

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

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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, ϕ -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-interveniers 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.

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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 (1a), as opposed to objects, which are transparent for subextraction (1b) (see e.g. Haegeman et al. 2014 for a survey of factors influencing the Subject Condition). The second strand of literature concerns subextraction out of oblique case-marked nominals, such as the dative noun phrase in (2) (Bošković 2018; Branan 2018).

- (1) a. * Who_i did [a story about t_i]_{subject} amuse you? (Lasnik & Saito 1992:42)
 b. Who_i did you hear [a story about t_i]_{object} ?
- (2) ?* Kojeg doktora_i si prijeto [prijatelju t_i]?
 which doctor_{GEN} are threatened friend_{DAT}
 Int.: ‘Which doctor did you threaten a friend of?’ (Serbo-Croatian; Bošković 2018:57)

There is a parallel between the islandhood of subjects and oblique nominals: the latter group is intended to subsume a subclass of subject-type arguments – ergative agents in languages with ergative-absolutive case marking. Bošković (2018), for example, proposes a unified analysis for the islandhood of English subjects and oblique case-marked nominals in Serbo-Croatian, while Branan (2018) proposes an account of oblique DP islands, including ergative case-marked nominals. This paper argues that the islandhood of certain types of nominals is best captured by a modified version of the Agree-based theory of phasehood developed by Abels (2003); Rackowski & Richards (2005); Van Urk & Richards (2015); Halpert (2019). 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). The impenetrability of a given phase is treated as a consequence of syntactic intervention, rather than it being no longer visible to the syntactic module due to transfer to the interfaces. The opacity 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 per den Dikken (2007); Gallego (2010); Bošković (2014).

This paper presents evidence for the Agree-based approach to phasehood from West Circas-

sian (also known as Adyghe), a polysynthetic language of the Northwest Caucasian family. In some varieties of West Circassian, possessor relativization is ungrammatical from ergative and applied arguments, but is allowed from absolutive arguments and postpositional phrases. Puzzlingly, possessor relativization from 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, i.e. the propensity to form morphologically complex predicates: verbal heads enter an Agree relation with the highest head in the extended verbal projection (C^0), resulting in head movement to form complex polysynthetic 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.

Besides contributing to the understanding of syntactic domains and constraints on movement, this paper presents a typologically unusual set of constraints on relativization out of nominal constituents: in West Circassian, ergative and applied arguments behave as islands for possessor extraction only in a subset of contexts, namely in cases of clausebound relativization, and further-

more, cannot be united into an obvious natural class with other constituents which tend to behave as islands cross-linguistically, such as adjunct PPs.

The remainder of the paper is structured as follows. Section 2 provides the background on West Circassian clause structure and the syntax of *wh*-movement. Section 3 outlines the constraints on possessor extraction. 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 & Vamling 2009; Testelests 2009; Korotkova & Lander 2010; Lander & Letuchiy 2010; Lander 2017; Lander & Testelests 2017, *inter alia*). A predicate expones cross-reference morphology for all participants of the event it denotes; for example, the verb in (3) 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.).¹

- (3) sə- qə- p- f- a- r- jə- be- λeβ^wə -β
 1SG.ABS- DIR- 2SG.IO- BEN- 3PL.IO- DAT- 3SG.ERG- CAUS- see -PST
 ‘He showed me to them for your sake.’ (Korotkova & Lander 2010:301)

Cross-reference prefixes are strictly ordered in accordance with an ergative alignment system: ABS – IO+APPL – ERG. The personal marker referring to the theme of a transitive verb – e.g. λeβ^wən ‘see’ in (4) – and the sole argument of an intransitive verb – e.g. səmežən ‘be ill’ in (5) – appears in the leftmost position. The absolutive prefix is then followed by any cross-reference

¹The examples are glossed in accordance with the Leipzig conventions, with the following additions: DIR – directional; DYN – present tense on dynamic verbs; LIM – limitative; MOD – modal future; PR – possessor; RE – refractive.

morphology referring to applied objects, e.g. the malefactive in (5) or the benefactive in (6). The marker cross-referencing the ergative agent appears closest to the verbal root (6).

- (4) wə- s- e- λeɸ^w
2SG.ABS- 1SG.ERG- DYN- see
'I see you.'
- (5) wə- s- ʃ^we- səmeʒa -ɸ
2SG.ABS- 1SG.IO- MAL- ill -PST
'You were ill against my will.'
- (6) Ø- p- fe- s- thaç'ə -ɸe -x
3ABS- 2SG.IO- BEN- 1SG.ERG- wash -PST- PL
'I washed them for you.'

In the nominal domain, possessed nouns are marked with a personal prefix referring to the possessor; in cases of alienable possession this prefix is followed by the possessive marker *jə*-.² An example of inalienable possession is in (7) and of a noun marked with the marker *jə*- is in (8).

- (7) s-šəpɣ^wə-xe-r
1SG.PR-sister-PL-ABS
'my sisters'
- (8) t-jə-ɸ^wəneɸ^wə-xe-m
1PL.PR-POSS-neighbor-PL-OBL
'our neighbors'

The syntax of cross-reference morphology lies outside the scope of this paper. Per Ershova (2020) I assume that the personal prefixes expone ϕ -agreement between an argument and a verbal functional head: v^0 for ergative, Appl^0 for applied arguments, and T^0 for absolutive. The proposed analysis is compatible with treating these morphemes as clitics in the sense of Arregi & Nevins (2012); Yuan (2018), a.o.³ or with positing dedicated Agr^0 projections, as e.g. in Ershova (2019).

Case marking follows an ergative alignment system as well: the theme of a transitive verb like *fepen* 'dress' (9a) and the single argument of an intransitive verb such as *qeš^wen* 'dance' (9b) are marked with the absolutive suffix *-r*, while the ergative agent (9a), as well as any applied objects, such as the benefactive applied object in (9c), receive the oblique marker *-m*. The label *oblique* for the case on ergative agents and applied objects is additionally motivated by the appearance of this case on possessors (10) and complements of postpositions (11).

- (9) a. mə pšaše-**r**(ABS) jane paje Ø-qa-š^we
this girl-ABS 3PL.PR+mother for 3ABS-DIR-dance
'The girl is dancing for her mother.'

²See Gorbunova (2009) on alienable vs. inalienable possession in West Circassian.

³Cliticization is understood in this case as the movement and adjunction of a D^0 head to a verbal projection; it does not directly correlate with the traditional definition of *clitic* as a syntactically independent, but prosodically and morphologically deficient element (Zwicky & Pullum 1983; Halpern 1995; Anderson 2005, among many others). In terms of their surface morphosyntax, the cross-reference markers unambiguously behave as affixes.

b. s-jə-pšaše-xe-**m**(ERG) nəsxape-xe-**r**(ABS) Ø-a-fepa-**be-x**
 1SG.PR-POSS-girl-PL-**OBL** doll-PL-**ABS** 3ABS-3PL.ERG-dress-PST-PL
 ‘My daughters dressed the dolls.’

c. mə ç’ale-r(ABS) bere Ø-jə-ʔahəl-xe-**m**(IO) telefon-ç’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.’

(10) pšaše-**m** Ø-jə-pšeşe^w
 girl-**OBL** 3SG.PR-POSS-female.friend
 ‘the girl’s friend’

(11) mə š^wəzə-**m** paje
 this woman-**OBL** for
 ‘for this woman’

Following classic and recent work on West Circassian (Rogava & Keraševa 1966; Arkadiev et al. 2009; Arkadiev & Letuchiy 2011; Lander 2012; Letuchiy 2015; Lander & Testelelets 2017; Ershova 2019, 2020, 2021a, *inter alia*), I treat the marker *-m* as the exponent of a single case and gloss it 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 (2019) on the syntax of case assignment.

Nouns may be unmarked for case; the lack of case marking is 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 & Testelelets 2019). Arkadiev & Testelelets (2019) suggest that the lack of case marking in indefinite nouns correlates with a diminished nominal structure, but possessed nominals, which are the subject under discussion in this paper, always constitute a full DP even in the absence of overt case marking. The order of arguments in a full clause is free, but the language is prevalently left-branching, with suffixal case markers, postpositions, verb-final embedded clauses, and relative clauses to the left of their nominal external head.

2.2 Relative clauses

This subsection outlines the structure of wh-movement configurations in West Circassian. Wh-movement is observed only in relative clauses: wh-questions, focus and topic constructions are formed on the basis of a pseudocleft (Sumbatova 2009; Caponigro & Polinsky 2011). The syntax of relative clauses in West Circassian has been described in Lander (2009a,b, 2012) and analyzed in Minimalist terms by Caponigro & Polinsky (2011); see also Ershova (2021a) for recent discussion.

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

Following Caponigro & Polinsky (2011); Ershova (2021a), 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 $zə$ 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 (12a) triggers the third person ergative marker $ə$ -; if this argument is relativized, the corresponding agreement marker is replaced with $zə$ - (12b). The nominal head of the relative clause appears on the left edge of the relative clause and is marked with the adverbial case marker $-ew$; I return to the properties of the head of the relative clause below.

