Abstract. This paper examines cases of split phrases in Colloquial Russian and proposes that the word permutations are result of prosodic movement as it is presented by Agbayani & Golston (2010) for Greek hyperbaton. The evidence for prosodic movement includes (i) insensitivity of the movement to syntactic constraints such as syntactic constituency and island conditions, and (ii) sensitivity to prosodic constituency and prosodic constraints such as the Obligatory Contour Principle. This paper is contrasted from other works dealing with PF/P-syntax components by proposing translation of all syntactic constituents into prosodic constituents and dealing with word order on a strictly phonological level.
1. Introduction.

Colloquial Russian displays great flexibility in its word order permutations. In the example below (1), the sentence begins with preposition **s** ‘with’ and adjective **krasnenkim** ‘red’ – a substring of an adjunct **s krasnen’kim bantikom** ‘with a red bow’. It is immediately followed by **sobacku** ‘doggy’, the direct object.

(1) **s krasnen’kim sobačku požaluysta bantikom dajte**
    with redmis-dim doggyfas please bowmis-dim give

Please, give the doggy with a red bow.’ (Russkaja Razgovornaja Reč 1973:391)

Traditionally, such word order permutations have been analyzed as instances of overt syntactic movement (King 1995, Bailyn 1995, Kondrashova 1996, Sekerina 1997, Rappaport 1998, Dyakonova 2009). The movement has been compared to Wh-Movement, Topicalization, Right –Extraposition, and movement to satisfy the EPP requirement. Some of the challenges of the syntactic approach include disagreements regarding landing sites, direction and motivation for the movement. In addition to that, the movement exhibits insensitivity to syntactic constituency and a number of well established syntactic constraints.

A few recent studies propose that word order changes in Russian occur in a post-syntactic (PF) component (Pereltsvaig 2004, Erteschik-Shir & Strahov 2004, Kallenstina 2007). In this model the role of syntax is limited to production of neutral SVO word order. A Discourse-pragmatic component assigns pragmatic notions of Topic and Focus to the output of narrow syntax. Syntactic constituents marked as Topic and Focus move to specific linear positions.

The proposed theories of post-syntactic movement account only for various orders of sentence constituents. As it is, the existing analyses do not provide adequate explanation for cases with split phrases, as in sentence (1). By focusing on simple examples where every word constitutes a sentence constituent, previous studies fail to notice that post-syntactic movement...
involves movement of prosodic constituents to pragmatically and prosodically determined positions.

The notion of prosodic movement was first introduced by Agbayani and Golston (2010) for Ancient Greek hyperbaton. Their study of hyperbaton led to the following observations:

hyperbaton ignores syntactic constituency and a number of syntactic constraints such as the Coordinate Structure Constraint, the Adjunct Condition and so-called Freezing Islands.

Meanwhile, hyperbaton obeys prosodic conditions on well-formedness and prosodic constraints such as the Obligatory Contour Principle. In addition to that, hyperbaton is semantically vacuous and does not affect LF conditions on binding. Based on these findings, Agbayani and Golston propose a theory of prosodic movement, “a species of PF movement” (p.137), where prosodic constituents move to prosodic edges.

This study examines cases of split phrases in Colloquial Russian and proposes that the word order in Colloquial Russian is a result of prosodic movement similar to Ancient Greek hyperbaton. The paper begins with an overview of existent syntactic analyses of the movement and their shortcomings: (i) the inability to account for the movement of disjointed strings that do not form syntactic constituents and (ii) insensitivity of the movement to well-established syntactic constraints. The paper also discusses peculiarities of the movement involving prepositions, pronouns, proper names and compound words – all of which provide strong support for the prosodic nature of the movement. Section 3 overviews extant analyses of post-syntactic movements and their shortcomings: (i) disagreements regarding positions of Topics and Foci, and (ii) failure to account for the movement of syntactic non-constituents and as a result (iii) failure to notice that the movement targets prosodic constituents. Section 4 proposes an analysis in which prosodic movement in Russian arises as the result of constraint ranking in the
phonological component.

In contrast to other studies on word order permutations in Russian, this paper focuses specifically on split phrases. As been shown by Agbayani and Golston (2010), studying movement at the phrase level can help in finding patterns and peculiarities of the movement in general. Data for this study comes from two main sources: the Russian National Corpus of spoken speech (RNC) and Russkaja Razgovornaja Reč (‘Russian Spoken Speech’, RRR 1973). Both consist of snippets of spontaneous speech and transcripts of Russian movies and TV programs. A few examples come from personal blogs published on the World Wide Web.

2. Syntax

It is generally accepted that discourse-pragmatic factors affect word order in Russian (King 1995, Bailyn 1995, Sekerina 1997, Pereltsvaig 2004, Kallestinova 2007, Dyakonova 2009 among others). Disagreements arise as to how exactly discourse and syntax interact with each other. Proponents of traditional syntactic approaches incorporate the discourse notion of topic and focus into syntactic structure. King (1995) argues that Topic and Focus are syntactically represented in the form of dedicated positions. Syntactic constituents move in order to receive discourse function interpretations. Bailyn (1995), Kondrashova (1996) and Sekerina (1997) argue that Topic and Focus features are assigned in the course of the derivation at some special interface level (e.g., Functional Form or I-structure). Syntactic movement and adjunction organize constituents into Topic > Focus order. At the end, the PF interface is fed whatever structure is derived by syntax.
Challenges to the syntactic approach include (i) insensitivity of the movement to syntactic constituency, (ii) disagreements regarding landing sites and (iii) violation of well established syntactic constraints.

2.1 Insensitivity of the movement to syntactic constituency

The extant literature on word order permutations generally focuses on phrasal (or XP) scrambling where syntactic constituents move as a whole unit. While the authors acknowledge the existence of split phrases, they are mainly concerned with the relationship among sentence constituents (e.g., subject, verb, direct and indirect object). Those who do examine split phrases in Colloquial Russian describe them in neutral terms such as “simple” and “inverted” (Sekerina 1997; Gouskova 2001; Pereltsvaig 2008; Fanselow & Féry 2009). In simple splits, disjointed parts of a split phrase preserve their original order (2a). In inverted splits, parts of a split phrase appear in a reverse order (2b). Fanselow & Féry (2009) identify another type of split scrambling – “intermediate” (2c). Here, the adjective can be fronted, while the determiner and the noun are stranded.

2. a. očen’ tam stalaktity t krasivije
very there stalactites\textsubscript{npl} beautiful\textsubscript{npl}
Stalactites over there are very beautiful

b. xolodnoje ona nadela paltško očen’ t
cold\textsubscript{nas} she wore coat\textsubscript{nas} very
She wore a very cold coat

(c. ja užastno napisala takoj t dlinnij otzyv
I awfully wrote such\textsubscript{mas} long\textsubscript{mas} response\textsubscript{mas}
I wrote such awfully long response.

Simplicity of descriptive terms (‘simple’, ‘inverted’ and ‘intermediate’) speaks to the complexity of the movement in Colloquial Russian. Additional examples of “simple” splits in (3) show just how difficult it is to describe what exactly is taking place in these sentences. In
examples (3a-b), fronted material consists of elements from different syntactic constituents. In examples (3c-d) extracted material is half of a compound word.

