

Against the Scrambling anti-Movement Movement*

John Frederick Bailyn
Stony Brook University

1.0 Introduction: Free Word Order and Scrambling

This article argues against two recent non-movement accounts of free word order in Russian – van Gelderen (2003) (hereafter VG) and Bošković (2004) (hereafter B) and in favor of Scrambling-as-Movement. Both VG and B claim (a) that the (re)ordering of major constituents in Russian results from *a process that is not movement*, and (b) that (most) Russian (re)orderings result from a process distinct from that of Japanese. In sections 2 and 3 of this article I present the VG and B approaches and argue against them. In the final section, I argue that Japanese and Russian do not differ in the manner described by either author, and that a unified discourse-driven account of Scrambling as Last Resort movement is both theoretically more desirable and empirically more successful.

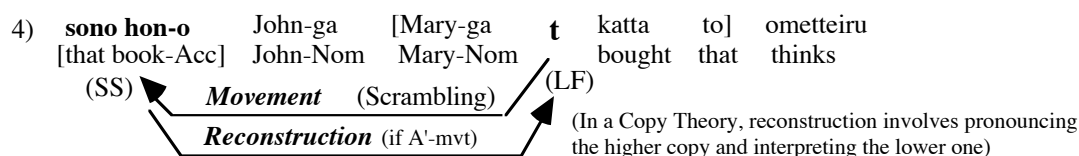
The issue at hand is the proper account of alternative word orders for identical major constituents in so-called “free” word order languages. Typical cases are given in (1) (local) and (2) (long-distance) for Japanese and (3) for Russian (the bold element is the constituent displaced from canonical (thematic) position):

- 1) a. Mary-ga sono hon-o yonda (Japanese)
Mary-Nom that book-Acc read
"Mary read that book."
b. **sono hon-o** Mary-ga ___ yonda
that book-Acc Mary-Nom read
"That book Mary read ___."
- 2) **sono hon-o** John-ga [Mary-ga ___ yondo to] itta]
that book John-Nom Mary-Nom read C said
'That book John said that Mary read ___.'

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- 3) a. Mal'čiki čitajut knigi. SVO
 boys-NOM read books-ACC
 b. Mal'čiki **knigi** čitajut __ . SOV
 c. **Knigi** mal'čiki čitajut __ . OSV
 d. **Knigi** čitajut **mal'čiki** OVS
 e. __ Čitajut **mal'čiki** knigi. VSO
 f. __ Čitajut knigi **mal'čiki** VOS

Standard accounts since Ross (1967), especially Saito (1989, 1992), have assumed or argued for a “scrambling” transformation, which derives (2) as shown in (4):



Motivation for a movement account of scrambling is given in Saito (1989), based on the contrast between Japanese (5a) and (5b):

- 5) a. [**sono hon-o**₁ [John-ga [_{CP} [_{IP} [_{CP} Mary-ga **e**₁
 that book-Acc John-Nom Mary
 katta to]₂ [Bill-ga **e**₂ itta]] to] omotteiru]].
 bought that Bill-Nom said that think

"That book₁, John thinks that [that Mary bought **e**₁]₂, Bill said **e**₂."

- b. *[[_{CP-2} Mary-ga **e**₁ katta to]₂ [John-ga [_{CP}**sono hon-o**₁
 Mary-Nom bought that John-Nom that book-
 [_{IP} [Bill-ga **e**₂ itta]] to] omotteiru]].
 Bill-Nom said that think

"[that Mary bought **e**₁]₂, John [that book]₁ thinks that Bill said **e**₂."

