West Circassian lessons on Phase Theory

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Abstract. This paper explores the connection between the opacity of phases and their status as spellout domains. Based on evidence from West Circassian, I argue that while a subset of phases are salient prosodic domains, syntactic opacity is not a consequence of transfer to PF, but of standard conditions on locality. Furthermore, the relation between phasehood and prosodic constituency holds only partially: some phases are not salient prosodic domains. West Circassian provides a compelling illustration of this mismatch due its polysynthetic profile. On the one hand, a complex syntactic constituent is identifiable as a prosodic domain due to being pronounced as a single prosodic word. On the other, the connection between syntactic opacity and locality constraints is demonstrated by dynamic phasehood which is connected to the licensing of polysynthetic ϕ-agreement.

1 Introduction

The majority of work in Minimalism assumes that syntactic operations like agreement and movement are constrained by locality domains; these were previously called bounding nodes (Chomsky 1973) or Barriers (Chomsky 1986) and are now standardly called phases following Chomsky (2000). The main motivation behind this assumption is that movement appears to be unable to cross certain types of phrasal boundaries and must proceed successive-cyclically through the edges of those phases instead. Thus, for example, *what* in (1) is assumed to move successive-cyclically through the

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edges of vP and CP on its way to its final landing site in matrix Spec,CP.[1]

(1) [$_{CP}$ **What** do [$_{TP}$ you [$_{vP}$ <**what**> think [$_{CP}$ <**what**> that [$_{TP}$ John [$_{vP}$ <**what**> bought [$_{VP}$ <**what**>]]]]]]] ?

The necessity for wh-movement to proceed successive-cyclically is confirmed by a wide range of effects such as *wh*-agreement on complementizers and/or predicates in the path of movement (van Urk 2020 and references therein).

A robust research tradition originating with Uriagereka (1999); Chomsky (2000, 2001) attributes domain-sensitive constraints on movement to the interface properties of phases: at a certain stage in the derivation, the complement of a phase is transferred to PF (or to an intermediate linearization component; Fox and Pesetsky 2005a,b), rendering its internal contents opaque for subsequent syntactic operations. Building on the intuition that phases constitute spellout domains, phases are frequently treated as salient prosodic domains (Newell 2008; Dobashi 2013, a.o.), thus solidifying the connection between syntactic opacity and interface conditions.

On the other hand, a growing line of work has argued that phase opacity is not a consequence of mapping to PF, but of general locality conditions on Agree and the featural properties of phase heads (Abels 2003; Rackowski and Richards 2005; van Urk and Richards 2015; Halpert 2019; Er-

shova 2024). In this approach, phases behave as locality domains for agreement and movement by virtue of being potential goals for any higher probes, and subsequently serving as interveners for Agree between a higher probe and a goal that is embedded within the phase (cf. the A-over-A Principle; Chomsky 1973). The main motivation behind divorcing phase opacity from transfer to the interfaces comes from the observation that certain types of Agree operations can render phases transparent for subextraction (in accordance with Richards's (1998) Principle of Minimal Compliance)—an effect which is difficult to model in a spellout-based approach. If this treatment of phases is correct and phases do not constitute cyclic spellout domains, one might ask whether the notion of phasehood is relevant for rules of syntax-to-phonology mapping.

This paper explores the connection between syntactic phasehood and prosodic constituency from the perspective of West Circassian, a Northwest Caucasian language. West Circassian presents evidence for two types of partially overlapping domains: (i) syntactic locality domains (i.e. phases) which are opaque for subextraction, but allow for successive-cyclic movement through their edge and (ii) interface domains which are targeted for syntax-to-PF spellout rules and are spelled out wholesale with their edges. In departure from prior literature, the two types of domains overlap only partially: while all salient prosodic domains are also phases, some phases are not salient prosodic domains. This mismatch, coupled with dynamic phasehood—the possibility of rendering phases transparent by Agree—provides evidence against a spellout-based approach to phase opacity. However, the salience of a subset of phases for rules of syntax-to-PF mapping suggests that phases do indeed hold a special status at the interface when compared to non-phasal constituents, although the reason for this status remains mys-

terious. In the case of West Circassian, the two salient prosodic domains correspond to the extended nominal projection (DP) and the extended verbal projection (CP), which correlates with the commonality of category-specific morphological and phonological rules cross-linguistically (see Smith 2011 and references therein).

As a polysynthetic language, West Circassian presents a uniquely informative case study for the mismatch between syntactic and prosodic domains. On the one hand, polysynthetic syntax-to-prosody mapping rules differentiate between two types of syntactic constituents: DP, which is mapped to a single phonological word, and CP, which is mapped to a complex prosodic constituent (Ershova 2020). On the other hand, verbal functional heads (v^0 and $Appl^0$) need to agree with C^0 to license polypersonal ϕ-agreement which is a trademark property of polysynthesis (see e.g. the definition in Evans and Sasse 2002:3). In certain circumstances, this agreement can render a phase transparent for subextraction, thus confirming that phasehood is a property of the narrow syntax and cannot be attributed to PF transfer (Ershova 2024). The (selective) opacity of vP and ApplP thus confirms their status as phases. On the prosodic side, however, these constituents do not serve as salient domains: this is confirmed by their variable spellout depending on the larger constituent they are embedded in—CP or DP.

The remainder of the paper is structured as follows: section 2 provides the necessary background on West Circassian grammar; section 3 discusses evidence for syntactic phasehood; section 4 explores the connection between syntactic phasehood and prosodic domains, and section 5 concludes.

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2 Background on West Circassian

West Circassian is typically characterized as polysynthetic with ergative alignment in verbal agreement and case marking (see e.g. Arkadiev et al. 2009; Lander and Testelets 2017; Ershova 2019). It displays agglutinating prefixing and suffixing morphology, with all core arguments indexed on the predicate. For example, the verb in (2) expones agreement with three arguments: the absolutive theme, the benefactive applied object, which is marked by a combination of ϕ-agreement and the specialized applicative prefix *fe-*, and the ergative agent. In accordance with ergative alignment, the leftmost absolutive prefix expones agreement with the theme of a transitive verb and the sole argument of an intransitive verb, while the external argument of a transitive verb is indexed by the ergative agreement prefix, as shown schematically in (3).

(2) tač'ke   Ø-   ŝʷ-fe-   s-   š'a   -ʁ

wheelbarrow   3ABS- 2PL.IO-BEN- 1SG.ERG- bring -PST

‘I brought you(pl) a wheelbarrow.’

(3) Order of agreement prefixes: ABS- (IO-APPL-) ERG-

The language also displays pro-drop, as illustrated by the absence of overt pronouns in (2), and free word order.

Nominals display polysynthetic morphology as well: the possessor is indexed with an agreement prefix (followed by the prefix *jə-* to mark alienable possession) and modifiers and complements are incorporated to form a complex compound (4) (Lander 2017; Ershova 2020).[2]

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[2]Certain DP-internal modifiers do not incorporate as part of the nominal complex. These include relative clauses, demonstratives and possessors, which Ershova (2020) argues constitute DP or CP-level constituents. Assuming that the structural classification of these modifiers is correct, the analysis presented in section 4 provides a straightforward explanation for the contrast between incorporated and non-incorporated modifiers.

(4) Ø-   jə-   cʷeqe- ƛedeqe -ƛaɣe -xe -r

3SG.PR- POSS- shoe- heel   -tall -PL -ABS

'her tall shoe heels' (WCC)

Case alignment follows an ergative pattern: absolutive case (*-r*) marks subjects of intransitives (5a) and themes of transitive verbs (5b) and oblique case (*-m*) is used to mark external arguments of transitive verbs (5b) and applied arguments (5a), as well as possessors (5c) and complements of postpositions.[3] Singular possessed nouns, proper names, and personal pronouns are incompatible with overt case markers. Indefinite or nonspecific lexical NPs are also generally unmarked for case, as demonstrated with the absolutive theme in (2); see Arkadiev and Testelets (2019) on the distribution of caseless noun phrases.

(5)   a. mə mezə-**m**   məŝe-xe-**r**   Ø-Ø-xe-sə-x

          this forest-**OBL** bear-PL-**ABS** 3ABS-3SG.IO-LOC-sit-PL

          'Bears live in this forest.'

      b. mə pŝaŝe-**m** jež'-jež'-r-ew   ӡane-xe-**r**

          this girl-**OBL** self-self-PRED-ADV dress-PL-**ABS**

          Ø-ə-də-ʁ

          3ABS-3SG.ERG-sew-PST

          'This girl made the dresses by herself.'

      c. mə ƛ̣ə-**m**   Ø-jə-xate

          this man-**OBL** 3SG.PR-POSS-garden

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[3] Absolutive case surfaces as *-r* only on third person absolutive arguments; lexical DPs which refer to first or second person participants are marked with *-m* (Arkadiev et al. 2009:80-83; Lander et al. 2021); I assume that this is allomorphy triggered by the ϕ-features of the corresponding DP. Oblique case has several allomorphs in addition to *-m*: *-j* or *-š'* may express oblique case on demonstrative pronouns, and the portmanteau suffix *-me* may be used instead of *-xe* 'PL' + *-m* 'OBL' on plural oblique case-marked DPs (Arkadiev et al. 2009:52).