- (12) a. **mə** **č'ale-m(ERG)** $ə$ -š velosjəped
this boy-OBL 3SG.PR-brother bicycle
 \emptyset - \emptyset - r- **jə**- tə -r
 3ABS- 3SG.IO- DAT- **3SG.ERG**- give -PST
 'This boy gave a bicycle to his brother.'
- b. marə [**č'al-ew_i** t_i (ERG) $ə$ -š velosjəped
 here **boy-ADV** 3SG.PR-brother bicycle
 \emptyset - \emptyset - je- **zə**- tə -r] -r
 3ABS- 3SG.IO- DAT- **WH.ERG**- give -PST -ABS
 'Here is the boy that gave a bicycle to his brother.' (Ershova 2021a)

The prefix $zə$ - which replaces ϕ -agreement with the relativized participant, cannot be used in the absence of wh-movement, indicating that this marker has a specialized use of referencing a wh-trace. This is shown below in (13)-(14), which are taken from Caponigro & Polinsky (2011:84) (the glossing and bracketing is adapted to match the conventions of this paper): the marker $zə$ - in (13) appears in place of the prefix referencing the relativized ergative participant; the use of this marker in the absence of wh-movement is ungrammatical (14).

- (13) [Op_i t_i xate-r \hat{s}^w anə-m \emptyset - \emptyset - rə- **zə**- pč'e -š'tə] č'ale-r
 orchard-ABS hoe-OBL 3ABS- 3SG.IO- INSTR- **WH.ERG**- weed -FUT boy-ABS
 'the boy who will be weeding the orchard with a hoe' (Caponigro & Polinsky 2011:84)
- (14) * č'ale-m \hat{s}^w anə-m xate-r \emptyset - \emptyset - rə- **zə**- pč'e -š't
 boy-OBL hoe-OBL orchard-ABS 3ABS- 3SG.IO- INSTR- **WH.ERG**- weed -FUT

⁵In accordance with regular morphophonological rules (Arkadiev et al. 2009:27-29) the prefix $zə$ - surfaces as z - prevocally or before the glide /j/.

Intended: ‘The boy will be weeding the orchard with a hoe.’ (*ibid.*)

The same pattern can be seen with the relativization of an applied argument: the applied object of the finite predicate in (15a) triggers third person singular agreement; if this argument is relativized, the corresponding agreement marker is once again replaced with *zə-* (15b).

- (15) a. **mə ɕ’ele-ɕək^wə-m** Ø-jane Ø- Ø- fe- g^wəbž -zepət
 this boy-small-OBL 3SG.PR-mother 3ABS- **3SG.IO-** BEN- angry -always
 ‘His mother is always angry at this boy.’
- b. **marə [ɕ’ele-ɕək^w-ew_i t_i(IO) Ø-jane Ø- zə- fe- g^wəbž**
 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 2021a)

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 (16) and inalienable possession (17).⁶

- (16) [RC **ŝ^wəz-ew_i** [DP t_i(PR) **z-jə-pŝaŝe**](ABS) dax-ew Ø-qa-ŝ^we-re] -r
 woman-ADV **WH.PR-POSS-girl** good-ADV 3ABS-DIR-dance-DYN -ABS
 ‘the woman whose daughter dances well’
- (17) **mwarə** [RC **ŝ^wəz-ew_i** [DP t_i(PR) **zə-q^we**](ABS) hapse-m
 here woman-ADV **WH.PR-son** prison-OBL
 Ø-Ø-ɕ-a-za-ɸe] -r
 3ABS-3SG.IO-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, the agreement morphology of the predicate heading the relative clause remains unaltered compared to its finite form. For example, the absolutive external argument of *ceqen* ‘bite’ triggers null agreement on the finite predicate (18a); if this argument is relativized, this agreement remains null (18b). Absolutive internal arguments, e.g. the theme of *leɸ^wən* ‘see’ in (19), are also relativized without overt *wh*-morphology.

- (18) a. **ha-r** Ø-jə-xozjajən Ø- Ø- je- ceqa -ɸ
 dog-ABS 3SG.PR-POSS-owner **3ABS-** 3SG.IO- DAT- bite -PST
 ‘The dog bit its owner.’

⁶The demonstrative *mwarə* in (17) is a colloquial variant of the form *marə* ‘here’ in (15b).

- b. se sə-Ø-š'-e-š'əne [RC **ha-w_i** t_i(ABS) Ø-jə-xozjajən
 I 1SG.ABS-3SG.IO-LOC-DYN-fear **dog-ADV** 3SG.PR-owner
 Ø- Ø- je- ceqa -be] -m
WH.ABS- 3SG.IO- DAT- bite -PST -OBL

‘I fear the dog that bit its owner.’ (Ershova 2021a)

- (19) marə [RC pšaš-e-w_i t_i(ABS) bere Ø-jə-ɸ^wəneɸ^wə-m dež'
 here girl-ADV much 3SG.PR-POSS-neighbor-OBL at
 Ø-Ø-š'ə-s-ɸeɸ^wə-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.’

As mentioned above, relativization is the only type of wh-movement observed in West Circassian. Questions are formed either with the wh-expression appearing in-situ with no wh-agreement (20a), or through the formation of a pseudocleft construction where the wh-expression serves as the focus of the pseudocleft (20b) (Sumbatova 2009; Caponigro & Polinsky 2011). In the pseudocleft construction, the wh-word is marked with the question particle *-a*, and the remainder of the sentence takes the form of a headless relative clause, with the head predicate bearing wh-agreement with the relativized argument and suffixed with the absolutive case marker (20b).

- (20) a. xet(ERG) kartof(ABS) Ø-q-ə-hə-ɸ-a
 who potato 3ABS-DIR-3SG.ERG-bring-PST-Q
 ‘Who brought potatoes?’
 b. xet-a [RC Op_i t_i(ERG) kartof(ABS) Ø-qe-zə-hə-be] -r
 who-Q potato 3ABS-DIR-**WH.ERG**-bring-PST -ABS
 ‘Who brought potatoes?’

Following O’Herin (2002) on the related language Abaza, and Caponigro & Polinsky (2011); Ershova (2021a) on West Circassian, relativization of any argument involves wh-movement and, correspondingly, wh-agreement. The morpheme *zə-* and its null absolutive allomorph (Ø-) are the spellout of this wh-agreement.⁷ There is no overt relative pronoun, and wh-movement is diagnosed by (i) islandhood sensitivity and (ii) the ability of the moved operator to license parasitic gaps.

Islandhood sensitivity of relativization chains is discussed in Caponigro & Polinsky (2011) and Lander (2012). For example, the relative clause in (21a) contains an operator which binds a trace in

⁷See Lander (2009a,b, 2012); Lander & Daniel (2020) for an alternative account where *zə-* is treated as a relative or resumptive pronoun and absolutive relativization involves an *unmarked* relativization strategy that does not involve any special morphology, overt or otherwise. This paper is compatible with this approach, as long as absolutive relativization is derived with covert wh-movement of the same type as the marked relativization strategy. Since nothing in this account relies on this, a uniform wh-agreement account is chosen as the simpler analytical option.

the ergative position; the absolutive argument cannot be relativized from within this clause (21b). The ungrammaticality of (21b) 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 that there is an islandhood effect, and even absolutive arguments which do not trigger overt *wh*-morphology are subject to it.

- (21) a. [RC Op_i wəne(ABS) t_i(ERG) Ø- qə- s- fe- **zə-** ʃe -be]
house 3ABS- DIR- 1SG.IO- BEN- **WH.ERG-** do -PST
bləʔe-r sa-pe Ø-q-Ø-jə-fa-ʔ
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-**
ʃe -be] bləʔe-r sa-pe Ø-q-Ø-jə-fa-be] -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)

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 (Ershova 2021b). For example, the relativized ergative agent of *šxən* ‘eat’ in (22) triggers wh-agreement on the predicate heading the relative clause. 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.

- (22) 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) s^wəpə-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 2021a)

A relativized absolutive argument may license a parasitic gap despite the lack of overt wh-agreement with the absolutive trace. Thus, the absolutive argument of *ʒeg^wən* ‘play’ is relativized in (23), and, analogous to the previous example, the co-indexed possessor in the adjunct clause may be replaced with a parasitic gap, triggering wh-agreement on the corresponding nominal.

- (23) marə [RC pšaŋ-ew_i [CP [pro_i / ___{PG} ə / zə-ŋəpɣ^w] Ø-me-čəje-fe] t_i(ABS)
 here girl-ADV 3SG/**WH.PR**-sister 3ABS-DYN-sleep-LIM
 nəsxape-m Ø- Ø- rə- ʒeg^wə-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 2021a)

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 (25) 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.

- (25) [RC Op_i aslan t_i(IO) Ø- zə- fa- je -zepətə] -m ə-š-xe-r
 Aslan 3ABS- **WH.IO**- BEN- want -always -OBL 3SG.PR-brother-PL-ABS
 Ø-Ø-fa-j-ep
 3ABS-3SG.IO-BEN-want-NEG
 ‘[What Aslan always wants] his brothers don’t want.’ (Ershova 2021a)

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.

This section outlines the constraints on subextraction out of various types of nominal arguments. The constraints outlined here are subject to dialectal variation: Lander (2012) indicates that for

3.1 Clausebound possessor extraction

(26) a. [rweʃəje-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' [[t_{PP} wərek] Ø-t-jə-ʔe-š'tə]-r
what-OBL-INS tomorrow lesson 3ABS-1PL.IO-LOC-be-FUT-ABS
Intended: 'In what will we have a lesson tomorrow?'

