

## Starokostantyniv Ukrainian verb classes: a Nanosyntactic account

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**Introduction.** We analyze the verbal system of the South-Western Ukrainian dialect spoken in Starokostantyniv (SkUkr), the native dialect of one author. Our aim is to combine a detailed empirical description with a deductive theoretical account, in terms of Nanosyntax. To allow for both, we zoom in on one particular subdomain: the morphosyntax of present tense forms.

**Two verbal classes.** SkUkr has two classes of verbs, illustrated by the following contrast: *nese/nesuti* ‘to carry’ (3sg/3pl) vs *veseti/vesjati* ‘to hang’ (all data is given in IPA). Verbs typically described as class I take an -ε thematic vowel, no -tʲ suffix in 3sg (except with reflexives, e.g. *nesetʲsja*) and -utʲ in 3pl, while verbs typically described as class II take an -e thematic vowel (ThV), a -tʲ suffix in 3sg and -jatʲ in 3pl (the ThV /e/ surfaces as /i/ in phonologically conditioned contexts).

**Palatalization.** SkUkr roots palatalise in 1sg in class II but not in class I. The similar looking 1pl forms *nes-ε-mo/ves-e-mo* yield a minimal pair in the 1sg: *nes-u/veš-u*. Class I roots never show this contrast between a palatalised 1sg and non-palatalised other (present) tensed forms, while all palatalisable roots of class II do. This strongly suggests that class II has a palataliser between the root and the 1sg suffix -u, while class I doesn’t. This means that the 1sg form is bi-morphemic in class I (√-ϕ), but tri-morphemic in class II (√-palataliser-ϕ). The first question is thus: why? Can we go beyond simply stating those facts?

**Analysis I.** We adopt a simplified universal functional sequence for present tense forms (Starke 2021):

(1)  $[\pi [PI [\# [T [Ind [Mood [Asp [Cause Proc]]]]]]]]]$

Plural forms only will have a plurality feature (PI) building on #, whereas singular forms will lack the plurality feature (this is indicated by a black cell in (2)). Person features are merged on top of number features. For present purposes, we don’t need to go into the distinction between persons, so we will keep them collapsed into a single π. The second ingredient of our analysis is that verbal roots are internally complex, lexicalizing structures of different sizes. For instance, a verbal root can lexicalise only the lower thematic layers (Proc and Cause), or grow up to some aspectual (Asp) and mood features. The palatalisation asymmetry between class I and II indicates that roots of class II are "smaller", i.e. lexicalise fewer features, than the roots of class I. Class I roots lexicalise all the way up to the starting point of -u on their own, whereas class II roots don’t and need the help of a morpheme spelled out as a palataliser (*palat*) in order to reach -u, as shown in (2). The asymmetry between the two classes thus follows from a difference in size.

(2)	Proc	Cause	Asp	Mood	Ind	T	#	PI	π
	ves		palat		u				
	nes				u				

That asymmetry in turn allows us to encode the different thematic vowels taken by the two classes without directly stipulating them. The choice of the ThV is determined by how big the root is, as illustrated in (3). Class II roots need the help of a ThV that lexicalises from Asp to T features in order to reach up to the 1pl suffix -mo. In contrast, class I roots combine with a smaller ThV (-ε), which realises Ind and T features only.

(3)	Proc	Cause	Asp	Mood	Ind	T	#	Pl	$\pi$
	ves		e				mo		
	nɛs				ɛ		mo		

**Stress placement.** In SkUkr, stress is sensitive to verb class. Verbs can be stressed either on the root, or on suffixes. When stressed on the suffixes, class I triggers stress on the first syllable of the suffix(es), class II triggers stress on the last syllable of the suffix(es): *nɛs-'e-mo* vs *ves-e-m'o* (the stress is marked as ' at the stressed vowel). Again, why? We will offer an analysis in which we show why class II is special wrt palatalization, while class I – wrt stress placement.

**Analysis II.** Our proposal is that the stress is on the last syllable of the suffix(es) by default, as in class II, while there is a stress-inducing morpheme between class I roots and the suffix(es) that triggers such stress placement, i.e.  $\sqrt{1}$ -stress-(ThV)- $\phi$ . This would force us to revise our assumptions about the size of class I roots. In order to be part of the lexicalisation, the stress-inducing morpheme must lexicalise some features of the functional sequence. As a result, class I roots must be smaller, reaching up to Asp, and this leaves Mood to be lexicalised by *stress*, as shown in (4).

(4)	Proc	Cause	Asp	Mood	Ind	T	#	Pl	$\pi$
	nɛs			stress	u				
	nɛs			stress	ɛ		mo		

Given this update, neither class II nor class I can reach up to *-u* on their own (5). They, however, would need two different helpers: *palat* and *stress* respectively, and the choice of the helper is again determined by the root size. The bigger class I roots need a smaller helper than class II roots.

(5)	Proc	Cause	Asp	Mood	Ind	T	#	Pl	$\pi$
	ves		palat		u				
	nɛs			stress	u				

The complementary distribution of *palat* and *stress* between class I and II derives the correct empirical facts: SkUkr present tense paradigms show either palatalization in 1psg only, or unexpected suffix stress placement, but not both.

(6)	Proc	Cause	Asp	Mood	Ind	T	#	Pl	$\pi$
	ves		palat		u				
	ves		e				mo		
	nɛs			stress	u				
	nɛs			stress	ɛ		mo		

**Conclusion.** We show that a detailed description of data reveals phonological facts which suggest a richer morphological situation. An explanation for SkUkr asymmetries becomes possible under the Nanosyntactic assumptions. In the talk, we further show in detail how SkUkr verb classes can be derived from the universal syntactic operations of Nanosyntax.

**References:** Caha, Pavel, “The marking of mass, count and plural denotations in multi-dimensional paradigms”, *Studia Linguistica* (2021). Press, Ian, and Stefan Pugh, *Ukrainian: A comprehensive grammar*, Routledge (2015). Starke, Michal, “Reply to comments on Universal Morphology”, *Isogloss. Open Journal of Romance Linguistics* 7, pp. 1–10 (2021).