3. a. vot eta berezovaja vperedi mne nravitsja t rošiča
   intensifier this birch ahead me like grove
   I like this (one right here) birch grove. (RRR 1973: 387)

   b. v raznom naxod'ats'a t položenii
      in different are present situation
      ‘(They) are in different situation.’ (RRR 1973:387)

   c. platje ona sebe sšila t kostjum
      dress she to.self sewed suit
      She sewed a dress-suit for herself. (RRR 1973:390)

   d. v wagon ona xodila t restoran obedat’
      to cart went restaurant to.dine
      She went to dine into a restaurant cart (dining cart). (RRR 1973:390)

Here is a closer look at two of the above sentences with “simple” splits (3a and 3d). In (3a), two independent movements are taking place. First the fronted string consists of an adverbial pronoun, demonstrative and adjective – a string that clearly does not form a syntactic constituent (4a). The second movement involves fronting of the adverb vperedi ‘ahead’. Here, it is fronted to a position right after the non-constituent string.


   In sentence (3d), the first half of compound word wagon-restoran ‘dining cart’ is fronted along with preposition v ‘to’. Syntactically, compounds are considered to be a single unit regardless of their phonological size (Gouskova 2010). Cases of split compounds (3c-d) pose a problem to any syntactic analysis of the splits. The neutral reading of this sentence positions whole PP v wagon restoran ‘into a dining cart’ at the end of the sentence, after the infinitive form of the verb obedat’ ‘to dine’. It appears that both parts of the split PP are moved to two different
locations: the first part is moved to the left periphery of the sentence and the second one is moved just to the left of its original position.

5. a. ona [VP xodila [PP obedat’ [NP wagon – restoran]].

Bošković (2001, 2005) and Bašić (2004) consider Left Branch Extraction (LBE) as a possible explanation for the movement. However, while LBE can account for some cases, it cannot be extended to all instances of movement. As shown in (6), LBE is only one of many possible patterns exhibited by the movement.

Sentence (6a) is an example of a head-initial, pragmatically neutral sentence. In examples (6b-c), the complement of AP moves to the left of its head and the head appears as a postposition. In (6c), the subconstituent from inside of the complement moves further to the left giving appearance of reverse word order. Sentence (6d) is an example of a local Left Branch Extraction. Sentence (6e) is an example of extraction of a subconstituent of the complement.

6. a. každij byl zanat svoim delom
everybody was busy own work
Everybody was busy (with) his/her own work (RNC 2005)

b. kazdij svoim delom zan‘at
everybody own work busy
Everybody is busy with his/her own work. (RNC 2006)

c. vse delami svoimi tt zanaty
all works own busy
All are busy with their own work (RNC 2007)

d. oni svoimi zanaty t problemami
they own busy problems
They are busy with their own problems (blog grani-tv.ru 2008)

e. vse vokrug delami zan‘aty svoimi t
all around work busy own
All around are busy with their own work. (blog mama.ru 2008)
The sentences in (6) are examples of movement around adjectives. Similar patterns are observed around nouns, verbs, and complementizers. Agbayani and Golston (2010) summarize these head-complement orders in the table (7). Here, X stands for the head of XP and Y₁-3 represent different elements of the complement.

7. a. head-initial \[ X \ Y \_\ Y₂ \_\ Y₃ ]
   b. head-final \[ Y₁ \ Y₂ \_\ Y₃ ] \ X
   c. subconstituent \[ Y₂ \_\ Y₃ \ ] \ X \ Y \_\ [ Y₁ \_\ ]
   d. left branch Y₁ \ X \ Y \_\ [ Y₂ \ Y₃ ]
   e. nonconstituent Y₁ \ Y₂ \ X \ Y \_\ [ Y \_\ ]

(Agbayani and Golston 2010:142)

Prepositional phrases in Russian deserve special attention. It has been said that Prepositional Phrases in Russian can split only under the following conditions: (i) a preposition cannot be stranded by itself and (ii) no part of the prepositional object can precede the preposition (Sekerina 1997; Franks & Progovac 1994; Bašić 2004; Bošković 2005; Pereltsvaig 2007). Thus, out of all versions of sentences ‘We went on the new road’, only the first variant (8a) is considered grammatical. Examples (8b-c) are ruled out because the preposition is preceded by a Left Branch novoj ‘new’ in (8b) and a subconstituent doroge ‘road’ in (8c). (8d) violates both constraints.

8. a. po novoj my poexali doroge.
   on newfps we went roadfps
   ‘We went on the new road’.

   b. *Novoj my poexali po doroge.
      newfps we went on roadfps

   c. *Doroge my poexali po novoj.
      roadfps we went on newfps

   d. *Novoj doroge my poexali po.
      newfps roadfps we went on

(Sekerina 1997:187)
A closer examination of the PP splits shows, that in the right prosodic environment, PPs exhibit similar patterns of movement as observed with other XPs (see 6-7). Such a restriction further suggests the prosodic nature of the movement. A preposition, when focused, can move to the left of its original position under one condition: the preposition must be at least disyllabic (Franks & Yadroff 2002 as cited by Pereltsvaig 2008; Podobryaev 2007). The construct (9c) is ungrammatical because the fronted preposition *za ‘for’ is only one syllable long.

9. a. protiv on vystupal sovetskaj vlasti, a ne za against he demonstrated Soviet regime and not for (it)
   He demonstrated against the Soviet regime and not for it. (Pereltsvaig 2008:34)

b. važno idti navstreču soznatel’no etomu straxu important to go toward consciously thisfear
   It is important to consciously go toward this fear. (RNC 1974)

c. *za on vystupal sovetskij vlasti, a ne protiv for he demonstrated Soviet regime and not against (it) (Construct)

A number of Russian prepositions can appear head-finally as well as head-initially: radi ‘sake’, vopreki ‘against’, nazlo ‘spite’, spustja ‘after/later’ and a few others (Podobryaev 2007). Similarly to the fronted prepositions in (9), there appears to be a disyllabic constraint on head-final prepositions. Monosyllabic prepositions cannot be placed at the end of the PP, as in (10d).

10. a. neskolko let spustja several years after several years ago (RNC 2003)

b. serdtsu vopreki heart against ‘(going) against heart’ (RNC 1961)

c. prostate xrista radi forgive Christ sake.prep forgive (me) for Christ sake (RNC 2007)

d. *neskolko let za several years in in several years (construct)
Extracting a subconstituent from a PP complement results in Approximate Inversion – a mechanism used for expressing approximation in Russian (Fowler 1988; Billings 1995). All examples in (11) have the extra shade of meaning “approximately”.

11. a. časa v četire
    o’clock_mgs at four
    ‘(approximately) at four o’clock’ (RRR 1973)

    b. kilogrammov na dev’at’ s polovinoj
    kilograms_gpl on nine with half
    ‘(approximately) on a nine and a half kilograms’ (RNC 2007)

    c. nedeli čerez dve
    weeks_gpl through two
    ‘(approximately) in two weeks.’ (RNC 2007)

After extensive research of approximates, Billings (1995) concludes that Inversion must be prosodic in nature because of prosodic constraints governing this phenomenon. For one, fronted material must consists of a single prosodic word. The construct in (12a) is ungrammatical because more than one prosodic word has been fronted to the left of the preposition.