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

⁸The marker *-č'e* displays properties of both a suffix and a postposition and is glossed as suffixed to the modified lexical head (Serdobolskaya & Kuznetsova 2009; Serdobolskaya 2011).

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 (27) holds.

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

Thus, we observed in (16)-(17) 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, (28a) presents an ungrammatical attempt to relativize the possessor from within the DP denoting the ergative agent of *ʔ^wen* ‘say’, as shown in the baseline version of this sentence (28b).

- (28) 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-ʔ^we-re] -r
 3ABS-DIR-3SG.ERG-say-DYN -ABS
 Intended: ‘Whose son sings well?’
- b. [mə bzəlfəʔe-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-ʔ^we
 3ABS-DIR-3SG.ERG-DYN-say
 ‘This woman’s son sings well.’

Possessor extraction out of applied arguments is ungrammatical, regardless of their structural height or theta-role. For example the possessed DP in (29a) is the dative indirect object of the verb *jeçeçen* ‘scold’ – this verb belongs to a large class of predicates which select for two arguments: an absolutive case-marked agent and an oblique case-marked argument that is indexed with applicative morphology. The possessor of the applied object cannot be extracted (29b). See Appendix A for additional data showing that this generalization holds for all types of applied argument DPs.

- (29) a. [mwe š^wəzə-m(PR) ə-q^we](IO) č’elejeʔaʒe-r(ABS) Ø-Ø-je-çeça-ʔ
 this woman-OBL **WH.PR-son** teacher-ABS 3ABS-3SG.IO-DAT-scold-PST
 ‘The teacher scolded this woman’s son.’
- b. * mwarə [RC š^wəz-ew_i [t_i(PR) **zə-q^we**](IO) č’elejeʔaʒe-r(ABS)
 here woman-ADV **WH.PR-son** teacher-ABS
 Ø-Ø-je-çeça-ʔe] -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, which is in the absolutive position. For example, the grammatical way of extracting the possessor from the ergative agent in (28b) 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 (30).

- (30) 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**-ɽ^we-re-r]]
 3ABS-DIR-**WH.ERG**-sing-DYN-ABS
 'Whose son sings well? (lit. Who is the one 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 (29a) 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 (31).

- (31) mwarə [RC ^wəz-ew_i [t_i(PR) **zə-q**^we](ABS) [RC Op_j t_j(IO)
 here woman-ADV **WH.PR**-son
 č'elejəɓəʒe-r(ABS) Ø-**z**-e-çəça-ɓe-r]]
 teacher-ABS 3ABS-**WH.IO**-DAT-scold-PST-ABS
 'Here is the woman whose son the teacher scolded.' (lit. 'Here is the woman who is the one whose son is the one whom the teacher scolded.')

The constructions in (30)-(31) 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 along its movement path; 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 (2021a), concerns the impossibility of regular case-marking on the constituent containing the wh-trace of the possessor. While possessed nominals are 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-absolutive argument; instead, speakers prefer to drop both the number and case marking. This is in line with Kumakhov's (1971) observation that nominals that are unmarked for number may be interpreted as plural; see also Arkadiev & Testelets (2019).⁹

⁹Arkadiev & Testelets (2019) connect the ambiguous number interpretation of unmarked nominals with a dimin-

This is observed for ergative DPs, such as the ergative agent of *ʔ^wen* ‘say’ in (32), as well as for applied arguments, as shown for the dative applied object of *jetən* ‘give’ in (33).

- (32) marə [RC *ʂ^wəz-ew_i* [DP *t_i(PR)* *z-jə-č’ale* / *ʔʔz-jə-č’ale-xe-r*
 here woman-ADV **WH.PR-POSS-boy** / **WH.PR-POSS-boy-PL-ABS**
 / *ʔʔz-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- ʔ^we -re*] -r
 3ABS- DIR- **WH.ERG-** say -DYN -ABS
 ‘Here is the woman whose child/children sing(s) well.’

- (33) mə bzəlfəbe-r arə [RC *Op_i* [DP *t_i(PR)* *z-jə-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 -be*] -r
 bicycle 3ABS- **WH.IO-** DAT- 1SG.ERG- give -PST -ABS
 ‘This woman is the one whose child/children I gave a bicycle to.’

The impossibility of overt case marking on the DP containing the wh-trace in (32)-(33) is in stark contrast with constructions involving possessor extraction from an absolutive DP, e.g. the theme of the verb *leβ^wən* ‘see’ in (34) – in this case the DP may bear overt absolutive case marking and may not bear oblique case marking, as expected given its syntactic position.

- (34) mə bzəlfəbe-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-leβ^wə-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 impossibility of overt case marking on the DP containing the wh-trace in (32)-(33) 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; Heller 2002, a.o.). Cross-linguistically, the focus of a specificational

ished functional structure which does not include case or the projections that encode number or license possessors. The number ambiguity of the possessed nominals in the pseudocleft constructions thus has a different source than the examples discussed by the authors. According to Kumakhov (1971), number ambiguity is not limited to non-specific noun phrases with a diminished functional structure: nominals without an overt number marker may be interpreted as plural, regardless of case or possessive morphology.

pseudocleft tends to bear the case that is assigned to the relativized participant in the corresponding relative clause. In West Circassian, the pseudocleft repair for possessor extraction from non-absolutive arguments as in (32)-(33) leads to a clash between the oblique case of the relativized participant with the absolutive case that is assigned to the focus of the pseudocleft construction. 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 (see e.g. Akmajian 1979; Bošković 1997; Heycock & Kroch 1999) or 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 and den Dikken 2017 on discussion raising to the CP periphery per Merchant’s (2001) constraints on ellipsis).

- (35) mə pšeše-žəje-r arə [RC Op_i [PP [DP t_i(PR) **z-jane**] paje] haləw^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.’

- (36) xet-a [RC Op_i [PP [DP t_i(PR) **z-jə-wəne**] dež’] mezə-r
 who-Q **WH.PR**-POSS-house at forest-ABS
 ʁe-r-je-ķ^we Ø-Ø-š’a-stə-ʁe] -r
 year-LOC-DAT-go 3ABS-3SG.IO-LOC-burn-PST -ABS
 ‘Near whose house did the forest burn last year?’

Like absolutive DPs, postpositional phrases are thus not islands for subextraction. In section 4 I argue that these two types of constituents are transparent for subextraction by virtue of not appearing at phase edges, in contrast to ergative and applied argument DPs. Thus, the analysis does not treat PPs and absolutive DPs as a natural class; rather, non-absolutive arguments form a natural class of constituents which are opaque by virtue of merging at phase edges.

To conclude this subsection, possessor extraction is possible only from absolutive DPs and PPs, 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 does not hold – long-distance wh-movement.

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 com-

plements 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

Wh-movement in West Circassian embedded CPs is subject to several constraints which are variable across dialects; see Lander (2012) for a thorough discussion. For the four speakers I have consulted, possessor extraction behaves uniformly across different strategies of cross-clausal wh-movement and for parasitic gap configurations and do not interact with the variation observed in this domain. This section presents possessor extraction from complement clauses in the absolutive position, which is not subject to cross-speaker variation. The variation in wh-movement from other types of complement clauses is discussed in Appendix B and possessor extraction from these complement clauses and embedded clauses with parasitic gaps is presented in Appendix C.

Verbs such as *jeβež'en* ‘begin’¹⁰ and *den* ‘allow’ select for a CP in the absolutive position – this is evident from constructions where these verbs select for a nominal argument instead of a clause: this is shown for *den* ‘allow’ in (37) and *jeβež'en* ‘begin’ in (38).

- (37) aw adre-xe-m(ERG) a-r(ABS) Ø-a-da-β-ep
 but other-PL-OBL that-ABS 3ABS-3PL.ERG-allow-PST-NEG
 ‘But others did not accept that.’ (AC)

- (38) λə-m(ERG) ʔ^wefə-r(ABS) Ø-r-jə-βe-ž'a-β
 man-OBL work-ABS 3ABS-DAT-3SG.ERG-CAUS-begin-PST
 ‘The man started the job.’

The complement clauses under discussion are full CPs and display the same agreement and case assigning properties as matrix clauses. For example, the unergative predicate *š'ətχ^wən* ‘praise’ assigns absolutive case to the agent and oblique case to the applied object; the personal prefixes correspondingly index absolutive external argument and the applied object (39). When embedded under the predicate *jeβež'en* ‘begin’, this verb continues to assign oblique case to its applied argument and expone cross-reference marking with both arguments (40).

- (39) se we sə-p-š'a-tχ^wə-β
 I you 1SG.ABS-2SG.IO-LOC-praise-PST

¹⁰The verb *jeβež'en* ‘begin’ is listed as a raising predicate which selects for a TP by Potsdam & Polinsky (2012). Ershova (2019) argues that this predicate – as well as the other raising predicate discussed by Potsdam & Polinsky (2012) – behave as control verbs and select for full CPs. The speakers consulted for this study align in their judgments with Ershova (2019).

‘I praised you.’

- (40) se [pšaše-**m** sə-Ø-š’ə-tχ^wə-n-ew]
 I girl-**OBL** **1SG.ABS-3SG.IO-LOC**-praise-MOD-ADV
 Ø-je-z-ɬe-ž’a-ɬ
 3ABS-DAT-1SG.ERG-CAUS-begin-PST
 ‘I began to praise the girl.’

