

Does Russian Scrambling Exist?

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Introduction

The purpose of this article is to argue *against* the necessity of positing a process of "Scrambling" in accounting for Russian "free" word order.* Instead, I argue that there is an unmarked order (SVO) and two distinct kinds of reordering processes, both familiar from other languages, and that current advances in linguistic theory allow us to tease the two apart, to see them as derived in a particular way, and thus to account for the complexity of available patterns in Russian without recourse to an all-encompassing, optional Scrambling rule. If such a view can be maintained, its advantages should be obvious: the analysis of Russian and other "free" word order languages is simplified and the similarities between reordering processes in Russian and processes well-studied and understood from other languages are brought to the forefront. Furthermore, the results move us one step closer to an understanding of how Information Focus (Kiss 1998) is integrated into a Minimalist framework.

1. Russian Word Order

It is well-known that Russian allows any ordering of major constituents (under the right circumstances). For this reason, Russian is known as a "free word order" language. Examples of the 6 possible orders of a sentence with a Subject, Verb and Direct Object are given in (1):

1)	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

Two quite distinct linguistic traditions exist with respect to this phenomenon. On the one hand, traditional Russian linguists, Prague School theorists and functional linguists of various kinds have primarily analyzed the *context* in which the varying orders are felicitous. Not all orders are acceptable in all contexts (Adamec 1966, Kovtunova 1976, Svedova 1980) and rules of linear ordering with respect to contextual "givenness" and "newness" (Yokoyama 1986) or "communicative dynamism" (Firbas 1992) have been developed to describe this contextual realtiveness. Quite a different approach to free word order exists within the generative tradition, where description and explanation of internalized speaker knowledge is the primary goal. There, the variants in (1) have not received as significant attention as within functionalist traditions, if only because the different orders appear are considered stylistic variants of a core sentence. Because the sentences in question share truth conditions and morphological form, the surface variation has not been considered within the realm of pure syntax. Indeed, Ross (1967) who first proposed a rule of "Scrambling" to derive alternative word orders in Latin and other languages, attributed the process to the stylistic component, an approach that has

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continued through the work of Saito on Japanese (1992) and remains for many generativists the assumed nature of word order variation, namely that some stylistically-driven process ("Scrambling") derives the alternative orders. Most discussion of this process has concerned the *mechanical nature* of the movement involved, in particular, whether it is A'-movement or A-movement. The literature is somewhat undecided, but the general consensus is that both kinds of Scrambling exist, but that Long-Distance Scrambling is generally A'-movement, and local Scrambling is A-movement. For discussion, see Mahajan (1990), Webelhuth (1989), Müller & Sternefeld (1993), Bailyn (1995), Miyagawa (1997), and other articles in this volume.

In this article I take a strong stand against the notion that there exists a uniform process of Scrambling in Russian, and, by extension, in any language. Rather, I argue that a subset of the relevant phenomena are related to a purely syntactic processes of "Inversion", a kind of Raising to Subject, and the rest related to "Focus", which is represented in a unique sub-component of the interpretative interface.

I begin with the assumption that Russian is underlyingly SVO, as argued in Isačenko 1966, Bivon 1971, Svedova 1980, Restan 1981, Bailyn 1995 and elsewhere. Various factors indicate that SVO is the unmarked order. First, as we will see in section 3, it is the only felicitous order in a neutral, "null-Theme" context, and the only order that allows functional ambiguity. It is also the only order that allows neutral, falling intonation on the final constituent. Statistically, it is by far the most frequent (Bivon 1971). There are syntactic tests as well. Subjects consistently c-command objects. Finally, gerundive VPs and participial APs have fixed V O order. We can thus be confident that SVO is the unmarked order. Assuming some version of the VP-internal subject hypothesis and abstracting away from externalization of any arguments outside the vP, unmarked order can be represented as in (2):

2) Structure of unmarked Russian SVO sentence:

$$[{}_{vP} \text{ subject}_i [{}_{v'} \text{ verb}_k [{}_{VP} t_i [{}_{V'} t_k \text{ object}]]]]$$

We now turn to the first non-SVO orders for which Scrambling has been proposed, and show that there is an analysis for them that obviates the need for a Scrambling rule at all.

2. Inversion

In this section, I propose that a significant subset of non-SVO orders in Russian are produced by a syntactic process I call "**Generalized Inversion**" which shares properties with English Locative and Quotative Inversion. This construction is discussed in detail in Bailyn (forthcoming). For our purposes, it is enough to present its basic characteristics and show that it is syntactically-driven, resulting from a certain parameterization of the Extended Projection Principle.

2.1 Inversion Constructions in Russian

The constructions below all have a non-Nominative argument in first position, followed by the finite verb, and then the Nominative subject (and/or other constituents). I have given the constructions names in order to classify them, while maintaining the view that they are products of the same essential process, namely non-canonical fulfilling of the EPP. (They are all O-V-S sentences, and thus include (1d) above, but none of the other 5 non-SVO orders.)

Object Inversion (OI):

- 3) **Ētu knigu** čitaet Ivan O-V-S
 [this book]-Acc reads Ivan
 "This book is being read by Ivan."¹

Locative Inversion (LI): (Babyonyshev (1996))

- 4) **V klasse** pojavilsja noven'kij PP-V-S
 in class appeared new
 "A new boy entered the class."

Quotative Inversion (QI): (Collins (1997))

- 5) **"Ničego sebe!"** skazal Petja. Quot-V-S
 -exclamation- said Petja-Nom
 "'Wow' said Petya."

Adversity Impersonals: (Lavine (1998))

- 6) **U ši** založilo O-V
 ears-Acc clogged-up
 "(my) ears got clogged up."

Possessive PP constructions

- 7) a. **U menja** est' vopros. PP-V-S
 at me is question-Nom
 "I have a question."
 b. **U nas** rodilas' dočka PP-V-S
 at us was born daughter-Nom
 "To us was born a daughter."