12. a. *dolgix nedeli čerez dve
    long_spl weeks_spl in two
    ‘In two long weeks’ (construct)

The single-prosodic-word restriction seems to apply to the Left Branch Extractions (13) and fronting of non-constituents (14) as well. This restriction fits perfectly with the theory of prosodic movement which targets prosodic constituents (here, a single prosodic word) and fronts them to prosodically defined positions (here, the left edge of a phonological phrase). It is important to point out that what appears to be fronting of a non-constituent in syntax (14), is a single word in prosody.
13. a. oni rastut očen’ v xorosix uslovijax
   they grow very in good\textsubscript{apl} conditions\textsubscript{apl}
   ‘They grow in very good conditions’ (Pereltsvaig 2008)

   b. očen’ v takix uslovijax trudnix
   very in such\textsubscript{apl} conditions\textsubscript{apl} difficult\textsubscript{apl}
   ‘in such very difficult conditions’ (RNC 1967)

   c. slušajut mena očen’ s bolšim udovolstvijem
   listen me\textsubscript{gen} very with big\textsubscript{mts} pleasure\textsubscript{mts}
   (they) listen to me with great pleasure (RNC 1994)


   a. už očen’ v takix teplix družeskix otnošenijax
   intensifier very in such\textsubscript{lpl} warm\textsubscript{lpl} friendly\textsubscript{lpl} relationship\textsubscript{lpl}
   ‘In such very warm friendly relationships’ (RNC 1968)

   b. už očen’ s bolšim trudom
   intensifier very with big\textsubscript{mls} difficulty\textsubscript{mls}
   With a great difficulty (RNC 2006)

Pronouns in Russian also deserve special attention. Although they do not form a special
lexical or functional group, they exhibit different behavior than the NPs and APs they substitute.

All pronouns (personal, indefinite, or negative) evade occurring in the sentence final position for
two prosodic reasons: (i) pronouns cannot bear sentence stress and (ii) being inherently Topics,
pronouns cannot occur in Focus final-clause position (King 1995; Bailyn 1995; Sekerina 1997;

In examples (15a-b), all pronouns (wh-words and k nemu ‘to him’) are fronted toward the
beginning of a sentence. The order of pronouns is otherwise unrestricted as evidenced by (15b).

15. a. kto kak k nemu otnositsa
   who\textsubscript{ns} how to him\textsubscript{mds} treat
   who treats him how? (RNC 2003)

   b. kto k nemu kak otnositsa
   who\textsubscript{ns} to him\textsubscript{mds} how treat
   who treats him how? (forum.novgorod.ru 2006)
Fronting of pronouns is blocked when it brings together homophonous words, as in (16a). This restriction appears to be an instance of the Obligatory Contour Principle (Leben 1973), a phonological constraint that bans co-occurrence of identical features. In this case (16b), the OCP forces the placement of the wh-word čto ‘what.ACC’ at the end of the sentence. Bošković suggests that leaving a wh-phrase in situ is used “only as a last resort when necessary to avoid forming a sequence of homophonous wh-words” (Bošković 2002:15). When something appears between the homophonous function words, then fronting is preferred to stranding (16c).

16. a. *čto čto obuslovilo 
   \( \text{what}_{\text{Nom}} \text{ } \text{what}_{\text{Acc}} \) conditions 
   What conditions what?

   b. čto obuslovilo čto 
   \( \text{what}_{\text{Nom}} \) conditions \( \text{what}_{\text{Acc}} \)

   c. čto neprestano čto obuslovilo 
   \( \text{what}_{\text{Nom}} \) constantly \( \text{what}_{\text{Acc}} \) conditions 
   (Bošković 2002:15)

Another case of OCP intervention occurs when fronting brings together complementizer čto ‘that’ and wh-word čto ‘what.ACC’ together (17a). Fronting is permitted when something appears between the homophonous words (17b) or if one of the homophomous words is changed minimally (17c).

17. a. *ja priznaju čto čto ja sdelal bylo sdelano….
   I admit that \( \text{what}_{\text{Acc}} \) I done was done
   ‘I admit that what I have done was done…’ (construct)

   b. ja priznaju čto to čto ja sdelal bylo sdelano….
   I admit that this \( \text{what}_{\text{Acc}} \) I done was done
   ‘I admit that what I have done was done not out of good intentions’ (NRC 2003)

   c. mne kažetsa čto čto-to u vas s vosprijatijem ploxo 
   medat seems that something to you with perception bad
   ‘It seems to me that you have something wrong with your perception.’ (RNC 05)
If the movement in Russian is purely syntactic, prosodic and phonological constraints should not be able to affect it. However, as seen with prepositions and pronouns, this is not the case in Russian.

### 2.2 Disagreements regarding Landing Sites of Fronted materials

If the movement is syntactic in nature, we would expect fronted material to land in specific syntactic positions. However, it seems that extracted material along with fronted pronouns can appear in any position within a sentence, as exemplified below. In (18a), the word *očen’* ‘very’ moves just to the left of its original position. In (18b), it shifts two words to the left. In (18c), it moves to the left-periphery of the clause. In example (18d), extracted material *kak-to očen* ‘somewhat very’ splits apart and lands in two different sites: toward the beginning of the clause and right in the middle.

18. a. victor mns to him mds very treats3s coldly.
    Victor treats him very coldly.              (RRR 1973: 390)

    b. ona very to him mds treats gently
    She treats him very gently (Forum symerechnaya.borda.ru/)

    c. very to him mds all treated lovely
    All treated him very lovely. (RNC 1968)

    d. I somewhat to him mds very treated always positively
    I always treated him somewhat very positively. (RRR 1973: 388)

Dyakonova (2009), following Krylova & Khavronina (1986) and Yokoyama 1986, argues for a preposed Focus – pragmatically important material which can be fronted to clause-initial or middle-field positions. In her study, Dyankonova found correlation between degree of
Discourse-Linking of preposed Focus and its position within sentence; the stronger the link to the preceding discourse, the farther left D-linked constituents can move.

By definition we would expect “Preposed” Focus to always prepose to a pre-verbal area. Examples in (19) show that this is not always the case. In these sentences fronted material stops short of the pre-verbal area.

19. a. podarili iz černoj kosti emu šaxmaty
   bought from black bone him chess
   (They) bought him chess from black bone
   (RRR 1973:390)

b. prinesi tri mne čaški požalujsta
   bring three me mugs please
   Bring me please three mugs
   (RRR 1973:389)

2.3 Violation of Well-Established Syntactic Constraints

Another challenge for syntactic analysis of the movement is violation of well established syntactic constraints. It has already been pointed out that the movement is insensitive to the Left Branch Condition (Ross 1967) and the Anti-Locality Constraint (Abels 2003). Here are a few more examples of local movement of left branch elements that strand their complements.

20. a. znakomix množestvo lits
    familiar multitude faces
    ‘multitude of familiar faces’
    (RNC 2004)

b. gde tvoja ležit rasčoska
   where your lies comb
   where does your comb lay?
   (RRR 1973:387)

c. davajte dva svarim supa
   let’s two cook soups
   Let’s cook two (kinds of) soup.
   (RRR 1973: 389)

The movement ignores so-called Freezing Islands (Wexler and Culicover 1980; Stepanov 2001, 2007) which prohibits extraction out of moved phrases. In (21a), the word kakix

‘such/what’ is extracted out of a phrase kakix blinov ‘such pancakes’, which in turn, has been
already fronted. Similarly, a phrase *ne ocen’* ‘not very’ (in 21b) is extracted out of *ne očen’* *xorošo* ‘not very well’ – a phrase that has already been fronted.

21. a. *kakix ja sebe blinov segodnja nadelala vkusnyx*
   such I to.self pancakesapl today made tastyapl
   Such tasty pancakes I made for myself today. (RRR 1970: 236)

   b. *ja ne očen’ ceba xorošo katja čustvuju*
   I not very self well Katja feel
   Katja, I am not feeling very well. (RRR 1973:390)

The movement is insensitive to the Adjunct Condition (Chomsky 1986) which prohibits fronting of elements out of an adjunct phrase. Here (22a-c), left branches along with prepositions are fronted out of adjunct Prepositional Phrases.