In (5a), CP₂ is scrambled out of an embedded clause, and NP₁ is then scrambled out of CP₂. All moved elements c-command their traces, and the derivation is fine. In (5b), however, NP₁ is moved first, followed by its containing CP₂. The resulting structure violates the Proper Binding Condition, because within CP₂, the contained NP trace **e**_i is not c-commanded by its antecedent, *sono hon-o*, now stranded. Saito concludes that “traces created by scrambling and those created by WH-movement in English behave in exactly the

same way with respect to the Proper Binding Condition (PBC) (Saito 1989, p. 190)

Furthermore, Saito (1989, 1992), Webelhuth (1989), Mahajan (1990), and Bailyn (1995) show with a number of syntactic tests for Japanese, German, Hindi and Russian respectively, that standard WH-movement constraints also apply to the derivation of free word order, implicating movement. Such constraints include the Coordinate Structure Constraint, Subjacency, Weak Crossover, the Adjunct Condition and others. Finally, Saito (1989) shows that Scrambling licenses Parasitic gaps in Japanese. We therefore approach the problem from the perspective that theories advocating non-movement should at very least maintain the level of descriptive adequacy movement accounts attained in the literature.

More recently, however, the Minimalist Program of Chomsky (1995) and later has compelled us to ask questions of *motivation* about any movement transformation posited: ‘Is the movement in question (syntactically) obligatory?’, ‘Is the movement driven by interface (in this case interpretive) considerations?’, ‘Do features drive the movement, and if so, which?’

In the case of Scrambling, preliminary answers to these questions throw some doubt on the movement account. First of all, Scrambling appears always to be optional (that is, we are never *forced* to derive (1b) from (1a).) Second, Scrambling appears to be semantically inert in that Logical Form (LF) relations, such as Quantifier Scope, are not affected by its operation in Japanese (Saito’s “radical reconstruction” property), meaning it may have no interface relevance (and hence should be superfluous, on minimalist assumptions). Finally, it is not clear what features might drive such movement. For these reasons, various alternatives to movement have been recently proposed, two of which I discuss, and ultimately reject, in what follows.

2.0. “Early Spell-Out”

Van Gelderen (2003) argues that Minimalism allows for the possibility that there exist “Early Spell-Out” languages (such as Russian) in which major constituents in a derivation can essentially move directly from the Numeration to Spell-Out, without passing through any syntactic component. This is possible in Russian because case is internally licensed, and assuming that case is a purely PF phenomenon, the syntactic component can be sidestepped,

deriving the effect of free word order.¹ In such cases “Scrambling is the result of the lack of merger, meaning that constituents arrive to PF unattached, which allows great freedom of linear order... This is what occurs in languages such as Russian (p. 7). In short, “certain languages have ways of checking features that do not require Merge to occur.” (p. 12) This is what allows all 6 of the possible constituent orders found in Russian (cf. (3)). Note that crucially for VG, nominals *do* undergo syntactic formation (to the level of DP) after which the predicate and its arguments are arranged at PF according to discourse principles without any further syntactic processes taking place.² Languages of this kind are predicted by VG to have the following properties:

6) Properties of languages with Early Spell-Out (VG, pp. 23-25):

- i. Free Constituent Order: all word orders of major constituents are available
- ii. Islands: “every partial structure will be opaque for extraction”
- iii. Ambiguity: The relative order of two quantifiers will always be ambiguous
- iv. Adjuncts: “no difference is expected between arguments and adjuncts in Early Spell-Out structures”

¹It is not clear to me what is meant by ‘internal licensing’, that is, what morphological property of a language allows it to license case internally. Examples of such languages other than Russian are not presented in VG, so I will limit the discussion of this issue. Japanese, crucially, does not have this property, and is not a early spell-out language.

²This simplifies VG’s particular claim for the six Russian constituent orders shown in (2). In fact, VG claims Early Spell-Out accounts for only three of the six orders, namely VSO, OSV and VOS, the so-called “unmerged” structures. The other three (SVO, SOV, and OVS) result from Merge in the usual way. Space considerations prevent me from arguing against this classification of Russian word order patterns. Instead, I will concentrate on the general approach and its empirical and theoretical weaknesses, for which the “unmerged” orders are enough to make the case.