'this man's garden'

West Circassian displays high absolute syntax: the absolute argument raises to Spec,TP in both transitive (6) and intransitive clauses (7) while the ergative and applied argument DPs remain in situ in Spec,vP and Spec,ApplP; evidence for this comes from conditions on parasitic gap licensing (Ershova 2021), reciprocal binding (Ershova 2019, 2023b), and constraints on possessor extraction (Ershova 2024); see cited works for further details.

(6) *Structure of a transitive clause with an applied object:*
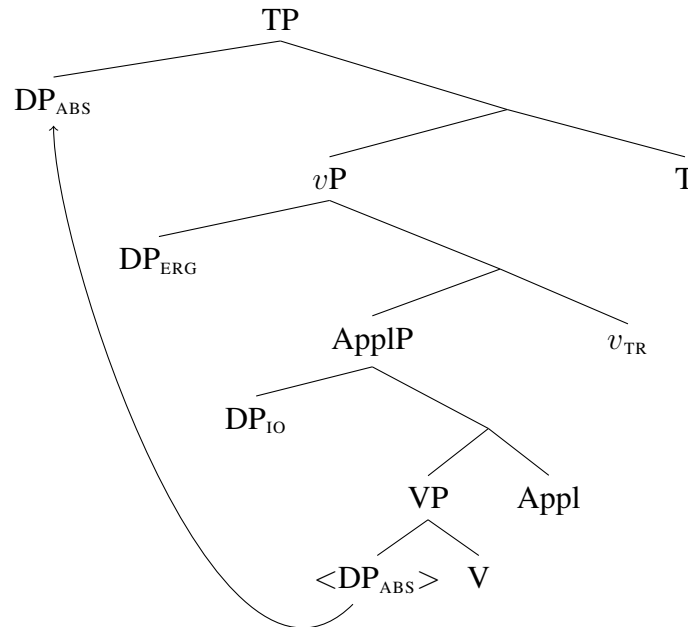
(7) *Structure of an unergative clause with an applied object:*

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                            TP
         ┌──────────────────┴────────┐
    DP_ABS                          │
       ↑                            │
       │              vP            T
       │        ┌─────┴──────┐
       │   <DP_ABS>          │
       │      ┌──────┴──────┐
       │   ApplP          v_UNERG
       │   ┌──┴──┐
       │  DP_IO  │
       │      ┌──┴──┐
       │     VP   Appl
       │     │
       │     V
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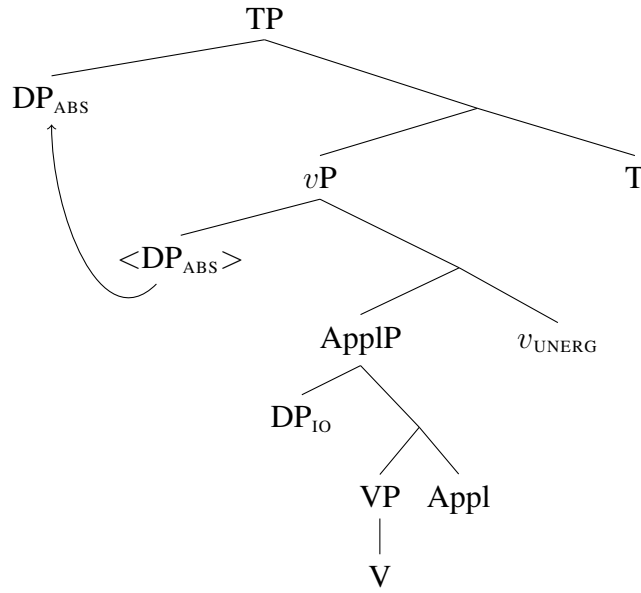
To summarize, West Circassian is polysynthetic and displays ergative alignment in both agreement and case marking. In terms of clause structure, the ergative and applied arguments remain in situ in Spec,vP and Spec,ApplP respectively, while the absolutive argument moves to Spec,TP.

3   Phases in the syntax

This section outlines the evidence for the presence of syntactic locality domains in West Circassian, with a particular focus on vP and ApplP, both of which have been classified as phases in prior work (see e.g. Chomsky 2000, 2001; Legate 2003 on vP and McGinnis 2000, 2001 on ApplP). Based on the analysis developed in Ershova (2024), I demonstrate that syntactic locality domains cannot be opaque due to PF transfer *because they can be rendered transparent by agreement*. In West Circassian, this manifests itself in the variable islandhood of ergative and applied argument DPs, which are merged as specifiers of vP and ApplP respectively: they do not allow for local possessor Ā-movement, but are transparent for cross-clausal Ā-

extraction.

3.1 Agree-based phasehood and relativization

Syntactic locality domains in West Circassian display the typical properties associated with phases: (i) only the specifier of the phase head is accessible for extraction—they do not allow for subextraction from their complement or specifier, and (ii) phase heads can trigger successive-cyclic movement to their specifier. The final property of phases in West Circassian is that they can be 'unlocked' by Agree, confirming that phase opacity is determined in the narrow syntax, rather than the interfaces.

The variable opacity of vP and ApplP can be explained if phases (which dominate the corresponding goal feature) are understood as potential goals and, correspondingly, interveners for Agree. Under this view, a probe must Agree with the closest goal in its c-command domain, with *closest* defined in (8).

(8)   **Definition of *closest* (Ershova 2024; based on Rackowski and Richards 2005:579)**

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 a maximal projection), X c-commands or dominates α but does not c-command or dominate β.

This definition of *closest* ensures that only the specifier of the phase head is accessible to a higher probe by virtue of being equidistant with the phase itself. All other elements, including the complement of the phase and the internal contents of the phase edge, are inaccessible due to the phase being a closer goal. This is illustrated in (9): if XP is a phase, the specifier

of XP (YP) is accessible to the probe P because there is no distinct head or maximal projection which c-commands or dominates YP, but not XP. On the other hand, the specifier of YP is *not* accessible to P: this is because YP dominates ZP, but not XP, meaning that XP is the closest goal. Likewise, WP is not accessible because YP and X c-command WP, but do not c-command XP.[4]

(9) Only the specifier of a phase is accessible for Agree:
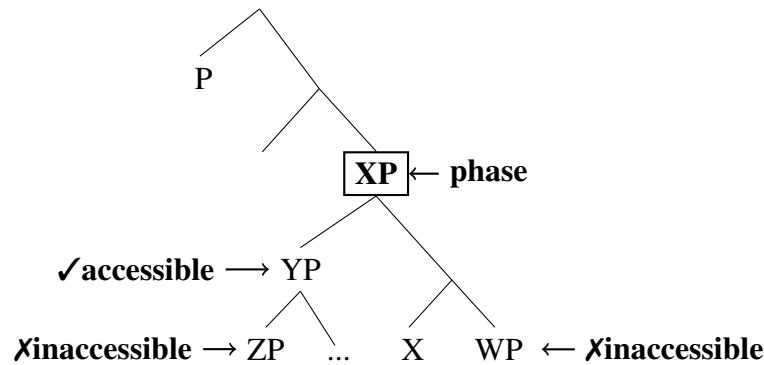
The accessibility of phase edges for extraction straightforwardly explains why the specifiers of vP and ApplP (the ergative and applied argument respectively) may be relativized, as may also the absolutive DP in Spec,TP (the latter is not surprising, given that there is no phase boundary between Spec,TP and C). This is illustrated with examples below.

Relativization involves the movement of a relative operator to the left edge of the relative clause; the operator is either null—in headless relatives or in externally headed relative clauses—or expressed as the nominal head which is marked with the adverbial case *-ew* (Caponigro and Polinsky

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[4]In contrast to traditional notions of *phase edge* (Chomsky 2000, 2001), this theory predicts that if a phase has several specifiers, only the highest of those is accessible to higher probes. However, if the higher specifier moves to a position c-commanding the phase itself, this may render the lower specifier accessible: prior to movement, the higher specifier had c-commanded the lower specifier, but not the phase itself, rendering the phase *closer*, but after movement, it c-commands both, rendering the lower specifier equidistant with the phase.

2011; Ershova 2021).[5] The relativized participant triggers a specialized *wh*-agreement marker on the predicate in place of regular ϕ-agreement.[6] For example, if the ergative agent in (10a) is relativized, the argument is replaced by a gap in its base position, the operator surfaces on the left edge of the relative clause and the predicate expones *wh*-agreement, which appears in the ϕ-agreement slot associated with the ergative argument.

(10) a. **č̣'ale-m** apč'ə-r   Ø-ə-qʷəta-ʁ
       boy-OBL glass-ABS 3ABS-**3SG.ERG**-break-PST
       'The boy broke the glass.'

   b. [$_{RC}$ č'al-ew$_i$ apč'ə-r   ___$_i$ Ø-**zə**-qʷəta-ʁe]-m
        boy-ADV glass-ABS   3ABS-**WH.ERG**-break-PST-OBL
        z-jə   Ø-ə-ʔʷe-š't ə-ʁ-ep
        one-ADD 3ABS-3SG.ERG-say-AUX-PST-NEG
        'The boy who broke the glass didn't say anything.' (Lander 2012b:275-276)

   Similarly to the ergative agent, an applied argument—e.g. the location in (11)—may be relativized by moving the relative operator to the left edge of the relative clause and replacing the applicative ϕ-agreement with a *wh*-marker.

