Configurationality in Polysynthesis: Weak Crossover in West Circassian

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Introduction. West Circassian (or Adyghe; Northwest Caucasian) is a polysynthetic language, with head marking, pro-drop, and free word order (Arkadiev et al. 2009; Lander and Testelets 2017, a.o.). The freedom of word order, coupled with the lack of productive free-standing anaphors and cross-clausal condition C effects (Testelets 2009), suggests that lexical noun phrases may be adjoined to the clause, as proposed e.g. by Jelinek (1984); Baker (1996) for polysynthetic languages. This paper argues against a non-configurational analysis of West Circassian based on Weak Crossover (WCO) effects: the language is configurational, with lexical noun phrases asymmetrically c-commanding each other. Furthermore, syntactic structure can be diagnosed via word order: in most cases, linear precedence can be equated with c-command, as suggested by Kayne (1994) *et seq*. However, WCO cannot serve as a subjecthood diagnostic, contra e.g. Caponigro and Polinsky (2011); Lander and Testelets (2017).

Weak Crossover effects. Wh-operators and quantifiers are subject to the Weak Crossover constraint: a moved operator cannot bind an A′-trace and a pronoun at the same time (see e.g. Safir 2017). West Circassian displays WCO effects in relative clauses (Caponigro and Polinsky 2011; Lander and Testelets 2017, but see Lander 2012; Ershova 2021 for an alternative account) and with quantifiers, which are standardly assumed to covertly raise to the CP periphery (Lander and Testelets 2017). For example, a quantifier in the indirect object position cannot bind a possessor pronoun within the absolutive external argument (1a), but the inverse configuration – with the quantifier in the absolutive position, and the possessor pronoun within the indirect object – is grammatical with the bound interpretation (1b).

(1) a. ə-šəpχ^{w}ə-xe-r**(ABS)** pŝaŝe-pepč**(IO)** qjebewənew səfaj
3SG.POSS-sister-PL-ABS girl-every for them to kiss her I want
'I want her$_{i/*j}$ sisters to kiss every girl$_j$.'

b. pŝaŝe-pepč**(ABS)** ə-šəpχ^{w}ə-xe-m**(IO)** jabewənew səfaj
girl-every **3SG.POSS**-sister-PL-OBL for her to kiss them I want
'I want every girl$_j$ to kiss her$_{i/j}$ sisters.'

At face value, the data in (1) suggest that WCO effects can be used to diagnose structural prominence between arguments (see e.g. Lander and Testelets 2017 for such discussion). For (1), this would mean that the absolutive argument c-commands the indirect object: a quantifier in the higher position does not trigger WCO (2), but a quantifier in the lower position does (3).

(2) [$_{CP}$ <QP$_i$> [QP$_i$(ABS) [*pro*$_i$ ...](IO)

(3) [$_{CP}$ <QP$_i$> [[*pro*$_i$ ...](ABS) QP$_i$(IO)

Upon closer inspection, the unavailability of the bound reading in (1a) falls into a broader generalization that cannot be characterized in terms of argument asymmetries: a quantifier can bind a pronoun within a clausemate DP *as long as it linearly precedes it*, and cannot otherwise. This is true regardless of the theta-roles of the arguments involved. Thus, (4a) is a version of (1a) with the word order reversed: in this case, the quantifier in the indirect object position may bind the possessor within the absolutive DP, in contrast with (1a). In (4b), on the other hand, the possessor of the indirect object appears to the left of the quantifier in the absolutive position and the bound interpretation is unavailable, despite its availability in (1b).

(4) a. pŝaŝe-pepč**(IO)** ə-šəpχ^{w}ə-xe-r**(ABS)** qjebewənew səfaj
girl-every **3SG.POSS**-sister-PL-ABS for them to kiss her I want
'I want for her$_{i/j}$ sisters to kiss every girl$_j$.'

b. ə-šəpχ^{w}ə-xe-m**(IO)** pŝaŝe-pepč**(ABS)** jabewənew səfaj
3SG.POSS-sister-PL-OBL girl-every for her to kiss them I want
'I want every girl$_j$ to kiss her$_{i/??j}$ sisters.'

WCO is sensitive to word order rather than thematic prominence for all combinations of co-arguments: ergative agents, absolutive themes or agents, and indirect objects. However, it would be incorrect to conclude that the only relevant parameter for this constraint is linear precedence: in cross-clausal contexts, a bound pronoun within an embedded clause may linearly precede the co-indexed quantifier in the matrix clause (5), in contrast with (1a,4b). The contrast between the cross-clausal configuration in (5) and simple clauses in (1a) and (4b) suggests that linear precedence of the pronoun is achieved in structurally distinct ways in the two configurations.