22. a. *v raznom naxod'ats'a položeniji*
   in different mins are present situationmins
   ‘(They) are in different situation.’ (RRR 1973:387)

   b. *s bol'sim jego procla interesom*
   with big mins itacc read interestmins
   ‘(I) read it with a big interest.’ (RRR 1973:387)

   c. *ona v dome život devjat’*
   she in housemps lives nine
   she lives in the house (number) nine. (RRR 1973:390)

Sometimes the movement targets the first conjunct out of its coordinate structure. Such fronting violates the Coordinate Structure Constraint (Ross 1967). There are no examples of movement out of a second conjunct.

23. a. *nadeždy polon i sil*
   hopegen full and powergen
   ‘full of hope and power’ (RNC 1995)

   b. *soldat že bylo mnogo i drugix*
   soldiersgpl clitic was many and othersgpl
   ‘there was a lot of soldiers and others’ (RNC 2003)
c. *perila* takije xorošije sdelani i *stupen’ki*
   rails_{apl} such_{apl} good_{apl} made and steps_{apl}
   Made such good rails and steps’ (RNC 2005)

Movement in (23b) deserves an extra explanation. Here, fronted conjunct *soldat* ‘solders’
is immediately followed by a postpositive clitic Že. Že is a prosodically depended clitic that
cannot occur at the beginning of prosodic constituents on its own. In the neutral reading of the
sentence (23b), Že would have appeared right after the word *bylo* ‘was’. Since another word
moved to the left-most position, clitic Že appears to the left of *bylo*.

2.4 *Fronting is semantically vacuous*

Another argument against a syntactic nature of the movement comes from cases in which
interpretation depends on c-command relations, such as with reflexives and reciprocals. Even
when reflexives appear to the left of their antecedents (24), their binding relations remain intact.

24. a. *sebe* ja inogda prosto jazik by svoj otkusil
   self_{dat} I sometimes merely tongue_{mas} clitic self’s_{mas} bite off
   'Sometimes (I wish that I could) bite off my own tongue' (RNC 1951)

   b. *seb’a* on tože pričisl’ajet k nim.
      self_{acc} he also ranks as them
      'He ranks himself as a part of us' (RNC 2004)

   c. *sami* *seb’a* oni ubirat’ ne budut
      them_{apl} selves_{apl} they to get rid not will
      ‘They are not going to get rid off themselves.’ (RNC 2003)

   Fronted reciprocals (25) just like fronted reflexives are interpreted as if they were in situ,
   following their antecedents.

25. a. podderživali *drug druga* devočki naši
   supported each other_{acc} girls_{nom} our_{nom}
   ‘Our girls supported each other.’ (RNC 1972)
b. povtor’at’ drug Druga vy ne možite to repeat each_{acc} other_{acc} you not may ‘You may not repeat each other’ (RNC 2006)

c. ne mešajut drug Drugu sportsmentki not bother each_{dat} other_{dat} athletes ‘Athletes do not bother each other’ (RNC 1959)

Furthermore, possessives can be extracted and moved elsewhere within the clause.

26. a. Vasil’ Ivaniča ja segodn’ja vstretil ženu Vasilij Ivanic_{gen} I today met wife_{acc} Today I met Vasilij Ivanich’s wife. (RRR 1973:388)

b. Anny Petrovny na okne vozmi kastrulku Anna Petrovna_{gen} on window take pan_{acc} Take Anna Petrovna’s pan (that’s lying) on the window (RRR 1973:388)

c. igora k nam sobiralas priehat’ mama igor_{gen} to us was going to come mama_{nom} Igor’s mom was going to come to us. (RRR 1973:388)

Bošković (2005; 2010) accepts fronting of possessives as a part of left-branch extraction phenomena; however, he argues that genitive complements of NP should not be able to undergo movement. As seen in (27) empirical evidence does not support this claim.

27. a. k nam obešala sestra priehat’ olega to us promised sister_{nom} to.come Oleg_{gen} Oleg’s sister promised to come to us (RRR 1973:389)

b. kogda podružki priedut tamari when girlfriends_{nom} will.come Tamara_{gen} When will Tamara’s girlfriends come? (RRR 1973:389)

c. kuda dočka postupila sosedej where daughter_{nom} got.admitted neighbor_{gen} Where did neighbor’s daughter get admitted? (RRR 1973:389)

The movement also violates lexical integrity by allowing extraction out of proper names and compounds that consist of two or more prosodic words. Truncated proper names (28d) and subordinating compounds (29c) that consist of a single phonological word cannot be split. This
fact further attests to the phonological nature of the movement.

28. a. *Andrey segodn’a Petrovič op’at’ na rabotu ne vysel  
   Andrey_{nom} today Petrovich_{nom} again to work not came  
   Andrey Petrovic today again did not come to work  (RRR 1973:390)

b. *Ivanov zabegal Petr Petrovič utrom segodn’a  
   Ivanov_{nom} stopped by Petr_{nom} Petrovic_{nom} morning today  
   Ivanov Petr Petrovic stopped by today in the morning  (RRR 1973:390)

c. *Anna Petrovna stala xorošo Ivanova odevat’sa  
   Anna_{nom} Petrovna_{nom} began well Ivanova_{nom} to.dress  
   Anna Petrovna Ivanova began to dress well.  (RRR 1973:390)

d. *Vasil’ ja Ivaniča segodn’a vstretil ženu  
   Vasilij- truncate I Ivanovic -truncated today met wife_{acc}  
   I met Vasilij Ivanich today.  (construct)

29. Splits with lexical compounds.

a. v {vagon} ona xodila {restoran} obedat.  
   to cart_{mas} she went restaurant_{mas} to.dine  
   She went to dine into a restaurant cart (dining cart).  (RRR 1973:390)

b. platje ona sebe sšila kostjum  
   dress_{mas} she to.self sewed suit_{mas}  
   She sewed a dress-suit for herself.  (RRR 1973:390)

c. * vagono- ja vstretil vozatogo  
   cart (1^{st} half) I met driver (2^{nd} half of a subordinating compound)  
   I met a tram-driver.  (construct)

Traditionally, compounds and proper names are treated as single syntactic units regardless of their phonological size (Gouskova 2010). Bošković (2009), however, argues that complex names have internal syntactic structure with the first name located in the Spec of the last name (30a). The movement, therefore, is nothing more than standard Left Branch Extraction. Bošković treats instances of truncated, uninflected first names as the only cases without internal structure (30b).
30. a. \([\text{XP} \text{ Vasilija} \ [\text{X'} \text{ Ivanovica}]]\) Inflected pattern

b. \([\text{XP} \ [\text{X'} \text{ Vasil' Ivanica}]]\) First name uninflected pattern \(\text{(Bošković 2010:6)}\)

In his analysis, Bošković does not deal with patronymic names. On one hand, first names and patronyms behave just like the first and last name in the Inflected pattern (see 29a). On the other hand, when all three names are present (first, patronymic and last), the patronymic always sides with the first name. In (28b) the patronymic Petrovic stays in situ with the first name Petr. In (28c) the patronymic Petrovna moves with the first name Anna. Bošković’s analysis does not account for that. Moreover, Bošković’s analysis cannot be extended to compounds even though they behave in a similar way. For example, the compound ‘tram-driver’ can be either a coordinating compound consisting of two prosodic words \(\text{vagon-vozatyj}\) or subordinating compound consisting of one prosodic word \(\text{vagonovozatyj}\). First one can split while the latter cannot. However, it would be difficult to argue that in the case of the coordinating compound \(\text{vagon-vozatyj}\) its first half is the Spec of its second half (if we were to apply Bošković’s analyses to compound nouns).