Dative experiencers

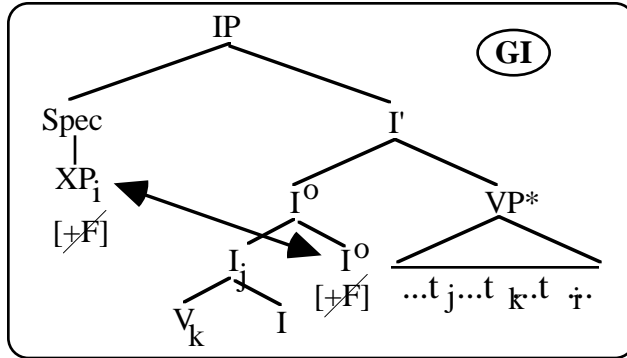
- 8) a. **Saše** nravjatsja deti. DatExp-V-S
 Sasha-Dat likes-pl children-Nom
 "Sasha likes children."
 b. **Soldatam** vidna doroga DatExp-A-S
 soldiers-Dat visible-fem sg road-Nom-f-sg
 "The soldiers can see the road."

2.2 "Generalized Inversion" as Raising to Subject

In Bailyn (forthcoming), I analyze provide substantial evidence for the analysis in (9) of (all) these constructions. On this view, the fronted element moves directly into canonical surface subject position (SpecIP), and there is verb-raising to I over the subject (hence the comparison to English Quotative Inversion). This analysis is schematized in (9):

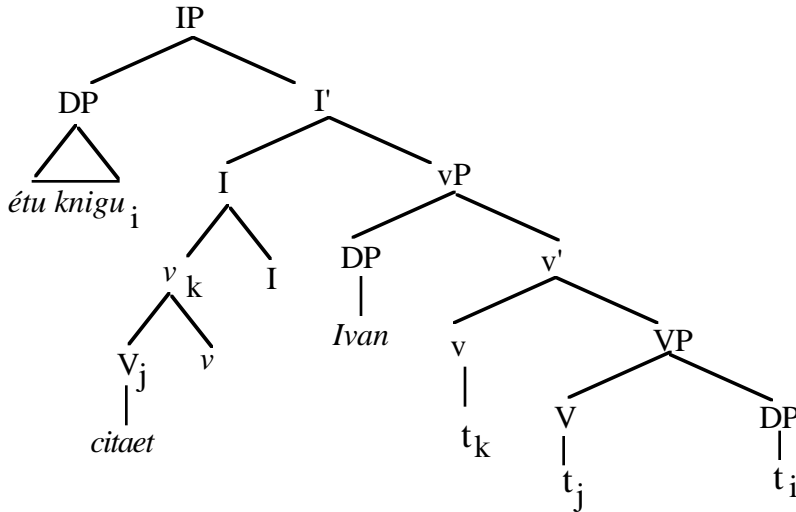
¹I have translated the inversion constructions with Passives wherever possible for reasons that will become clear below, related to the subject properties of the inverted constituent.

9) **Generalized Inversion (GI)** (Bailyn, forthcoming)



In (9), we see that the internal argument XP has moved into SpecIP, triggered by the strong feature checking requirement of a feature [+F]. Second, we see that the finite verb raises to I by head movement. Thus the structure of (3) is given in (10):

10) Structure of (3):



Similar analyses are proposed for Adversity Impersonals (Lavine 1998), Locative Inversion (Babyonyshev 1996) and Bantu "Subject/Object Reversal" (Collins 1997).

The analysis provided in (10) raises the following questions:

11) Questions about **Generalized Inversion** (GI):

- i. What is the evidence that the XP is in fact in SpecIP position in **GI**?
- ii. What is the feature [+F] that forces XP raising in **GI**?
- iii. How is **GI** parameterized?
- iv. What are the implications for Economy?
- v. Is all leftward fronting of non-Nominative XPs covered by **GI**?

In Section 2.3, we address question (i), in 2.4 questions (ii)-(iv) and return in Sections 3 and 4 to question (v).²

2.3 Evidence of Subject Properties of the Inverted Constituent in GI.

Let us first address question (i): What is the evidence that the XP is in fact in SpecIP position in **GI**? In Bailyn (forthcoming), I show that a wide range of subject properties (A-properties) hold for the initial constituent in **Generalized Inversion**. The tests show that all the constructions that comprise **Generalized Inversion** regularly display A-properties for the inverted argument. In the examples below, I list the construction type and indicate the inverted constituent in bold face. (Notice that these constructions are characterized by V raising, and therefore the verb *always* precedes the Nominative subject, the XP-V-Subject order being a salient characteristic of **GI**.)

The first piece of evidence that the inverted constituent is in syntactic subject position is its ability to bind anaphors in **GI**, which it otherwise can not. This is shown in (12-13):

- 12) a. ???Svoj_i dom byl u Petrovyx_i possessive-PP
 [self's house]-Nom was at the Petrovs
 "The Petrovs had their own house."
 b. **U Petrovyx** byl svoj_i dom
 at the Petrovs was [self's house]-Nom
 "The Petrovs had their own house."
- 13) a. ???Svoja_i rabota nravitsja Maše_i dative experiencer
 [self's work]-Nom pleases Masha-Dat
 "Masha likes her work."
 b. **Maše_i** nravitsja svoja_i rabota
 Masha-Dat pleases [self's work]-Nom
 "Masha likes her work."

In each example, the (a) sentence represents the underlying order, where binding possibilities are unacceptable for most speakers. However, in the (b) sentences, which represent the inverted order, binding is fully acceptable. This is strong evidence for A-movement since Russian anaphor binding has a surface subject condition, which is usually restricted to Nominative subject binders (Rappaport 1986). Clearly, the PP and Dative arguments here are able to fulfill the subject requirement in the Inversion construction despite not being Nominative -- exactly the kind of evidence we would expect to show that the movement involved is A-movement and the target of that movement, SpecIP.

