Scrambling
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It is uncontroversial that Slavic languages have topicalization and focalization. It is less clear whether they also have the scrambling operation of the kind found in languages like Japanese and Korean. The goal of this chapter is to address the issue of whether Slavic languages have Japanese-style scrambling (JSS) in addition to topicalization/focalization. I will confine my attention to Russian and Serbo-Croatian (SC), focusing on three properties of JSS which differentiate it from topicalization/focalization, namely the undoing effect (i.e. semantic vacuity of long-distance scrambling), the impossibility of adjunct scrambling, and the absence of relativized minimality effects with scrambling.[1]

As discussed by a number of authors, long-distance scrambling in Japanese is semantically vacuous (see, e.g., Saito1992, Bošković and Takahashi 1998, Saito and Fukui 1998, Tada 1993), which has led the above-mentioned authors to conclude that Japanese long-distance scrambling is completely undone in LF. Consider (1), involving long-distance scrambling of the embedded object *daremo-ni*.[2]

(1) Daremo-ni   dareka-ga   [Mary-ga *e* atta to]   omotteiru. $\exists > \forall; *\forall > \exists$
     everyone-DAT   someone-NOM Mary-NOM   met that thinks
     'Everyone, someone thinks that Mary met.'   (Bošković and Takahashi 1998)

Daremo-ni in (1) must have narrow scope, i.e. it cannot scope over the matrix clause subject. This fact illustrates semantic vacuity of long-distance scrambling Japanese. In this respect, JSS clearly differs from topicalization and focalization, which do affect scope (see (5) below).[3]

Another property of Japanese scrambling that differentiates it from topicalization/focalization concerns inability of adjuncts to undergo scrambling, illustrated by Saito's (1985) examples in (2).[4]

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[1]A word of caution is in order regarding the term "scrambling", one of the most abused items in the linguistic vocabulary. In the current literature, the term is often used for expository convenience when authors are not sure what kind of movement they are dealing with, or when they want to avoid committing themselves to the issue, or merely to indicate that the movement in question is different from other better known instances of movement regarding languages/phenomena considered. As a result, almost every well-studied language, including English, has been claimed to have scrambling. But this is not necessarily scrambling of the kind we find in Japanese. The ease of exposition use of the term scrambling raises a serious problem in crosslinguistic studies of scrambling. Obviously, what one is not sure about in one language does not have to be the same thing one is not sure about in another language. So, we cannot simply rely on the term scrambling when comparing claims made regarding scrambling, especially not when comparing "scrambling" in different languages. It is necessary to conduct the relevant tests to make sure we are dealing with the same phenomenon. This task is taken on below.

[2]I indicate positions where scrambled elements are interpreted with *e*. Under Bošković and Takahashi's (1998) (BT) analysis, which base-generates scrambled elements in their SS position and then lowers them in LF to positions where they are Case and θ-marked, this is the landing site of LF lowering, while under the overt movement analysis of scrambling (see, e.g., Fukui 1993, Saito 1992, Saito and Fukui 1998), this is the launching site of overt movement. For uncontroversial overt movements, I will use *t(race)*.

[3]The impossibility of the scrambled element in (1) taking scope in its surface position is immediately explained under BT's analysis: Under this analysis a scrambled element is base-generated in its surface position and then lowers in LF to where it is Case- and θ-marked. *Daremo-ni* is thus base-generated in its SS position in (1). If it were to remain in its SS position in LF the derivation would crash because it would not be Case- and θ-licensed. *Daremo-ni* therefore undergoes lowering in LF to a position where it can receive Case and a θ-role. The movement is obligatory in the sense that if it does not take place, the derivation would crash. Since it necessarily lowers into the embedded clause, *daremo-ni* cannot scope over *dareka-ga*.

[4]I ignore quasi-argument adjuncts and short-distance scrambling of adjuncts, since in the latter case it is

(2) a. Mary-ga [John-ga riyuu-mo naku sono setu-o sinziteiru to] omotteiru.
   Mary-NOM John-NOM reason-even without that theory-ACC believes that thinks
   'Mary thinks that John believes in that theory without any reason'
b. *Riyuu-mo naku Mary-ga [John-ga *e* sono setu-o sinziteiru to] omotteiru.