2.1. Against Early Spell-Out

First, let us consider the issue of free constituent order under VG's system. Sub-constituents, such as argument DPs, are created by Merge in the usual way. Once V, DP₁ and DP₂ are built, then the derivation is sent off to Early Spell-Out. The result is any one of the six orders given in (3), the distinctions being determined by linear rules of discourse (information) structure. Crucially, for VG there is no process of syntactic Merge between a verb and its arguments in Russian (as opposed to Japanese, where the verb final order results from complement > head merger in the usual head-final fashion.) However, in abandoning any kind of VP-internal merger, VG encounters significant problems with both *selection* and *constituency*. Let us consider each in turn.

Within Minimalism, c-selection is replaced by feature checking, as in Adger (2003), where the requirement that a Preposition take an NP complement, say, is formalized as the P head bearing an uninterpretable [+uN] feature, which must be eliminated by being checked, at Merge, by a complement bearing an interpretable [N] feature, that is, by a nominal. So P must take an NP complement. Verbs that take CP complements, (indicative, interrogative, subjunctive, etc), small clause complements, and so on, are similarly marked. The featural requirements that constitute c-selection are satisfied when Merge with the appropriate category occurs.

It should be immediately apparent that the Early Spell-Out system, which expressly denies a merger process, will not as it stands be able to handle selectional relationships. Selectional restrictions cannot be captured at the level that determines linear order (PF) due to lack of adjacency. Nor are they able to be satisfied earlier in the derivation under VG. This leaves the LF component as the only possibility; and this is the level where VG assumes such relations are handled. But what exactly is the process of 'checking' like at LF? Is it configurational? Does it involve features? Does it require adjacency? It is well-known that categorial requirements cannot be fully reduced to semantics (*ask the time* vs. **wonder the time*), it does not appear that selection can be handled at LF, despite VG's assumption that it can. Adger's Bare Phrase Structure system requires that the uninterpretable categorial features driving selection are strong, and must be eliminated before LF. So such features

cannot determine selection. Without further elaboration, the system has weakened the grammar far more than it has strengthened it.³

Another serious consequence of VG's system involves *constituency*. The system directly denies VP constituency. In this respect, it essentially restates Hale's 1973 non-configurationality parameter by saying that sentences get assembled without VPs getting assembled first. However, on standard views of how ellipsis works, this would not account for *net* ellipsis in Russian, where the negative verbal element replaces exactly VP, as shown in (7a), including A'-scrambled objects (7b), whereas A-scrambled objects displace the constituency, leading to the deviance of (7c).

- 7) a. Ivan [pošel domoj], a Maša – net.
Ivan went home but Masha not
“Ivan went home but Masha didn't [go home]”
- b. Knigu [Ivan čital ___] a Maša -- net
book Ivan read ___ but Masha not
“A book, Ivan read, but Masha didn't [read a book]”
- c. ???Knigu_k čital_i [Ivan ____i ____k] a Maša -- net
book read Ivan ___ but Masha not
“A book was read by Ivan but Masha didn't [read a book]”

Without positing VP constituency at some point in the derivation, which gets disrupted by one kind of reordering but not the other, this paradigm cannot be easily captured.

Other problems exist for Early Spell-Out. For one thing, Russian embedded clauses are *not* fully opaque to scrambling, as has been

³ Similarly, in a diathesis system, such as Babby (1994, 1998, 2005), the selectional properties of verbs and other predicates is encoded in the *diathesis*, captured as a two-tiered representation of argument structure. In diathetic terms, selection is lexical but the system assumes a rigid order of hierarchical combination, which lead to strong empirical predictions about word order resulting from morpho-lexical processes. (See Babby forthcoming for extensive discussion.) Early Spell-Out weakens the predictive force of both a Bare Phrase Structure and a diathetic approach. The effects captured by those systems, including constituency and derived word orders, would have to be worked out separately under VG for her system to achieve descriptive adequacy even equal to existing theories of sentence construction.

reported for subjunctive *čtoby* clauses in Bailyn 1995 and elsewhere. Second, changes in word order directly affect scope interpretations, as shown in Ionin 2001, an aspect of free word order that Early Spell-Out directly denies the possibility of (recall that LF relations have no connection to PF orders in this system). VG claims all double quantifier structures will be ambiguous, contrary to the well-observed fact that surface scope is highly preferred to inverse scope by most speakers in both canonical and derived word orders.⁴ Thus the VG system loses empirical coverage in its effort to answer some of the questions about Scrambling raised under Minimalism.⁵