(11) [$_{RC}$ wən-ew$_i$ mašəne-r ___$_i$ Ø-**zə**-ʔʷə-tə-ʁe]-r
       house-ADV car-ABS   3ABS-**WH.IO**-LOC-stand-PST-ABS

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[5]While the adverbial case-marked nominal head must appear to the left of the predicate heading the relative clause and the constituent containing the gap corresponding to the relativized participant, certain elements may precede the nominal head, which correlates with the generally free word order in the language. I assume that this is the result of scrambling to the left periphery. See Lander (2012b) for a detailed typological study of relative clauses in West Circassian.

[6]I follow Ershova (2021) in treating this morpheme as a *wh*-agreement marker, which in turn builds on O'Herin's (2002) analysis of the closely related Abaza. Alternatively, this morpheme has been analyzed as a relative pronoun (Lander 2009a,b, 2012b) or a resumptive pronoun (Lander and Daniel 2019).

be.mə.ŝ-ew   Ø-a-ṣ̂ə-ʁ

recently-ADV 3ABS-3PL.ERG-do-PST

'The house in front of which the car stood was built recently.' (*ibid.*:277)

An absolutive argument may be relativized as well, likewise triggering *wh*-agreement—the absolutive allomorph Ø- (12).[7]

(12) [RC χərbəʒ-ew_i   __i   a-š'

　　　watermelon-ADV   that-OBL

　　　Ø-ə-bzə-ʁe]-r   Ø-mə-χʷə-ʁe

　　　WH.ABS-3SG.ERG-cut-PST-ABS 3ABS-NEG-become-PST

　　　'The watermelon that he cut was unripe.' (*ibid.*:275)

Relativization involves Ā-movement to Spec,CP: this is evinced by Weak Crossover effects, the ability to license parasitic gaps (both discussed in Ershova 2021), and island sensitivity (Caponigro and Polinsky 2011; Lander 2012b).

The Agree-based theory of phasehood straightforwardly predicts the possibility of ergative and applied argument relativization: the ergative argument in Spec,vP is equidistant with vP to the probe on C^0, thus allowing for C^0 to Agree with and attract the operator in that position (13). Following Rackowski and Richards (2005), Ershova (2024) assumes that movement of the whole vP is ruled out by language-specific constraints on pied-piping: in West Circassian, only the phrase that immediately dominates the relevant feature may move, which correctly explains the general absence of pied-piping in wh-movement.

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[7]Lander (2009a,b, 2012b); Lander and Daniel (2019) treat absolutive relativization as a distinct, unmarked strategy. I follow Ershova (2021, 2024) in analyzing it as an allomorph of *wh*-agreement, but this distinction is not important to the topic of this paper.

(13)

CP

DP$_{ERG}$

✓

equidistant

TP   C
      [•WH•]

DP$_{ABS}$

vP   T

DP$_{ERG}$ v'
[WH]
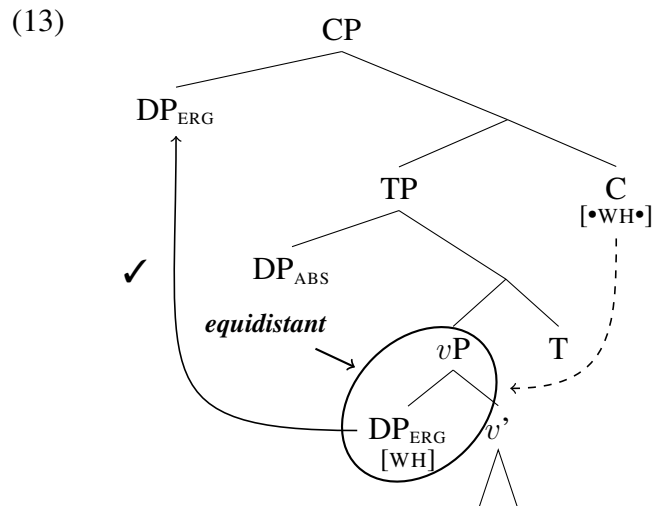
The applied argument in Spec,ApplP moves successive-cyclically to Spec,vP and subsequently proceeds to Spec,CP. Successive-cyclic movement is triggered by an edge feature on v^0 (Chomsky 2000, 2001, 2008; Heck and Müller 2003; Müller 2010, 2011; Georgi 2014, 2017); this feature is able to attract the applied argument because Spec,ApplP is equidistant with the ApplP phase to v^0; the applied object in Spec,vP is then accessible to the WH-probe on C^0 (14).

(14)
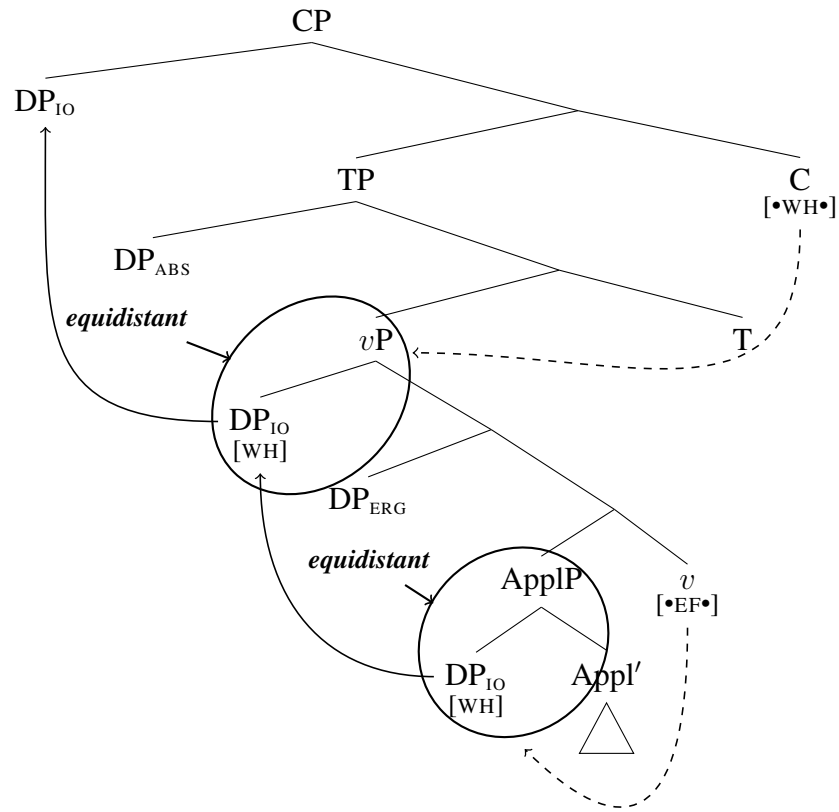
The intervention-based theory of phases predicts that ergative and applied argument DPs should be opaque for subextraction by virtue of being merged at phase edges, while DPs which are not at phase edges should allow subextraction. This prediction is shown in (15): a probe on C^0 cannot Agree with a WH-element inside the ergative DP, including its specifier, because the vP phase is a closer goal and correspondingly intervenes. vP is closer than the WH-element by the definition in (8) because the ergative DP dominates the WH-element, but does not dominate vP.

(15)

The same logic applies to subextraction from the applied argument DP: ApplP intervenes between any probe and elements inside the applied argument DP by virtue of being a closer goal.

This prediction is confirmed by the data: both ergative and applied argument DPs do not allow for possessor extraction.[8] DPs which are not merged at a phase edge—the absolutive DP in Spec,TP and adjunct PPs, on the other hand, are transparent for possessor extraction. Thus, relativization of the possessor of the ergative DP in (16) is ungrammatical; likewise, the possessor of the dative applied object in (17) may not be relativized. The repair strategy for these constructions involves the use of a pseudocleft where the ergative or applied argument is promoted to absolutive position; see Ershova (2024) for details.

(16)   * xet-a   [Op$_i$ [t_i(PR)   **z-**jə-č'ale](ERG)   dax-ew

who-Q   **WH.PR-**POSS-boy   beautiful-ADV

wered(ABS)   Ø-q-ə-ʔʷe-re]   -r

song   3ABS-DIR-3SG.ERG-say-DYN -ABS

Intended: 'Whose son sings well?' (Ershova 2024:12)

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[8]These constraints on possessor extraction are subject to dialectal variation: some dialects allow for possessor extraction from all types of arguments, as observed by Lander (2012b). See Ershova (2024) for an analysis of this variation.

(17) * mwarə [$_{RC}$ ŝʷəz-ew$_i$ [t_i(PR) **zə-qʷe**](IO)

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

č'elejeʁaǯe-r(ABS)   Ø-Ø-je-çeça-ʁe]   -r

teacher-ABS   3ABS-3SG.IO-DAT-scold-PST -ABS

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

(*ibid.*:13)

In contrast, the possessor of an absolutive argument may be relativized: this is shown for an internal argument in (18), but the same generalization holds for external absolutive arguments as well.