Bailyn (2001) claims that Russian differs from Japanese in the relevant respects: the corresponding movement operation in Russian can affect scope and dislocate adjuncts, which should be interpreted as indicating that Russian does not have JSS.[5] The former claim is illustrated by (3), where the universal can take wide scope, and the latter claim by (4).

(3) Každogo mal'čika kto-to   xočet, čtoby   Boris uvidel *e*.
   every   boy   someone wants that-SUBJ Boris saw
   'Every boy, someone wants Boris to see.'
(4) Ja bystro xoču, čtoby   oni   dopisali kursovye *e*.
   I quickly want that-SUBJ they wrote   papers
   'I want them to write their papers quickly.'   (Bailyn 2001)

As noted above, the contrast between Japanese (1)/(2b) and Russian (3-4) seems to indicate that Russian does not have JSS. In other words, the above differences between Japanese and Russian "scrambling" seem to lead to the conclusion that the two are actually different phenomena, brought together only by the unfortunate usage of the term scrambling. This interpretation is particularly natural in light of the fact that the undoing property, illustrated in (1), is in a number of works, including BT (see also Fukui 1993, Saito and Fukui 1998, and Saito 1992, 2000, among others), taken to be the defining and the most interesting property of JSS. If Russian does not have it, it would then follow that Russian does not have JSS. However, there is reason to believe that Russian scrambling and JSS are not as different as the above data would lead us to believe. In fact, (3-4), which provide evidence that Russian scrambling and JSS are different phenomena, do not seem to involve scrambling at all.

As noted above, BT, Fukui (1993), Saito and Fukui (1998), and Saito (1992, 2000) all take the undoing property to be the defining characteristic of JSS. In deliming the nature of the phenomenon, these authors pay particular attention to differentiating JSS and English-style topicalization, the main distinction between the two being the undoing property: since topicalization has semantic import, i.e. it establishes an operator-variable relation, it is not undone, in contrast to JSS. Thus, in contrast to the scrambled NP in (3), the topicalized NP in (5) can have wide scope.

(5)   Everyone, someone thinks that Mary met.

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not clear if we are dealing with scrambling or base-generation even under the overt movement analysis. Note that the impossibility of adjunct scrambling, which is a mystery under this analysis, can be easily explained under BT's analysis. Under BT's analysis, the adjunct is base-generated in its SS position in (2b) and must lower to the embedded clause in LF to modify the embedded predicate. Note, however, that the adjunct is fully licensed in its SS position. In contrast to *daremo-ni* in (1), which has Case and θ-features that are not licensed in its SS position, the adjunct in (2b) possess neither a Case feature nor a θ-role that could drive its LF movement. Since there is no reason for the adjunct to lower into the embedded clause in LF Last Resort prevents it from moving.

[5]Bailyn actually does not draw this conclusion. He uses the data in question to argue against BT's analysis of JSS, not offering an account of the corresponding Japanese facts, i.e. the contrast between Russian and Japanese. As discussed below, the Russian data in (3-4) are actually irrelevant to BT's analysis of scrambling, since they do not involve scrambling.

A factor that interferes with the conclusion regarding Russian scrambling reached above based on (3)-(4) is that the language has topicalization as well as focalization (see, e.g., King 1993). Now, Japanese also has topicalization. However, topicalized elements in Japanese have a special topic marker, *wa*. Since *daremo-ni* in (1) is not *wa*-marked, it unambiguously undergoes scrambling; it could not have undergone topicalization.[6] In contrast to Japanese, topicalization in Russian is not accompanied by special morphology. The same holds for focalization.[7]There is then no way to rule out the topicalization/ focalization option for *každogo mal'čika* in (3). Consequently, the fact that the quantifier can take wide scope is not surprising: it patterns in the relevant respect with the topicalized quantifier in English (5). Due to the availability of the topicalization/focalization derivation, (3) thus does not tell us anything about the issue of whether Russian scrambling has the undoing property, i.e. whether Russian has JSS. The adverb fronting example in (4) is also irrelevant: all the example tells us is that adverbs can be topicalized/focalized, which is well-known.

