Exploring the Ordering of Czech Clitics with a New Perspective on Feature-Driven Movement

This study investigates the syntactic positioning of Czech clitics (CL) in declarative sentences, where they consistently appear on the second position (thus 2P-CLs, and in literature often *Wackernagel's position*). Since the derivation mechanism of 2P-CLs remains underexplained, we aim to offer a new perspective on this problem using the *nanosyntactic* approach (Starke 2009; Baunaz et al. 2018; Caha 2021; Caha et al. 2024) at the clause-level syntax. We focus on Czech past tense constructions in neutrally focused contexts: i) its full forms including *l*-participle of the verb, auxiliary of the verb "to be" and the pronominal subject (1a); and ii) its reduced forms (1b-c). Except the verbal part and the pronominal subject (*agent*), the constructions include two objects, one in dative (*benefactor*) and one in accusative (*theme*). In example (1b), it is possible to omit the pronominal subject if the auxiliary is present (Czech is a pro-drop language allowing a silent subject). Since there is no overt subject to be moved to the first position, the main verb of the clause moves there. Example (1c) shows a non-standard, but very frequent omission of the auxiliary which is conditioned by the presence of the pronominal subject. Example (1d) illustrates the fact, that omission of both – auxiliary and the pronominal subject – is impossible (doing so we do get grammatical construction, but with a different meaning).

(1)		1 st position	2 nd position (CL cluster)		other position		
a	\checkmark	Já	js-em	ti	ho	suš-i-l-a.	
		Speaker.Nom	be.Aux.Present_Speaker	you.Dat.Sg	he.Acc.Sg	dry_Proc.Init_1-part_Fem	
b	\checkmark	Suš-i-l-a	js-em	ti	ho	(včera).	
		dry_Proc.Init_ <i>l</i> -part_Fem	be.Aux.Present_Speaker	you.Dat.Sg	he.Acc.Sg	(yesterday)	
c	\checkmark	Já		ti	ho	suš-i-l-a.	
		Speaker.Nom		you.Dat.Sg	he.Acc.Sg	dry_Proc.Init_ <i>l</i> -part_Fem	
d	#	Suš-i-l-a		ti	ho	(včera).	
		dry_Proc.Init_ <i>l</i> -part_Fem		you.Dat.Sg	he.Acc.Sg	(yesterday)	
e	\checkmark	Suš-i-l-a		ti	ho	(včera).	
		dry_Proc.Init_l-part_Fem		you.Dat.Sg	he.Acc.Sg	(yesterday)	
(1a-d) "I dried it for you (yesterday)." (1e					(1e) "She dried it for you (vesterday)."		

More importantly, (1) includes CL-clusters (**bold**) placed on the 2P. The standard assumption about Slavic CLs is that the fixed ordering of the 2P-CLs is the result of movement (Toman 1996; Franks 2004; Anderson 2005; Bošković 2020; i.a.). There are two reasons why constituents move in nanosyntax. The first type of movement is driven purely by the requirements for the arrangement of the constituents. Whenever a new feature is merged, the lexicon is checked whether the newly born structure is arranged properly given the stored material in the lexicon (~lexicalizability). If not, it needs to be adjusted according to the Lexicalization algorithm (Caha et al. 2024) involving detailed mechanism of proper movements. The algorithm derives the structures of phrases properly with respect to the universal cartographic observations (Cinque 2000; Baunaz et al. 2018). The second type of movement (traditionally called *feature-driven movement*) follows the first one and is driven by the inability of a merged feature f to be lexicalized using the lexicalization algorithm. Applying this mechanism nanosyntactically (Starke 2024) involves 5 steps: i) merging f; ii) searching for the right candidate; iii) getting to know that lexicalization algorithm is not able to create a proper structure including f; iv) applying feature-driven movement: the movement of the candidate from the bottom of the syntactic tree to f_{i} iv) concatenation of f and the candidate; and v) finally, checking the lexicon whether the newly born structure is *lexicalizable*. Applying these two types of movements, we aim to show how to move CLs into their higher (2P) position. Investigating the features required for the derivation of the clauses mentioned in (1), we suggest using the sequence of features (fseq) in (2) which starts at the bottom with base (~root) and ends with Focuszero (Foc₀) features indicating neutral focus marking (Rizzi 1997). We investigate constructions whose arguments are assigned just dative (Dat), accusative (Acc) and nominative (Nom) in singular (Sg). The three dots between DatP and PastP indicate that we omit part of the fseq which is not realized (i.e. *gapped*) in the discussed constructions (implying that only Dat, Acc and Nom are projected there). The same applies to the three dots placed to the left of Past-AgreeP and Foc₀P.

(2) ... > Foc₀P ... > Past-AgreeP > PastP > ... > DatP > GenP > AccP > NomP > Present-AgreeP > PresentP > Ind-AgreeP > IndP > Imp-AgreeP > ImpP > *l*-part-AgreeP > *l*-partP > *n/t*-part-AgreeP > *n/t*-partP > secPerfP > secImperfP > Perf-AgreeP > PerfP > BenefArgP > Init-AgreeP > Init-ArgP > InitP > Proc-AgreeP > Proc-ArgP > ProcP > State-AgreeP > State-ArgP > StateP > base

Following nanosyntactic tradition, we adopt the universal hierarchy of cases by Caha (2009), Caha (2023) and the verbal fseq by Cortiula (2023). The verbal fseq is adapted to Czech verbal conjugation and thus includes *l*-partP (for *l*-participle phrases), n/t-partP (for n/t-participle phrases; at this point we do not predict what feature is behind the participles, we just reflect their placement in the fseq). Czech also possesses rich aspect morphology represented with imperfectives (unmarked), perfectives (PerfP) and secondary perfectives and imperfectives (secPerfP, secImperfP). Finally, following Ramchand (2008) we adopt the bottom of the verbal fseq, which serves for the specification of the verbal action (state, process and initiation) and for adding arguments to the structure (argument of state State-ArgP, of process Proc-ArgP and of initiation Init-ArgP). Those verbal forms that possess agreement are also equipped with subsequent agreement-heads (State-AgreeP, Proc-AgreeP, etc.). All features needed to create agreement are included in the structure of the arguments merged into the structure under State-ArgP, Proc-ArgP, Init-ArgP and Benef-ArgP. Following Cortiula's verbal fseq, the arguments include these features: SpeakerP > ParticipantP > 3rdP > PlP > SgP > FemP > MascP > NeutP. The case hierarchy is placed into the tense domain (between PresentP and PastP), following the idea that an argument becoming a subject is attributed to nominative once the verb reaches the TP layer (Migdalski 2010). As soon as the first argument gets nominative, another argument gets accusative, etc. The case hierarchy is part of the verbal projection which reflects the ability of verbs to assign the concrete set of cases. Based on the observation of Czech CL-clusters, we deduce that pronominal part of the CL-cluster mirrors Caha's (2009) case hierarchy and that using this hierarchy (and placing it into the T-domain) solves the issue concerning the ordering of the CL-cluster: fseq predestines the shape of the CL-cluster: jsem. PAST > ti.DAT > ho.ACC. This paper enhances our understanding of Czech CL placement by showing how nanosyntactic mechanisms explain their syntactic behavior, providing new insights into clause structure and argument distribution in Czech. However, the proposed approach is not limited just to Czech and can be applied to other languages potentially as a new theory for analyzing CL placement or related syntactic phenomena.

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