The next piece of evidence comes from Reconstruction (or lack thereof). It is generally known that for purposes of Binding Principles B and C, A'-movement reconstructs, so that binding relations are read off the highest A'-position occupied by the constituent in question, regardless of surface (A') location. A-movement, on the other hand, does not reconstruct, and so reconstruction effects make a good testing ground for the kind of movement involved. Since the proposal of **Generalized Inversion** rests on the notion that the movement involved is A-movement, we predict binding relations to change under **GI**, and this is exactly what we

²Notice that I have not included in this list of questions something quite central to the precise analysis of GI, but a bit tangential to our concerns in this article, namely the question of what forces the V-movement in GI (but not in canonical SVO sentences). Discussion of this issue would take us too far afield and is not directly relevant to the arguments against Scrambling. However, it is discussed in Bailyn (forthcoming).

find. Thus if we begin with a Principle B violation and subject it to **Generalized Inversion**, the violation is bled: the possibility of coreference improves significantly. This holds for all the (a) and (b) pairs given below:

- 15) a. *Staršij brat_i pojavilsja v ego_i dome. Locative Inversion
 [older brother]-Nom appeared in his house.
 "The older brother appeared in his house."
 b. ?V ego_i dome pojavilsja staršij brat_i
 in his house appeared [older brother]-Nom
 "In his house appeared the older brother."
- 16) a. *Tol'ko Maša_i est' u nee_i Possessive-PP Inversion
 only Masha-Nom is at her
 "Masha_i is all she_i has."
 b. ?U nee_i est' tol'ko Maša_i
 at her is only Masha-Nom
 "All she_i has is Masha_i."
- 17) a. *Deti_i nravjatsja ix_i roditeljam. Dative Experiencers
 children-Nom like their parents-Dat.
 "Their parents_i like children_i."
 b. ?Ix_i roditeljam nravjatsja deti_i
 their parents-Dat like children-Nom
 "Children_i please their_i parents."

Finally there is evidence from Principle C effects, which can be triggered by **Generalized Inversion** (again evidence of lack of Reconstruction), whereas Long Distance (A') movement does not feed such effects. An example of A'-movement, but not A'-movement, triggering a principle C violation is given by the English paradigm in (18):

- 18) a. Friends of John_i introduced him_i to Mary.
 b. *He_i was introduced to Mary by friends of John_i
 c. Him_i , friends of John_i introduced t to Mary.

Passivization in (18b) triggers a Principle C violation whereas Topicalization in (18c) does not.

The same effect holds for all of the **GI** constructions presented above. Thus in (19b), the **GI** construction, Principle C is violated as expected after A'-movement into SpecIP. However, in the minimally different (19c), which is not a **GI** construction (since it lacks V'-movement and is therefore not GI, by hypothesis) we have A'-movement. Thus the pronoun reconstructs as expected, leaving Principle C unviolated:

- i. Object Inversion
- 19) a. [Znakomye Ivana_i] predstavili ego_i predsedatelju. S-V-O
 [Friends-Nom of Ivan] introduced him-Acc chairman-Dat
 "Ivan's friends introduced him to the Chairman."
 b. *Ego_i predstavili [znakomye Ivana_i] predsedatelju O-V-S-O_{dat}
 him introduced [friends-Nom of Ivan] chairman-Dat
 *"He_i was introduced to the chairman by Ivan's_i friends"

- (19) c. Ego_i, [znakomye Ivana_i] predstavili t predsedatelju O-S-V-O_{dat}
 him [friends-Nom of Ivan] introduced chairman-Dat
 "Him, Ivan's friends introduced to the chairman."

Similarly, in (20)-(23), **Generalized Inversion** triggers a Principle C violation:

- ii. adversity impersonals
- 20) *Ego_i uneslo v storonu doma morjaka_i. O-V-PP
 him-Acc swept away in direction of house sailor-Gen
 *"He was swept away in the direction of the sailor's house."
- iii. locative inversion
- 21) a. [Znakomye Ivana_i] byli [u nego_i doma]. S-V-PP
 [friends of Ivan] were at him at home
 "Friends of Ivan's_i were at his_i house."
 b. *[U nego_i doma] byli [znakomye Ivana_i]. O-V-PP
 at him at home were [friends-Nom of Ivan's]
 "At his house were friends of Ivan's."
- iv. dative experiencers
- 22) a. [Znakomye Ivana_i] nravjatsja emu_i. S-V-O_{dat}
 [friends-Nom of Ivana] like him-Dat
 "Friends of Ivan_i please him_i." (cf *"He likes friends of Ivan.")
 b. *Emu_i nravjatsja [znakomye Ivana_i]. O_{dat}-V-S
 he-Dat like-pl [friends-Nom of Ivan]
 *"He_i is liked by friends of Ivan_i."

Thus we have various kinds of evidence all pointing to the same conclusion -- that when there is **Generalized Inversion**, an XP moves into SpecIP by A-movement, where it acquires anaphor binding ability and does not reconstruct for binding purposes. All of this confirms the proposal for **Generalized Inversion** in (9), and allows us to successfully eliminate Scrambling from the description of **GI** constructions. We now turn to remaining questions about GI.