Could it then be that all the freedom of word order in Russian is a result of applications of topicalizing/focalizing movements, possibly coupled with some optionality regarding subject and object A-raising? The above data cannot answer the question. If dislocated elements in examples like (3) could undergo JSS as well as topicalization/focalization, they should be able to do everything that scrambled phrases can do and everything that topicalized/focalized elements can do. Above, we tapped the latter. What about the former? We can test the former with respect to locality, more precisely, relativized minimality (RM). (Note that when not committing myself to whether the Russian operation under consideration involves topicalization, focalization, or JSS, I will simply refer to it as dislocation.)

The RM data indicate that Russian has JSS. Consider (6)-(9).

(6) a. *Kto_i ty videl kogda t_i pod'ezžal?
　　　 who you saw when came
　 b. ?*$Čto_i$ vy videli kak zapakovali t_i?
　　　 what you-PL saw how (they-)did-up 　　　　　　　　(Müller and Sternefeld 1993)
(7) a. Ty $doktor_i$ videl kogda e_i pod'ezžal?
　　　 you doctor saw when came
　　　 'Did you see when the doctor came?'
　 b. Vy $pocylku_i$ videli kak zapakovali e_i.
　　　 you-PL parcel-ACC saw how (they-)did-up
　　　 'You saw how they did up the parcel.' 　　　　　　　(Zemskaja 1973)
(8) a. ?*$Kakvu$ $knjigu_i$ Marko i Ivan znaju kada je Petar pročitao t_i?
　　　 what book Marko and Ivan know when is Petar read
　　　 'What book do Marko and Ivan know when Peter read ?'
　 b. Ovu $knjigu_i$ Marko i Ivan znaju kada je Petar pročitao e_i.
　　　 this book Marko and Ivan know when is Petar read
　　　 'Marko and Ivan know when Peter read this book.' 　　　(Stjepanović 1999a)
(9) *That $doctor_i$, you wonder when Peter fired t_i.

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[6]As discussed in Saito (1985), *wa*-marked elements can also undergo scrambling, i.e. such elements can be either topicalized or undergo scrambling.

[7]I am ignoring here the *li*-focus construction.

(6), which involves A'-movement across an A'-element, shows Russian wh-movement is subject to RM islands.[8] Still, (7a-b) are acceptable. A parallel contrast is found in Serbo-Croatian (SC), another Slavic language with a similar freedom of word order as Russian, as shown in (8). Given that, as indicated by English (9), topicalization is sensitive to relativized minimality (more precisely, wh-islands), (7) then should not involve topicalization on the derivation that yields a fully acceptable outcome. It is well-known that focalization is also subject to the Wh-Island Constraint crosslinguistically. (In fact, if Russian wh-fronting actually involves focus-movement, as argued in Bošković 2002, (6) illustrates sensitivity of focus movement to wh-islands.) The obvious conclusion, then, is that (7) involves scrambling.

Notice that, as BT's (10) shows, JSS is indeed not sensitive to wh-islands. On the other hand, as in Russian and SC, wh-movement in Japanese is sensitive to wh-islands, as (11), involving null operator movement, shows. (Kikuchi 1987 shows that comparative deletion in Japanese involves null operator movement.) Japanese thus patterns with Russian and SC in the relevant respect.[9]

(10) Sono hon-o$_i$ John-ga   [Mary-ga e_i yonda ka dooka] siritagatteiru
      that book-ACC John-NOM   Mary-NOM   read whether   wants-to-know
      'That book, John wants to know whether Mary read.'
(11) ?*[$_{CP}$ Op$_i$ [Bill-ga   [Mary-ga t_i yonda ka dooka] siritagatteiru] yorimo] John-wa takusan-no
              Bill-NOM Mary-NOM read   whether   wants-to-know than   John-TOP more-GEN
        hon-o   yonda
        book-ACC read
        'John read more books than Bill wants to know whether Mary read.'

The data concerning RM in Russian are, however, conflicting. Another difference between topicalization and scrambling discussed by BT is that, as noted in Fukui (1993), Saito (2000), and Saito and Fukui (1998), multiple scrambling is possible, whereas multiple topicalization is not.