3. PF- movements

A few recent studies propose that word order permutations are initiated in the post-syntactic interface (Rodionova 2001; Perel’tsvaig 2004, 2008; Erteschik-Shir & Strahov 2004; Kallestinova 2007). Perel’tsvaig (2004) argues for a linear nature of pragmatic functions where notions of Topic and Focus are associated with specific linear positions instead of structural ones. According to her argument, narrow syntax moves Topics and Foci to the left and right edges of IP and a separate informational component of grammar assigns topic and focus interpretation.

Erteschik-Shir & Strahov (2004) further limit the role of syntax by arguing that scrambling is a P(honological)-syntactic rule in the phonology. They propose a three-layered I-
model that includes (i) S-syntax, (ii) F(ocus) structure, and (iii) P(honology)-syntax. In this model, narrow syntax feeds the output to the f-structure component. Here, no hierarchical structure is retained with the exception of the bracketing of topics and foci and the outer brackets of Merge-Max, the merged syntactic structure. Prosodic Incorporations (e.g., cliticization of weak pronouns), movement and stress assignment take place in the P-syntax component. Here, the movement is triggered by the need to check topic and focus features assigned at F-structure. Unlike Pereltsvaig (2004) who argues that the movement to the edges of IP takes place in narrow syntax, Erteschik-Shir & Strahov (2004) argue that syntactic constituents move to the edges of Merge-Max in P-syntax.

Kallestinova (2007) argues that word order permutations result from realignment of syntactic constituents in the post-syntactic component. Her model is similar to Erteschik-Shir & Strahov’s I-model and consists of five grammar components: Lexical, Narrow Syntax, Pragmatic Component (with a separated Word Order Permutation Mechanism), LF and PF Components. In this model, lexical items are fed into the Syntactic component where they merge into syntactic structures. These syntactic structures are fed thru multiple Spell-Outs into the linear pragmatic component. The Pragmatic component, similarly to the F-structure, assigns Topic and Focus features to the syntactic constituents. Here, a speaker may choose to input the pragmatic structure to either the PF component or the word order permutation mechanism within the pragmatic component. The PF component produces emotive sentences which mark discourse functions by intonation and stress. The Word order permutation mechanism determines the optimal word order of a sentence and transfers it to PF.

The optimal word order is determined through ranking of two faithfulness constraints Max-IO and Linearity-IO and two markedness constraints Align-Topic and Align-Focus.
The high ranking constrain Max-IO dominates the two markedness constraints Align-Topic, Align-Focus, and low ranking Linearity-IO (31).

31. Max-IO >> Align-Topic, Align-Focus >> Linearity-IO  (Kallestinova 2007:239)

A violation against the faithfulness constraint Linearity-IO means that one constituent occupies different linear positions than in the input. The number of violations correlates with the number of constituents that moved; not the distance between the same constituent in the input and the output. Violation of markedness constraints Align-Topic and Align-Topic means that one of the constituents is not aligned with one of the edges of the structure. In a sentence with two constituents marked as focus, one of the constituents incurs a violation since it is not aligned with the right edge of that structure.

Table (32) is an example of an object focus sentence taken from Kallestinova (2007:237). In the object focused sentences, object is Focus and subject and verb are Topic. Candidate (a) violates high ranking constraint Max-IO and, therefore, is ruled out. Candidates (b) and (c) each receive one violation of Align-Topic because one of their topic constituents is not left-aligned with the edge of the sentence. Candidate (c) also has two violations of Linearity-IO because two of its constituents occupy different linear positions than in the output. However, since Linearity-IO is below the cut off, the violations of Linearity-IO are not considered to be serious. Candidates (d-g) are ruled out because they violate the Align-Focus constraint. The winners are candidates (b) and (c), although (c) has a more degraded status.

32.

<table>
<thead>
<tr>
<th>Input: /SVO/</th>
<th>Max-IO</th>
<th>Align-Topic</th>
<th>Align-Focus</th>
<th>Linearity-IO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. SO</td>
<td>*!</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>b. SVO ♫</td>
<td></td>
<td>*</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>c. VSO ♫</td>
<td></td>
<td>*</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>d. OVS</td>
<td>***!</td>
<td>*</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>e. VOS</td>
<td></td>
<td>*</td>
<td>*!</td>
<td>***</td>
</tr>
<tr>
<td>f. SOV</td>
<td></td>
<td>*</td>
<td>*!</td>
<td>**</td>
</tr>
<tr>
<td>g. OSV</td>
<td>***!</td>
<td>*</td>
<td></td>
<td>***</td>
</tr>
</tbody>
</table>
Unlike other analyses, Kallestinova’s model accounts for optionality of the movement and degraded grammaticality of different word order permutations. Neither analysis, however, addresses the issues of split phrases: their non-constituency and movement. There are also disagreements regarding boundaries and positions of Topic and Focus, even though all three arguments for a linear word order are primarily based on the assumption that discourse-pragmatic notions have specific linear positions.

Erteschik-Shir & Strahov and Kallestinova position Topic and Focus at the edges of their grammatical structures. While they do not identify the structures as Intonational Phrase or a clause, all examples given by them consist of simple clauses (or IPs) with Topics and Foci occurring at their left and right edges respectively. Pereltsvaig, on the other hand, specifically identifies positions of Topic and Contrastive Focus as the edges of IP, but her examples position Contrastive focus (i) sentence-initially, (ii) sentence-medially, and (iii) sentence-finally. These differences emerge as both Pereltsvaig and Erteschik-Shir & Strahov try to account for the movements that are taking place within the middle-field of the sentence in addition to the peripheral ones. Pereltsvaig does it by redefining edges of IP and Erteschik-Shir & Strahov do it by redefining boundaries of Topics and Foci. Pereltsvaig uses right-dislocated material as a test for the edge of IP, and Erteschik-Shir & Strahov use adverbs to mark the edge of Focus.

Pereltsvaig argues that in instances when contrastive focus constituents are not sentence-final, the post-focal material is IP-external. The two arguments that she uses to support her view are (i) prosodic contour and (ii) processes of syllabification. Pereltsvaig argues that sentences with contrastive foci exhibit the intonation contour characteristic of right-dislocation (flat low pitch contour with lack of stress). In addition, consonants at the end of IP do not syllabify with vowels in the onset of post-focal material (33b), as they normally do within IP (33a).
33. a. Džon ne pokazal slonov ANNE.
   \[no, [van] \]
   John not showed elephants to-Anna
   ‘John did not show elephants to ANNA (e.g., but he showed them to Lena).’

   b. Džon ne pokazal SLONOV Anne.
   \[nof, [an] \]
   John not showed ELEPHANTS to-Anna
   ‘John did not show elephants-Foc. to Anna (e.g., but he showed her giraffes).’

   (Pereltsvaig 2004:340)

   Unfortunately, the syllabification argument has not been supported experimentally.

   Kallestinova’s results of the same experiment show that syllabification does not take place in
   either case and the consonant [v] devoices at the end of slonov in both instances (Kallestinova

   Erteschik-Shir & Strahov (2004) employ a different strategy to indicate boundaries of
   Topic and Foci. They argue that VP-oriented adverbs mark the edge between topic and focus.

   Thus, a sentence with an adverb in final position can be an all focus sentence (34a). In sentences
   (34b-c), focus consists of constituents following the adverb vtoropjah ‘in a hurry’.