(18) mwarə [$_{RC}$ ŝʷəz-ew$_i$ [$_{DP}$ t_i(PR) **zə-qʷe**](ABS)

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

hapse-m   Ø-Ø-č-a-ʒa-ʁe]   -r

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

'Here is the woman whose son they threw in jail.' (*ibid.*:8)

Absolutive DPs are transparent for subextraction by virtue of being in Spec,TP: while the absolutive DP itself is a phase, the possessor in Spec,DP is equidistant with DP$_{ABS}$ to the probe on C, thus allowing for C to successfully Agree with the relative operator in the possessor position (19).

(19)

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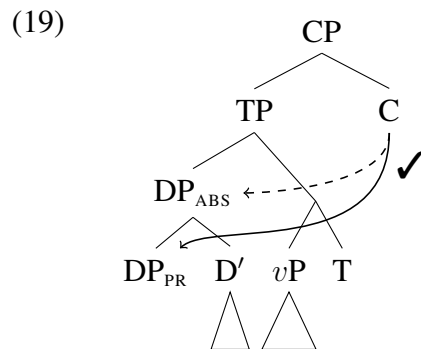
The possessor of the complement of a postposition may also be extracted (20). This is possible because the corresponding PP is an adjunct to VP, and its complement is not at a phase edge, allowing for successive-cyclic movement to Spec,vP: the head of the PP phase is able to probe with •EF• and attract the relative operator to Spec,PP; v^0 is then able to likewise probe with its edge feature and attract the operator to Spec,vP, where it is visible to the probe on C^0 (21).

(20) xet-a   [$_{RC}$ Op$_i$ [$_{PP}$ [$_{DP}$ t_i(PR)   **z-**jə-wəne]   dež']

who-Q   WH.PR-POSS-house at

mezə-r   ʁe-r-je-ḳʷe   Ø-Ø-š'ə-stə-ʁe]

forest-ABS   year-LOC-DAT-go   3ABS-3SG.IO-LOC-burn-PST

-r

-ABS

'Near whose house did the forest burn last year?' (*ibid.*:15)

(21)
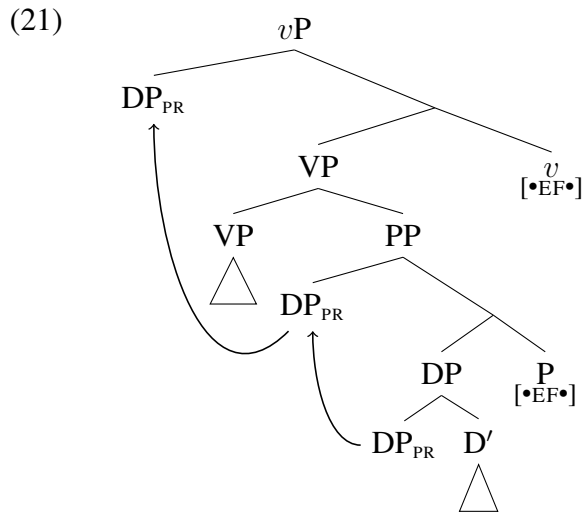
To summarize, possessor relativization in West Circassian is constrained in the following way: possessors may be relativized from absolute DPs and complements of postpositions, but may not be relativized from ergative

and applied argument DPs. Ershova (2024) argues that these constraints arise as a consequence of ergative and applied arguments being merged at phase edges: Spec,vP and Spec,ApplP correspondingly. Phase edges are opaque for subextraction because of defective intervention: the corresponding phase serves as an intervener for Agree between any probe and an operator contained within the phase edge. Evidence for Agree-based phasehood comes from the amelioration of phase intervention effects in configurations involving cross-clausal relativization, which results in an empirically startling pattern: long-distance movement is grammatical when clausebound movement isn't. This confirms that syntactic locality domains must be a property of the narrow syntax, rather than transfer to the interfaces: a phase may be rendered transparent later in the derivation—a pattern that is not predicted by interface-based approaches to phasehood.

3.2 Variable phasehood in the narrow syntax: cross-clausal relativization

Agree-based approaches to phasehood predict that phasehood may be contextually determined based on the interactions between the corresponding phase and higher probes. In particular, according to Richards's (1998) Principle of Minimal Compliance (22), a phase may cease to be an intervener if it has independently agreed with that probe in another feature.

(22)   *Principle of Minimal Compliance, as formulated in Rackowski and Richards (2005:582):*

Once a probe P is related by Agree with a goal G, P can ignore G for the rest of the derivation.

In West Circassian, this is manifested in the following way: while clausebound possessor relativization is ungrammatical from ergative and applied

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argument DP, possessors may be successfully relativized out of these arguments in cases of cross-clausal extraction. This is illustrated with the possessor of an ergative DP in (23) and for the possessor of an applied argument in (24).[9][10] The wh-question in (23) a pseudocleft which is derived through the relativization of the possessor in the embedded clause: the pseudocleft structure correlates with the predicative interrogative particle -*a* on the wh-word and the absolutive case marking on the predicate heading the relative clause.

(23)   xet-a   [RC Op$_i$ [CP [DP t_i(PR) **z-jə-sabəj-xe-m**](ERG)

       who-Q   **WH.PR-**POSS-child-PL-OBL

       wered(ABS)   Ø-q-a-ʔ^{w}e-n-ew]

       song   3ABS-DIR-3PL.ERG-say-MOD-ADV

       Ø-wə-mə-de-re]   -r

       3ABS-2SG.ERG-NEG-consent-DYN -ABS

       lit. 'Whose do you not consent for __ children to sing?'

(24)   marə [RC ŝ^{w}əz-ew$_i$ [CP [DP t_i(PR) **z-jə-pŝaŝe**](IO)

       here   woman-ADV   **WH.PR-**POSS-girl

       sə-Ø-fə-tje-we-n-ew]

       1SG.ABS-3SG.IO-BEN-LOC-hit-MOD-ADV

       Ø-je-z-ʁe-ž'a-ʁe]   -r

       3ABS-DAT-1SG.ERG-CAUS-begin-PST -ABS

       lit. 'Here is the woman whose I began to call __ daughter.'

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[9]See Ershova (2024) for evidence that the embedded clauses are full CPs.

[10]A reviewer notes that a speaker they have consulted has judged this example as unacceptable. This highlights the presence of dialectal variation: on the other end of this spectrum, Lander (2012b) reports that most of his consulted speakers accept clausebound possessor extraction from all arguments, including ergatives and applied objects. In the current approach, this variation may be captured by parametrizing the order of the features on C^0.

Cross-clausal possessor extraction from ergative and applied argument DPs is possible because the embedded C^0 which triggers successive-cyclic movement in the embedded clause agrees with the lower verbal heads (v^0 and $Appl^0$) *prior* to probing with the successive-cyclic edge feature (probe features are hieararchically ordered, with only the highest feature visible for checking; Georgi and Müller 2010; Müller 2010; Georgi 2014, 2017; Martinović 2015, to appear; Ershova 2019).[11] As a result, vP and ApplP do not behave as phases for successive-cyclic Ā-movement to Spec,CP. Ershova (2024) suggests that the feature in question is the category feature [V]; this feature is responsible for driving head movement which results in the morphologically complex wordforms (see Roberts 2010 on Agree-driven head movement) and for licensing polysynthetic ϕ-agreement on lower verbal heads (T^0, v^0, and $Appl^0$)—this latter property is discussed in more detail in section 4.

This effect of agreement between C^0 and lower verbal heads is illustrated for the possessor of an ergative DP in (25): C^0 agrees with v^0 in the category feature [V], rendering the vP phase a non-intervener, and, correspondingly, transparent for further probing by C^0. The edge feature on C^0 is then able to Agree with the relative operator inside the ergative DP, triggering successive-cyclic movement of the operator to the embedded Spec,CP. The possessor is then able to continue successive-cyclic movement to the matrix Spec,vP and, subsequently, matrix Spec,CP.

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[11]This analysis assumes the possibility of a single probe interacting with multiple eligible goals, i.e. Multiple Agree (Hiraiwa 2001, 2005; Zeijlstra 2004; Nevins 2007, 2011). Agreement in [V] is constrained to a single verbal extended projection. For example, we do not expect C^0 to agree with verbal heads that are in an embedded clause, which can be technically implemented by differentiating between probe and goal features and disallowing agreement between two probe features.