2.4 The Syntactic Nature of Generalized Inversion

We have seen that the **GI** constructions move an XP into SpecIP. What forces this movement? It is my claim that this movement satisfies the Extended Projection Principle and is driven by the same checking requirements on I that are checked by locative PPs in English Locative Inversion constructions, as analyzed in Collins (1997). Russian differs from English and other languages in its ability to check the EPP by any argument and not just a Nominative subject or Locative PP predicated of the Nominative subject. Such parameterization is not unexpected, however, considering recent findings with respect to the EPP. In particular, Alexiadou & Anagnostopoulou (1998) claim that *either* an XP *or* a raised V can check the EPP, the former variant producing English and Icelandic and the latter version existing for pro-drop and VSO languages, where the EPP is checked by the raised V. Alexiadou & Anagnostopoulou's proposed typology is reproduced in (24), where their proposed parameterization of the EPP is represented in the first column, and Bobaljik & Jonas's "SpecT parameter", (indicating the presence or absence of a *second* high functional position for subjects (lower than AgrS)) is indicated in the second column. This predicts 4 language types:

23) Language Types by two parameters
 (Alexiadou & Anagnostopoulou (1998), Bobaljik & Jonas (1996))

<u>EPP</u> (by Spec/Head)	<u>Spec,TP</u>	<u>Language</u>
+	--	English
+	+	Icelandic
--	--	Greek, Romance
--	+	Celtic, Arabic

Where does Russian fit into this typology? Clearly, it has a [+] value for the EPP parameter, since some XP must always be in SpecIP and since SVO sentences show no verb raising. It must also have a [+] value for the "SpecT" parameter, in that Nominative case is checked in a position lower than the EPP position in all the **GI** cases we have seen. Thus Russian appears to be like Icelandic. If so, we would expect Icelandic to demonstrate non-Nominative EPP constructions, and it does (Quirky subjects can bind anaphors, etc.), although it is unclear whether they are as widespread as in Russian.³

This leads to the next question, namely what implications this account has for Economy of derivation. The Inversion construction would appear to be less economical because it involves *both* XP raising to SpecIP *and* verb raising to INFL, whereas a canonical SVO sentence has only 1 step (subject raising to SpecIP). Thus, if the Numerations are identical, the canonical SVO derivation should always block the **GI** derivation, which it clearly does not. There are two possible solutions to this problem, which I will not try to choose between in this article. First, it is possible, as argued in Collins (1997) in addressing a similar issue with English Locative Inversion, that Economy is calculated locally, not globally, and thus the two derivations are not in fact in competition. This is a large claim about the form of the grammar, which may or may not prove to be correct. If it does, the smaller issue of Economy presented here goes away. The other possibility is that the two constructions do *not* share the same Numeration -- that is that attaching the EPP feature to a particular XP is in a sense a lexical process, and that the relevant constituent *enters* the Numeration with the EPP feature attached. In this case, of course, the two derivations do not begin from the same Numeration, and again Economy issues are irrelevant. I tentatively adopt this latter approach, while deferring precise explanation to further research.

We are now left with one question about **GI**, namely whether it covers *all* leftward displacement processes, and of course we have already seen enough non-**GI** constructions to know that it does not. However, the point of this section has been to tease apart two kinds of leftward movement, and to show that each has a distinct derivation and motivation. Thus we leave this section having seen that **GI** constructions are simply a kind of Raising to Subject, EPP-driven, (with accompanying verb movement), and as such do not constitute Scrambling in any coherent sense. The strongest claim of this section, which is echoed in Miyagawa (this volume, in press) and elsewhere, is that *all A-Scrambling is EPP-driven*, and should be seen as such, and does not have anything in common with those cases of leftward displacement that are A'-movement, Long-Distance, and, in Russian, do not involve V-movement. This explains why local scrambling has always appeared to have distinct properties, and why it has more in common with object shift and Raising: it involves no A'-movement.

³Thus the [+] value of the EPP means that the EPP feature, whatever it turns out to be, can appear on *any* argument XP, in the unmarked case, and that the English restriction to Nominative subjects (and some locatives) reduces to the [-] value for the SpecT parameter or some other restriction, and is not part of the EPP per se.

We next turn to the other subset of cases usually handled by "Scrambling", namely the A'-Scrambling cases, and propose that these are Focus-related, or discourse-driven, in a broad sense.

3 Relating A'-Scrambling to Focus

We have seen in section 2 that a class of reorderings in Russian, usually referred to as A'-Scrambling, is in fact a syntactic process -- **Generalized Inversion**. This simplifies the task of eliminating Scrambling as a descriptive device considerably, and focusses our attention on the remaining cases of non-SVO order, which involve leftward A'-movement of a constituent, either locally or long distance (Saito's "semantically vacuous A'-movement"). In this section I argue that such movement is always associated with particular requirements of the informational component of the grammar, and in a sense to be made precise, is neither "optional" nor "vacuous". Rather, such movement presents one (parameterized) way of representing Information Focus (Kiss 1998) by surface word order, an option that characterizes "free" word order languages. The analysis claims that Information Structure includes Topic/Focus structure, as argued in Partee (1991), and Zubizarreta (1998), and as such constitutes a significant part of the interpretive interface of the grammar, whose surface representation may vary. This section is structured as follows: First, in 3.1, I present evidence that such movement is subject to movement constraints familiar from WH-movement, and that it is indeed A'-movement, thus countering recent arguments to the contrary in Bošković and Takahashi (1998). In 3.2 I discuss the discourse effect of such movement, and briefly touch on the vital area of interaction with intonation. In 3.3 I present a recent view of the architecture that provides for unique representation of Topic/Focus relations as a linguistic interface, and allows us to see A'-Scrambling as a process feeding surface representation of this unique interface. As such, "Scrambling" can be replaced, in these cases, by "Discourse-Driven" movement, or "Prosodically-Driven" movement, in a manner similar to that proposed in Zubizarreta (1998).

3.1 'Dislocation'

In Russian there are clearly cases of leftward A'-movement that *do* reconstruct for the purposes of Binding. Thus (19c), repeated as (24a), shows a case in which the fronted pronoun does *not* feed a Principle C violation, as opposed to the **GI** construction (19b), repeated as (24b).