3.0 Base-generation and LF Lowering

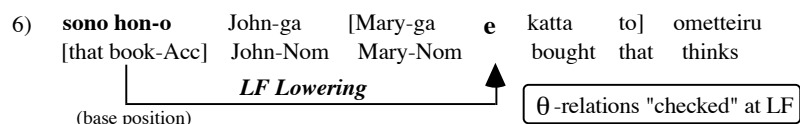
Bošković (2004) (hereafter B) builds on Bošković & Takahashi (1998)'s account (hereafter BT) of Scrambling as a base-generated process followed by obligatory LF lowering. In this system, θ -roles are features.⁶ Languages differ as to whether θ -relations are 'weak' and can be checked at LF (Japanese) or whether they are 'strong' and must be checked at Merge, hence no Scrambling (English). Thus Scrambled elements are pronounced in their base-generated position and then undergo obligatory lowering to their LF position in order to

⁴ The same is apparently not true of Japanese (see Bošković & Takahashi 1998) among many others. This distinction is what leads Bošković (2004) to argue that Russian does in fact have overt movement in such instances, although he labels it Topic/Focus movement. We return to this proposal in Section 3 of this article. For now suffice it to say that Russian facts speak against Early Spell-Out and in favor of movement, as Bošković shows.

⁵Note also that VG does not in fact eliminate Scrambling from the grammar. Japanese, where not all six constituent orders are available, must have Scrambling as movement and (left-branching) VP constituency to assure V-final structures under VG. Thus the VG typology posits *both* Early Spell-Out languages (Russian) *and* Scrambling languages (Japanese), hence *more* language types, without relevant discussion of the loss of elegance. Nor is there discussion of the significant learnability issues. I will not discuss these issues further here, other than to note their apparent intractability.

⁶Needless to say, this is far from an uncontroversial assumption. See Chomsky 1995 among many others for discussion. I will assume in what follows that such a characterization of thematic relations is possible, and my critique of BT will be limited to empirical domains, rather than taking on this larger, framing assumption.

check their θ -role. There is no optional movement, and radical reconstruction effects in interpretation follow automatically after lowering. The proposal is schematized in (8):



3.1 Against Scrambling as Base-Generation and Lowering

Despite the theoretical desirability of eliminating the optionality of Scrambling in this way, the original BT proposal has been strongly challenged in the literature (see for example Bailyn 2001, Boeckx 2003, Ko 2005 among many others). The reader is referred to those works for detailed argumentation. Two major issues, however, require some discussion, and are as follows:

A. The BT account of Scrambling predicts the absence of surface interpretive effects associated with the high (scrambled) position. Empirically, this claim appears too strong, as shown in (9-11), where we see surface scope effects and anti-reconstruction binding effects respectively:

Russian Surface Scope Effects (see also Ionin 2001)

- 9) a. Kto-to xočet, čtoby Boris uvidel každogo mal'čika.
 Someone wants that Boris saw [every boy]
 "Someone wants Boris to see every boy."
 i) $\exists x \forall y$ ii) $*\forall y \exists x$ (??? for some speakers)
- b. [Každogo mal'čika] kto-to xočet, čtoby Boris uvidel t.
 [every boy]-ACC someone wants that Boris saw
 "Every boy, someone wants Boris to see."
 i) $*\exists x \forall y$ (?? for some speakers) ii) $\forall y \exists x$

In (9a), we see that Russian quantifiers prefer surface scope interpretations, as discussed in Ionin (2001). When an embedded object is scrambled, it acquires surface scope. On theories where quantifier scope is determined at LF (the standard assumption), (9b) is incompatible with Lowering, since the scrambled element should always be interpreted in its low thematic position. The same problem occurs with anti-reconstruction effects shown in (10).