(25)
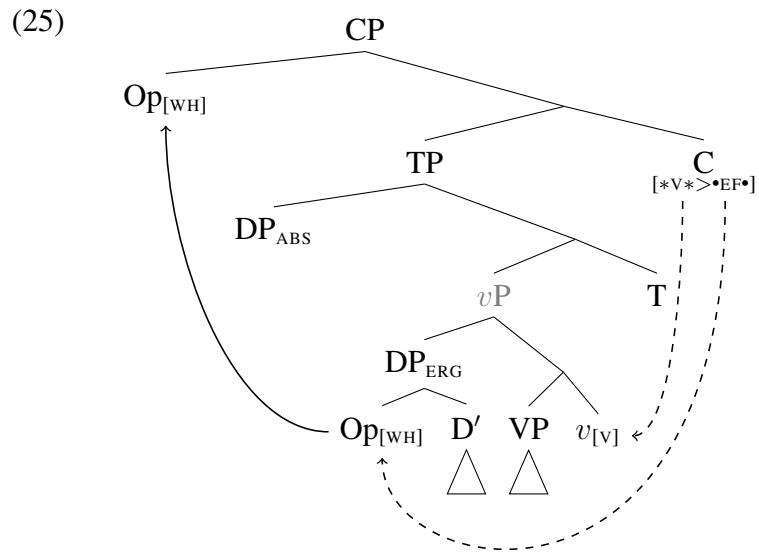
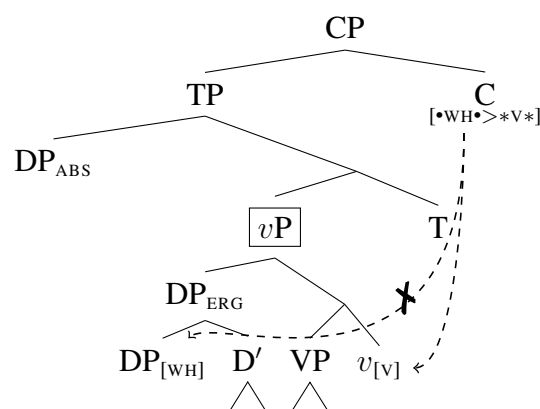Similarly, the possessor of an applied argument may undergo successive-cyclic movement to embedded Spec,CP due to C agreeing with v^0, rendering vP transparent, and subsequently agreeing with the lower $Appl^0$, rendering ApplP transparent as well (26).

(26)

CP

Op[WH]

TP

DP$_{\text{ABS}}$

vP

T

DP$_{\text{ERG}}$

ApplP

$v_{[\text{V}]}$

DP$_{\text{IO}}$

Appl$_{[\text{V}]}$

Op[WH]   D′   VP

C
[∗V∗>•EF•]
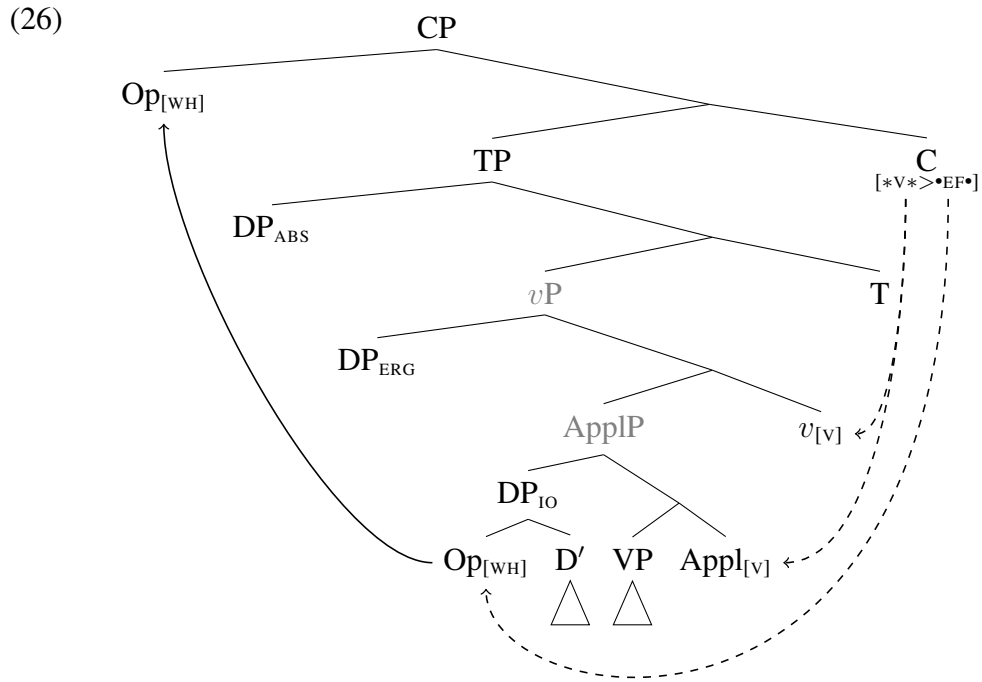
An unusual property of the structure in (26) is that, as a consequence of C^0 agreeing with v^0 and rendering vP transparent, the relative operator does not move through Spec,vP, but instead proceeds in one fell swoop to Spec,CP. A reviewer asks whether there is evidence for the absence of the intermediate landing site in Spec,vP and its presence in configurations where phase unlocking has not taken place. Unfortunately, I cannot provide such evidence. However, this is arguably an issue that goes far beyond the analysis proposed here: as Abels (2012) extensively demonstrates, while there are various semantic and morphosyntactic phenomena which suggest the *existence* of intermediate landing sites, it is incredibly difficult to construct an environment that would demonstrate the *absence* of a particular landing site.

Returning to clausebound relativization, possessor extraction from the

edges of vP and ApplP is ungrammatical due to the featural properties of C^0 which heads a relative clause. In particular, this C^0 hosts a contentful [•WH•] feature which, unlike the edge feature, is ordered *before* the agreement feature [∗V∗]. Since [•WH•] probes prior to C^0 agreeing with v^0 and Appl^0, both the vP and ApplP phases remain opaque, barring movement from their edges (27).

(27)

3.3 Phases in the syntax: Summary

I have demonstrated in this section that there are syntactic locality domains in West Circassian which display properties typical of phases: (i) their complements and edges are opaque for subextraction and (ii) their heads trigger successive-cyclic movement to their edge, which is accessible to higher probes. Based on patterns of possessor extraction from phase edges, I have argued that syntactic locality domains are opaque by virtue of intervening for Agree, rather than as a consequence of transfer to the interfaces: a syntactic phase may be rendered transparent for subextraction if its head independently agrees with the probe that triggers the subextraction. In West Circassian, this manifests itself in the variable islandhood of ergative and applied argument DPs: they do not allow for clausebound possessor ex-

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traction, but do allow cross-clausal possessor extraction, confirming that phasehood is dependent on the larger syntactic context – a view which is incompatible with attributing phase opacity to spellout. The following section explores the connection between phasehood and the syntax-PF interface, arguing that phasehood is only partially and indirectly relevant at the interface: while some syntactic phases also play the role of prosodic spellout domains, some phases appear wholly irrelevant to the syntax-PF interface.

4 Phases at the interface

This section discusses the role of phasehood in rules of mapping from syntax to PF. Ershova (2020) argues that polysynthetic wordforms in West Circassian are formed through two distinct processes: nominal forms result from a DP phase being mapped to a single phonological word, whereas predicates are formed through head movement, with a CP phase being mapped to a prosodic or intonational phrase consisting of several phonological words. The syntax-prosody interface is modeled through Optimality Theoretic rule ordering (Selkirk 2011), with the addition of a constraint which only applies in polysynthetic languages: MATCH PHASE (28).

(28) MATCH PHASE(-TO-WORD): (Ershova 2020:443)

A phase in syntactic constituent structure must be matched by a prosodic word in phonological representation.

The difference between nominal and verbal wordforms results from there being two different constraint rankings which are relativized to two prosodic domains: DP and CP. Category-specific phonological rules are well-attested cross-linguistically (see e.g. Smith 2011) and can be implemented, for example, by including the relevant prosodic information on the phase-defining

heads (D^0 and C^0) (Sande et al. 2020). At the CP level the rule which matches syntactic terminal nodes to phonological words (MATCH WORD) is ranked higher than MATCH PHASE, whereas in the DP domain MATCH PHASE is ranked higher than MATCH WORD. Importantly, not all syntactic phases are relevant prosodic domains: vP and ApplP, which are demonstrated to be syntactic locality domains in the previous section, do not have their own constraint ranking, nor do they count as phases for MATCH PHASE. The correspondence between syntactic phases and prosodic domains is thus indirect and incomplete.

4.1 DP and CP at the interface

Building on previous research of polysynthetic word formation (Compton and Pittman 2010; Barrie and Mathieu 2016), Ershova (2020) proposes that in West Circassian, nominal wordforms result from a complex syntactic constituent being mapped to a prosodic word. This explains why DP-internal modifiers and complements form a compound with the head noun, and furthermore, why dependents of the head noun may include phrasal material such as conjunctions (29) or be modified themselves (30)—patterns that are not predicted by a head movement analysis of compounding. Incorporated arguments may also contain functional morphology[12], violating Baker's (2003) Proper Head Movement Generalization, which bars head movement of a lexical root to a functional projection, followed by movement to a lexical projection (31).[13]

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[12]Not all types of functional morphology may be incorporated. For example, Lander (2012a:88) observes that verbal cross-reference prefixes are generally disallowed in incorporated modifiers. Under the analysis proposed here, such restrictions are predicted to correlate with the presence of CP- or DP-level structure in the modifying phrase.

[13]The resulting complex wordform passes language-internal wordhood diagnostics; see Lander (2017); Ershova (2020) for details.

