ø-fe-s-ʔʷa-ʁ
          3ABS-DIR-3SG.IO-BEN-1SG.ERG-say-PST

          'I sang for this woman's son.'

     b.   * marə   [$_{RC}$ ŝʷəz-ew$_i$ [t_i(PR)   **z-**j-ə-č'ale](IO)   wered(ABS)
          here   woman-ADV   **WH.PR**-POSS-boy song

          Ø-qə-Ø-fe-s-ʔʷa-ʁe]   -r
          3ABS-DIR-3SG.IO-BEN-1SG.ERG-say-PST   -ABS

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

     c.   marə   [$_{RC}$ ŝʷəz-ew$_i$ [t_i(PR)   **z-**j-ə-č'ale](ABS)   [$_{RC}$ Op$_j$ t_j(IO)
          here   woman-ADV   **WH.PR**-POSS-boy

          Ø-qe-**zə**-fe-s-ʔʷa-ʁe-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.'

B   Extraction from complement of *jezeš'ən* 'tire of' and *den* 'allow'

B.1   *jezeš'ən* 'tire of'

The verb *jezeš'ən* 'tire of' selects for an absolutive experiencer and a dative applied argument as the stimulus and allows for a long-distance wh-movement configuration, wherein the embedded wh-marker is obligatory and, for some speakers, the matrix wh-marker in the applied argument position may be dropped (70a). This predicate is compatible with a proleptic structure, where there is a single wh-marker in the applied object position in the matrix clause, and the argument that is expected to be relativized based on the semantics is expressed as a regular third person pronoun in the embedded clause (70b). Finally, the embedded pronoun in the proleptic construction may be replaced by a parasitic gap which triggers wh-agreement on the embedded predicate, rendering a surface string which is identical to the long-distance wh-movement configuration with overt matrix wh-agreement (70c).

(70)   a. marə   [$_{RC}$ č'al-ew$_i$ [$_{CP}$ t_i(IO)   aχš'e
          here   boy-ADV   money

          Ø-**z**-e-s-tə-n-ew]   sə-**z**-e-zeš'ə-ʁe]/
          3ABS-**WH.IO**-DAT-1SG.ERG-give-MOD-ADV   1SG.ABS-**WH.IO**-DAT-tire.of-PST /

%s-**Ø**-je-zeš'ə-ʁe]   -r
1SG.ABS-**3SG.IO**-DAT-tire.of-PST -ABS

'Here is the boy to whom I'm tired of giving money.'   **long-distance wh-movement**

b. marə [$_{RC}$ č'al-ew$_i$ t_i(IO) [$_{CP}$ *pro*$_i$(IO) aχš'e
   here   boy   money

Ø-**Ø**-je-s-tə-n-ew]   sə-**z**-e-zeš'ə-ʁe]   -r
3ABS-**3IO**-DAT-1SG.ERG-give-MOD-ADV 1SG.ABS-**WH.IO**-DAT-tire.of-PST -ABS

'Here is the boy to whom I'm tired of giving money.'   **prolepsis**

c. marə [$_{RC}$ č'al-ew$_i$ t_i(IO) [$_{CP}$ __$_{PG}$(IO) aχš'e
   here   boy   money

Ø-**z**-e-s-tə-n-ew]   sə-**z**-e-zeš'ə-ʁe]
3ABS-**WH.IO**-DAT-1SG.ERG-give-MOD-ADV 1SG.ABS-**WH.IO**-DAT-tire.of-PST

-r
-ABS

'Here is the boy to whom I'm tired of giving money.'   **prolepsis + parasitic gap**

B.2 *den* **'allow'**

The verb *den* 'allow' selects for an ergative agent and a CP in the absolutive position. Relativization of an argument from within the complement clause involves obligatory long-distance wh-movement. In (71a) the applied object of *jepλən* 'look' is relativized and correspondingly triggers wh-agreement in the embedded predicate; (71b) indicates that the only available interpretation of the previous example is one involving long-distance wh-movement from within the embedded clause, since an alternative of this sentence where the relativized participant is expressed as a regular pronoun and is presumably co-indexed with a proleptic absolutive wh-trace in the matrix clause is deemed ungrammatical.

(71) a. marə [$_{RC}$ kjənw-ew$_i$ [$_{CP}$ t_i(IO) tə-**z**-e-pλə-n-ew]
      here   film-ADV   1PL.ABS-**WH.IO**-DAT-look-MOD-ADV

Ø-qə-t-fe-ŝ^{w}ə-da-ʁe]   -r
3ABS-DIR-1PL.IO-BEN-2SG.ERG-consent-PST -ABS

'Here is the film that you allowed us to watch.'

b. * marə [$_{RC}$ kjənw-ew$_i$ t_i(ABS?) [$_{CP}$ *pro*$_i$(IO)
     here   film-ADV

t-**Ø**-je-pλə-n-ew]
1PL.ABS-**3SG.IO**-DAT-look-MOD-ADV

Ø-qə-t-fe-ŝ^{w}ə-da-ʁe]   -r
WH.ABS-DIR-1PL.IO-BEN-2PL.ERG-consent-PST -ABS

Intended: lit. 'Here is the film which you allowed us to watch it.'