Anti-Reconstruction Effects (see Heycock 1995)

- 10) a. *[**How proud of John_i**] do you think **he_j** should be **t**?
b. [**Which question [that Gore_j got during the debate]**] do
you think **he_j** messed up on **t** the worst?
- 11) a. *Ja xoču, čtoby on_i srazu zabyl
I want that he right away forget
nekotorye voprosy Goru_i
some questions to Gore
"I want him_i to immediately forget some questions to Gore_j."
b. [**Nekotorye voprosy Goru_i**] ja xoču,
some questions to Gore I want
čtoby on_i srazu zabyl **t_j**
that he right away forget
"Some questions to Gore_j I want him_i to immediately forget."

(11b) shows that for Russian scrambling, just as for English wh-movement (10b), some fronted clauses containing an R-expression obviate the Principle C violation that is incurred when they are in base position as in (11a). This is then a case of ‘anti-reconstruction’. Because the same is not true of fronted arguments (10a), it has been proposed that the adjunct clause in the (b) sentences containing the R expression is attached late in the derivation. However, in a system where the displaced argument itself must obligatorily lower at LF, the LF representation will not have the argument and modifier in the same location, making intersective semantic interpretation impossible. A system like that of Heycock (1995), where the reconstructability of an element depends on its discourse status, is crucially not available in the BT system.

B. The BT account specifically requires that there be no trace (or copy) in scrambled (high) position. This is necessary to make the Lowering process itself syntactically legitimate. However, this also implies the lack of any locality or other syntactic constraints on Scrambling, assuming the usual accounts of such constraints as being constraints on chains or constraints on traces. However, the predicted lack of locality and other syntactic constraints on scrambling is contradicted by literature on many free word languages (see Saito 1989, 1992, Webelhuth 1989, Mahajan 1990, Bailyn 1995,

2001 among many others). A partial list is given in (12):

12) Known syntactic constraints on Scrambling

- a. Proper Binding Condition (Saito 1989)
- b. Subjacency (Webelhuth 1989)
- c. Complex NP Constraint (Webelhuth 1989)
- d. The Empty Category Principle (incl. *that-t* effect) (Bailyn 1995)
- e. No extraction out of Russian *čto*-clauses (Bailyn 1995)
- f. Coordinate Structure Constraint (Webelhuth 1989, Bailyn 1995)
- g. Constraint on Extraction Domains (Webelhuth 1989)
- h. Constraint on extraction out of Russian adnominal genitives (Bailyn 1995)

Space considerations preclude a full presentation of syntactic effects in scrambling here. However, Russian examples of Subjacency and ECP effects are given in (13) and (14-15) respectively:

- 13) a. *Kogo_i ty pozvonil [agentu [kotoryj ljubit t_j]]?
Whom you phone spy who loves
"Whom did you phone a spy who loves?"
- b. *Borisa_i ty pozvonil [agentu [kotoryj ljubit t_j]]
Boris you phone spy who loves
"It's BORIS you phoned a spy who loves!"
- 14) a. **Komu** ty xočeš', [čtoby Ira pozvonila t_j] ?
who you want that Ira phoned
"Who do you want Ira to call?"
- b. ***Kto** ty xočeš', [čtoby t_j vljubilsja v Iru] ?
who you want that fall in love (to) Ira
"Who do you want that fall in love with Ira?"
- 15) a. Ja **Borisu_i** xotel, [čtoby Ira pozvonila t_j]
I Boris wanted that Ira phone
"I wanted Ira to phone Boris."
- b. *Ja **Boris_i** xotel, [čtoby t_j vljubilsja v Iru]
I Boris wanted that fall in love (to) Ira
"I wanted Boris to fall in love with Ira."

Clearly, known movement constraints are active in Scrambling. This is not expected under BT. BT do not directly address the issue of locality and the PBC. However, they do acknowledge the problem of

known syntactic constraints on Scrambling in a footnote: "We ignore here the Coordinate Structure Constraint, the Left Branch Condition, and the Specificity Condition, since it is not at all clear that these are movement constraints" (BT, fn 17, p. 358) No proposals are made as to how to account for the parallel effects of those constraints on Scrambling and WH-movement in a system without Scrambling-as-Movement. An important generalization thus is lost, and empirical coverage of the resulting theory, however theoretically preferable, is sacrificed without sufficient theoretical compensation, until CSC and other scrambling effects are accounted for. The empirical coverage of GB Scrambling accounts has to be maintained in non-movement accounts in some other way, not provided by BT (or VG).