(12) *To John$_j$, that book$_i$, (Bill said that) Mary handed t_i t_j.
(13) Sono hon-o$_i$ John-ni$_j$ Bill-ga   Mary-ga e_j e_i watasita to itta
      that book-ACC John-DAT Bill-NOM Mary-NOM   handed that said
      'That book, to John, Bill said that Mary handed.'   (Bošković and Takahashi 1998)

According to Bailyn (2001), Russian disallows multiple dislocation, the most natural interpretation of which would be that Russian dislocation is always topicalization/focalization, i.e. that Russian does not have JSS. My informants, however, find multiple dislocation examples like Bailyn's (slightly modified) (14) acceptable. Müller and Sternefeld (1993) and Müller (1995) also claim that such examples are

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[8]As discussed by BT, the scrambling derivation on which *kto/čto* in (6) are generated in SpecCP and lower to their θ-position in LF is ruled out by the well-known ban on LF movement of phrases located in operator positions overtly (see Epstein 1992, Lasnik and Uriagereka 1988, Lasnik and Saito 1992, Bošković 2003). *Kto/čto* then have to undergo overt wh-movement in (6). It is worth noting here that Stjepanović (1999a) observes that (6) raises a serious problem for the overt movement analysis of scrambling. In particular, the derivation on which the wh-phrase undergoes overt scrambling out of the wh-island prior to wh-movement incorrectly rules in (6) given that scrambling is not subject to the Wh-Island constraint (see (7)).

[9]Note that BT use the above data as an argument against the overt movement analysis of scrambling. On this analysis, long-distance scrambling is treated as A'-movement. We should then expect it to pattern with other overt A'-movement operations, like topicalization and wh-fronting, in that it should not be able to take place across an A'-specifier. BT make the same point with respect to (13) below, which under the overt movement analysis should be ruled out on a par with (12) because it involves A'-movement across an A'-element.

acceptable based on (15). (Stjepanović 1999a observes that examples like (15) are also acceptable in SC.) This is consistent with the conclusion that Russian has both topicalization/focalization and JSS, as a result of which dislocated elements in Russian can do everything that both topicalized/focalized and scrambled elements can do.[10]

(14) (*)On Saše$_i$ kassetu$_j$ xočet [čtoby   Boris peredal e_j e_i].
     he Sasha-DAT cassette-ACC wants that-SUBJ Boris gave
      'He wants Boris to give the cassette to Saša.'
(15) a. čto   ty$_i$ menja$_j$ vižu [čto e_i ljubiš' e_j]
        that-IND you-NOM   me-ACC I-see   that-IND love
        'that I see that you love me.'
     b. čto   knigu$_i$ mne$_j$ Maksim   dal e_j e_i.
        that-IND book-ACC me-DAT Maxim-NOM gave
         'that Maxim gave me the book'

Returning to whether Russian has JSS, another test that could help us answer the question concerns the undoing effect. Saito (1992) shows that, in contrast to topicalization and wh-movement, scrambling can take a wh-phrase outside its scope in overt syntax. Notice first that a wh-phrase in Japanese can be interpreted only if it is a within a CP headed by a +wh C. Saito and Fukui (1998) refer to the constraint in question as the Wh-Q Constraint, and assume that it applies in LF. (Given that Japanese interrogative clauses are marked with the question markers *ka*/*no*, the only +wh-C in (16) is the embedded clause C.)

(16) *Dare-ga   [John-ga   sono hon-o   katta ka] siritagatteiru.
      who-NOM   John-NOM that book-ACC bought Q   wants-to-know
      'Who wants to know [Q John bought that book].

Significantly, in (17), where the most embedded CP containing a wh-phrase is scrambled to the matrix clause, the wh-phrase can still take scope in the intermediate CP. As observed by Saito (1992), constructions like (17) are not perfect. However, such constructions, in which scrambling removes a wh-phrase outside of its +wh-CP, are clearly better than (16), where a wh-phrase is base-generated in its θ-position outside of its +wh-CP.