- 24) a. **Ego_i**, [znakomye Ivan_{a_i}] predstavili **t_i** predsedatelju **Dislocation**
 him [friends-Nom of Ivan] introduced chairman-Dat (O-S-V)
 "Him, Ivan's friends introduced to the chairman."
- b. ***Ego_i** predstavili [znakomye Ivan_{a_i}] predsedatelju **GI**
 him introduced [friends-Nom of Ivan] chairman-Dat (O-V-S)
 *"He_i was introduced to the chairman by Ivan's_i new friends"

This startling contrast supports the analyses given in this article. In (25a) we have a case of A'-movement. (Note there is also no verb movement over the subject.) This subclass of leftward movement cases, (usually referred to A'-Scrambling), I will call **Dislocation**, is shown in (25):

25) **Dislocation**: (Müller & Sternefeld 1993, Bailyn 2001)

```

graph TD
    IP1[IP] --- XPi[XPi]
    IP1 --- IP2[IP]
    IP2 --- Clause[ ]
    style Clause fill:none,stroke:none
    Clause --- ti[...ti...]
  
```

- **Dislocation** is A'-movement
- **Dislocation** fixes Scope
- **Dislocation** does not affect binding (reconstructs)
- **Dislocation** involves no verb-movement

In the next section, I provide evidence that **Dislocation** of the kind shown in (26) is indeed A'-movement, subject to the same constraints as WH-movement.

3.2 Dislocation and WH-movement Parallels

First, let us examine the evidence that **Dislocation** is subject to the same constraints as WH-movement. This parallel argues against several ideas current in the literature: one, found in Bošković and Takahashi (1998), is that Scrambling is LF Lowering, and as such is immune from normal movement constraints (Arguments against Bošković and Takahashi (1998) are found in Bailyn (2001)). The Dislocation approach also argues against against one claim in Müller & Sternefeld (1993), namely that Scrambling and WH-movement are essentially different in nature. In fact, the minor differences discussed by M&S mask a greater pattern of similarity, which points to the movement being A'-movement constrained by identical constraints, as we will see.⁴

First, it is well known that Russian disallows extraction from embedded indicative clauses, as shown for WH-movement in (26a). The same holds for **Dislocation**, as in (26b):⁵

- 26) a. ***Kogo** Marina znaet [čto [Ivan ljubit t_i]] ?
 who-Acc Marina-Nom knows that Ivan loves
 "Who does Marina know that Ivan loves?"
- b. ***Borisa_i** Marina znaet [čto [Ivan ljubit t_i]]
 Boris-ACC Marina thinks that Ivan likes
 "Marina thinks that Ivan likes Boris."

⁴Slight differences that do obtain may be related to the nature of the landing site (an adjunction position as in (25) for Dislocation as opposed to the SpecCP position for WH-movement). Thus the findings of M&S can generally be maintained, although possibly without recourse to the Principle of Unambiguous Binding proposed by them. For more discussion, see Bailyn 1995.

⁵Müller & Sternefeld (1993) present examples that seem to contradict this finding in that they allow an embedded Nominative subject to appear to the left periphery of the matrix clause. However, as shown in Bailyn (1995), these examples are misleading because they may in fact represent true base-generated Left Dislocations with a Topic-bound null subject in embedded position, rather than a movement derived construction. I argue that because Russian (otherwise) has a *that*-trace effect, the movement analysis of such constructions is dubious. Further, when the Nominative subjects are replaced with oblique arguments, the constructions are markedly degraded. All of this points to the fact that constituents in fact can *not* be extracted out of embedded clauses and the WH-movement/Scrambling parallels remain.

Subjacency holds for Russian as well. This is shown in (27) for both WH-movement and **Dislocation**:

- 27) a. ***Kogo_i** ty pozvonil [agentu [kotoryj ljubit **t_i**]] ?
 Whom-ACC you-NOM phone spy-DAT who loves
 "Whom did you phone a spy who loves?"
- b. ***Borisa_i** ty pozvonil [agentu [kotoryj ljubit **t_i**]] !
 Boris-ACC you-NOM phone spy-DAT who loves
 "It's BORIS you phoned a spy who loves!"

The parallelism between WH-movement and **Dislocation** holds for other movement constraints. Thus many speaks allow WH-movement of objects out of embedded subjunctive clauses but not subjects (a *that*-trace effect) This is shown in the contrast between (28a) and (28b):

- 28) a. **Komu** ty xočeš', [čtoby Ira pozvonila **t_i**] ?
 who-Dat you want that Ira phoned
 "Who do you want Ira to call?"
- b. ***Kto** ty xočeš', [čtoby **t_i** vljubilsja v Iru] ?
 who-Nom you want that fall in love (to) Ira
 "Who do you want to fall in love with Ira?"

The same holds for Dislocation, as shown in the (same) comparison between (29a) and (29b):

- 29) a. Ja **Borisu_i** xotel, [čtoby Ira pozvonila **t_i**]
 I Boris-Dat wanted that Ira phone
 "I wanted Ira to phone Boris."
- b. *Ja **Boris_i** xotel, [čtoby **t_i** vljubilsja v Iru]
 I Boris-Nom wanted that fall in love (to) Ira
 "I wanted Boris to fall in love with Ira."

Russian strongly adheres to the Coordinate Structure Constraint, as show in (30), both for WH-movement and for Dislocation:

- 30) a. ***Kogo** Ivan videl i Mašu ?
 whom_i-Acc Ivan saw [**t_i** and Masha-Acc]
 "Whom did Ivan see and Masha\?"
- b. ***Borisa** Ivan videl i Maša .
 Boris_i-ACC Ivan saw [**t_i** and Masha]
 "Ivan saw Boris and Masha."