3.2 Against a Movement-but-not-Scrambling Account of Russian

In Bailyn 2001 I presented these and other objections to the BT account, primarily using Russian data, showing the effects discussed above (that Scrambling has interpretive effects and that locality constraints hold), and that adjuncts can Scramble (another effect not predicted by the BT account). In reply, Bošković (2004) (B) acknowledges the importance of such examples, but argues that they do not undermine the BT approach of Base-Generation and Lowering. "Russian examples that Bailyn (2001) uses to argue against Bošković & Takahashi's (1998) analysis of scrambling *are irrelevant to the analysis because they do not in fact involve scrambling*. (Bošković 2004: 613, emphasis JFB) In particular, B concedes that movement is involved in Russian instances which show interpretive effects and are subject to standard movement constraints, but that these instances are not in fact Scrambling. Rather, these are cases of Topic/Focus movement, which is assumed by B to be a standard syntactic movement process, distinct from the Scrambling (Lowering) that Japanese manifests.

In the final section of this article I address the general issue of whether or not there is a significant distinction between the derivation of free word order variation in Japanese and Russian, as argued in both VG and B, concluding that the separation between the two languages is more superficial than claimed in those accounts. Before that discussion is possible, however, it is critical to examine the nature of B's proposed distinction between the two language types. His claim is this: Russian has Topic/Focus movement, which is assumed to be standard upward A'-movement. Reconstruction properties are not discussed, except in a footnote, where the

implication is that they do not exist. Thus the high (scrambled) position determines interpretive effects.⁷ The usual locality and other constraints apply at the movement is carried out, and adjuncts can participate.⁸

Let us examine the motivation for claiming that the two languages are so different: B's primary argument is that those Russian examples that do not have the radical reconstruction property can not result from Scrambling. "The undoing property is taken to be the defining and most interesting property of Japanese-style Scrambling (JSS) " (B, p. 618) The crucial difference between the two languages concerning interpretation and word order involves quantifier scope, and is illustrated in (16-17):

- 16) [**Daremo-ni**]_i dareka-ga [Mary-ga **t_i** atta to] ometteiru
 everyone-Dat someone Mary met that thinks
 i) $\exists x \forall y$ ii) $*\forall y \exists x$
- 17) [**Každogo mal'čika**]_i kto-to xočet, čtoby Boris uvidel **t_i**.
 [every boy]-Acc someone wants that Boris saw
 "Every boy someone wants Boris to see."
 i) $*\exists x \forall y$ ii) $\forall y \exists x$

In (16), the scrambled embedded object does not acquire surface scope in Japanese. In (17), on the other hand, the surface order determines the scope, as we have seen. This difference is significant,

⁷The discussion in B's main text concerns scope, which I address in the final section of this article – B's footnote addresses the thornier issue of the binding reconstruction that is standardly required for A'-movement ([*Which pictures of himself*] did John hate t ?), opting for a fully derivational version of Binding Theory, following Epstein et al (1998), Grewendorf and Sabel (1999) and elsewhere, whereby scope is established in the course of the derivation (here before wh-movement). Derivational approaches are promising for Principle A but Principle C appears to apply at LF (Saito 2003), meaning that the anti-reconstruction facts for binding still implicate an overt movement account.