The same is true for transitive verbs which assign oblique case to the ergative agent and absolutive case to the theme. For example, the verb *jetən* ‘give’ selects for an ergative agent, dative recipient and absolutive theme and correspondingly indexes these three arguments with prefixal agreement morphology, even when embedded under *jeɬež’en* ‘begin’ (41).

- (41) mə š^wəzə-m [CP Ø-jə-sabəj-xe-**m(10)** š^wəhaftən-xe-**r(ABS)**
 this woman-OBL 3SG.PR-POSS-child-PL-**OBL** gift-PL-**ABS**
 Ø-**a-r-jə**-tə-n-x-ew] Ø-r-jə-ɬe-ž’a-ɬ
3ABS-3PL.IO-DAT-3SG.ERG-give-MOD-PL-ADV 3ABS-DAT-3SG.ERG-CAUS-begin-PST
 ‘This woman began to give gifts to her children.’

In (42) the transitive verb *pəčən* ‘tear down’ is embedded under the verb *den* ‘allow’; all arguments of the embedded verb bear case and trigger agreement as they would in a matrix clause.

- (42) [CP mə sabəj-xe-**m(ERG)** məʔerəse-xe-**r(ABS)**
 this child-PL-**OBL** apple-PL-**ABS**
 Ø-qə-p-**a-čə**-n-ew] Ø-š^wə-da-ɬ-ep
3ABS-DIR-LOC-3PL.ERG-tear-MOD-ADV 3ABS-2PL.ERG-allow-PST-NEG
 ‘You did not allow for the children to pick the apples.’

Further evidence that the complement clauses in question are full CPs is that they are marked with the modal future suffix *-nə*. Outside of clausal embedding, the tense marker *-nə* is associated with a range of modal interpretations (Serdobolskaya 2009). For example, it may be used to mark the apodosis of a conditional clause (43). Thus, complement clauses of the type discussed here include a tense projection that cannot be treated as functionally deficient in any way.

- (43) bere wə-daʔ^we-me mač’-ew Ø-p-ʔ^we-**n**
 much 2SG.ABS-listen-COND few-ADV 3ABS-2SG.ERG-say-**MOD**
 ‘If you listen a lot, you will speak little.’ (Rogava & Keraševa 1966:198)

Subextraction from a complement clause in the absolutive position triggers obligatory wh-agreement on the embedded predicate, for example with the relativized applied argument in (91a).

- (44) xet-a [RC Op_i we [CP t_i(IO) wə-z/*Ø-š'ə-tχ^wə-n-ew]
 who-Q you 2SG.ABS-WH/*3SG.IO-LOC-praise-MOD-ADV
 Ø-je-b-βe-ž'a-βe] -r
 3ABS-DAT-2SG.ERG-CAUS-begin-PST -ABS
 'Who did you begin to praise?'

3.2.2 Possessor extraction in embedded clauses

Possessor extraction behaves in a markedly different manner in embedded contexts compared to clausebound wh-movement: unlike matrix contexts discussed in subsection 3.1, possessor extraction from all types of arguments is grammatical in embedded clauses, meaning that non-absolutive DPs are transparent for subextraction, analogous to absolutive DPs. In theoretical terms, the generalization concerns whether or not the wh-trace in question appears in the same clause as the wh-movement triggering C⁰. That is, non-absolutive DPs behave as islands only if they are clause-mates of the type of C⁰ which heads a relative clause and drives wh-operator movement. A revised version of the constraint on possessor extraction is presented in (45).

- (45) **CONSTRAINT ON POSSESSOR EXTRACTION (FINAL).** Non-absolutive DPs behave as islands if they appear within the same clause (CP) as the wh-movement triggering C⁰.

This effect is illustrated below for complement clauses in the absolutive position of the verbs *jeβež'en* 'begin' and *den* 'allow'. The effect is productive across a variety of predicates and complement clause positions, and is also observed in parasitic gap configurations, which involve local operator movement within the clause hosting the parasitic gap; see e.g. Chomsky (1986); Postal (1998); Nissenbaum (2000); see Appendix C for additional evidence.

If a possessor is extracted from within an applied argument or ergative DP within an embedded CP, no repair strategy is necessary – the corresponding wh-element may be extracted directly. As expected, possessor extraction out of an absolutive DP is grammatical, analogous to clausebound wh-movement. This is shown for the possessor of the absolutive theme of *βešxen* 'feed' (46) and the absolutive external argument of *žeg^wən* 'play' (47).

- (46) xet-a [RC Op_i [CP [DP t_i(PR) z-jə-ha-xe-r](ABS)
 who-Q WH.PR-POSS-dog-PL-ABS
 Ø-b-βe-šxe-n-ew] Ø-je-b-βe-ž'a-βe] -r
 3ABS-3SG.ERG-CAUS-eat-MOD-ADV 3ABS-DAT-2SG.ERG-CAUS-begin-PST -ABS
 lit. 'Whose did you begin to feed __ dogs?'
- (47) marə [RC bzəlfəβ-ew_i [CP [DP t_i(PR) z-jə-č'ale](ABS) mə-š' dež'ə-m
 here woman-ADV WH.PR-POSS-boy this-OBL at-OBL

Ø-Ø-š'ə-žeg^wə-n-ew] Ø-wə-mə-da-ɸe] -r
 3ABS-3SG.IO-LOC-play-MOD-ADV 3ABS-2SG.ERG-NEG-allow-PST -ABS
 lit. 'Here is the woman whose I would consent for __ son to play here.'

In contrast with clausebound wh-movement, possessor extraction from ergative and applied argument DPs is grammatical in long-distance wh-movement configurations. For example, in (48) the possessor of the applied object of *fetjewen* 'call' is relativized; since the corresponding predicate is embedded in the complement CP of *jeɸež'en* 'begin', this wh-movement is grammatical. In (49) the possessor of the ergative agent of *ɽ'en* 'sing' is relativized, triggering corresponding wh-agreement on the possessed nominal. The DP appears within the complement CP of *den* 'allow', so once again, this extraction is perfectly grammatical. (50) illustrates the same point for possessor extraction from an applied argument – in this case, the dative addressee of the verb *jetən* 'give'.

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

(49) 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-ɽ^we-n-ew] Ø-wə-mə-de-re] -r
 3ABS-DIR-3PL.ERG-say-MOD-ADV 3ABS-2SG.ERG-NEG-consent-DYN -ABS
 lit. 'Whose do you not consent for __ children to sing?'

(50) marə [RC š^wəz-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-ɸe] -r
 3ABS-1SG.ERG-NEG-consent-PST -ABS
 lit. 'Here is the woman whose I did not allow to give my money to __ kids.'

This subsection has demonstrated that ergative and applied argument DPs do not display islandhood effects in embedded clauses, where possessor extraction targets a constituent within a CP that is not headed by a wh-feature bearing C⁰. See Appendix C for additional data.

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; see Appendix C) – 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.

- (51) [RC Op_i [DP ___{PG} **z-jə-č'**ale] *t_i*(ERG) Ø-č-e-**zə**-ne-*be*] nə-m
WH.PR-POSS-boy 3ABS-LOC-**WH.ERG**-lose-PST mother-OBL
 'the mother who lost her son' (AC)
- (52) [RC Op_i [DP *t_i*(PR) **z-jə-pšaše** je **z-jə-č'**ale] [RC Op_j *t_i*(ERG)
WH.PR-POSS-girl or **WH.PR**-POSS-boy

g^wərət-jeʒəpɛ-r Ø- qe- zə- wəxə -xe -re]] -m
middle-school-ABS 3ABS- DIR- **WH.ERG-** finish -PL -DYN -OBL
‘those whose daughters or sons are finishing middle school’ (AC)

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

This section outlines the main proposal: selective DP islandhood effects in West Circassian provide evidence for an Agree-based model of syntactic domains and phase boundaries following Abels (2003); Rackowski & Richards (2005); Van Urk & Richards (2015); Halpert (2019). 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. 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). The Edge Condition is captured by a modified definition of ‘closest’ from Rackowski & Richards (2005), providing a principled explanation for this effect that does not appeal to computational complexity; cf. e.g. Chomsky (2008:147-148). 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, i.e. by the larger syntactic context rather than the internal structure of the DP.

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 (53): here, the absolutive agent of *qes^wen* ‘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 (2019, 2021c). We saw in (16) that the absolutive argument of *qes^wen* ‘dance’ does not display islandhood effects: a possessor may be readily extracted from this DP.

- (53) *pro*_i(ABS) *refl*_i(IO) sə- qə- **zə-** fe- š^we -ž'ə-B
 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 *v*P; see Ershova (2019, 2021c) 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 *v*P to Spec,TP. Ershova (2019, 2021c) 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 *v*P. For example, if an applied argument

is used with the verb *k^wen* ‘yell’, it triggers ϕ -agreement to the immediate left of the corresponding applicative marker – in this case *tje-* (54a). The agent of this verb triggers absolutive agreement, expounded 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-* (54b). 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.

- (54) a. *səd-a š^wə- qə- č’ə- t- tje- k^we -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 š^wə- č’ə- ze- tje- k^we -re -r*
 what-Q **2PL.ABS-** RSN- **REC.IO-** LOC- yell -DYN -ABS
 ‘Why are you yelling at each other?’