Many more examples of the parallel restrictions on **Dislocation** in Russian and its parallel behavior to WH-movement are given in Bailyn (1995) and (2001). The general conclusion that must be drawn is that **Dislocation** is syntactic movement, and as such is subject to the same movement constraints restricting WH-movement and movement processes in general.

step in the process of eliminating purely optional "Scrambling" from the description of word order rearrangement processes in Russian. We next turn to the motivation for **Dislocation**.

3.3 Information Focus and Surface Word Order

The central claims of this section are simple, although the consequences for linguistic analysis are significant, and many details are far from clear. I argue that **Dislocation** is driven by considerations of Information Focus (in interaction with intonation), and that the surface representations created by **Dislocation** display overtly the Information Focus split that is present on some level in every sentence. That is, Russian is a language that uses A'-movement as a way of *overtly* establishing representations required by the Information component of the grammar. This claim is not new. Rather, it is a strong version of an idea about unique representation of discourse relations that has been around in generative grammar at least since Jackendoff (1973), and is argued for in various forms in Culicover & Rochemont (1983), Rochemont (1986), Vallduví (1992), Lambrecht (1994), Bailyn (1995), Junghanns & Zybatow (1997), Miyagawa (1997), Erteschik-Shir (1997), Zubizarreta (1998), and is assumed in many of the articles in this volume. Here I can only hope to point out the possibilities of analyzing **Dislocation** as related to representation of Information structure, and will have to leave many questions open. But I believe the time has come to take a strong stand against analyzing A'-Scrambling as "optional" or "vacuous", since its direct relation to discourse structure is clear. Formalizing this relation and replacing Scrambling with that formalization can be taken as a goal for further research. The overall goal is to incorporate discourse/information factors into the generative model as the *motivation* of **Dislocation**. First, a little background in information structure and its relation to surface word order in Russian.

Jackendoff (1973) argues for a level of Functional Structure where Focus and Presupposition are represented systematically. Rochemont (1986) calls this level Functional Structure, Vallduví (1992) calls it Information Structure, Lambrecht (1994) calls it the Information Component, Erteschik-Shir (1997) calls it F-Structure, and Zubizarreta (1998) calls it Assertion Structure. Zubizarreta (1998), for example, argues explicitly that the level of Assertion Structure imposes well-formedness conditions on derivations, and analyzes Extraposition of Subjects in Romance as *prosodically-driven movement*, satisfying Last Resort by avoiding a mismatch between PF requirements and Assertion Structure. Similarly, in Bailyn 1995, I argued that there is a unique level of representation known as Functional Form (FF), where the basic discourse division between Given and New information is represented, and that a free word language like Russian uses non-canonical word orders to represent this information in the surface structure. Descriptively, such views are in keeping with traditional approaches in Russian linguistics that the surface word order directly reflects discourse relations. This view dates back at least to Mathesius (1939) and was given the name "Functional Sentence Perspective" by the Prague School. Basic definitions are given in (33):

- 33) a. Functional Sentence Perspective (FSP) (Mathesius 1939, Adamec 1966)
= the essentially bipartite division of every sentence into **Theme** before **Rheme**
- b. **Theme:** (or *Topic* or *Departure Point*)
"what is known in the given situation ... and from which the speaker departs"
- c. **Rheme:** (or *Comment* or *Core*)
"what the speaker expresses about the departure point or with attention to it"

In Russian, "word order can vary, but at the same time *it is not free*: the meaning of a sentence, its communicative goal, differs with different word orders." (Kovtunova 1976: 191) We can

use the "question test" to determine the presupposition, and hence the discourse context in which an utterance is appropriate or felicitous. Information contained in the question itself represents the **theme** (presupposition) and that which is new in the answer the **rheme** (Focus). Thus (34) can answer all of the questions in (35), and as such has *ambiguous* Theme/Rheme (Presupposition/Focus) representation, as shown in (36):⁷

- 34) Mary watched Kojak.
- 35) a. What did Mary watch? b. What did Mary do? c. What happened?
- 36) Possible discourse/informational representations for (34):
- | | | |
|----|--------------------------|----------------------------------|
| a. | [Mary watched x] | [x = Kojak] |
| b. | [Mary did x] | [x = watch Kojak] |
| c. | [x happened] | [x = Mary watched Kojak] |

The relations represented in (36) directly correspond to É. Kiss' (1998) notion of "Information Focus" (as opposed to her "Identificational Focus" which is also known as "Contrastive Focus"). Kiss' concern in her 1998 article is with movement accounts of "Identificational Focus", which we leave aside here, although they should be fully compatible. Rather, we take her notion of "Information Focus" to be the current version of the Theme/Rheme structure as given in (37):

- 37) Information Focus: (from É. Kiss 1998)
- conveys non-presupposed info
 - marked by one or more pitch accent, without expressing exhaustive ID
 - present in every sentence
 - no movement involved

I assume (37a-c) but argue against (37d), claiming instead that what differentiates languages like Russian from English (and probably Hungarian), is exactly that Information Focus (Theme/Rheme structure) can be and often is represented in the surface by using A'-movement of the kind discussed in the previous section. This amounts to the following Generalization (also discussed in Bailyn (2001):

38) The A'-Dislocation Generalization:

- Languages encode **Information Focus** uniquely at some level of representation (cf. (37))
- A language may or may not express **Information Focus** by S-structure configurations
- Languages that express Information Focus "early" use A'-movement to do so
- A'-Scrambled orders are always associated with different discourse/informational interpretations from non-scrambled orders.*
 - The movement deriving scrambled orders is motivated by discourse/informational considerations. (=Discourse Earliness)*

⁷Such effects have not been lost on generative descriptions in the literature. Thus Partee (1991) and many others have pointed out that the Prague School's **Theme** essentially indicates the sentence's presupposition and the **Rheme** its Assertion or Focus. The main idea there, whose spirit I assume, is that Presupposition/Focus relations are Theme/Rheme relations, and are derived from the sentence's surface structure by a post-syntactic partitioning process similar to Tree Splitting in Diesing (1992). This post-syntactic semantic partitioning of the sentence into quantification relations is extended to Information Focus.

