Scrambling the EGG Handout 5: The Sensitive Feature People August 10, 2018 john.bailyn@stonybrook.edu

• What a theory of (Russian/Slavic) Scrambling must account for:

0. All 6 basic constituent orders are grammatical

(1) a.	Mal'čiki books _{ACC}	čitajut read	knigi. books _{ACC}	√ SVO	(Russian)
b.	Knigi books _{ACC}	mal'čiki books _{ACC}	čitajut. read	√OSV	
c.	Mal'čiki books _{ACC}	knigi books _{ACC}	čitajut read	\sqrt{SOV}	
d.	Knigi books _{ACC}	čitajut read	mal'čiki. books _{ACC}	√OVS	
e.	Čitajut read	mal'čiki books _{ACC}	knigi. books _{ACC}	√VSO	
f.	Čitajut read	knigi books _{ACC}	mal'čiki books _{ACC}	√VOS	

1. There are extensive WH-movement/Scrambling similarities:

• Complex NP Constraint:

- (2) a. *Kogo ty pozvonil [agentu [kotoryj ljubit]]? (*wh)
 Whom_{ACC} you phone [spy_{DAT} [who loves]]
 *"Who did you phone a spy who loves?"
 - b. ***Borisa** ty pozvonil [agentu [kotoryj ljubit ___]]. (*Scr) Boris_{ACC} you phone [spy_{DAT} [who loves ___]] "Boris you phoned a spy who loves" (Bailyn 1995a)
- (3) a. *Ty **doktor** znaeš' [ljudej [kotoryx ____ volnuet]]? (*Scr) you doctor_{NOM} know [people [who_{ACC} ____ worries]] *"The doctor do you know people who worries?"
 - b. ***Kto** ty znaeš' [ljudej [kotoryx ____ volnuet]] ? (*wh) who_{NOM} you know [people [who_{ACC} ____ worries]] *"Who do you know people who worries?" ?" (Bailyn 2017b)

• Coordinate Structure Constraint:

- (4) a. ***Kogo** ty videl [Mašu i ___]? (*wh) Whom_{ACC} you saw [Masha_{ACC} and __] *"Who did you see Masha and?"
 - b. *Borisa my videli [Mašu i ___]. (*Scr) Boris_{ACC} we saw [Masha_{ACC} and __] *"Boris we saw Masha and."
- (5) a. ***Kakuju** ty videl [____kvartiru i [Mašin dom]]? (*wh) which_{ACC} you saw [____apartment_{ACC} and [Masha's house]_{ACC}] *"Which did you see apartment and Masha's house?"

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b.	*Novuju	my	videli	[kvartiru	i	[Mašin dom]].	(*Scr)
	new _{ACC}	we	saw	[apartment _{ACC}	and	[Masha's house] _{ACC}]	
	*"NEW w	e saw	apartmer	and Masha's house	."		

• Constraint on Extraction Domains (subjects)

(6)	a.	*0	kom	[novaja	kniga 🔄	_]	udivila	publiku ?	(*wh)
		about	whom	[new	book	_]	surprised	public	
		*"Who	did a new	book about	t surprise tl	he p	ublic?"		

b. *O Borise [novaja kniga ___] udivila publiku. (*Scr) about Boris [new book ___] surprised public *"About Boris a new book surprised the public?"

• Constraint on Extraction Domains (adjuncts)

(7) a	ı. *I	Kogo	ty	ušel	domoj,	[potomu čto	Maša ljub	it]?	(*wh)
	v	who _{ACC}	you	left	to.home	[because	- Masha love	s]	
	*"	'Who die	d you	go ho	me because	e Masha loves?	,,,		
						-			(1.0.)

b. *Borisa ja ušel domoj, [potomu čto Maša ljubit ___] (*Scr) Boris_{ACC} I left to.home [---because --- Masha loves ___] *"Boris I went home because Masha loves?"