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 *λeβ^wən* ‘see’ in (55a) 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 expounded in the absolutive position (55b).¹¹ This leads us to the conclusion that the absolutive theme c-commands the ergative agent.

- (55) a. *š^wə- t- λeβ^wə -β*
 2PL.ABS- 1PL.ERG- see -PST
 ‘We saw you.’
- b. *te- zere- λeβ^wə -β*
 1PL.ABS- **REC.ERG-** see -PST
 ‘We saw each other.’

The same is observed with a verb such as *š’en* ‘bring’ in (56a) 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 (56b).

¹¹The absolutive prefix in (55b) undergoes vowel assimilation with the following vowel in this case; this is not standard for the written language, but robustly attested in colloquial speech.

- (56) a. wə- qə- s- f- jə- š'a -B
 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 -B
 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 (2021a). Ershova (2019, 2021a,c) 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 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, absolutive arguments are not uniformly merged in the same position and may be merged as external arguments – tangibly the same position as the ergative agent of a transitive verb.¹²

The West Circassian islandhood facts cannot be easily captured within an agreement-based account of selective DP islandhood. In discussion of asymmetries between the types of elements that may or may not undergo left branch extraction, Boeckx (2003) ties the possibility of left branch extraction to the lack of agreement between the extracted element and any element within the larger noun phrase. This approach cannot be applied to the West Circassian data, where the extraction asymmetries uniformly concern possessors which agree with the possessed noun in ϕ -features in

¹²This paper cannot do justice to the full range of arguments provided in Ershova (2019, 2021a,c) or research on other high absolutive languages; see e.g. Bittner & Hale (1996); Yuan (2018) on Inuit, Baker (1997) on Inuit and Dyirbal, Aldridge (2004, 2008) on a number of Austronesian languages, Coon et al. (2014, 2021) on Mayan). If the reader remains unconvinced of the high position of the absolutive DP, an alternative explanation may be that the absolutive theme of a transitive or unaccusative verb remains in situ, while the absolutive external argument of an intransitive verb either raises to Spec,TP for absolutive case, or is merged in a position that is distinct from Spec,vP, where the ergative agent is merged; see Massam (2009, 2020); Tollan (2018) for the latter type of approach. The transparency of the absolutive argument would then be a consequence of it being merged in positions other than a phase edge and thus not being subject to the Edge Condition.

non-wh-movement contexts and trigger wh-agreement when extracted. Turning to the contrast between DPs which allow for subextraction and which do not, 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.¹³ Thus, while displaying an asymmetry in terms of accessibility for subextraction, these arguments behave in an identical way in regards to ϕ -agreement. 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.¹⁴

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. Corver (1990,

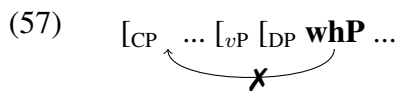
¹³A reviewer notes that the surface similarity of the cross-reference prefixes does not entail an identical origin for these markers; they may be the result of agreement in some cases and clitic doubling in others per e.g. Preminger (2009); Arregi & Nevins (2012). While an analysis of the cross-reference markers lies outside the scope of this paper, none of the prefixes display clitic-like properties. For example, there are no known cases of defective intervention resulting in the absence of cross-reference marking. More importantly, an account that relies on a difference in agreement properties between these arguments cannot explain the lack of islandhood effects in embedded clauses, which display the same agreement properties as matrix clauses.

¹⁴One 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). At least one of the speakers I have consulted, however, allows 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'. Most importantly, there is no contrast between the use of this marker in contexts where non-absolutive DPs display islandhood effects and contexts where they do not (embedded CPs).

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

1992); Bošković (2005), for example, connect the possibility of left branch extraction with the absence of a DP layer: left branch extraction is ungrammatical in the presence of a determiner, which means that constituents which are transparent for subextraction are smaller than a DP. This approach is not applicable to West Circassian, since there is no observable difference in the functional structure between absolutive and non-absolutive arguments. Another possible avenue 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: as shown in (35)-(36), PPs are not islands for subextraction, further making a parallel between oblique case-marked nominals and true PPs unlikely.

Finally, while the analysis proposed in this paper capitalizes 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 (57). However, this explanation falsely predicts that subextraction out of a DP that is embedded within another DP to be impossible (58).



Such movement is in fact grammatical. Absolutive arguments are accessible for possessor extraction (16)-(17). Subextraction from a possessor of an absolutive argument is also possible, despite the movement path crossing two DP boundaries – a putative subjacency violation: this is shown for an absolutive theme in (59) and for an absolutive external argument in (60).

- (59) xet-a [RC Op_i [DP [DP t_i(PR) **zə-šəpχ^w**] Ø-jə-λ](ABS) məjeq^wape(10)
 who-Q **WH.PR**-sister 3SG.PR-POSS-man Maykop
 Ø-Ø-š'ə-p-λeβ^wə-be] -r
 3ABS-3SG.IO-LOC-2SG.ERG-see-PST -ABS

‘Whose sister’s husband did you see in Maykop?’

- (60) marə [RC pšaš-ew_i [DP [DP t_i(PR) **zə-šəpχ^w**](PR) Ø-jə-pšešeβ^w](ABS)
 here girl-ADV **WH.PR**-sister 3SG.PR-POSS-girlfriend
 dexe-ded-ew Ø-qa-š^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. Thus, subextraction from the possessor of an ergative DP – here the agent of the verb *ʔ^wen* ‘say’ – is ungrammatical (61a); 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 (61b). Assuming that the repair strategy involves promotion to an absolutive case-marked position, the grammaticality of (61b) parallels the grammaticality of subextraction from possessors of absolutive DPs more generally (59)-(60).

- (61) a. * marə [RC pšaš-ew_i [DP [DP t_i(PR) **zə-šəpχ^w**](PR) Ø-jə-pšešeβ^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 pšaš-ew_i [DP [DP t_i(PR) **zə-šəpχ^w**](PR) Ø-je-pšešeβ^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 subextraction from 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 *v*P are phases, there must be 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,*v*P and Spec,ApplP respectively), possessors are introduced below the DP phase edge via a dedicated Poss⁰ 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 (62).

$$(62) \quad [_{CP} \text{Op}_i \dots [_{DP} <\text{Op}_i> [_{\text{PossP}} [_{DP} <\text{Op}_i> [_{\text{PossP}} <\text{Op}_i> \dots$$

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 – *v*P and ApplP respectively, and this structural property 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 in explaining the contrast between clausebound and long-distance wh-movement, i.e. that these islandhood effects are ameliorated in the latter configuration: (i) there is no evidence 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 C⁰: only wh-C⁰ 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 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 approach can 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.

A precursor to Agree-based phasehood is proposed in Abels (2003), where phase heads are interveners by virtue of bearing the full set of movement features; Rackowski & Richards's (2005) approach to phasehood has been further developed by Van Urk & Richards (2015); Halpert (2019).

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 that dominates the feature that is relevant to the probe 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 (63).

(63) **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 distinct X indicated in (63) need not be a phase itself; only α and β are potential phases. This definition thus captures standard locality constraints on movement, such as Superiority effects. 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. A few additional assumptions must be put in place, taken directly from Rackowski & Richards (2005:582):

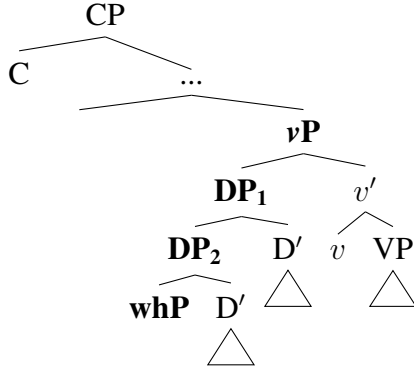
- (64) a. A probe must Agree with the *closest* goal α that *can move*.
- b. A goal α *can move* if it is a phase.
- c. Once a probe P is related by Agree with a goal G, P can ignore G for the rest of the derivation (Richards 1998; Hiraiwa 2001).

Assumptions (64a)-(64b) 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 (64c), 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, v P – 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 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 (65) probes, both the phase v P and its specifier DP₁ are accessible goals. This is because there is no distinct head X or maximal projection XP which c-commands DP in Spec, v P and does not c-command v P. Unfortunately, at face value, this allows for infinite recursive probing into the specifier of the specifier of a given phase: the DP₂ in the specifier position of DP₁ likewise is not c-commanded by any X or XP which does not c-command v P, and likewise, the same applies for whP in the specifier of DP₂. Thus, within the structure in (65) there are four equidistant goals for P: v P, DP₁, DP₂, and whP. The modified version of the definition of *closest* in (63) intends to rule this out: by appealing to dominance, the search domain of probe P in (65) is constrained to v P and DP₁, i.e. the phase and its immediate edge, but the internal structure of the edge is no longer accessible. This is because for DP₁, there is no distinct X or XP which dominates DP₁, but does not dominate v P (v P itself, while dominating DP₁, does not count, because it is indistinct from one of the goals in question). DP₂, on the other hand, is dominated by DP₁, while v P is not – DP₂ and any lower specifiers are thus not accessible goals for this Agree operation, thus capturing the Edge Condition as desired.¹⁵

¹⁵The 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 (63) this requires probing into the lower copy of the moved CP rather than the higher copy in Spec, v P. 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.