Thus we can relate **Dislocation** *directly* to Information Focus. To see this, we need to point out that Russian SVO canonical word orders are functionally ambiguous in the same way as their English equivalents. This is shown in that (39) can answer any of the questions in (40), the answer being the Rheme (Information Focus) and thus have the Theme/Rheme structures in (41):

- 39) Deti pojut pesni.
children sing songs
"Children sing songs."
- 40) a. Cto proxodit?
what happens
"What's happening?" (A: The children are singing songs)
- b. Cto delajut deti?
what do children
"What are the children doing?" (A: Singing songs)
- c. Cto pojut deti / deti pojut
what sing children /children sing
"What are the children singing?" (A: Songs)
- 41) Possible discourse/informational representations for (41):
- a. [x happens] [x = children sing songs]
- b. [Children do x] [x = sing songs]
- c. [Children sing x] [x = songs]

(41a) is known as a \emptyset -Theme reading, that is one in which nothing is presupposed by the speaker/hearer in the given situation (except obvious real world knowledge -- irrelevant here). What is interesting with regard to Russian word order, is that in transitive sentences, SVO (underived) order is possible in this context, but OSV order (derived by A'-Dislocation) *is not*. This is shown in (42). (The # symbol indicates infelicitous word order in the given context.)⁸

- 42) Question: Cto novogo?
what new
"What's new?"
- 43) Answer: (with neutral intonation)
- a. Narod vybral novogo prezidenta. SVO
people elected [new president]
"The people elected a new president."

⁸The fate of the other 4 possible word orders (OVS, VSO, VOS, SOV) in this context is of course important as well, but outside the scope of this article. Notice, however, that it is not surprising that many speakers accept OVS order (**GI**) in this context, which again shows that **Generalized Inversion** is *not* directly discourse-related in the way **Dislocation** is, but rather represents a syntactically-driven variant amenable to the same functional ambiguity as SVO sentences. VSO sentences exist only as a narrative device in story telling (see Bailyn (forthcoming) for an analysis of VSO as a sub-type of **Generalized Inversion**). VOS results from Extraposition of the subject, another kind of Dislocation, and as such is completely infelicitous in the \emptyset -Theme context as expected. This leaves only SOV, which some speakers find acceptable in \emptyset -Theme contexts. I assume SOV has two possible derivations, both expected by the direction taken here: (i) *both* GI (of the Object) and Dislocation (of the subject) have taken place, (ii) Object Shift (similar to that found in Germanic) has taken place. I leave the exact analysis of Object Shift in Russian for further research.

- b. #Novogo prezidenta narod vybral OSV (Dislocation)
 [new president] people elected

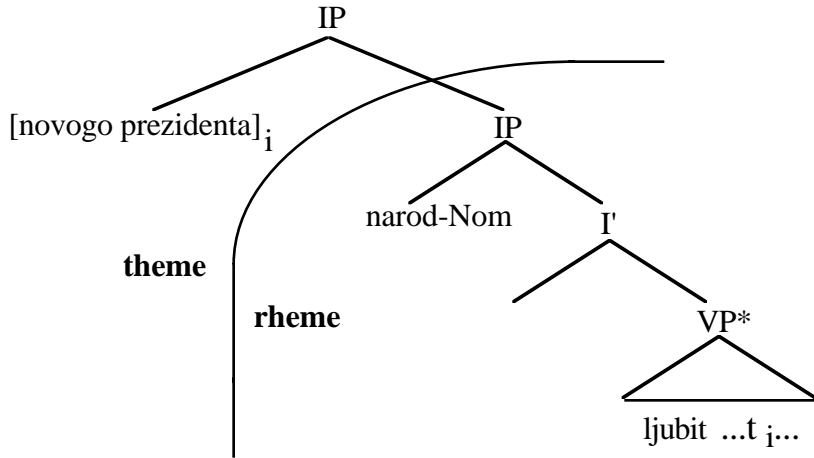
Conversely, in a context where *new president* (the direct object) is presupposed, as in the dialogue in (44-45), the opposite effect obtains (again, assuming neutral falling sentence intonation):^{9,10}

- 44) Question: Kakoe mnenie o novom prezidente?
 what opinion about new president
 "What is the opinion about the new president?"

- 45) Answer:
 a. #Narod ljubit novogo prezidenta. SVO
 people loves [new president]
 "The people love the new president."

- b. Novogo prezidenta narod ljubit OSV (**Dislocation**)
 [new president] people love
 "The new president, the people love."

46) Structure of (45b) (with **Dislocation**):



Thus we find, generally, that although SVO order can be functionally ambiguous, **Dislocation** "fixes" Theme/Rheme structure in Russian, in that the dislocated constituent represents the Presupposed/given information and the remainder of the sentence the Information Focus or Rheme. As a description, this dovetails nicely with scope-fixing

⁹In this dialogue, I do not use the verb *elect* because of its essentially presupposed character in an utterance including a political post such as *President*. In order to tease apart the newness of the subject *and* VP therefore, I use a more unexpected verb such as "love". Thus, the essential contrast between (43a) and (43b) remains, supporting the **Dislocation** Generalization in (38).