(29) cʷeqe- **əč̣’jə-** š’əʁən- tʷeč̣’an -xe -r

footwear- **and-** clothes- shop -PL -ABS

'shops of shoes and clothes' (Lander 2017:93)

(30) [č’ərbəš’ **-fəẑ**]- wəne -r

brick **-white**- house -ABS
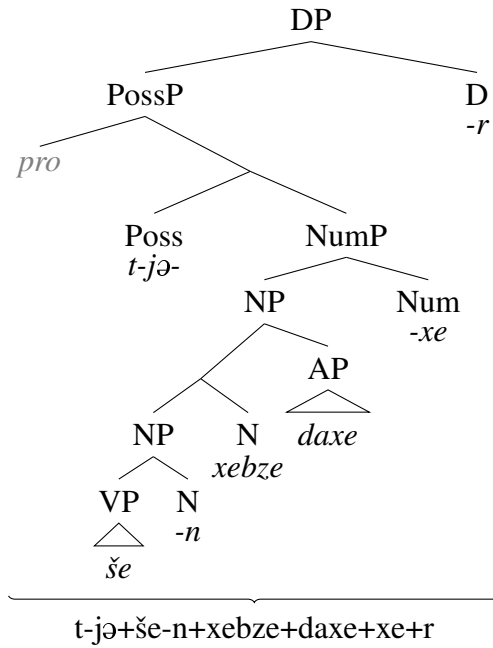
'the house of white bricks' (Lander 2017:83)

(31) ja- **[je-ǯe-ṗe]-** avtobus

3PL.PR+POSS- **DAT**-read-**NML**- bus

'their school bus' (Ershova 2020:446)

In this approach phrasal dependents which are not themselves DPs are incorporated into the DP-level wordform. Thus, the compound in (32) results from the NP complement and the AP modifier being pronounced as part of the larger prosodic word which includes the head noun (33).[14]

(32) t-jə- [še -n]- xebze- daxe -xe -r

1PL.PR-POSS- [lead -NML]- rule- beautiful -PL -ABS

'our lovely rules of conduct (lit. leading rules)' (Ershova 2020:431)

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[14]I follow Ershova (2020) in glossing *-n* in (32) as NML rather than MOD; cf. (23)-(24). It is likely that the two differently glossed instances of this suffix correspond to the same functional head which semantically encompasses both event nominalizations and modal future tense (as argued by Serdobolskaya 2009), but from a syntactic viewpoint the correspondence is not straightforward given the diminished functional structure in nominalizations. For this reason, I differentiate between the suffix that forms nominalizations which are incompatible with tense and cross-reference morphology (NML) and the suffix which marks full CPs, identifiable by the presence of cross-reference morphology on the predicate, regular case marking of arguments and the absence of noun incorporation (MOD).

(33)

DP

PossP — D
    -r

pro

Poss — NumP
t-jə-

NP — Num
    -xe

NP — N — AP
    xebze *daxe*

VP — N
  -n

še

t-jə+še-n+xebze+daxe+xe+r

As mentioned in section 2, modifiers which are DP- or CP-sized, such as possessors and relative clauses, are not pronounced as part of the same phonological word with the nominal head. Ershova (2020) accounts for this by positing an additional constraint: NON-RECURSIVE, which disallows a structure where a prosodic word dominates another prosodic word or prosodic phrase. A highly ranked constraint CYCLIC, which requires syntax-to-prosody mapping to proceed phase-by-phase rules out an output where the embedded DP or CP does not constitute its own prosodic domain. This is illustrated in table 1. Depending on the amount of terminal nodes included in the structure, the winning output will have multiple violations of MATCHWORD (one violation for each terminal node which is not mapped to a prosodic word), but an output which maps every DP to a single prosodic word wins due to the higher ranked MATCHPHASE.

In contrast to compounding of multiple lexical roots in the nominal domain, verbal noun incorporation is not productive in West Circassian. For example, the theme of a transitive verb may not be pronounced as part of

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Table 1: Ban on recursion of prosodic words (Ershova 2020:445)

Input:	[$_{DP}$ [$_{DP}$ ...] ...]	CYCLIC	NON-REC	MATCHPHASE	MATCHWORD
a.	($_\omega$ ($_\omega$ ...) ...)		*!		**...
b. ☞	($_\omega$ ...) ($_\omega$ ...)			*	**...
c.	($_\omega$ ... ...)	*!		*	**...

the same phonological word as the verbal root in (34a); instead, it must be mapped to a separate word (34b).[15]

(34) a. * sə/s-   **leʁe**- thač̣’ə -ʁ

1SG.ABS/ERG- **dish**- wash -PST

Expected: 'I washed dishes'

b. **laʁe-xe-r**   Ø-s-thač̣’ə-ʁe

dish-PL-ABS 3ABS-1SG.ERG-wash-PST

'I washed dishes.' (Ershova 2020:426)

Ershova (2020) argues that this difference is due to the CP phase being mapped to a prosodic or intonational phrase rather than a single prosodic words: in the prosodic domain corresponding to CP MATCH WORD is ranked higher than MATCH PHASE. Correspondingly, an output which maps the full CP to one prosodic word will be ruled out in favor of an output which

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[15]A reviewer points out that the ungrammatical example in (34a) may be made grammatical by altering the final vowel of the root to /a/ (*sə-leʁe-thač̣’**a**-ʁ*), with the meaning 'I used to wash dishes', or, perhaps more accurately, 'I was a dish washer'. Structurally, the assumption is that *leʁe-thač̣’e* is a nominalized expression meaning 'dish washer', which is subsequently used as a nominal predicate. Bagirokova and Lander (2015) argue that, given the weak morphosyntactic distinction between nouns and verbs in West Circassian, expressions such as these provide evidence for the possibility of verbal noun incorporation in the language. I am unable to verify the grammaticality of this particular expression, but the use of nominal phrases in predicative positions indeed gives rise to constructions which putatively resemble verbal noun incorporation. Furthermore, the reviewer is correct to point out that such constructions pose a challenge for the phase-based prosodic mapping proposed in this paper: the nominal predicate, lacking a DP level, is expected to be subject to CP-level prosodic rules, resulting in the absence of noun incorporation. I return to this issue and discuss a tentative solution at the end of this section.

maps each terminal node to a separate prosodic word.

To summarize this subsection, two prosodic domains are immediately identifiable in West Circassian based on their interaction with the syntax-PF interface: the DP phase is mapped to a single phonological word, whereas a CP phase is mapped to a complex prosodic constituent. The following subsection presents evidence that vP and ApplP, despite being syntactic locality domains, do not serve as salient prosodic domains.

4.2 *vP and ApplP are not prosodic domains*

The previous subsection illustrated that two types of syntactic phases (DP and CP) also serve as salient prosodic domains. The correspondence breaks down, however, if other syntactic phases are considered. In particular, vP and ApplP are syntactic phases, as demonstrated in section 3, but are not prosodic domains: they are subject to variable syntax-to-prosody mapping rules depending on the larger constituent they are embedded in. Thus, they may be mapped to multiple prosodic words if embedded within a CP, but are incorporated into the nominal wordform when embedded within a DP. Evidence for this comes from nominalizations, which involve a CP-less verbal extended projection embedded in a larger nominal constituent.

The morphosyntactic properties of nominalized constructions are discussed in Ershova (2020). Nominalizations are formed from predicates with the suffixes *-č̣’e* (manner), *-ṗe* (place), and *-n* (event). In contrast to finite clauses, they do not display verbal ϕ-agreement and the arguments of the predicate must be either pseudo-incorporated or expressed as a possessor (35; cf. 34).

(35) pŝaŝe-m Ø- jə- leʁe- thač'ə -č'e sə-gʷ

girl-OBL 3SG.PR- POSS- dish- wash -NML 1SG.PR-heart

Ø-Ø-r-j-e-hə

3ABS-3SG.IO-DAT-3SG.ERG-DYN-carry

'I like (lit. my heart carries) the girl's manner of dish-washing.'

(Ershova 2020:451)

Despite lacking verbal agreement and case licensing, nominalizations include both v^0 and Appl^0. Thus, nominalized forms may include morphology associated with v^0 such as the causative prefix in (36), as well as applicative morphology such as the comitative *de-* in (37).

(36) zarjəne Ø- jə- keše- **ʁe-** ẑʷa -č'e

Zarina 3SG.PR- POSS- porridge- **CAUS-** boil -NML

t-Ø-je-ʁe-pλ

1PL.ABS-3SG.IO-DAT-CAUS-look

'Let's try Zarina's way of making (lit. boiling) porridge.'

(37) mə sabəj-xe-m ja- haẑʷə- **de-** ʒegʷə -č'e

this child-PL-OBL 3PL.PR+POSS- puppy- **COM-** play -NML

Ø-s-jə-č'as

3ABS-1SG.PR-POSS-favorite

'I like the way these children play with puppies.'

Furthermore, there is evidence that nominalizations include the external argument even when it is not expressed overtly, further confirming that the verbal argument structure—and, correspondingly, vP—is present in these constructions. Thus, the reciprocal in (38) is bound by a covert external argument of the nominalized predicate (PRO): reciprocals require a local c-commanding antecedent (Ershova 2023b) and the experiencer of the matrix

predicate is singular and hence not an eligible antecedent.