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[10]It is of course possible that there is some speaker variation, speakers who reject multiple dislocation constructions not having JSS.

It is worth noting here that in their discussion of islands, BT focus on RM islands, which can be considered well-understood in the current theoretical framework, thus can be used to tease apart different analyses of scrambling, and stay away from islands that due to their ill-understood nature cannot be used to tease them apart. (The Coordinate Structure Constraint is particularly controversial in this respect. In fact, it has been convincingly argued by Munn 1993 to be a constraint on interpretation rather than an instance of syntactic locality.) Notice also that empirically, it is not clear whether Russian scrambling is sensitive to non-RM islands. Bailyn (2001) argues that it is. However, Zemskaja (1973), Müller and Sternefeld (1993), Müller (1995), and Yadroff (1991) claim that Russian scrambling is not sensitive to several non-RM islands wh-movement is sensitive to (see also Stjepanović 1999a regarding SC). As for Japanese, the empirical situation is also unclear. For relevant discussion the reader is referred to Bošković (in press). (I report that Japanese examples involving scrambling out of non-RM islands are judged to be better than examples involving wh-movement out of non-RM islands (as in the comparative construction), and that a bilingual speaker of Japanese and English I consulted found Japanese examples involving scrambling out of non-RM islands to be clearly better than the corresponding English examples involving topicalization out of such islands.)

(17) ?[Mary-ga   nani-o   katta   to]$_i$ John-ga [Bill-ga e_i itta ka] sitteiru.
     Mary-NOM what-ACC bought that John-NOM Bill-NOM   said Q   knows
     'John knows what Bill said that Mary bought'   (Bošković and Takahashi 1998)

(18) shows that wh-movement and topicalization differ from scrambling in this respect. (18a) is marginal due to a wh-island violation. What is important for our purposes is that it cannot at all have the interpretation on which *who* takes embedded scope. The same holds for (18b), where topicalization of a phrase containing *who* places *who* outside of the only +wh-CP in the sentence.[11]

(18) a. ?[Which picture of who]$_j$ do you wonder who$_i$ t_i bought t_j?
     b.   *[That Mary met who]$_i$ I know who$_j$ t_j believes t_i?

The fact that scrambling can take a wh-phrase outside its scope, in contrast to wh-movement and topicalization, provides further evidence for the undoing property of scrambling. Given that, in contrast to wh-movement and topicalization, scrambling can be, in fact must be (cf. (1)) undone, the wh-phrase is within its scope in (17) in LF after the undoing of scrambling (i.e. after LF lowering in the BT analysis) so that (17) does not violate the Wh-Q Constraint, in contrast to (16) and (18a-b) (on the relevant reading of (18a). Note that (18) shows that the Wh-Q Constraint is operative in English.)
         This argument for the undoing property of scrambling is different from the one discussed with respect to (1) in that the scrambling derivation yields an acceptable sentence that is underivable under the topicalization/focalization derivation. Unfortunately, we cannot use the test in question to determine whether Russian has JSS due to an interfering factor. Russian is a multiple wh-fronting language, which means that, a few exceptions noted in Bošković (2002) aside (one of them is discussed below), all wh-phrases in Russian must front and establish an operator-variable relation in overt syntax, the movement in question involving either focus or wh-movement (see Bošković 2002 and Stepanov 1998). There is even a stronger requirement on Russian wh-phrases. Russian wh-phrases, including those that do not move to SpecCP overtly, must be clausemates in overt syntax with the +wh-C heading the CP where they are interpreted. Thus, as Stepanov (1998) observes, (19a-b) are unacceptable. (Note that, as discussed in Bošković 2002 and Stepanov 1998, although Russian wh-phrases must undergo A'-movement in overt syntax, which the wh-phrases in (19) do, they do not have to move to an interrogative SpecCP overtly. Note also that the English counterpart of (19a), given in the translation, is grammatical and that the subjunctive counterpart of (19a), *kto xočet čtoby kogo videl Petr* 'who wants Peter to see who', is not.)