(5) [deʁ^{w}ew ə-š-xe-r(ABS) qaš^{w}exew] sabəj-pepč(ERG) jeʔ^{w}e
well **3SG.POSS**-brother-PL-ABS that they dance child-every s/he says it
'Every child$_i$ says that their$_i$ brothers dance well.'

Word order and structural prominence. Most argument asymmetries in West Circassian, including anaphor binding (Letuchiy 2010; Ershova 2019), control and raising (Testelets 2009; Potsdam and Polinsky 2012), wh-agreement, and parasitic gaps (Lander 2012; Ershova 2021), manifest themselves in the head-marking morphology and/or involve a covert element in place of one of the arguments; their connection with surface word order is thus unclear.

Following Ershova (2019, 2021) and similar proposals for other languages (Aldridge 2008; Coon et al. 2014, a.o.), arguments are initially merged based on thematic prominence, but the absolutive DP moves to a position c-commanding other arguments at the clause level – the high position of the absolutive argument is evinced by reciprocal binding and parasitic gaps. Additionally, parasitic gaps and WCO configurations in relative clauses provide evidence for A-scrambling of the indirect object to a position c-commanding the external argument (Ershova 2021). The clause structure for a ditransitive verb is shown in (6): the initial merge positions of the arguments are **boldface**, and the possible derived positions are in *italics*. The range of possible derived and base-generated positions in (6) accounts for the mixed results of diagnostics for structural prominence: different diagnostics apply at different levels of the structure and, correspondingly, different c-command relations depending on the domain in which a particular diagnostic is active (e.g. VoiceP for reflexives, CP for parasitic gaps).

(6) $[_{\text{TP}}\ \overset{\curvearrowright}{DP}_{\text{ABS}}\ [_{\text{VoiceP}}\ \overset{\curvearrowright}{DP}_{\text{IO}}\ \mathbf{DP_{ERG}}\ [_{\text{ApplP}}\ \mathbf{DP_{IO}}\ \mathbf{DP_{ABS}}$

The availability of the derived positions in (6) explains why a quantifier in any argument position may bind a pronoun in a clausemate argument, even a thematically more prominent one, as in (4a): in this case the thematically lower argument has undergone movement to a position c-commanding the other argument (7). More interestingly, the correlation between WCO effects and word order provides evidence (i) for structural asymmetries between two overt lexical DPs (contra e.g. Baker 1996), and (ii) for a direct mapping of syntactic c-command to linear precedence: a pronoun that appears to the left of a quantifier triggers a WCO effect because the constituent containing it asymmetrically c-commands the QP (8).

(7) ✓ $[_{\text{VoiceP}}\ \mathbf{QP_i}(\text{IO})\ [\ \textbf{\textit{pro}}_{\mathbf{i}}\ \ldots\ ](\text{ABS})\ [_{\text{ApplP}}\ <\text{QP}_i(\text{IO})>$

(8) * $[_{\text{VoiceP}}\ [\ \textbf{\textit{pro}}_{\mathbf{i}}\ \ldots\ ](\text{IO})\ \mathbf{QP_i}(\text{ABS})\ [_{\text{ApplP}}\ <\text{DP}(\text{IO})>$

A similar effect is not observed in cross-clausal contexts (5), because the movement permutations displayed in (6) are not possible across clausal boundaries, and the QP in the matrix clause c-commands the bound pronoun regardless of word order.

Implications. This talk argues that word order in West Circassian, despite its apparent freedom, is structurally constrained in familiar ways, with linear precedence corresponding to structural prominence. The influence of word order, and not thematic prominence, on WCO effects provides support for thematic arguments occupying a number of derived positions in the clause.

Select references. • Aldridge 2008. *Lang. and Ling. Compass.* • Arkadiev et al. 2009. In *Aspekty polisintetizma*. • Caponigro & Polinsky 2011. *NLLT*. • Ershova 2019. UChicago diss. • Ershova 2021. *LI*. • Lander 2012. RSUH diss. • Lander & Testelets 2017. In *Oxford handbook of polysynthesis*. • Letuchiy 2010. In *Ergativity, valency, and voice*. • Testelets 2009. In *Aspekty polisintetizma*.