(38) [PRO$_{i+j}$ qǝ-**ze$_{i+j}$**-de-ŝ^{w}e-nǝ]   -r   *pro$_i$* sǝ-g^w

   DIR-**REC.IO**-COM-dance-NML -ABS   1SG.PR-heart

Ø-Ø-r-j-e-hǝ

3ABS-3SG.IO-DAT-3SG.ERG-DYN-carry

'I like paired dancing (lit. dancing with each other)' (Ershova 2020:457)

Nominalizations thus include the full verbal argument structure, encompassing at least vP, which in turn may dominate ApplP.[16] Note, however, that despite including heads which usually expone ϕ-agreement with their specifiers—v^0 with the ergative agent and Appl^0 with the applied argument—nominalizations lack verbal ϕ-agreement. Ershova (2023a) argues that this is due to the absence of C^0 in nominalized constructions: C^0 licenses polypersonal ϕ-probes on v^0 and Appl^0 through agreement with the corresponding heads—this same agreement unlocks vP and ApplP for successive-cyclic subextraction (section 3).

Nominalizations demonstrate that vP and ApplP do not constitute separate prosodic domains. Thus, when vP is embedded in a nominalized construction, it is pronounced as part of the prosodic word that the DP phase is mapped to (39).

(39) a. [$_{DP}$ [$_{vP}$ pŝeŝe- leʁe- thač̣'ǝ] -č̣'e   -r]   sǝ-g^w

      girl- dish- wash   -NML -ABS 1SG.PR-heart

Ø-Ø-r-j-e-hǝ

3ABS-3SG.IO-DAT-3SG.ERG-DYN-carry

'I like the girls' manner of dish-washing.'

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[16]Ershova (2023a) argues that West Circassian nominalizations include structure up to TP. Evidence for this comes from anaphor binding patterns and the possibility of reflexive ϕ-agreement surfacing on T^0. For the purposes of the present discussion, it is sufficient that nominalizations include structure up to vP.
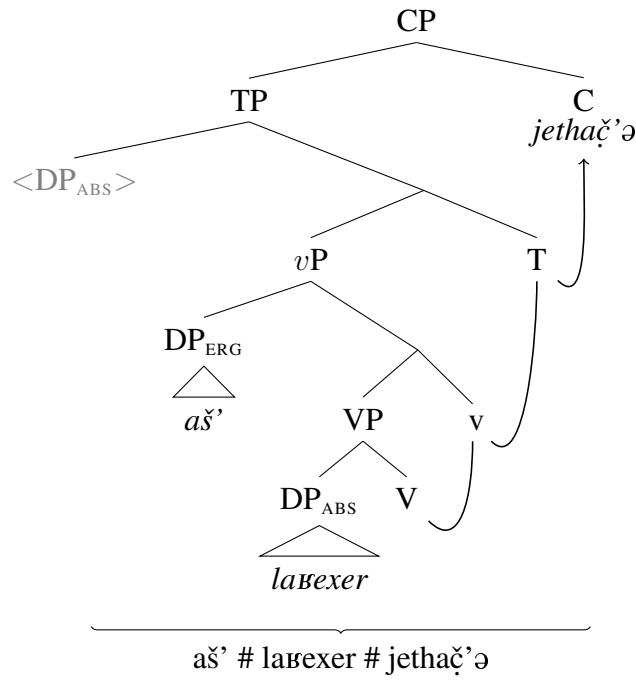
b.
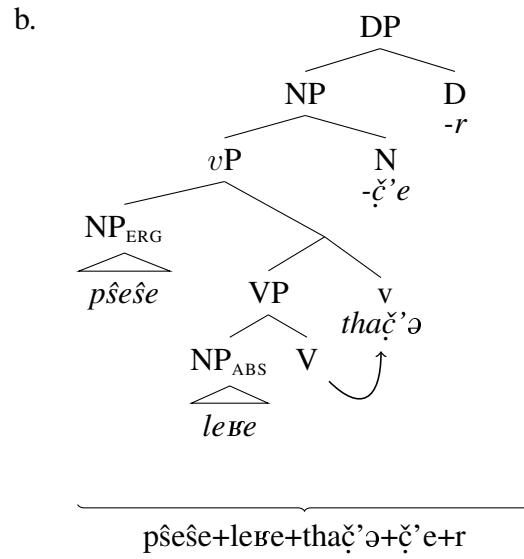
In a finite clause headed by C^0, on the other hand, the vP phase is mapped to multiple prosodic words, in correspondence with CP-level syntax-to-prosody constraint ranking (40).

(40) a. a-š'   laʁe-xe-r   Ø-j-e-thač̣'ə

that-OBL   dish-PL-ABS   3ABS-3SG.ERG-DYN-wash

'She is washing the dishes.'

b.

aš' # laʁexer # jethaċ'ə

Similarly, if ApplP is embedded in a nominalization, it is pronounced as part of the prosodic word corresponding to the full DP (41).[17]

(41) a. [DP [DP [DP mə] sabəj-xe-m]i ja-   [vP ti haẑʷə-
               this child-PL-OBL 3PL.PR+POSS-   puppy-

      de-   ʒegʷə] -ċ'e]   Ø-s-jə-ċ'as
      COM- play   -NML   3ABS-1SG.PR-POSS-favorite

      'I like the way these children play with puppies.'

---

[17]The external argument DP moves to Spec,PossP, where it is assigned case by Poss^0 and triggers possessive ϕ-agreement. The DP-internal demonstrative *mə* is mapped to a separate prosodic word because it heads its own phrasal projection; see Ershova (2020:455) for discussion.

b.

[DP mə#sabəjxem] # ja+haẑʷə+deǯegʷə+č'e
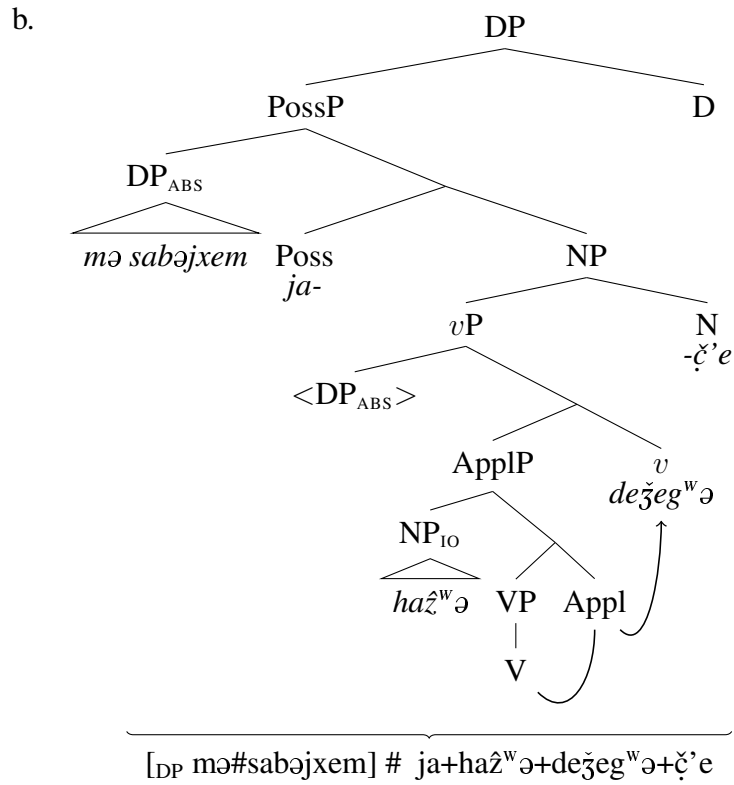
On the other hand, if ApplP is embedded in a finite CP, it is mapped to several prosodic words (42).

(42) a. mə sabəj-xe-m_i [CP *pro*_i haẑʷə-xe-m

this child-PL-OBL   puppy-PL-OBL

Ø-a-de-ǯegʷə-n-ew]

3ABS-3PL.IO-COM-play-MOD-ADV

Ø-ja-č'as

3ABS-3PL.PR+POSS-favorite

'These children like to play with the puppies.'

b.

haẑʷəxem # adeǯegʷənew
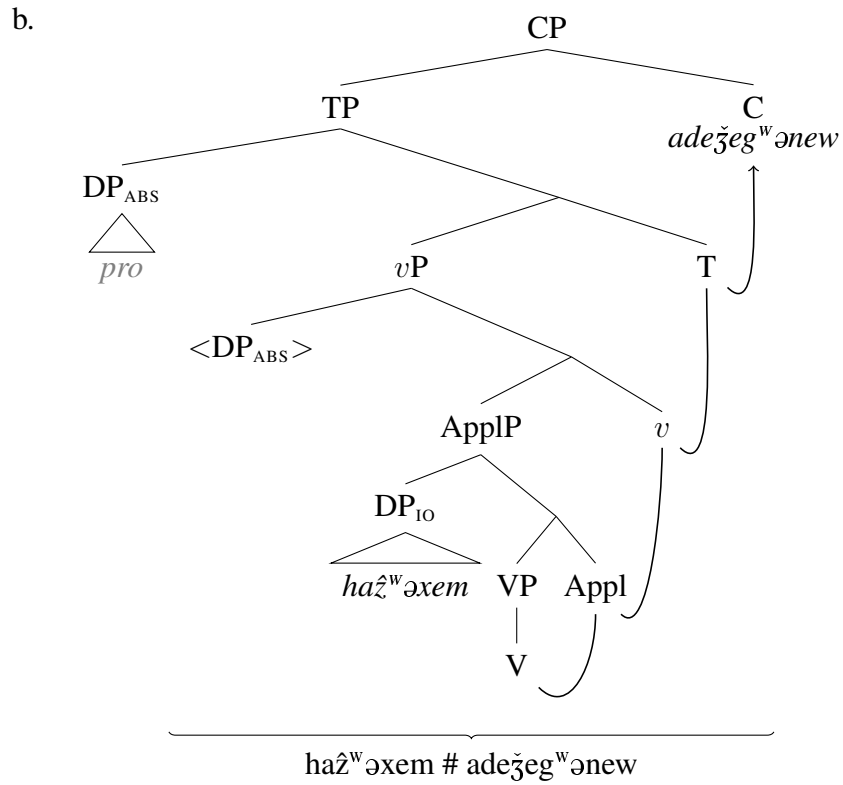
The phases vP and ApplP are thus subject to variable syntax-to-prosody mapping rules depending on the larger syntactic structure they are embedded in: if they are part of a nominalized DP, they are subject to DP-level mapping rules, whereas if they are embedded in a finite CP, they are mapped to prosody in accordance with CP-level mapping constraints. These two syntactic phases are thus not relevant prosodic domains: they are not subject to an intrinsic domain-specific constraint ranking, and, additionally, they do not count as phases for the purposes of MATCH PHASE—otherwise, vP and ApplP would constitute separate prosodic words in nominalized DP, akin to the DP possessor in (41).

