Multiple feature inheritance makes polysynthesis: Evidence from West Circassian nominalizations

Introduction. This paper argues that the crucial parameter which determines polysynthetic polypersonal verbal indexing concerns the featural content of the highest head of the verbal projection – C^0. Based on nominalizations which lack C^0 in West Circassian (WC; Adyghe), I propose that C^0 may parametrically allow for multiple instances of feature inheritance: in this case, the agreement features of C^0 are inherited not just by T^0 (as has been widely assumed e.g. for English; Chomsky 2008), but by lower EPP-probes as well – in WC these are v^0 and $Appl^0$. This feature inheritance is triggered by agreement between C^0 and the lower functional projections.

Polypersonal agreement and full clause structure. In WC, a finite predicate expones ϕ-agreement with all its core arguments; e.g. the verb in (1) includes prefixes indexing the ergative agent (ERG), absolutive theme (ABS), and benefactive applied argument (IO).

(1)

ABS-	**IO-**	**ERG-**	
wə-	Ø-fe-	s-	thač'ə -ʁ
2SG.ABS-	3SG.IO-BEN-	1SG.ERG-	wash -PST

'I washed you for her.'

WC is a high absolutive language (see e.g. Bittner and Hale 1996; Coon et al. 2014 on Inuit and Mayan); this is evinced by conditions on parasitic gaps (not shown here; Ershova 2019a) and reciprocal binding: the ABS theme of a transitive verb binds the ERG agent and not vice versa (2). The prefix *zere-* is neutralized for ϕ-features and marks agreement with a reciprocal pronoun in the ERG position: this is evident from the variable position of REC for different types of bound arguments, case marking on the antecedent, and the possible use of an overt anaphor alongside this morpheme; see Ershova (2019b) for details.

Following Ershova (2019a,b), ERG and IO are introduced as specifiers by v^0 and $Appl^0$ respectively, and ABS moves to Spec,TP (3). The polypersonal agreement exponed on the verb (1) is the result of Agree between T^0, v^0, and $Appl^0$ and their corresponding specifiers (ABS, ERG, and IO respectively).

(2) mə çəf-xe-r **Ø-** qe- **zere-** ʁe- ŝʷež'əx
this person-PL-ABS **ABS-** DIR- **REC.ERG-** CAUS- dance.PL

'These people are making each other dance.'

(3) $[_{TP}$ DP$_{abs}$ T$_{[\phi]}$ $[_{vP}$ DP$_{erg}$ $v_{[\phi]}$ $[_{ApplP}$ DP$_{io}$ Appl$_{[\phi]}$ $[_{VP}$ t_{abs}

Defective agreement in nominalizations. Predicates may be nominalized with a specialized suffix: in this case, regular ϕ-agreement is disallowed, and argument DPs cannot appear freely as in a finite clause – they are incorporated as an NP or expressed as a possessor, triggering possessive agreement (Ershova 2020) (4); cf. (1).

Despite the lack of ϕ-agreement, T^0, v^0, and $Appl^0$ are present in nominalizations. This is evinced by v-type morphology such as causative *ʁe-* (5) and $Appl^0$ as e.g. comitative *de-* (6). Reciprocal binding indicates that T^0 is also structurally present and ABS moves to Spec,TP, just as in finite clauses: a reciprocal pronoun may appear in the ERG position and trigger corresponding agreement, as in a finite clause (5), cf. (2). REC agreement in (5) provides evidence for the high position of ABS in nominalizations, and that v^0 is active as a probe. The talk will demonstrate that anaphor agreement may likewise appear for ABS and IO, further suggesting that both T^0 and $Appl^0$ are present in the structure. If T^0, v^0 and $Appl^0$ are present in nominalizations, why is only ϕ-invariant anaphor agreement allowed?

(4) wjə- leʁe- thač'ə -**č'e**
2SG.POSS- dish- wash -**NML**

'your manner of washing dishes'

(5) ja- qe- **zere-** ʁe- ŝʷa -č'e
3PL.POSS- DIR- **REC.ERG-** CAUS- dance -NML

'their manner of making each other dance'

(6) ja- haẑʷə- **de-** ǯegʷə -č'e
3PL.POSS- puppy- **COM-** play -NML

'their manner of playing with puppies'

Multiple feature inheritance derives polysynthesis. I propose that the featural content of the agreeing functional heads is determined by the highest head in the verbal extended projection – C^0. This means that WC verbal ϕ-agreement probes – T^0, v^0, and $Appl^0$ – may successfully agree with their specifiers as in (3) only if they are c-commanded by C^0. This is implemented by positing that v^0, $Appl^0$, and T^0 are defective EPP-probes per Chomsky (2001): they bear a number(#) probe which triggers Merge (in the case of v^0 and $Appl^0$) or Move (for T^0) of a nominal to its specifier, but do not bear a person(π) probe; see e.g. Béjar (2008) on separate #/π-probing. In a finite clause (1), these heads acquire their corresponding π-probes from C^0 via feature inheritance (FI, Chomsky 2008; see Branigan to appear on multiple FI). Since v^0 and $Appl^0$ are not immediate complements of C^0, FI is established via Agree. I propose that this agreement relation is driven by a [V] probe on C^0, which may agree with multiple goals in its c-command domain per e.g. Hiraiwa (2005). Thus, T^0, v^0, and $Appl^0$ in (3) may ϕ-agree with their specifiers because they have inherited their ϕ-probes from C^0.

A nominalization like (5) involves a nominalizer selecting for TP (7). As EPP-probes, v^0 and T^0 select for arguments in their specifiers. However, in the absence of C^0, these two probes only host a #-probe. For the referential

(7) $[_{NP}$ NML $[_{TP}$ DP$_{[\checkmark\#, \boxed{\pi}]}$ T$_{[\#]}$ $[_{vP}$ $rec_{[\checkmark\#]}$ $v_{[\#]}$ $[$ t_{abs}

DP in Spec,TP this results in the absence of ABS agreement morphology (and consequently, of nominal licensing; see e.g. Kalin 2018 on licensing via ϕ-agreement). The reciprocal pronoun in Spec,vP, on the other hand, is ϕ-deficient (see e.g. Kratzer 2009) with only a number feature that is visible and requires checking by the ϕ-agreement probe. Deficient ϕ-probing thus allows for exceptional ϕ-agreement between v^0 and the anaphor, but correctly disallows ϕ-agreement with a regular nominal.

Implications. In English, FI proceeds locally from C^0 to T^0, resulting in T^0 serving as the only (overt) ϕ-agreement probe in the clause. In WC, however, the π-probe from C^0 is inherited by three functional projections: T^0, v^0, and $Appl^0$, resulting in polypersonal agreement. Polypersonal agreement tends to cooccur with polysynthesis, where predicates form complex morphological units – this suggests a connection between Agree in [V], which is responsible for FI, and head movement which results in polysynthetic verbal forms; see e.g. Roberts (2010) on Agree-driven head movement. This FI-based account may be extended to other instances of case assigners or agreement heads being non-locally licensed by a higher projection, e.g. ERG-assigning v^0 in Hindi (Legate 2008) or genitive of negation in Russian (Bailyn 2004), and has implications for the connection between FI and phasehood.

Select references. ●Béjar 2008. In *Phi Theory*. ●Bittner & Hale 1996. *LI*. ●Branigan to appear. In *Rethinking V2*. ●Coon et al. 2014. *LingVar*. ●Ershova 2019a. *LI*. ●Ershova 2019b. UChicago diss. ●Ershova 2020. *NLLT*. ●Hiraiwa 2005. MIT diss. ●Kalin 2018. *Syntax*.