34. a. [Masa]TOP [napisala pis’mo vtoropjah]FOC
   Masha-Nom wrote letter-Acc in a hurry
   ‘Masha wrote a/the letter in a hurry’

   b. Masa vtoropjah [napisala pis’mo]FOC
   Masha-Nom in a hurry wrote letter-Acc
   ‘Masha in a hurry wrote a letter.’

   c. Masˇa napisala vtoropjah [pis’mo]FOC
   Masha-Nom wrote in a hurry letter-Acc
   ‘It was a letter that Masha wrote in a hurry.’ (Erteschik-Shir & Strahov 2004:317)

   In order to derive the VP final designated focus, this analysis requires preservation of
   syntactic edges. Erteschik-Shir & Strahov conclude that “a language that does not mark VP
edges, will only allow movement of topic and focus to sentence initial and sentence final position respectively” (Erteschik-Shir & Strahov 2004:315).

4. Prosodic Movement

Agbayani and Golston (2010) in their analysis of Ancient Greek hyperbaton come to a different conclusion regarding phrasal movement: it is not syntactic constituents that move to syntactic/VP edges, but prosodic constituents that move to prosodic edges. In their three-layered model (35), the role of syntax is limited to production of hierarchical structure. Exact word order and its left/right direction are decided later in the phonological component. The syntactic component determines immediate dominance relations. Thus, in the sentence (1), syntax determines sisterhood relations of *dajte* ‘give’ and *sobačku* ‘doggy’ but it does not decide whether the verb or the object comes first.

35. Syntax/phonology interface model (adapted from Agbayani and Golston 2010:155)

```
Syntax      [VP[ν dajte], [NP sobačku]] (immediate dominance)
  ↓
Interface  ((dajtεω) (sobačkuωφ)φ)φ (linear precedence)
  ↓
Phonology  ((sobačkuωφ (dajtεω))φφ (movement)
```

The syntax feeds the interface component. The Interface component translates syntactic structures into prosodic ones and simultaneously determines linear precedence relations. In the case of *dajte sobačku*, the interface determines that *dajte* and *sobačku* are each a ω; that *(dajtεω)* and *(sobačkuωφ)* are each a φ, and that the word order is *(dajtεω) (sobačkuωφ)φ* rather than *(sobačkuωφ (dajtεω))φ*. Below are a set of constraints (36) and their ranking (37) that determine the optimal output in the interface component.
36. Constraints determining word order in XPs with lexical heads (adopted from Selkirk 1995)

\[ \text{ALIGNR}(X^*, \omega): \] The right edge of every lexical X* is aligned with that of a \( \omega \).

\[ \text{ALIGNR}(\omega, X^*): \] The right edge of every \( \omega \) is aligned with that of a lexical X*.

\[ \text{ALIGNR}(\text{XP}, \phi): \] The right edge of every lexical XP is aligned with that of a \( \phi \).

37. Lexical XPs: *dajte sobačku* ‘give doggy’

<table>
<thead>
<tr>
<th>[dajte(<em>v), sobačku(</em>{NP})](_{VP})</th>
<th>ALIGNR(X*, ( \omega ))</th>
<th>ALIGNR(( \omega ), X*)</th>
<th>ALIGNR(( \text{XP}, \phi ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. (dajte(_a), sobačku(<em>a))(</em>{\omega})</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. (sobačku(_a), dajte(<em>a))(</em>{\omega})</td>
<td></td>
<td>*!</td>
<td></td>
</tr>
<tr>
<td>c. (dajte(_a), sobačku(<em>a))(</em>{\omega})</td>
<td>*!</td>
<td></td>
<td>*!</td>
</tr>
<tr>
<td>d. (sobačku(_a), dajte(<em>a))(</em>{\omega})</td>
<td>*!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Here, ALIGNR(X*, \( \omega \)) aligns lexical heads *dajte* and *sobačku* with a prosodic word boundary (a-b). ALIGNR(\( \text{XP}, \phi \)) determines the head-initial status of (a) and rejects the head-final status of (b). Candidates (c-d) are rejected because one of the lexical words is parsed as a syllable. Thus, the same alignment constraints that define prosodic constituency also determine linear precedence relations simultaneously.

Unstressed pronouns and prepositions do not form prosodic words on their own (Selkirk 1995; Rapport 1988; Erteschik-Shir & Strahov 2004). If *sobačku* ‘doggy’ was substituted by its pronouns *jejo* ‘her’ then the outcome of the interface component would be different. Since *jejo* is not a lexical head but a mere foot, it would have to move to the left to allow the lexical word *dajte* ‘give’ to right-align with the right edge of a phonological phrase (38).
Here, ALIGNR($X^\ast$, $\omega$) rejects candidate (d) because the lexical head *dajte* ‘give’ is treated as a mere foot and not a prosodic word. ALIGNR($\omega$, $X^\ast$) rejects candidate (c) because the pronoun is treated as a prosodic word. ALIGNR(XP, $\varphi$) rejects candidate (b) because the lexical XP *dajte* ‘give’ is not right-aligned with $\varphi$. The winner is candidate (a) where the pronoun is fronted to the left.

In cases where pronouns and prepositions are contrasted and stressed (as in 9a-b, 29b), they receive status of prosodic words. Unstressed prepositions are treated as syllables and feet that cliticize to lexical words as affixal clitics (Selkirk 1995; Rapport 1988; Erteschik-Shir & Strahov 2004). Below is an example of interaction between preposition *na* ‘on’ and noun *konflikt* ‘conflict’ (39). ALIGNR($X^\ast$, $\omega$) and ALIGNR($\omega$, $X^\ast$) discard candidates (c-d) for the lack of distinction between two prosodically different elements. Candidate (b) is rejected because the lexical XP is not right-aligned with $\varphi$. Candidate (a) is the only one that does not violate any constraints.

### Table 38

<table>
<thead>
<tr>
<th>[dajte$<em>{\text{VP}}$, jejo$</em>{\text{ProNoun}}$]$_{\text{VP}}$</th>
<th>ALIGNR($X^\ast$, $\omega$)</th>
<th>ALIGNR($\omega$, $X^\ast$)</th>
<th>ALIGNR(XP, $\varphi$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. (($\text{jejo}<em>\text{FT}$ dajte$</em>\omega$)$<em>\omega$)$</em>\varphi$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. (($\text{dajte}<em>\omega$ jejo$</em>\text{FT}$)$<em>\omega$)$</em>\varphi$</td>
<td></td>
<td></td>
<td>*!</td>
</tr>
<tr>
<td>c. (($\text{dajte}<em>\omega$ jejo$</em>\omega$)$<em>\omega$)$</em>\varphi$</td>
<td></td>
<td>*!</td>
<td></td>
</tr>
<tr>
<td>d. (dajte$<em>\text{FT}$ jejo$</em>\text{FT}$)$<em>\omega$)$</em>\varphi$</td>
<td>*!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 39

<table>
<thead>
<tr>
<th>[PP na [NP konflikt]]</th>
<th>ALIGNR($X^\ast$, $\omega$)</th>
<th>ALIGNR($\omega$, $X^\ast$)</th>
<th>ALIGNR(XP, $\varphi$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. (($\text{na}<em>\omega$ konflikt$</em>\omega$)$<em>\omega$)$</em>\varphi$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. (($\text{konflikt}<em>\omega$ na$</em>\omega$)$<em>\omega$)$</em>\varphi$</td>
<td></td>
<td></td>
<td>*!</td>
</tr>
<tr>
<td>c. (($\text{na}<em>\omega$ konflikt$</em>\omega$)$<em>\omega$)$</em>\varphi$</td>
<td></td>
<td>*!</td>
<td></td>
</tr>
<tr>
<td>d. (($\text{na}<em>\omega$ konflikt$</em>\omega$)$<em>\omega$)$</em>\varphi$</td>
<td>*!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In cases where no prosodic movement is taking place, the surface word order is identical to the output of the interface component. In order to keep the output of the postlexical phonology similar to the input, Agbayani and Golston (2010) propose three faithfulness constraints.