(19) a. *Kto dumaet čto   kogo   videl Petr?
        who thinks that-IND whom saw   Peter
        'Who thinks that Peter saw whom?'
     b. ?*Ivan i   Marija dumajut čto   kogo   videl Petr?
        Ivan and Marija think   that-IND whom saw   Peter
        'Who do Ivan and Marija think that Peter saw?'

Note also that (20) is unacceptable on the matrix reading of either of the embedded wh-phrases, i.e. it has to be interpreted as a multiple indirect question, in contrast to its English counterpart. (Given that Russian questions do not have to involve overt wh-movement, *kogda* can be lower than SpecCP. As discussed in Bošković 2002 and Pesetsky 1989, D-linked wh-phrases are exceptional in that they do not have to

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[11]See Stjepanović (1999a) for an analysis of cases where topicalization and wh-movement do reconstruct.

move overtly. Note, however, that D-linked and non-D-linked wh-phrases behave in the same way with respect to (19)-(20), apart from the irrelevant fact that D-linked wh-phrases do not have to front.)

(20) Kto znaet   kogda ty   videl kakogo doktora.
     who knows when you saw   which   doctor

The clausemate requirement interferes with conducting Saito's test regarding the undoing property of scrambling in Russian. However, the test can be conducted in SC. Although SC is a multiple wh-fronting language like Russian (which means that non D-linked wh-phrases in SC undergo either wh-movement or focus movement overtly, see Bošković 2002 and Stjepanović 1999b), its wh-phrases are not subject to the clausemate requirement. Citing the results of Saito's test in SC, Stjepanović (1999a) argues that SC has JSS. Consider (21)-(22).

(21) Ko   kaže da   je koga   pitao šta   je ona uradila?
     who says that is whom asked what is she done
     'Who says that he asked whom what she did?'
(22) ?[Koliko   novca potrošiti]$_i$ Marko zna   ko   želi e_i.
       how-much money to-spend   Marko knows who wants
       'Marko knows who wants to spend how much money.'   (Stjepanović 1999a)

(21) contains two interrogative CPs, the matrix and the most embedded one. Nonetheless, *koga* must take matrix scope, the embedded clause reading being completely unavailable (i.e. (21) can only be a multiple indirect question, not a multiple direct question).The reason for this is that the interrogative clause within which *koga* is contained in (21) is the matrix one, not the embedded one. The fact that *koga* cannot be interpreted in the most embedded CP indicates that the Wh-Q Constraint is operative in SC.[12] Turning to (22), notice that clausal fronting in (22) takes the wh-phrase outside of the scope of the embedded Q. Stjepanović observes that the wh-phrase can still be interpreted in the embedded clause SpecCP, i.e. (22) can be interpreted as a multiple indirect question. In fact, it can be interpreted in the same way as (23) in this respect. (Note that although (22) is not perfect, it is much better than (21) on the multiple indirect question reading. The contrast in question thus parallels the contrast between Japanese (16) and (17).)[13]

(23) Marko zna ko želi koliko novca potrošiti.

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[12]Suppose *koga* could lower to the most embedded SpecCP in LF. (This may not be an option in Tsai's 1994 and Reinhart's 1995 systems, where only wh-adjuncts undergo LF wh-movement.) The movement would have to leave a trace (i.e., the trace cannot be deleted in LF) since the trace is in the position of the variable. The derivation in question is then ruled out by the ban on Vacuous Quantification and the Proper Binding Condition. Note that, in contrast to the derivation in question, in the case of BT's scrambling lowering no condition of the grammar forces leaving a trace behind. BT therefore assume scrambling lowering does not leave a trace (alternatively, the trace can be deleted), which makes the Proper Binding Condition irrelevant. (In this respect, BT's analysis of scrambling is similar to May's 1977 quantifier lowering.) It is worth noting that, as BT discuss, we have here an argument against positing a ban on lowering given that the ban would redundantly rule out the *koga*-lowering derivation for (21). In other words, BT note positing a condition specifically banning lowering would be vastly redundant given that almost all instances of lowering are ruled out independently.

[13]Speakers differ regarding the Russian counterpart of (22), *skol'ko deneg potratit' Ivan znajet kto hočet*, some of them accepting it on the relevant reading. I attribute this to a variation in the exact formulation of the clausemate requirement, which interferes with conducting Saito's test in Russian.

