

Deriving the Nominal Stress in Ukrainian

The stress system of Ukrainian is characterized by lexical stress, meaning that Ukrainian morphemes are inherently (lexically) accented. The distinctive features of Ukrainian stress have been noted in the literature (Stankiewicz 1993). While there are plenty of descriptive studies (e.g. Vynnyts'kyj 2002), the generative analyses of Ukrainian stress are few (Butska 2002, Yanovich and Steriade 2010, 2011). They do not account for all the major nominal patterns in terms of metrical representations.

Here I propose a comprehensive analysis of Ukrainian nominal stress which, unlike mentioned accounts, includes bracketed grid representations as proposed by Idsardi (1992), Halle and Idsardi (1995). Idsardi (1992) argues that in Russian metrical parentheses are introduced lexically and are accomplished with the following Edge marking Parameters:

- (1) a. Line 0: Edge: RRR (Mark the edge placing a parenthesis on a Right boundary to the Right of the Right-most element), Head: L (Project the leftmost element in a constituent to Line 1)
- b. Line 1: Edge: LLL (Mark the edge placing a parenthesis on a Left boundary to the Left of the Left-most element), Head: L (Project the leftmost element in a constituent to Line 2)
- c. Conflation (Eliminate all but the main stress) (Idsardi 1992: 110)

These general edge parameters interact with the lexical Edge markings, which are inherent to both stems and suffixes:

- (2) a. unstressed stem (no Edge), e.g. /*golov-*/ in *golová* ‘head’
- b. post-stressing (Edge: LRR), e.g. /*gospož-*/ *gospožá* ‘lady’
- c. stressed (Edge: LLL, LRL, or LLR), e.g. Edge: LLR /*koróv-*/ in *koróva* ‘cow’

The difference between these types is visible in the inflectional paradigms where stems combine with suffixes that are also lexically marked for stress. Unstressed suffixes have no Edge, stressed suffixes have Edge LLR: e.g. Nom. sg. *-á* is supplied with a left parenthesis. Here is the derivation of Nom. sg.:

- (3) Nom. sg. *-á*, Edge LLR:

	a. Unstressed <i>golov-</i> ‘head’, No Edge: x x	b. Post-Stressing <i>gospož-</i> ‘lady’, Edge: LRR: x x(c. Stressed <i>koróv-</i> ‘cow’, Edge: LLR: x (x
Line 2	x	x	x
Line 1	(x	(x	(x x
Line 0	x x (x) golov+a	x x(x) gospož+a	x (x (x) korov +a

Unaccented stems pattern variably depending on the accent of the suffix: in (3a), only the last element is marked (suffix Edge LLR), it is then projected to Line 1 (Head L) and gets a parenthesis to the left (Edge: LLL). The result is the desired stress on the suffix: *golov-á*. In (3b), the post-stressing stem marking (Edge LRR) and suffix marking (LLR) result in the desired stress on the suffix: *gospož-á*. The stressed stem in (3c) retains its stress on the same syllable of the stem due to its Edge marking (LLR); when two elements are projected to Line 1 in (3c), the leftmost wins (Conflation and Head L): *koróv-a*.

I propose that Ukrainian features the same Edge marking parameters and Lexical Edge Markings as Idsardi proposes for Russian in (1) and (2). There are also unaccented, accented and post-accenting stems that are derived in the same way as in (3). However, there are stress patterns in Ukrainian that act differently in the singular and plural. One type acts like accented in the singular, but post-accenting in the plural; another acts like post-accenting in the singular, but accented in the plural; then there is a type where stress falls on different syllables of the stem in singular and plural. These types are very common in Ukrainian, and cannot be derived using the regular parameters. I call the stems belonging to these three types *shifting stems*.

To account for these types, I propose an original shifting rule that comes with several constraints: a) a parenthesis must be already present on the stem (no unaccented stems); b) a parenthesis must be at

the edge of the stem (no accented stems of type $x(x)$); c) a shifting parenthesis cannot lose contact with the stem (no shifting to the suffix).

(4) Shifting rule (restricted to shifting stems when a plural ending is present):

(a) Move a left parenthesis to the right edge of the stem: $(x\ x > x\ x($

(b) Move a left parenthesis one constituent to the right: $(x\ x > x\ (x$. If movement to the right is not available, move the left parenthesis one constituent to the left: $x\ x(> x\ (x$.

Shifting is also triggered by Vocative singular and for certain nouns by Locative singular $-u$.

Applying the Shifting rule will result in the following derivations (the suffixes are unaccented):

(5) *hólub* ‘pigeon’, Gen. sg. $-a$, Nom. pl. $-y$

	a. Gen. sg. <i>hóluba</i>	b. Nom.pl. <i>holubý</i>
Line 2	x	x
Line 1	(x	(x
Shifting (a)	--	x x(x)
Line 0	(x x x)	(x x x)
	holub+a	holub+y

In (5b) the Shifting rule, as defined in (4a), applies in Plural at Line 0: it moves the left parenthesis to the right and the result is the desired Nom.pl. form *holubý*.

(6) *kóles-o* ‘wheel’, Gen. sg. $-a$, Nom. pl. $-a$

	a. Gen. sg. <i>kólesa</i>	b. Nom.pl. <i>kolésa</i>
Line 2	x	x
Line 1	(x	(x
Shifting (b)	--	x (x x)
Line 0	(x x x)	(x x x)
	koles+a	koles+a

In (6b) the Shifting rule, as in (4b), applies in Plural and moves the left parenthesis one constituent to the right at Line 0, which results in the desired Nom.pl. form *kolésa*.

(7) *pomel-ó* ‘broom’, Gen. sg. $-a$, Nom. pl. $-a$

	a. Gen. sg. <i>pomelá</i>	b. Nom.pl. <i>poméla</i>
Line 2	x	x
Line 1	(x	(x
Shifting (b)	--	x (x x)
Line 0	x x(x)	x x(x)
	pomel+a	pomel+a

In (7b) the left parenthesis is already at the right edge of the stem and no movement to the left is available. The Shifting rule, as in (4b), applies in Plural at Line 0 and moves a parenthesis one constituent to the left, which results in the desired form *poméla*.

Combining the Idsardian analysis of Russian with the newly introduced Shifting rule accounts for all possible stress patterns of Ukrainian underived nouns. This shows us the advantage of using the single-bracket metrical theory for analyzing lexical stress. It also allows us to shed light on the historical development of Ukrainian and generally East Slavic stress systems.

Selected references: Butska 2002 *Faithful Stress in Paradigms: Nominal Inflection in Ukrainian and Russian*, Rutgers. Idsardi 1992 *The Computation of Prosody*, Ph.D. thesis, MIT. Halle & Idsardi 1995 “General Properties of Stress and Metrical Structure”. In J. Goldsmith (ed.), *A Handbook of Phonological Theory*. 403 – 443. Vynnyts’kyj 2002 *Ukrains’ka aktsentna systema: Stanovlennia, rozvytok*. L’viv. Yanovich & Steriade 2011 *Inflection dependence in the nominal accentuation of East Slavic: evidence from Ukrainian and Russian*. Handout. FASL 2011.