40. \textit{STAY}_\omega \quad \text{No daughter of } \omega \text{ moves.}  \\
\textit{STAY}_\phi \quad \text{No daughter of } \phi \text{ moves.}  \\
\textit{STAY}_t \quad \text{No daughter of } t \text{ moves.}

Agbayani and Golston (2010) assign one violation for every space a prosodic constituent moves to the left. Thus, if a prosodic word moves two prosodic words to the left, the candidate incurs two violations under \textit{STAY}_\phi \text{ constraint. This study slightly deviates from this. It assigns one violation for every prosodic constituent that moves, not how far it moves. Thus, if a prosodic word moves two prosodic words to the left or right, the candidate incurs only one violation under the \textit{STAY}_\phi \text{ constraint. Thus, the amount of prosodic constituents that move are more important than how far they move.}

Here is how these constraints maintain faithfulness to the input. Below is an example of a VP \([\text{VP}[\text{VP } \textit{idjot} [\text{PP } \text{na } [\text{NP } \textit{konflíkt}]]]]\) ‘walks into a conflict’ with the prosodic structure and linear order already defined by the interface constraints.

41. \textbf{Syntax} \quad [\text{VP}[\text{VP } \textit{idjot}, \text{PP } \text{na}, [\text{NP } \textit{konflíkt}]])

\begin{align*}
\textbf{Interface} & \quad (\text{idjot}_\omega (\text{na}_\sigma \text{ konflíkt}_\omega)_\phi) \quad \text{walk}_3 \text{ into } \text{ conflict }_\text{mas} \\
\text{Phonology} & \quad \text{(teenager) walks into a conflict’ (RNC 2004)}
\end{align*}

42. \begin{table}[h]
\begin{tabular}{|c|c|c|}
\hline
 & \textit{STAY}_\omega & \textit{STAY}_\phi \\
\hline
\textit{a} & (\text{id’ot}_\omega (\text{na}_\sigma \text{ konflíkt}_\omega)_\phi) & \text{*!*} \\
\hline
\textit{b} & (\text{na}_\sigma \text{ konflíkt}_\omega (\text{id’ot}_\omega)_\phi) & \text{*!*} \\
\hline
\textit{c} & (\text{id’ot}_\omega (\text{ konflíkt}_\omega \text{ na}_\sigma)_\phi) & \text{*!*} \\
\hline
\end{tabular}
\end{table}
No constraints are violated in (42a) since nothing moves within a $\omega$ or a $\varphi$. Candidate (b) incurs two violation because two daughters of $\varphi$ move. Similarly, candidate (c) incurs two violations for moving both daughters of $\omega$.

While the output of phonology looks exactly like the output of syntax (in this particular case (41-42)) it is important to notice that nothing of the syntactic representation survives the translation to prosodic structure. All syntactic constituencies are converted into prosodic ones. Syntactic labeling and constraints do not apply at the phonological component. All movements that do occur at this level are governed by prosodic constraints. This is a major point of deviation from previously proposed PF-movements. This is what makes the movement of split phrases possible.

In the light of overwhelming support for left-alignment of Topics and right-alignment of Foci in Russian (Kondrashova 1996, Sekerina 1997, Gouskova 2001, Rodionova 2001; Pereltsvaig 2004, 2008; Erteschik-Shir & Strahov 2004; Kallestinova 2007; Dyakonova 2009 among many), this study adopts Kallestinova’s approach to general word reordering: Topics move to the left periphery and Foci to the right. Agbayani and Golston (2010) do not discuss the possibility of a rightward movement; however, it should be possible within the framework of prosodic movement. Two markedness constraints adopted from the Kallestinova study (43) and three faithfulness constraints (40) adopted from Agbayani and Golston make any combination of subject, verb and object possible.

43. **ALIGN-TOPIC** Every topic in a structure should align with the left edge of that structure.
    **ALIGN-FOCUS** Every focus in a structure should align with the right edge of that structure.

(Kallestinova 2007:234)

Here is an example of how it works. As the sentence (44) goes through the interface component, and syntactic constituents are converted into prosodic ones, prosodic constituents are
assigned pragmatic notions of Topic and Focus, as applicable. As this output enters the phonological component, alignment constraints determine the most optimal candidate (a) whose pragmatically marked prosodic constituents aligned at the left and right edges of an Intonational Phrase. Other candidates that fail to align Topic and Focus constituents (b, c, d) and candidate (e) that violates the highly ranked constraint $\text{STAY}_\omega$ are rejected.

44. \[
\begin{align*}
\text{(podrostok}_o\text{)}_\varphi \text{(idjot}_o\text{)}_\varphi \text{(na}_\sigma\text{ konflikt)}_o\text{)}_\varphi \\
\text{TOP} \quad \text{FOC}
\end{align*}
\]

teenager walks into conflict

‘Teenager walks into a conflict.’ (RNC 2004)

<table>
<thead>
<tr>
<th>((\text{podrostok}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi)</th>
<th>\text{STAY}_\omega</th>
<th>\text{ALIGN-Topic}</th>
<th>\text{ALIGN-Focus}</th>
<th>\text{STAY}_\varphi</th>
<th>\text{STAY}_\lambda</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\varphi$ ((\text{podrostok}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi)</td>
<td>\text{STAY}_\omega</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.((\text{podrostok}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi)</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>c.((\text{idjot}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi \text{(podrostok}<em>o\text{)}</em>\varphi)</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>d.((\text{na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi \text{(podrostok}<em>o\text{)}</em>\varphi)</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>e.((\text{podrostok}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ idjot}<em>o\text{)}</em>\varphi \text{(konflikt)}<em>o\text{)}</em>\varphi)</td>
<td></td>
<td></td>
<td>*!</td>
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</tr>
</tbody>
</table>

If prosodic constituencies in (44) were assigned different pragmatic notions in the interface component, the same alignment constraints would yield different outputs in the phonological component (45).

45. \[
\begin{align*}
\text{(podrostok}_o\text{)}_\varphi \text{(idjot}_o\text{)}_\varphi \text{(na}_\sigma\text{ konflikt)}_o\text{)}_\varphi \\
\text{FOC} \quad \text{TOP}
\end{align*}
\]

<table>
<thead>
<tr>
<th>((\text{podrostok}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi)</th>
<th>\text{STAY}_\omega</th>
<th>\text{ALIGN-Topic}</th>
<th>\text{ALIGN-Focus}</th>
<th>\text{STAY}_\varphi</th>
<th>\text{STAY}_\lambda</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\varphi$ ((\text{na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi \text{(podrostok}<em>o\text{)}</em>\varphi)</td>
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<td>**</td>
<td>**</td>
</tr>
<tr>
<td>b.((\text{podrostok}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi)</td>
<td></td>
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<td>*!</td>
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<tr>
<td>c.((\text{podrostok}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi \text{(idjot}<em>o\text{)}</em>\varphi)</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>d.((\text{idjot}<em>o\text{)}</em>\varphi \text{(na}_\sigma\text{ konflikt)}<em>o\text{)}</em>\varphi \text{(podrostok}<em>o\text{)}</em>\varphi)</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>e.((\text{na}_\sigma\text{ idjot}_o\text{ konflikt)}<em>o\text{)}</em>\varphi \text{(podrostok}<em>o\text{)}</em>\varphi)</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
<td>**</td>
</tr>
</tbody>
</table>
Here, the winner is (a), even though it has two violations of low ranked constraints $\text{STAY}_\varnothing$ and $\text{STAY}_1$. Candidates (b, c, d) are rejected because they fail to align Topic with Topic position and Focus with Focus position. Candidate (e) seriously violates constraint $\text{STAY}_\varnothing$.

