# **Phonological Movement in Ukrainian** Victoria Teliga<sup>a</sup>, Brian Agbayani<sup>b</sup>, Chris Golston<sup>b</sup> London<sup>*a*</sup>; California State University, Fresno<sup>*b*</sup>

### Introduction

Ukrainian scrambles only prosodic objects, it ignores syntactic principles, and it respects phonological ones.

Prosodic constituents scramble in a prosodic tree after syntactic structure is converted to prosodic structure. (*Phonological Movement*)

### **Data I: Scrambling Insensitive to Syntax**

Scrambling is category-blind and blind to the head/phrase distinction. It moves strings that do not form syntactic constituents.

vonazavdannjajavpevnena, ščo $[t_a$ [vykonaje $t_b$ ]]she-NOM task-ACCIam.surethatperform-FUT'I'm sure that she will perform the task.''I'm sure that she will perform the task.'Scrambling ignores robust syntactic islands.	(1)
The Coordinate Structure Constraint (Ross 1967):	
<i>mašynu</i> a maje [ <i>t<sub>a</sub></i> i <i>kvartyru</i> ] car-ACC has and apartment-ACC 'has a car and an apartment'	(2)
The Left Branch Condition (Ross 1967):	
$taku_a$ vona spivala [ $t_a$ [garnu $pisn^iu$ ]]such-ACC shesangbeautiful-ACC song-ACC'She sang such a beautiful song.'	(3)
Adjunct Islands (Huang 1982)	
<i>v riznyx<sub>a</sub></i> meškajuť <i>t<sub>a</sub> mistah</i> in different.PREP.PL they.live.3PL cities.PREP.PL 'They live in different cities.'	(4)
Freezing Islands (Wexler and Culicover 1980)	
vidsotkivb $[na dvadc'at' t_b]_a$ zris $t_a$ riven'percent.GN.PLontwentyincreased.3level.M.NOM'The level increased by twenty percent'increased.3level.M.NOM	(5)
Anti-Locality (Grohmann 2002)	
<i>duže</i> v <i>t<sub>a</sub> tisnyh stosunkah</i> very in close.PREP.PL relationship.PREP.PL 'in very close relationship'	(6)