• Proper Binding Condition (Japanese):

(8) *[[$_{cp}$ Mary-ga _____1 katta to]__ [John-ga [$_{cp}$ sono hon-o_i [$_{tp}$ [Bill-ga _____2 Mary_{NOM} _____1 bought that [John_{NOM} that book_{ACC} [[Bill_{NOM} ______] itta]] to] omotteiru]]. said]] that] think

"[that Mary bought __1]₂, John [that book₁] thinks that, Bill said __2." (from Saito 1994, quoted in Bailyn 2001)

• Proper Binding Condition (Russian):

--Russian PBC with WH-movement:

- (9) a. ?[O čem]_i tebe interesno [kakie knigi _____i]_k Maša kupila _____k? [about what] you interesting [which books ______i]_k Masha bought _____k "??What did you wonder which books about Mary bought?"
 - b. **[**Kakie knigi** ______i]_k tebe interesno [**o čem**]_i Maša kupila ____k? [which books you interesting about what Masha bought ____k "**Which books do you wonder about what Mary bought?"

--Russian PBC with Scrambling:

- - b. [Čtoby Maša pročitala [knigu]]_kja znaju, [čto Boris xočet ____k] (√CP Scr) that Masha read book I know [that Boris wants ___] ?"That Masha read the book, I know that Boris wants."

(11) a.	Knigu	_i (zavtra)	[čtoby	Maša	pročitala	۱i]_k	ja	znaju,	[čto	Boris	xočet $__]_k$	
	book	tomorrow	[that	Masha	read]	Ι	know	[that	Boris	wants]	
	?"The	book, that	Masha	read tor	norrow, I	know]	Bori	is wants.'	' (?CP	Scr) >	DP Scr)	

b. **[Čtoby Maša pročitala ____i]_k ja znaju, [čto <u>knigu</u> Boris xočet ____k] [that Masha read ____i]_k I know [that book_{ACC} Boris wants ____] **"That Masha read, I know that the book Boris wants." (*DP Scr> CP Scr)

→ The Russian OSV construction involves A'-movement (like WH-mvt or Topicalization)

• What about OVS ?? (Bailyn 2004, 2017a) (or Japanese OSV: Miyagawa 2001)								
	Každuju devoču, eë, mama ljubit *OSV (WCO) [every girl] _{ACC} [her mother] _{NOM} loves "Every girl her mother loves."							
 → b. Každuju devoču_i ljubit eë_i mama ✓OVS (no WCO) [every girl]_{ACC} loves [her mother]_{NOM} "Every girl is loved by her mother" 								
	Vystrely drug druga ubili milicionerov *SVO [shots each other] _{NOM} killed policemen _{ACC} "Shots of each other killed the policemen."							
b. Milicionerov ubili vystrely drug druga ✓ OVS (O binds into S) policemen _{ACC} killed [shots each other] _{NOM} "The policemen were killed by each other's shots." (Titov 2013, ex 5)								
• The OVS	construction involves A-movement. "Generalized Inversion" (Bailyn 2004)							

(• The Russian **SOV** constructions involves middle field scrambling (Mykhaylyk 2010), which could be A or A'-movement, being vP-adjunction)

	Russian 6 basic word orders								
order	<u>construction</u>	syntactic properties							
<u>√SVO</u>	base	subject \rightarrow SpecT; no V ⁰ \rightarrow T ⁰							
<u>√OSV</u>	local scrambling or Top/Foc mvt	adjunction to TP							
<u>√OVS</u>	Generalized Inversion	Obj (or PP) moves to SpecT($V^0 \rightarrow T^0$ (or subject extraposition))							
<u>SOV</u>	Middle Field "short" Scrambling	adjunction to vP; A, A'-properties; Base-generation possible							
VSO	"fairy tale" word order	$V^0 \rightarrow T^0$? (and no subject raising)							
VOS	Extraposition (maybe "light predicate raising")	Right adjunction to vP? ("subject post-posing")							

BUT:

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2. There also are extensive WH-movement/Scrambling differences:

• Russian shows typical WH-islandhood for WH-movement:

(14) a.	You	what _{ACC}	heard	[kogda uvozili]? [when took away] taking away?"	(*wh)
b.	you		saw	[kogda pod'ezžal] ? [when was arriving] red?"	(*wh)
• Scraı	nbling	in such con	texts is F	INE: ("Zemskaya's Paradox")	
(15) a.	You	trash _{ACC}	heard	[kogda uvozili]? [when took away] the trash away?" (Zemskaya 1973: 399)	(√Scr)
b.	you	doctor _{NOM}	saw	, [kogda pod'ezžal] ? [when was arriving] riving?" (Zemskaya 1973: 399)	(√ Scr)

3: Scrambling is insensitive to wh-islands

• Extraction from indicative čto clauses

 \rightarrow WH-movement in such contexts is degraded: (for reasons not entirely understood)

- (16) a. *Čego žal', [čto malo ____]? (*wh from *čto* clauses) what too bad [that there are few ___] "What is it too bad that there are so few of?"
 - b. ??**Kakie vešči** tebe ne nravitsja, [čto pridetsja s soboj taščiť ___] ? what things you neg likes [that have to with self bring ___] "What things don't you like (the fact) that you have to bring with you?"
 - c. *Čto neprijatno, [čto vy ne kupili ___]? (*wh from *čto* clauses) what unpleasant [that you neg bought ___] "What is it unpleasant that you didn't buy?"
 - d. ??Kogo kažetsja, [čto [otpustit' _____ odnogo tak pozdno]] bylo by bezumiem who seems [that to-let-go _____ alone so late would be insanity "Who does it seems that it would be insane to allow out to alone so late?"

→ Scrambling is fine: (exs from Zemskaya 1973: 398-405) (more of Zemskaya's Paradox)

- (17) a. **Ogurcov** žal' [čto malo ____] $(\sqrt{\text{Scr}})$ pickles too bad [that there are few ___] "Pickles, it's too bad that there are so few of [them]."
 - b. Plašč mne ne nravitsja, [čto pridetsja s soboj taščit' ____] (√Scr) coat me neg likes [that have to with self bring ____]
 "The raincoat, I don't like (the fact) that you have to bring with you."
 - c. Vot bumagi mne neprijatno, [čto vy ne kupili ___] (√Scr) here paper me unpleasant [that you neg bought ___]
 "The paper, it's unpleasant that you didn't buy."

- d. Mne **Katju** kažetsja, čto [otpustit' ____ odnu tak pozdno] bylo by bezumiem me Katja_{ACC} seems that [to-let-go ____ alone so late] would be insanity "It seems to me that it would be insane to allow Katja out alone so late."
- WH-adjunct extraction is even worse from *čto*-clauses; indicating true weak-islandhood.
- (18) *Kogda ty dumaeš' [čto ego sestra priexala]? (*wh) when you believe [that his sister arrived] "When do you think that his sister arrived?"
- Adjunct Scrambling is still fine
- (19) Včera govorjat, [čto ego sestra priexala __] (√Scr) yesterday they say [that his sister arrived __] "Yesterday they say that his sister arrived."

4: Russian *čto* clauses are weak-WH islands

(20) Pieces of Zemskaya's Paradox: (from Bailyn under review)

	W	h-moveme	ent	Scrambling				
	<u>wh-subj</u>	<u>wh-obj</u>	<u>wh-adjunct</u>	<u>subject</u>	<u>object</u>	<u>adjunct</u>		
a. Complex NP	*	*	*	*	*	*		
b. CSC	*	*	*	*	*	*		
c. PBC	*	*	*	*	*	*		
d. CED	*	*	*	*	*	*		
e. Reconstruction	n √	\checkmark	\checkmark	\checkmark	\checkmark			
f. čto-clauses	*	??	*	\checkmark		\checkmark		
g. kak-clauses	*	??	*	\checkmark	\checkmark	\checkmark		
h. real wh-island	s *	*	*	\checkmark	\checkmark	\checkmark		

5: Scrambling (sometimes) differs from other kinds of A'-movement

(21) Reasons not to give up on movement accounts (Bailyn 2001, 2006, 2017b):