While these five constraints (40, 43) account for various arrangements of sentence constituents (using the syntactic terms), they are not sufficient in explaining the movement of split phrases. Moreover, not all movements in Russian are triggered by the need to satisfy Topic and Focus. According to Dyakonova (2009), some movements in Russian are licensed by D(iscourse) Linking and importance of material to the speaker/listener. Thus, the higher the degree of importance, and the more that material is D-Linked, the further left it moves. Similarly to Agbayani and Golston constraints: $\text{PROML}$ and $\text{tPROM}$ (42), minimally D-Linked material appears preposed middle-field and maximally D-Linked material appears left-peripheral. Due to the similarities between the two, this study adopts Agbayani and Golston’s constraints $\text{PROML}$ and $\text{tPROM}$ (46) with the caveat that preposed material must be linked to preceding discourse.

46. $\text{tPROM}$ Maximally prominent material is initial in $\text{t}$.
$\text{PROML}$ Prominent material occurs to the left of its interface position.

Here, I give the analyses of examples (18a-b), repeated below, where the word $\text{očen’}$ ‘very’ moves to the beginning of its Intonational Phrase (47-48) and to the left of its interface position (49-50).

47. $\text{očen’}$ k nemu vse otnosilis’ $\text{l’ubovno}$
very to him mds all treated lovely

All treated him very lovely. (RNC 1968)

At the interface component, prosodic constituents are assigned specific pragmatic prominence, as applicable. Here, pronoun $k$ nemu ‘to him’ is a prosodic word because it is stressed and undergoes movement. Constraint $\text{tPROM}$ is ranked higher than constraint $\text{ALIGN}$-
TOPIC, therefore, \textit{očen'} is given precedence over \textit{k nemu}.

48. Interface \((\text{vse}_{\omega})_{\varphi} \text{ (otnositel' \textit{očen'} \textit{k nemu})}_{\omega_{\varphi}} \text{ (l'ubovno)}_{\omega_{\varphi}} \text{ TOP,} \text{ iPROM,} \text{ FOC)}

\begin{tabular}{|c|c|c|c|c|}
\hline
\((\text{vse}_{\omega})_{\varphi} \text{ (otnositel' \textit{očen'} \textit{k nemu})}_{\omega_{\varphi}} \text{ (l'ubovno)}_{\omega_{\varphi}} \) & \text{STAY}\omega & \text{iPROM} & \text{ALIGN-} \text{TOPIC} & \text{ALIGN-} \text{FOCUS} & \text{STAY}\varphi \\
\hline
\text{a.} & \((\text{vse}_{\omega})_{\varphi} \text{ (otnositel' \textit{očen'} \textit{k nemu})}_{\omega_{\varphi}} \text{ (l'ubovno)}_{\omega_{\varphi}} \) & \text{*} & \text{**} & & \\
\hline
\text{b.} & \((\text{vse}_{\omega})_{\varphi} \text{ (otnositel' \textit{očen'} \textit{k nemu})}_{\omega_{\varphi}} \text{ (l'ubovno)}_{\omega_{\varphi}} \) & \text{**} & \text{*} & \text{*} & \\
\hline
\text{c.} & \((\text{vse}_{\omega})_{\varphi} \text{ (otnositel' \textit{očen'} \textit{k nemu})}_{\omega_{\varphi}} \text{ (l'ubovno)}_{\omega_{\varphi}} \) & \text{!} & \text{!} & \text{*} & \\
\hline
\text{d.} & \((\text{vse}_{\omega})_{\varphi} \text{ (otnositel' \textit{očen'} \textit{k nemu})}_{\omega_{\varphi}} \text{ (l'ubovno)}_{\omega_{\varphi}} \) & \text{!} & \text{!} & \text{**} & \\
\hline
\text{e.} & \((\text{vse}_{\omega})_{\varphi} \text{ (otnositel' \textit{očen'} \textit{k nemu})}_{\omega_{\varphi}} \text{ (l'ubovno)}_{\omega_{\varphi}} \) & \text{!} & \text{!} & \text{**} & \\
\hline
\end{tabular}

Candidate (e) fatally violates \text{STAY}\omega by fronting a part of a prosodic word. Candidates (c, d) fail to align maximally prominent material with the left edge of \text{i}. Candidate (b) fails to align both Topic and Focus constituents. Candidate (a) is the optimal candidate, even though its Topic constituent is not left-aligned with the edge of \text{i}. Since \text{iPROM} is ranked over \text{ALIGN-TOPIC}, violating the lower ranked constraint is not fatal.

Sentence (49) is similar to example (47). Here, the word \textit{očen'} ‘very’ moves only one prosodic word to the left of its original position. Also, the Topic constituent \textit{viktor} ‘Victor’ does not have to share its left-periphery position with any other constituents.

49. \textit{viktor} \textit{k nemu} \textit{očen'} ot nositsja \textit{xolodno}.
\textit{viktor} m\textit{n} to \textit{him} \textit{mds} \textit{very} \textit{treats} \textit{coldly}.
\textit{Victor} treats \textit{him} \textit{very} \textit{coldly}.

\textit{(RRR 1973: 390)}
Similarly to (48), candidate (e) is rejected because it fatally violates STAY\(\omega\). Candidates (c, d) move PROML too far to the left. Candidate (b) is ruled out because the Focus constituent is not right aligned with the right edge of \(i\).

Two markedness constraints \(i\)PROM and PROML are ranked the same. STAY\(\omega\) dominates both of them, which in turn dominate ALIGN-TOPIC and ALIGN-FOCUS. Two faithfulness constraints STAY\(\varphi\) and STAY1 are ranked-low compared to STAY\(\omega\). It is the low ranking of STAY\(\varphi\) and STAY1 that allows movements of prosodic words and phonological phrases within phonological phrases and intonational phrases.

51.  STAY\(\omega\) > \(i\)PROM, PROML > ALIGN-TOPIC, ALIGN-FOCUS > STAY\(\varphi\) > STAY1

5. Conclusion. This paper proposes that the movement in Colloquial Russian must be prosodic due to the following reasons (i) its insensitivity to syntactic constituency and syntactic constraints, and (ii) its sensitivity to phonological constituency and general conditions on
phonological form. It has been shown throughout this paper that the movement in Russian meets both conditions and, therefore, along with Classical Greek (Agbayani and Golston 2010), is a good candidate for phonological movement.

This paper also showed that split scrambling applies to all lexical constituents, not only to left branch elements of NP, as it has been thought before. More research is needed, however, in the area of functional categories: clitics, conjuncts prepositions and “weak and strong pronouns” (Richards 2004). Another future research can look into other Slavic languages, along with “The Standard” version of Russian to see if there are any traces of syntax-free movement.
References:


Bašić. 2004. Nominal Subextractions And The Structure Of Nps In Serbian And English. MPhil, University of Tromso


Bošković, Željko. 2010b Phases and Left-Branch Extraction Moscow Student Conference on Linguistics 5 Independent University of Moscow, April 3-4


Dyakonova Marina 2009. A Phase-Based Approach to Russian Free Word Order. PhD Universiteit Van Amsterdam

Dyła, Stefan & Feldman, Anna. 2003. On Comitative Constructions in Polish and Russian


Rodionova, E. 2001. Word Order and Information Structure in Russian Syntax. University of
Dakota, MA.


Zimmermann Malte, Contrastive Focus Interdisciplinary Studies on Information Structure 6.147 159