Scrambling is LF-blind, and insensitive to binding:	Analysis
[ <i>sebe<sub>i</sub></i> ] ja <sub><i>i</i></sub> pro ce ves <sup><i>j</i></sup> čas pytaju $t$	Three-part serial model:
self-ACC I about this-ACC all time ask	Syntax [ <sub>VP</sub> [ <sub>V</sub> vidislala], [ <sub>NP</sub> lysta]
'I ask myself about this all the time.' (7)	Interface $((vidislala_{\omega}) (lysta_{\omega})_{\phi})_{\phi}$
It can move all, part, or none of a focus or topic (Fanselow and Laner- tova 2012: Czech, German), and it splits names and compounds:	$\downarrow Phonology ((lysta_{\omega})_{\phi} (vidislala_{\omega}))_{\phi} $ (14)
	Constraints determining word order in XPs (Selkirk 1995)
Olenuaja s <sup>j</sup> ogodni zustriv[taVerbyc <sup>j</sup> ku]Olena-ACCI todaymetVerbyc'ka-ACC'Today I met Olena Verbyc'ka.'(8)	ALIGNR( $X^0$ , $\omega$ ): The right edge of every lexical $X^0$ is aligned with that of a $\omega$ . ALIGNR( $\omega$ , $X^0$ ): The right edge of every $\omega$ is aligned with that of a lexical $X^0$ . ALIGNR(XP, $\phi$ ):
	The right edge of every lexical XP is aligned with that of a $\phi$ . (15)
$v_a \ \check{s}koli_b$ vin navčavsja [ $t_a [t_b \ internati$ ]]in school-PREP he studiedboarding-PREP'He studied in a boarding-school.'(9)	P P Q NP
<b>Data II: Scrambling Sensitive to Phonology</b>	AdjP N
Scrambled strings form (recursive) prosodic words and phonological phrases even when they are not (contiguous) X°s or XPs.	$(u  (bahat^{j}ox)_{\omega})_{\omega}(\check{c}ervonyx)_{\omega}(budynkax)_{\omega}$ $(in  (many)_{\omega})_{\omega}  (red)_{\omega}  (houses)_{\omega}$ $(16)$
	Constraint against movement
(( <i>vona</i> ) ( <i>zavdannja</i> )) ja vpevnena, ščo vykonaje she-NOM task-ACC I am.sure that perform-FUT 'I'm sure that she will perform the task.' (10)	STAYω: No daughter of ω moves. (17) Outranks constraints requiring movement
	PROML: Prominent material occurs to the left of its interface position. PROM: Maximally prominent material is initial in 1. (18)
Polysyllabic prepositions can scramble, but not monosyllabic ones:	<b>ι</b> PROM: Maximally prominent material is initial in <b>ι</b> . (18)
( <i>Protiagom</i> ) vony zustričalys <sup>j</sup> <i>lita</i> during they met summer-GEN 'They were seeing each other during the summer.' (11)	$(\underbrace{\mathbf{u}}  (bahat^{j}ox)_{\omega})_{\omega}  (\check{c}ervonyx)_{\omega}  (budynkax)_{\omega}$ $(\underbrace{in}  (many)_{\omega})_{\omega}  (red)_{\omega}  (houses)_{\omega}$ (19)
Scrambling is blocked if it brings together homophonous function words, but allowed in otherwise identical contexts (OCP/*ECHO):	* u červonyx vin žyv <u></u> bahat <sup>j</sup> ox budynkax in red he lived many houses 'He lived in many red houses.' (cf. Fery et al. 2007:24) <sub>(20)</sub>
* <i>Tomu</i> (tomu čolovikovi) vona ne mogla dovirjaty that's.why that-GEN man-GEN she not could trust-INF 'That's why she couldn't trust <i>that man</i> .' (12)	$(u \ (bahat^{j}ox)_{\omega})_{\omega} \ (cervonyx)_{\omega} \ (budynkax)_{\omega}$ $(in \ (many)_{\omega})_{\omega} \ (red)_{\omega} \ (houses)_{\omega}$
<i>Tomu</i> ( <i>tij</i> žinci) vona ne mogla dovirjaty that's.why that-GEN woman-GEN she not could trust-INF	(21)
'That's why she couldn't trust <i>that woman</i> .' (13)	<mark>u bahat<sup>j</sup>ox</mark> vin žyv <u> </u> červonyx budynkax in many he lived red houses
Scrambling is immune to syntactic constraints because <i>it applies to Pwd and PPh in the Phonological Component</i> .	'He lived in many red houses.' (22)

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## Conclusions

- prosodic word.
- anything syntactic.
- (Irish)).

## **Future Research**

### References



### Linguistics

• Phonology plays a direct role in how scrambling works in Ukrainian. • So-called Split-scrambling (Sekerina 1997) is movement of a

• XP-scrambling is movement of a phonological phrase.

• Scrambling is completely phonological and makes no reference to

• Prosodic constituents are scrambled within a purely prosodic tree after all syntactic structure has been converted into prosodic structure, following recent work on phonological movement (Agbayani and Golston 2010 (Classical Greek); Agbayani et al. 2015 (Japanese); Agbayani and Golston to appear (Latin); Bennett et al. to appear

• Eliminates the need for a pragmatic component that can permute word order after syntax (cf. Kallestinova 2007).

• The application of phonological scrambling results in reassignment of prosodic structure. Thus, phonological movement is not structure-preserving in the Phonological Component (Teliga 2011), unlike its syntactic counterpart (cf. Emonds 1976). This is a largely unstudied distinction between syntax and phonology.

• So-called 'Prosodic Recontouring' – in which material remains in situ but with altered prosodic structure – can apparently alternate with scrambling, yielding the same pragmatic effects (Mykhaylyk 2010). Potentially this is optionality within the Phonological Component between two operations that affect prosodic structure.

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