- a. All non-movement accounts lose the Scr = WH generalizations captured in (20)a-e
- b. BT predict the wrong range of interpretive effects
- c. VanG and Titov lose all coherent constituency
- d. All accounts massively complicate the theory

 \rightarrow Что делать? (*What is to be done*? Chernyshevsky 1863; Lenin 1902)

Appeal to a more nuanced form of Relativized Minimality (Rizzi 1990, 2004)

- (22) <u>Classes of features</u> (Rizzi 2004; Bailyn 2017b)
 - i. Argumental: person, number, gender, case (only relevant for A-movement)
 - ii. [+Q] Quantificational: Wh, Neg, measure, Focus . . .
 - iii. [-Q] Non-quantificational:
 - a. [+Mod] Modifiers: evaluative, epistemic, Neg, frequentative, measure, manner, . . b. [+Top] Topic
 - c. $[+\Sigma]$ Scrambling¹

¹ [+ Σ] was introduced for Scrambling by Grewendof & Sabel 1999 and Kawamura 2004)

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(23) <u>Derivation of simple A'-relations</u> : a. wh-movement: b. A'-scrambling:
$\begin{array}{c c} C_{[+Q(wh)]} & [\ \dots \ XP_{[+Q(wh)]} \ \dots \] \\ \hline \\ (feature match) \end{array} \qquad \begin{array}{c c} F_{[+\Sigma]} & [\ \dots \ XP_{[+\Sigma]} \ \dots \] \\ \hline \\ (feature match) \end{array}$
 (24) <u>Relativized Minimality effects</u> (eg wh-islands): a. wh-island: b. Scrambling out of wh-island:
$\begin{array}{c c c c c c c c c c c c c c c c c c c $
6: Rizzi (2004) is right – we need <i>feature classes</i> !
 (25) Relativized Relativized Minimality (Rizzi 2004, Bailyn 2018): [+Q] elements block [+Q] elements; [-Q] elements do not block [+Q] elements
(26) a. * Kakogo _[+wh] on mnogo _[+Q] citiroval [avtora] ? (*wh over <i>mnogo</i>) which _{ACC} he much cited [author] _{ACC} "Which author did he cite a lot?"
b *DOKTOR _[+Foc] studenty sprosili [kogda _[+wh] priexal]. (*Foc over <i>kogda</i>) DOCTOR _{NOM} students asked [when arrived] "[It's] the DOCTOR the students asked when [he] arrived"
(27) a. Kakogo _[+wh] on včera _[+Mod] citiroval [avtora]? ($\sqrt{wh \text{ over } včera}$) which _{ACC} on yesterday cited [author] _{ACC} "Which author did he cite yesterday?"
b. $\mathbf{\acute{Etogo}}_{[+\Sigma]}$ on $\mathbf{mnogo}_{[+Q]}$ citiroval [avtora]. ($\sqrt{\text{Scr over } mnogo}$) this _{ACC} he much cited [author] _{ACC} "This author he cited a lot."
• (27) shows [-Q] elements do not block [+Q] movement.
• BUT Shields (2005) shows [-Q] elements can block each other"
 a. ??Ja bystro_[+Σ] xoču, [čtoby ona často_[+Mod] exala]. (??Scr over často) I quickly want [that she often went] "I want it to often go quickly." (ex from Shields 2005, my diacritics)
 b. Gde_[+wh] ty xočeš,' [čtoby ona často_[+Mod] obedala]? (√wh over často) where you want [that she often dines] "Where do you want her to often eat?" (example from Shields 2005)
c. Komu _[+wh] ty srazu _[+Σ] xočeš', [čtoby ona pozvonila]? who you right away want [that she call] "Who do you want her to call right away?" ($\sqrt{wh over Scrambled srazu}$)
 (28) The Testelets-Lyutikova observation (Testelets 2001, Lyutikova 2009) <i>Relativization is not sensitive to WH-islands</i> (ex (Error! Reference source not found. from Lyutikova 2009: 36)
a. tut pojavljaetsja novyj mir, v kotorom ja ne znaju [kak žit' _] here appears new world in which I neg know [how to.live]