Clausal dislocation in (22) thus patterns with JSS rather than topicalization in that it can take a wh-phrase outside of its scope. Stjepanović therefore concludes that clausal dislocation in (22) involves JSS: like JSS, it does not create an operator-variable relation and it is undone in LF. After the clause is moved to its θ-position in LF, the wh-phrase in (22) is within its scope, just like the wh-phrase in (23). The Wh-Q Constraint is therefore not violated in (22).[14]

I conclude therefore that Slavic has JSS. Russian (3-4), which appeared to argue against this conclusion, are not problematic for it because they do not involve scrambling on the relevant derivations.

There are, however, some differences between Russian (more generally, Slavic) scrambling and JSS. E.g., it is well-known that elements undergoing short-distance scrambling in Japanese can bind anaphors. However, such elements cannot bind anaphors in Russian. (The topicalization/focalization derivation is irrelevant here, since topicalized/focalized elements cannot serve as A-binders.)[15]

(24) [Mary to   Pam]$_i$-ni [otagai$_i$-no   hahaoya]-ga e_i atta.
      Mary and Pam-DAT each other-GEN mother-NOM   met
      'Mary and Pam, each other's mothers met.'
(25) *[Larisu   i   Tanju]$_i$ [materi   drug druga$_i$]   vstretili e_i.
       Larisa-ACC and Tanja-ACC mothers-NOM each-other-GEN met
       'Larisa and Tanja, each other's mothers met.'

Another difference between Russian and Japanese scrambling concerns scope. While a short-distance scrambled element in Japanese can take either wide or narrow scope with respect to elements that c-command its θ-position, it is often assumed that in Russian, the scrambled element must take wide scope in this configuration. Thus, the object in (26) must take wide scope. However, this is not the case in (27), which is ambiguous. ((27) is more natural with *každogo čeloveka* regardless of the reading. Also see Ionin in press for discussion of scope in Russian and Stjepanović 1999a for relevant discussion of SC.)

(26) Každogo$_i$ kto-to   ljubit e_i.
     everyone-ACC someone-NOM loves
      'Everyone, someone loves.'
(27) Každogo (čeloveka)$_i$ dva studenta   ljubjat e_i.
     everyone person-ACC   two students-NOM love
     'Everyone/every person, two students love.'

(27) is well-behaved: the topicalization/focalization option must be responsible for wide scope of the object given that the scrambling option can only yield narrow scope. (Recall that even short-distance scrambling must be undone in Russian, in contrast to Japanese, as (24-25) show.) On the other hand, the

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[14]It is obviously more difficult to show that scrambling not only can be, but also must be undone for Slavic than for Japanese due to the availability of the topicalization/focalization option (as discussed in Stjepanović 1999b, SC also has topicalization and focalization). Recall that (1) provides evidence that JSS must be undone. The interfering factor with the corresponding Russian data in (3) is the availability of the topicalization/ focalization derivation, on which the fronted quantifier can take wide scope.

[15]For an account of this difference between Russian and Japanese, the reader is referred to BT. Under BT's analysis, short-distance scrambled elements can stay in their base-generated SS position in LF in Japanese, but not in Russian, which gives us a straightforward account of the contrast between (24) and (25) (the difference between Russian and Japanese is tied to a difference between the two languages regarding the availability of the multiple subject construction, Japanese, but not Russian, allowing it).

lack of ambiguity in (26) is puzzling. I leave it unresolved, merely noting that if for some reason focalization were the only option for the dislocated quantifier in (26), the example's lack of ambiguity could be explained given that, as is well-known, focus facilitates wide scope.

In conclusion, Slavic languages considered here have scrambling in addition to topicalization and focalization. This means that examples like SC (28) are three way ambiguous regarding fronting of the embedded clause object: the fronting could involve topicalization, focalization, or scrambling. Above, I have presented several tests that can tease apart scrambling and topicalization/focalization.

(28) Ivana$_i$ tvrdiš   da ona voli e_i.
     Ivan-ACC you-claim that she loves
     'You claim that she loves Ivan.'

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