(65)



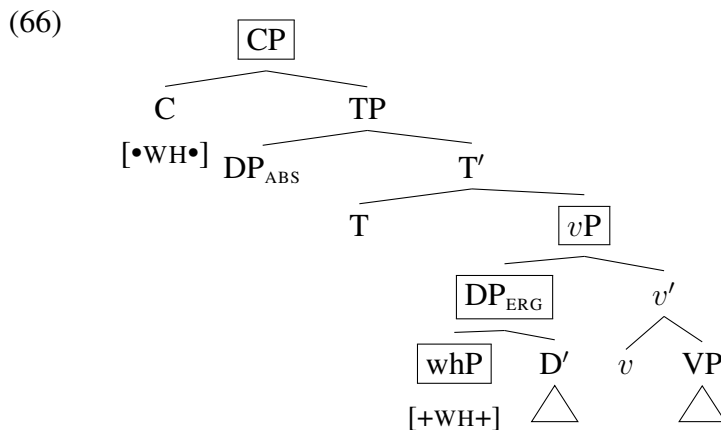
Following Heck & Müller (2007); Müller (2010), a.o. I distinguish between two types of Probe features: Agree features labeled as $*F*$, which trigger agreement without movement, and structure-building features labeled as $\bullet F \bullet$, which trigger external or internal Merge. Probe features may 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 (2019). 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 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. In this respect, the present account differs from Rackowski & Richards’s (2005) analysis of Tagalog, where movement to a phase edge must be driven by an independent agreement feature, such as object agreement on v^0 for the movement of the object to Spec, v P. The differences between the Tagalog facts and languages like West Circassian, where edge features do not overtly correlate with independent agreement operations, suggests that languages may vary in the availability of the last resort edge feature – in Tagalog, such an edge feature is unavailable.¹⁶

All things being equal, the opacity of a given constituent for subextraction is due to that con-

¹⁶A reviewer points out that if the edge feature $[\bullet+\bullet]$ is inserted after all other features are satisfied on the corresponding phase head, it could be used to bypass the Edge Condition by triggering extraction of the embedded constituent from its specifier to an additional specifier position. I propose that the edge feature, being a repair feature, is simply never inserted if the only unchecked movement feature appears within its own specifier. The function of the edge feature is to move the constituent dominating the movement feature to the phase edge; if the movement feature appears within the specifier, it is already at the phase edge and the repair strategy is never triggered.

stituent 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.

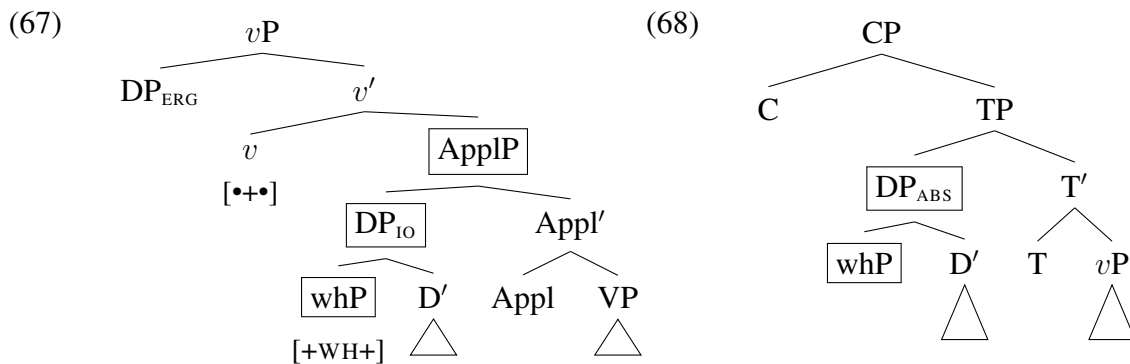
Under this system, the ergative DP is an island due to its position at the edge of the *v*P phase. This is shown in (66): C⁰ probes with the [**•WH•**] feature, and the possessor of the ergative DP bears the matching [+WH+] feature. Given the definition of *closest* in (63), there are two eligible goals for C⁰: 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 C⁰ because this 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.¹⁷ 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 D⁰ (this mechanism will be discussed more below). However, it is still too far from C⁰ 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.



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 (*v*P) is formed. Since phases are standardly assumed to host escape positions on their edges,

¹⁷The present framework does not rule out pied-piping in general. Pied-piping can be seen as a type of repair for cases where the wh-phrase is embedded within a larger phase. Per Rackowski & Richards (2005) I assume that there may be language-specific constraints on how deeply embedded a movement feature may be in the moved constituent. In West Circassian, the moved element must immediately dominate the movement feature; any larger constituent may not be moved.

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 [$\bullet+\bullet$]. 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 [$\bullet+\bullet$] 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 (67): 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.

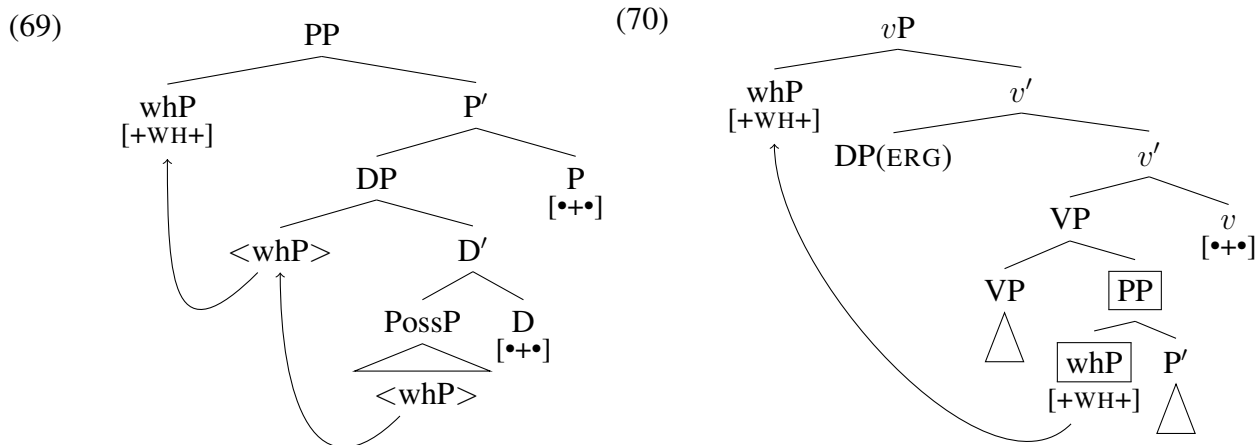


An absolutive DP is transparent for subextraction due to the lack of phase boundaries between the corresponding DP and C^0 : as discussed in subsection 4.1, the absolutive DP moves out of vP to Spec,TP, as shown in (68). In this case, the absolutive DP itself and the possessor in Spec,DP are equidistant goals to the probe in C^0 , which means that the possessor is free to move.

Finally, PPs are transparent for subextraction because they are not merged at a phase edge. The precise syntactic position of PPs remains outside of the scope of this paper, but it is sufficient to say that they do not occupy Spec, vP or Spec,ApplP. For example, if we assume that PPs are merged as adjuncts to VP and are phases following e.g. Bošković (2013), the wh-element undergoes two successive cyclic movement steps within the PP, both triggered by the edge feature [$\bullet+\bullet$] on the corresponding phase heads: first to Spec,DP from its base position in Spec,PossP, and then to Spec,PP (69). At the edge of the PP, the wh-element is equidistant with the PP itself to v^0 (or Appl, if present in the structure) and thus may successfully undergo movement to Spec, vP , triggered by

the edge feature on v^0 and is thus accessible for subsequent movement to Spec,CP (70).

Thus, the understanding of phases as interveners for Agree and the definition of closest in (63) account for the islandhood asymmetries observed in simple clauses. 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 the cases where DP islandhood effects are not observed: long-distance wh-movement and parasitic gap configurations.



4.3 Unlocking phases via polysynthesis and the edge feature

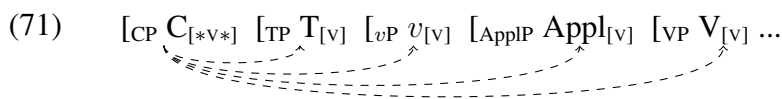
As discussed above, agreement between v^0 and the direct object is one type of agree operation which can render the CP or DP in the direct object position transparent for subextraction. What then is the relevant agree operation for West Circassian selective DP islandhood, and how is West Circassian different 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 (2020) 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 (2021), 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. Since head movement happens as a result of an Agree operation, is it not subject to 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.¹⁸

For example, a structure of the form presented in (71) 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 .