⁸B later adds that Russian also has Japanese-style Scrambling, to which I return below. For now what matters is the concession that (most) Russian free word order results from overt movement which is distinct from Scrambling-as-Lowering and thus not contraexemplary to the claims made about Japanese.

and will be discussed in Section 4 of this article. Otherwise, the primary distinction seems to be related to the fact that Russian has no overt Topic/Focus devices other than word order (and intonation), whereas Japanese regularly marks Topics with *wa*. However, the overt nature of this particle does not entail that non-marked word order variation in Japanese might not serve a discourse function just as it does in Russian. Indeed there are significant examples of the discourse relevance of Japanese free word order (see Miyagawa 1997 and Bailyn 2001). At the same time, Japanese Scrambling obeys the Proper Binding Condition, as we saw in (5), as well as Subjacency and other movement constraints, Saito (1989, 1992, 2003). These effects are not accounted for in BT or B.⁹

⁹B responds to the issue of the PBC in an extended footnote, where it is claimed that PBC effects in Scrambling are irrelevant for two reasons: first, because the PBC does not hold in German remnant movement instances, where a fronted infinitive can contain the trace of a lower element as in (i):

- (i) [*t* Gelesen] [hat das Buch keiner]
 read has the book noone
 “Read the book, noone has.”

However, Van Riemsdijk (pc) points out that cases such as (i) mask the more general situation of the PBC applying exactly as expected in cases like (ii), where the presence of *was-fürsplit* implicates movement.

- ii) *[*t* Für Bücher gelesen] [weiss ich nicht was er hat]
 for books read know I not what he has
 “I don’t know what for books he has read.”

Thus something like the PBC holds in case of German remnant movement cases, although bare infinitival constructions like (i) may involve base-generation. (ii), English WH-movement, Japanese LF-WH movement, and Japanese Scrambling can be united in this only by assuming movement constrained by the PBC applies.

Second, B rejects a PBC account because “it is crucial to apply the PBC at S-Structure... [and] is therefore incompatible with the Minimalist program, which has no place for S-structure conditions” (p. 617) The minimalist attempt to eliminate S-structure conditions entirely is laudable, but cannot sacrifice empirical coverage. In this way, replacing the PBC account of (5) actually weakens the argument against movement, since the PBC clearly applies to known instances of movement such as English WH-movement, and thus a significant parallelism with movement becomes no more than an unexplained coincidence in a non-movement account.

One more aspect of B's account requires discussion. B shows that not all instances of Russian word order variation involve Topic/Focus movement. Japanese-style Scrambling (JSS) also occurs in Russian. This is important for B because JSS is able to escape WH-islands. Russian shows such effects as well, so these must be instances of Topic/Focus movement, which obeys islands. B's own account thus requires that sentences such as (18) be derived by JSS (Base-generation and Lowering), as vs. (19), which shows the effects of a WH-island violation (Müller & Sternefeld 1993):

- 18) Ty **doktor**_i videl kogda [IP t_i pod"ezžal] ?
 you doctor-NOM saw when came
 "The doctor did you see when (he) came?"
- 19) *Kto_i ty videl kogda [IP t_i pod"ezžal ?] (WH-island)
 who you saw when came
 *"Who did you see when came?" (Müller & Sternefeld 1993)

But the distinction may not be one of base-generation vs. movement. For if (18) is Japanese style-scrambling, as its acceptability indicates, then B's account immediately predicts Japanese-style low quantifier scope in such constructions, since the undoing property always characterizes JSS. This prediction is not borne out, as shown in (20):

- 20) Ty **každyju devušku**_i videl kogda
 you [every girl]-Acc saw when
 [kakoj-to mal'čik celoval t_i]?
 some boy-Nom kissed
 "Did you see when some boy kissed **every girl**?"
 i) *∃x ∀y ii) ∀y ∃x

In (20), an embedded quantifier escapes a WH-island, but has surface scope. If the undoing property is the diagnostic, then (20) must be overt movement. If escaping islands is the diagnostic, then (20) must be non-movement (JSS). B's account has achieved a paradox.

To sum up thus far: the claim that Russian free word order is (usually) driven by movement whereas Japanese variations are not encounters significant problems. Despite the proposed distinction, both languages obey locality in Scrambling and show high interpretive effects. Both are discourse related. Both languages use surface word order to encode discourse relations, and the Scrambling mechanism, constrained in its operation just as other movement

processes, is the best candidate for how they are derived.