In this respect vP and ApplP differ from CP, which is a salient prosodic domain: a CP constituent is always mapped to a complex prosodic constituent, even if it is embedded in a larger nominal structure. This can be

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seen with relative clauses, which may include multiple prosodic words when embedded in a DP (43), nominalized clauses which are full-size CPs that appear with case marking—note the presence of verbal ϕ-agreement and case marking on the arguments (44), and clausal adjuncts of nominalized predicates (45).

(43) [DP [CP Opi __i Ø-jane ə-č̣’əp̣e tʷəčanə-m
        3SG.PR-POSS+mother 3SG.PR-place store-OBL

Ø-ḳʷe-re]   p̂aŝe-r]   Ø-s-e- še
3ABS-go-DYN girl-ABS   3ABS-1SG.ERG-DYN-know
'I know the girl who goes to the store instead of her mother.'

(44) [DP [CP mə sabəj-xe-m   məʔerəse-xe-r
        this child-PL-OBL apple-PL-ABS

Ø-qə-Ø-p-a-č̣’ə-nə]   -r]
3ABS-DIR-3SG.IO-LOC-3PL.ERG-detach-MOD -ABS

Ø-ŝʷə-da-ʁ-ep
3ABS-2PL.ERG-consent-PST-NEG
'We did not consent for the children to pick the apples.'

(45) [DP w-jə-   [vP leʁe- thač̣’ə] -č̣’e   [CP kʷəxnje-m
        2SG.PR-POSS- dish- wash   -NML   kitchen-OBL

qebze-nə-ʁe   Ø-Ø-jə-ƛə-n-ew]]   sə-gʷ
clean-NML-NML 3ABS-3SG.IO-LOC-lie-MOD-ADV 1SG.PR-heart

Ø-Ø-r-j-e-hə
3ABS-3SG.IO-DAT-3SG.ERG-DYN-carry
'I like your manner of dish-washing so that it is clean in the kitchen.'

Based on the differing behavior between vP and ApplP phases on the one hand, and DP and CP phases on the other, we can conclude that the

former constituents are not salient prosodic domains in West Circassian, whereas DP and CP are.

4.3 Phases at the interface: summary

This section presented evidence that while some syntactic phases—CP and DP—do serve as salient prosodic domains in West Circassian, some phases do not. In particular, vP and ApplP, despite displaying phasehood properties in the narrow syntax, are subject to variable syntax-to-prosody mapping rules, depending on the larger phase they are embedded in: if they are part of a finite CP, they are mapped to multiple prosodic words, in accordance with CP-level mapping rules, whereas if they are part of DP, they are pronounced as part of the same prosodic word that DP is mapped to. This emphasizes the mismatch between syntactic phases and spellout domains: a constituent may be a phase and yet not be a salient domain at the interface.

As mentioned in footnote 15, there is a complication to the present account posed by nominal predicates, which involve a nominal phrase smaller than a DP that is in turn embedded in verbal functional structure. The current analysis predicts that a nominal constituent which is smaller than a DP, if embedded inside a CP, should be subject to CP-level prosodic rules and consequently should not display compounding of the type observed in DPs. However, such predicates display productive compounding: for example, the NP in (46) includes two incorporated stems in addition to the nominal head, with verbal morphology appearing on either side of the resulting compound.

(46)   sə-   [č'ele -dexe   -deda] -ʁ -ep
          1SG.ABS- [boy   -beautiful -very] -PST -NEG
          'I wasn't a very pretty boy.'

These compounds involve pseudo-incorporation of the same type as observed in DPs, as evidenced by the possibility of phrasal modifiers (47).

(47) Ø-   were- [dene- əč'jə- cə-   ǯane -x]
     3ABS- OPT- [silk- and- wool- dress -PL]
     'Let them be silk and wool dresses.'

These data suggest that similarly to syntactic phases, prosodic domains may be defined contextually: an NP may count as a separate prosodic domain when it is selected by a verbalizer (but crucially not when it is selected by an argument-introducing verbal head such as V^0, $Appl^0$, or $Voice^0$), triggering phase-to-word mapping of the nominal constituent. Due to the high-ranking constraint CYCLIC, which disallows tampering with spelled out prosodic constituents, the resulting compound may not be broken up by subsequent head movement in the verbal extended domain, and verbal morphology surfaces outside the compound. An additional complication is that this NP-sized compound must be mapped to a prosodic constituent that is *smaller* than a prosodic word, since the constraint NON-RECURSIVE would otherwise force the NP to be pronounced as a separate word from the verbal functional morphology. Many details remain to be worked out in this configuration, which I leave for future research.

5   Conclusion

Based on possessor relativization and the interface properties of nominalizations, this paper has argued that West Circassian provides evidence for a mismatch between syntactic phases and spellout domains.

Section 3 demonstrates that the syntactic locality domains, which include at least CP, DP, vP, and ApplP, display typical phase-like properties:

their edges and complements are opaque for subextraction and their heads may trigger successive-cyclic movement to their edge, which is in turn accessible to higher probes. The variable islandhood of ergative and applied argument DPs discussed in section 3 provides evidence that opacity for subextraction is a property which is determined in the narrow syntax and cannot be a consequence of transfer to the interfaces, counter to Uriagereka (1999); Chomsky (2000, 2001). Instead, the opacity of phases is a consequence of intervention for Agree following Abels (2003); Rackowski and Richards (2005); van Urk and Richards (2015); Halpert (2019); Ershova (2024): phases serve as potential goals for higher probes, meaning that, all things being equal, they trigger defective intervention for agreement between a probe and an element that dominated by the phase (excluding the phase edge, which is equidistant with the phase itself). This view is confirmed by the obviation of the vP and ApplP phases in cases of cross-clausal relativization: successive-cyclic movement is triggered *after* the embedded C^0 agrees with v^0 and $Appl^0$ in a category feature, rendering the corresponding phases transparent for subextraction. The phasehood properties of vP and ApplP are thus conditioned by the larger syntactic context and the Agree dependencies v^0 and $Appl^0$ enter in the course of the derivation—a pattern that is difficult to explain in a theory which attributes phase opacity to PF transfer.

Section 4 presents evidence that in addition to phase opacity being a property of the narrow syntax, not all phases serve as salient prosodic domains, further eroding the connection between syntactic phasehood and spellout domains. Syntax-to-prosody mapping rules are defined over CP and DP, with no reference to vP and ApplP. This can be seen by the variable spellout of vP and ApplP, which is determined by the larger constituent these

phases are embedded in: if vP is dominated by a finite CP, it is mapped to multiple prosodic words, whereas if it is dominated by a DP, it becomes pseudo-incorporated into the nominal wordform due to the high-ranking constraint MATCH PHASE, which maps phases to prosodic words. vP and ApplP thus do not have their own intrinsic interface mapping rules and they are also not treated as phases by the MATCH PHASE constraint.

As a polysynthetic language, West Circassian provides a uniquely illuminating window into the interaction between syntactic phasehood and interface domains. In the area of syntactic locality domains, West Circassian displays patterns of dynamic phasehood due to the requirement for polysynthetic ϕ-probes to be licensed by C^0 (Ershova 2023a): this agreement can render phases transparent for subextraction. This results in a startling empirical pattern: whereas clausebound possessor extraction from ergative and applied argument DPs is ungrammatical, long-distance extraction from the same argument DPs is possible. In the domain of syntax-to-prosody mapping, interface rules map certain phrasal constituents (DPs) to prosodic words, resulting in morphologically complex multi-root compounds (Ershova 2020). This allows us to clearly differentiate between two types of spellout domains: DPs, which are subject to rules that map the full DP to one prosodic word, and CPs, which are mapped to a complex prosodic constituent instead. With this distinction in hand, we can then observe that vP and ApplP display variable properties at the interface, depending on the larger spellout domain they are embedded in. Taken together, the mechanisms underlying the polypersonal ϕ-agreement in the verbal domain and the formation of complex wordforms in the nominal domains allow us to uncover the imperfect mapping between syntactic phases and spellout domains.

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