¹⁰I leave aside here the fact that *any* constituent, regardless of its surface position, can serve as the Focus if it is marked with non-neutral "heavy" stress (IK-3 in the Russian traditional analysis, see Bryzgunova (1981)). However, it appears that such intonation marks the "Identificational Focus" (contrastive focus) and as such represents a different kind of phenomenon (as Kiss (1998) shows, only the latter triggers overt movement in Hungarian). I assume here that all word order variants are used with neutral intonation, except as indicated.

accounts of surface A'-movement for quantifiers (Kiss 1986 and elsewhere) as well as with American functional accounts of leftward movement or "Topicalization" (for example Prince (1984)). Thus Russian (non-canonical) overt word order is simply a surface representation of relations that are always represented at the interpretive interface *in every language*. In this sense, Russian surface word order is to Information Structure what overt WH-movement is to LF-representations of WH phrases; the overt representation of something that at the interface is uniformly high in the structure. What Russian demonstrates when A'-**Dislocation** occurs is a kind of "Discourse Earliness". We next turn to the crucial issue of how we can analyze **Dislocation** as "forced" by the Information considerations it represents while maintaining Minimalist assumptions.

3.4 Generating Information Focus

There are several possible approaches to formalization of the descriptive generalizations reached in this section. First, it is possible that Topic or Theme "features" exist, in the Minimalist sense, and are distributed to lexical items in the Numeration, thus "forcing" syntactically-driven movement (depending on parameterization of these features' strength) in the syntax. I find this possibility unlikely, however, in that it predicts first of all that Russian would *always* set up its Theme/Rheme relations overtly, which we have seen it does not. Furthermore, it is unclear, on such a view, how the interaction with intonation takes place. The feature-checking approach would moreover require the presence of unique Functional Categories (TopicP and FocusP) to house the checking relation, which is difficult to reconcile with the many possible positions that the Focus constituent can take in Russian (see King 1994). This is, however, the view that I generally assumed in Bailyn (1995). I would like to suggest a different approach here, however, following Zubizarreta (1998), who allows for the possibility of "prosodically-driven" movement as satisfying Last Resort. In her system, Assertion Structure (my Functional Form) is a unique interface in the grammar, and must, as such, be uniformly represented at a late level of representation. Further, certain intonational patterns correspond only to certain Assertion Structures. In cases of potential mismatch, "P-Movement" occurs. "Not all movements are motivated by feature-checking considerations... there exists a *prosodically motivated movement*, the object of which is not to check features but to resolve a prosodically contradictory situation; this operation also obeys Last Resort" (Zubizarreta (1998): 29). This fits perfectly with the possibility that some aspects of this representation are overtly represented as we have seen for Russian. In cases where the Assertion Structure (context) requires a certain word order (and neutral intonation is used), only P-movement will save the overall representation. The fact that violations are not a feature-checking type crash is underscored by the fact that inappropriate word orders are *infelicitous* but not in fact *ungrammatical*. Thus **Dislocation** is used when the PF component is being sent a derivation with neutral intonation and the Theme/Rheme structure requires a particular representation of available under SVO. In these cases, in languages like Russian, because of the general availability of Dislocation, A'-movement is used to "save" the derivation.¹¹ English of course also has this option, although it is limited to local clauses, and the intonation strategy for marking Theme/Rheme structure is much more prevalent. However, the necessity of surface marking of Theme/Rheme relations is in fact universal: what differs among languages is simply the mechanism available for doing it.

¹¹This raises the question of parameterization of the availability of **Dislocation** which I assume to be related to rich case morphology.

4. Conclusion

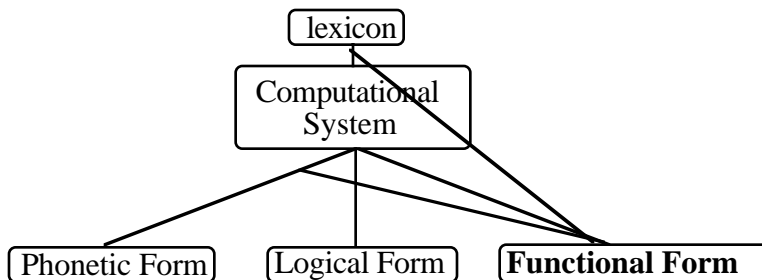
We have seen that A-Scrambling is in fact **Generalized Inversion** and A'-Scrambling is in fact **Dislocation**, a P-movement related to Information Focus. Clearly more reserach is needed to determine whether Scrambling always reduces to one of these two processes (see Miyagawa (this volume) for relevant discussion). If, however, something like this turns out to be true, we have good cause to believe thnat Scrambling as a descriptive device can be entirely eliminated from grammatical description, leaving us with a far more refined understanding of word order variation.

There remain various central theoretical questions. First, what is the status of Functional Form, in particular, where is it represented? In this article I remain agnostic on this issue, but follow Zubizarreta (1998) and Culicover & Rochemont (1983) in assuming some kind of post-LF interface for Information Structure but "leave open the question of whether F-structure is to be identified with LF, since some of the F-structures... violate the ECP.... One way to overcome this difficulty would be to allow FA [Focus Assignment] to apply on LFs, yielding a level of representation distinct from LF and not subject to the ECP, taken as a condition on LFs." (Culicover & Rochemont (1983)) The strongest stand to take would be that these effects constitute a wholly independent interface, as Chomsky implies:

We take L [a particular language] to be a generative procedure that constructs pairs (π, ξ) that are interpreted at the articulatory-perceptual (A-P) [PF] and conceptual-intentional (C-I) [LF] interfaces, respectively....Notice that we are sweeping under the rug questions of considerable significance, notably, questions about what in the earlier EST framework were called "surface effects" on interpretation. These are manifold, involving *topic-focus and theme-rheme structures*,... and many others. Prima facie, they seem to involve *some additional level or levels* internal to the phonological component, post-morphology but pre-phonetic, *accessed at the interface along with PF and LF*. (Chomsky (1995), emphasis mine)

My own take on this issue from Bailyn (1995) is shown in (47):

47) Model of the grammar with three points of interface:



Whatever the status of Information Structue in the grammar turns out to be, it will be exactly that aspect of grammar that is involved in deriving "free" word order variation in languages like Russian, and Scrambling as a descriptive device can be dispensed with.

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