As for the nature of the contrast in (18), I follow Müller & Sternefeld in accounting for this contrast as coming from the nature of the two movements involved. In Minimalist terms, different features trigger WH-movement from Scrambling. The former cause a Relativized Minimality violation (19), the latter do not (18). Many speakers do not find (18) perfect, exactly as expected if there is a mild Subjacency violation but no Relativized Minimality violation. Thus it appears clear that Russian in fact has one mechanism for deriving free word order – Movement. In the next section we turn to the issue of whether there remains good cause to claim that Japanese is really any different.

4.0 On supposed differences between Japanese and Russian

VG and B each propose radically distinct grammars for Russian and Japanese. For VG Japanese has Scrambling (movement), but Russian has Early-Spell-Out (non-Movement). Both are discourse-driven. For B, following BT, Japanese has Base-Generation and Lowering (non-movement), whereas Russian primarily has Topic-Focus Movement (directly driven by discourse). Both admit the need for movement transformations in describing free word order. Further, both acknowledge the close connection between free word order and discourse effects, drawing on a long tradition including Adamec (1966), Kovtunova (1977), Yokoyama (1986) and many others. In this situation, then, it is only natural for research attention to be focused on one primary question: is it possible to limit the derivation of free word order to a single device, whose motivation is discourse-driven, and which is driven by an interpretive component of the grammar.¹⁰ We have seen that a Movement account is

¹⁰I assume that there is a distinct level of information structure, as proposed in many places including Rochemont 1980, Vallduví 1992, Lambrecht 1994, Bailyn 1995, Zubizarreta 1998 and various others. However, nothing here in making the case for movement requires that discourse relations be an independent linguistic level. The issue of what the mechanics of movement (feature-driven only or not) remains an important question that may relate to the issue of levels. But neither will determine the issue of whether or not syntactic movement is (always) involved, for which the empirical evidence presented here remains the strongest argument.

preferable for Russian. The next question is this: is there evidence that Japanese word order variation is also created by movement? And of course there is – there is the original evidence in Saito 1989, and further evidence in Kawamura 2003 and Saito 2003. Further, there is the question of surface interpretive effects. We have seen that scope does not appear to change with word order variation. But anti-reconstruction effects like those in (14) for Russian, also obtain in Japanese, as shown in the contrast between (21a) and (21b):

- 21) a. [**John-ga** **tukutta** **jodan-o**]_i [kare-wa [Mary-ga
 John-nom made joke-acc he-top Mary-nom
 e_i tukatta to] omotteiru].
 used C thinks
 "The joke that John_i made, he_j thinks that Mary used."

(21) shows that a Scrambled embedded object does not behave as if it radically reconstructs (or a Principle C violation would occur). The general picture is emerging that Japanese too uses overt movement to derive free word order.

Of course there remain two outstanding questions concerning the claim that Japanese and Russian both have discourse-driven overt Scrambling, subject to essentially the same constraints. First, why do the two languages differ in the interaction of scope and word order, if not by movement vs. non-movement? Second, why can adjuncts not scramble in Japanese?

Let us take the second question first. I assume that the restriction in question is not on non-arguments per se, but rather on adjuncts in particular in Japanese. This is confirmed by the fact that adjuncts also are not acceptable in *wa* topic constructions, which are certainly not theta-driven. As for scope, Japanese appears to have an independent scope principle from other languages, in that it is interpreted without regard to movement. (This is of course true for WH phrases, which can also be scrambled without scope changes (the WH-Q effect).) Let us call this the Scope Locality Effect:

- 22) The Scope Locality Effect (Japanese):

A quantifier must be interpreted in its local argument domain

With (22) in place, we can maintain a strong derivational system of free word order in which overt A' movement, driven by discourse-considerations, derives alternative word orders. Reconstruction applies in the usual way (interpreting of a lower copy where

relevant). Scope differences derive from (22), and we are left with two kinds of languages: Scrambling languages (Japanese and Russian) and non-Scrambling languages (English) and one kind of Scrambling: movement.

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