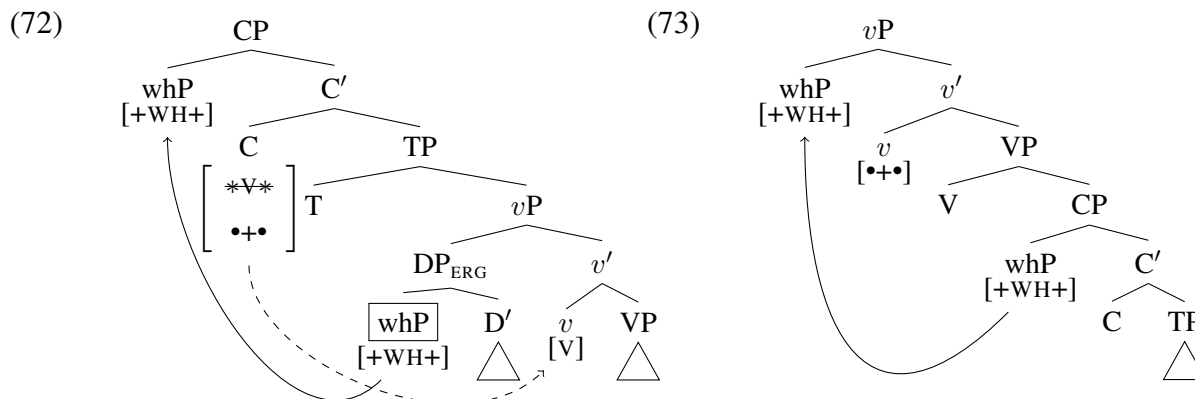


The lack of DP islandhood effects in embedded CP is due to (i) the presence of the agreement feature $[*V*]$ and (ii) the absence of the wh-movement feature $[\bullet WH \bullet]$ on the embedded C^0 – in this case, the wh-feature bearing C^0 is in the higher clause. Agreement with the lower verbal functional projections expands the search domain of embedded C^0 to include the vP and $ApplP$ phases and the internal contents of the corresponding phase edges. The insertion of the last resort edge feature on C^0 allows for the extraction of the wh-operator, even if it is embedded within the ergative or

¹⁸In 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.

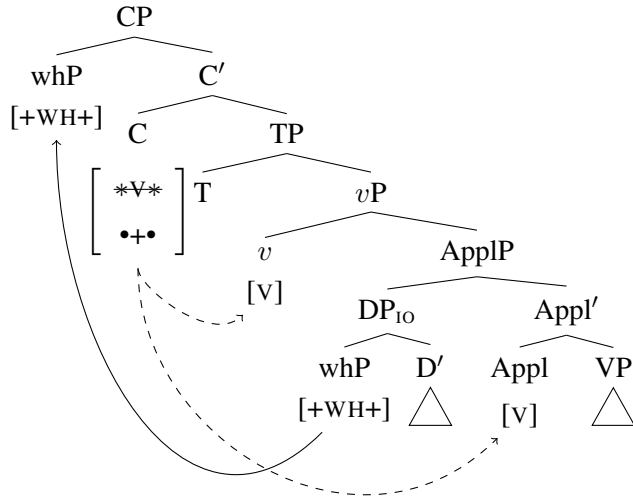
applied argument DP, since these DPs are no longer opaque for subextraction.

Subextraction from an ergative DP in an embedded clause is illustrated in (72): the embedded C^0 does not bear a $\bullet WH \bullet$ feature, so the first feature to probe is the verbal agreement feature $[*V*]$. As discussed above, this feature probes 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 and no longer serves as an intervener. 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 spawns the 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 edge feature on v^0 (73). 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 for the subextraction of the the possessor of the embedded ergative DP.



Extraction from an applied object proceeds in a similar fashion: embedded C^0 does not bear a $[\bullet WH \bullet]$ feature and instead probes with the agree feature $[*V*]$. 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 – Appl⁰ (74). After C^0 agrees with Appl⁰, ApplP is 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.

(74)



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. The wh-element in fact *cannot* stop over in Spec, vP : movement to Spec, vP must be triggered by an edge feature on v^0 , however, since v^0 has not entered an independent Agree relation with ApplP, ApplP remains opaque for subextraction for this edge feature, and the edge of ApplP is thus inaccessible for probing by v^0 . This emphasizes the relative nature of phasehood within this framework: the fact that a constituent has successfully agreed with a higher head does not make it universally transparent for subextraction – it only makes it transparent for the head it has already agreed with. 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 (73).

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 [$\bullet WH \bullet$], 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 [$\bullet V \bullet$] 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.

The ordering of $[*V*]$ after $[•WH•]$ is stipulated – a natural prediction of this analysis is that there may be an identical grammatical system to the one presented here, where the relevant agreement feature probes *prior* to the *wh*-movement feature rather than after it. I propose that this is exactly the state of affairs for the speakers described by Lander (2012) who allow for possessor extraction out of all types of DPs regardless of syntactic position. For these speakers, C^0 probes with the $[*V*]$ agreement feature prior to any movement features in both matrix and embedded contexts, thus rendering vP and $ApplP$ – and correspondingly their edges – transparent for subextraction.

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 ob-

served 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. 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 subextraction from 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 correspondingly 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 Abels (2003); 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); Branen (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 or 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 not responsible for ϕ -agreement.

The agree-based model of phasehood fits in well with the idea of that phasehood is dynamic and contextually determined, with the same constituent acting as a phase in one syntactic configuration, but failing to display phase-like properties in another configuration; see e.g. den Dikken (2007); Gallego (2010); Bošković (2014). Cross-linguistically, the structural effects of agree-based phasehood may differ based on (i) the presence 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.

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

Experiencer of two-place unaccusative verb: baseline (75a); possessor extraction is ungrammatical (75b); pseudocleft repair strategy (75c).

- (75) a. [mə bzəlfəʁe-m(PR) Ø-jə-pšaʁe](IO) sə-Ø-š'ə-ʁ^wpša-ʁ
 this woman-OBL WH.PR-POSS-girl 1SG.ABS-3SG.IO-LOC-forget-PST
 'This woman's daughter forgot about me.'
- b. *mə bzəlfəʁe-r arə [RC Op_i [t_i(PR) z-jə-pšaʁe](IO)
 this woman PRED WH.PR-POSS-girl
 sə-Ø-š'ə-ʁ^wpša-ʁe] -r
 1SG.ABS-3SG.IO-LOC-forget-PST -ABS
 Intended: 'This woman is the one whose daughter forgot about me.'
- c. mə bzəlfəʁe-r arə [RC Op_i [t_i(PR) z-jə-pšaʁe](ABS) [RC Op_j t_j(IO)
 this woman-ABS PRED WH.PR-POSS-girl
 sə-z-š'ə-ʁ^wpša-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 (76a); possessor extraction is ungrammatical (76b); pseudocleft repair strategy (76c).

- (76) a. se(ERG) žeg^wale-r(ABS) Ø-Ø-je-s-tə-ɪ
 I toy-ABS 3ABS-3SG.IO-DAT-1SG.ERG-give-PST
 [č'ele-čəḵ^w-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-čəḵ^w-ew_i [t_i(PR) zə-š](IO) žeg^wale-r(ABS)
 here boy-small-ADV WH.PR-brother toy-ABS
 Ø-Ø-je-s-tə-ɪ -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-čəḵ^w-ew_i [t_i(PR) zə-š](ABS) [RC Op_j t_j(IO)
 here boy-small-ADV WH.PR-brother
 žeg^wale-r(ABS) Ø-z-e-s-tə-ɪ -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 (77a); possessor extraction is ungrammatical (77b); pseudocleft repair strategy (77c).

- (77) a. se(ERG) wered(ABS) [mwe š^wəzə-m(PR) Ø-jə-č'ale](IO)
 I song this woman-OBL 3SG.PR-POSS-boy
 Ø-qə-Ø-fe-s-ɪ^wa-ɪ
 3ABS-DIR-3SG.IO-BEN-1SG.ERG-say-PST
 'I sang for this woman's son.'
- b. * marə [RC š^wəz-ew_i [t_i(PR) z-jə-č'ale](IO) wered(ABS)
 here woman-ADV WH.PR-POSS-boy song
 Ø-qə-Ø-fe-s-ɪ^wa-ɪ -r
 3ABS-DIR-3SG.IO-BEN-1SG.ERG-say-PST -ABS
 Intended: 'Here is the woman for whose son I sang.'
- c. marə [RC š^wəz-ew_i [t_i(PR) z-jə-č'ale](ABS) [RC Op_j t_j(IO) wered
 here woman-ADV WH.PR-POSS-boy song
 Ø-qə-zə-fe-s-ɪ^wa-ɪ -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 Long-distance wh-movement from non-absolutive complement clauses

This section outlines the variation in wh-movement strategies in embedded complement clauses. The variation does not interact with the possessor extraction facts described in the paper. Regardless of the strategy used, the generalizations regarding possessor extraction remain constant: possessor extraction is grammatical out of all argument DPs in embedded clauses, including ergative and applied argument DPs, which do not allow subextraction in simple clauses.

Section 3 of the paper discusses complement clauses which appear in the absolutive position. Some predicates select for complement clauses in the applied object position; examples of such predicates include *fejen* ‘want’¹⁹, *jezeš’an* ‘tire of’ and *fjež’en* ‘begin’.²⁰ The applied argument position of the complement clause can be discerned from the case marking and agreement properties of the predicates in question when they select for a nominal, rather than a clausal, argument (78)-(80).

- (78) šə-me(IO) se(ABS) sə-Ø-fa-j-ep
 horse-PL.OBL I 1SG.ABS-3SG.IO-BEN-want-NEG
 ‘I do not want horses.’ (Rogava & Keraševa 1966:109)
- (79) tatjane(ABS) nawəke-m(IO) Ø-Ø-je-zeš’ə-š’tə-ɸ-ep
 Tatjana science-OBL 3ABS-3SG.IO-DAT-tire-IPF-PST-NEG
 ‘Tatjana didn’t get tired of science.’ (Ershova 2019:221)
- (80) λə-r(ABS) ʔ^wefə-m(IO) Ø-Ø-f-je-ž’a-ɸ
 man-ABS work-OBL 3ABS-3SG.IO-BEN-DAT-begin-PST
 ‘The man began the task.’ (Ershova 2019:221)

Analogous to the complement clauses discussed in section 3, the embedded clauses of all of these predicates display properties of full CPs and are generally marked with the combination of the modal future suffix and the adverbial subordinator: *-n-ew*; for other strategies of marking complement clauses see Serdobolskaya & Motlokhov (2009); Ershova (2019:Ch.5). Examples of clausal embedding with the predicates *fejen* ‘want’, *jezeš’an* ‘tire of’, and *fjež’en* ‘begin’ are shown correspondingly in (81), (82) and (83).