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29) Summary of blocking data:									
	potential blocker								
		[+Q]	blockers	[-Q] blo	ockers				
	[+WH]	[+Foc]	[+Quant]	[+Neg]	[+Mod]	$[+\Sigma]$			
kind of mvt									
WH-movement	*	*	*	*					
Focus movement	*	*	*	*	\checkmark				
Scrambling			\checkmark	\checkmark	*				
Relativization	\checkmark	\checkmark	\checkmark	\checkmark	$\overline{\checkmark}$	\checkmark			

"And there appears a new world here in which I don't know how to live"

7: Feature classes allow us to not give up movement theories of Scrambling!

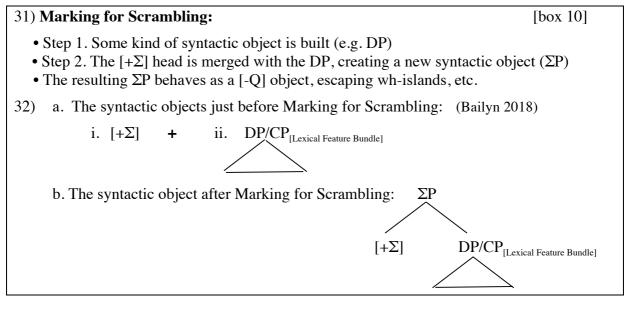
 \rightarrow Crucial prediction: Scrambling of a [+Q] element out of a wh-island should fail?

(30) a.	Ту	$vsex_{+Q], [+\Sigma]}$	slyšala,	[kogda _[+wh]	uvozili]?	$(\sqrt{[+Q]} \text{ Scr over } [+WH])$
	You	everyone _{AC}	_{cc} heard	[when	took away]	
	"Did	you hear the	em taking e	everyone awa	ny?"		
b.	Ту	[každyj	doctor] _[+0]	$_{ ,[+\Sigma]}$ videl,	[kogda _[+wh]		pod'ezžal] ?
			doctor _{NOM}]		[when		was arriving]
	"Did	you see ever	ry doctor a	rriving?			$(\sqrt{[+Q]} \text{ Scr over } [+WH])$

But it's fine!

We have achieved a paradox: we need feature classes to account for the scrambling facts, but this leads us to expect quantifiers can't scramble out of WH islands. But they can.

→ Introducing Marking for Scrambling



33) ??Ja **bystro**_[+ Σ] xoču, [čtoby ona často_[+Mod] ____ exala]. I quickly want [that she often ____ went] "I want it to often go quickly." (ex from Shields 2005, my diacritics)

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Prediction: Overt wh-movement languages (with active strong WH-feature) should not allow wh-scrambling or wh-topicalization. = $\sqrt{for Slavic}$, Germanic etc

- The remaining elephant in the room:
 - \rightarrow Why is there no LDS in German/Dutch?? Possibilities:
 - something about extraction domains and escape hatches that involves V2, CP structure (so a PUB-like account)
 - something about the nature of local Sc\rambling inducing a freezing effect (so a Grewendorf/Sabel-like account)
 - a more radical possibility: German does not in fact even have local (A') Scrambling (so, it might have VP-internal base-generation optionality, but nothing more)

(34) (some) research topics:

Russian/Slavic

- a. How are Russian V-initial orders derived? (Serbo-Croatian (BCS) is very different)
- b. Why are Russian *čto* clauses weak ([+Q]) islands? How do other Slavic L's behave?
- c. How do Slavic languages differ in Scrambling/WH-asymmetries?
- d. How do binding and scope interact with Scrambling across Slavic?

General/Theoretical

- e. What is the internal structure of feature bundles? So, how can Rel be [+wh] but [-Q]?
- f. What is the *interpretation* of Scrambling (is it discourse-driven?)
- g. What base-generation options *are* allowed? (and how are they constrained?)
- h. Why are some constraints absolute (strong), (CSC, CNPC, PBC, CED) while others are subject to some form of blocking via Relativized Minimality?

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