¹⁹The verb is composed of the benefactive prefix *fe-* and the root *je* which is not attested outside of this verb; I gloss the root as ‘want’ for exposition.

²⁰*fjež’en* ‘begin’ is classified as an unaccusative raising predicate by Potsdam & Polinsky (2012), but the speakers consulted for this study uniformly treat it as a two-place predicate which selects for two thematic arguments in the absolutive and applied argument positions.

- (81) [CP s-a-ʁe-ʃxe-n-ew] s-ʃəpχ^wə-xe-r
 1SG.ABS-3PL.ERG-CAUS-eat-MOD-ADV 1SG.PR-sister-PL-ABS
 Ø-Ø-fa-je-x-ep
 3ABS-3SG.IO-want-PL-NEG
 ‘My sisters do not want to feed me.’
- (82) [CP č’ale-m Ø-Ø-λə-pʁe-n-ew] ə-ʃəpχ^w
 boy-OBL 3ABS-3SG.IO-LOC-look-MOD-ADV 3SG.PR-sister
 Ø-Ø-je-zɛʃ’ə-ʁ
 3SG.ABS-3SG.IO-DAT-tire-PST
 ‘His sister is tired of watching after the boy.’
- (83) ha-r [CP sabjəj-me Ø-ja-ceqe-n-ew]
 dog-ABS child-PL.OBL 3ABS-3PL.IO+DAT-bite-MOD-ADV
 Ø-Ø-f-je-ž’a-ʁ
 3ABS-3SG.IO-BEN-DAT-begin-PST
 ‘The dog began to bite the children.’

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: (84) 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 (85) 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.


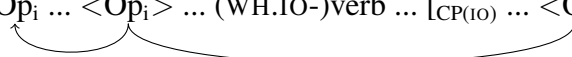
- (84) [CP Op_i ... <Op_i> [CP ... PG_i ...]] (85) [CP Op_i ... <Op_i> [CP ... <Op_i> ...]]

An example of a clearly proleptic construction involving extraction out of an adjunct clause is presented in (86): in order to relativize the applied object of *jepλən* ‘look’ a dummy benefactive argument is inserted and relativized in the matrix clause (86a); 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 (86b).

- (86) a. pšaš-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-ʔe-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 pšaše-m(IO) s-Ø-je-pλ-ze]
 girl-OBL 1SG.ABS-**3SG.IO**-DAT-look-CNV
 sə-(*Ø-fə-)λepewa-ʔ
 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 (87a): 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 (87b). Three of the four speakers I have consulted, 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 (87c).

- (87) 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 a complement clause as the applied object: 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 (88a). 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 (87c). 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 (88b). 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 (88c). 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.

- (88) a. marə [RC λ-ew_i [CP t_i(ERG) mašjəne-r
 here man-ADV car-ABS
 Ø-qə-s-e-zə-š'e-n-ew] sə-zə/%Ø-fa-je]
 3ABS-DIR-1SG.IO-DAT-**WH.ERG**-sell-MOD-ADV 1SG.ABS-**WH/3SG.IO**-BEN-want
 -r
 -ABS
 'Here is the man who I want to sell me the car.' **long-distance wh-movement**
- b. marə [RC λ-ew_i t_i(IO) [CP pro_i(ERG) mašjəne-r
 here man-ADV car-ABS
 Ø-qə-s-jə-š'e-n-ew] sə-zə-fa-je] -r
 3ABS-DIR-1SG.IO-**3SG.ERG**-sell-MOD-ADV 1SG.ABS-**WH.IO**-BEN-want -ABS
 'Here is the man who I want to sell me a car.' **prolepsis**
- c. marə [RC λ-ew_i t_i(IO) [CP __PG(ERG) mašjəne-r
 here man-ADV car-ABS
 Ø-qə-s-e-zə-š'e-n-ew] sə-zə-fa-je] -r
 3ABS-DIR-1SG.IO-**3SG.ERG**-sell-MOD-ADV 1SG.ABS-**WH.IO**-BEN-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 below is *jezeš'an* 'tire of'. This verb 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 (89a). 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 (89b). 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 (89c).

- (89) 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-be]/
 3ABS-**WH.IO**-DAT-1SG.ERG-give-MOD-ADV 1SG.ABS-**WH.IO**-DAT-tire.of-PST /
 %s-Ø-je-zeš'ə-be] -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-be] -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-be]
 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**

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 *jeχ^wenən* 'scold' in the embedded clause is relativized, the matrix predicate expones a *wh*-agreement marker in the applied object position (90a). Unlike with *fejen* 'want' in (88b), 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 (90b).

- (90) a. xet-a [RC Op_i we [CP t_i(IO) wə-z-e-χ^wenə-n-ew]
 who-Q you 2SG.ABS-**WH.IO**-DAT-scold-MOD-ADV
 wə-zə-f-je-ž'a-be] -r
 2SG.ABS-**WH.IO**-BEN-DAT-begin-PST -ABS
 'Who did you begin to scold?'
- b. * xet-a [RC Op_i we t_i(IO) [CP pro_i(IO) w-Ø-je-χ^wenə-n-ew]
 who-Q you 2SG.ABS-**3SG.IO**-scold-MOD-ADV
 wə-zə-f-je-ž'a-be] -r
 2SG.ABS-**WH.IO**-BEN-DAT-begin-PST -ABS
 Intended: lit. 'For whom did you begin to scold them?'

Finally, if a complement clause is in the absolutive position, no overt wh-marker is required in the matrix clause – this is the type of complement clause discussed in section 3 of the paper. 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 *jebež'en* 'begin': if the applied argument of the predicate *š'ətχ^wən* 'praise' is relativized, the corresponding wh-agreement marker appears on the embedded predicate (91a); 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 (91b).

- (91) a. xet-a [RC Op_i we [CP t_i(IO) wə-z-š'ə-tχ^wə-n-ew]
 who-Q you 2SG.ABS-**WH.IO**-LOC-praise-MOD-ADV
 Ø-je-b-be-ž'a-be] -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-tχ^wə-n-ew]
 who-Q you 2SG.ABS-**3SG.IO**-LOC-praise-MOD-ADV
 Ø-je-b-be-ž'a-be] -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 *jebež'en* 'begin' in regards to subextraction is *den* 'allow'. This verb 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 (92a) the applied object of

jeplən ‘look’ is relativized and correspondingly triggers wh-agreement in the embedded predicate; (92b) 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.

- (92) a. marə [RC kjən-w-ew_i [CP t_i(IO) tə-z-e-plə-n-ew]
 here film-ADV 1PL.ABS-**WH.IO**-DAT-look-MOD-ADV
 Ø-qə-t-fe-š^wə-da-ɐe] -r
 3ABS-DIR-1PL.IO-BEN-2SG.ERG-consent-PST -ABS
 ‘Here is the film that you allowed us to watch.’
- b. * marə [RC kjən-w-ew_i t_i(ABS?) [CP pro_i(IO)
 here film-ADV
 t-Ø-je-plə-n-ew]
 1PL.ABS-**3SG.IO**-DAT-look-MOD-ADV
 Ø-qə-t-fe-š^wə-da-ɐe] -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.’

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 (2021a), 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.

C Possessor extraction in different types of embedded clauses

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’an* ‘tire of’. As with the verbs discussed above, ergative and applied argument DPs do not display islandhood effects in these contexts. For example, in (93) the possessor of the ergative agent of *šten* ‘take’ is successfully relativized from the clausal complement of the verb *fejen* ‘want’. In (94) the possessor of the dative addressee of *ježen* ‘call’ is relativized, once again within a CP which is embedded under *fejen* ‘want’. Finally, (95) demonstrates that the possessor of an applied argument may be relativized, when embedded under the verb *jezeš’an* ‘tire of’.

- (93) marə [RC bʒəlfəB-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.'
- (94) xet-a [RC Op_i [CP [DP t_i(PR) **z-jə-pšaše**](IO)
 who-Q **WH.PR**-POSS-girl
 wə-q-Ø-je-že-n-ew] wə-zə-fa-je] -r
 2SG.ABS-DIR-3SG.IO-DAT-call-MOD-ADV 2SG.ABS-WH.IO-BEN-want -ABS
 lit. 'Whose do you want to call for __ daughter?'
- (95) marə [RC š^wəZ-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-Be] -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 (96) 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 (97) licenses a parasitic gap within the applied object of *laplen* 'watch' in (97), once again indicating that the applied object DP does not behave as an island in this case.

- (96) marə [RC pšaš-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) laBe-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.'
- (97) marə [RC pšaš-ew_i [RC [DP __PG(PR) **zə-š**](IO)
 here girl-ADV **WH.PR**-brother
 sə-Ø-λ-e-pəfe] 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.'