

On Russian Scrambling: Interpretations, mechanisms and motivations

1. Background and Aims

Languages such as Russian are typically classified as ‘scrambling’ languages. Such languages can be characterised as those in which the constituents of a well-formed sentence may be linearised in two or more ways (Zimmerling, 2011). This is in contrast to non-scrambling languages like English, that (in most circumstances save for highly stylistic or poetic contexts) do not permit any freedom in constituent ordering.

Russian is well-known for allowing free ordering of constituents in terms of S(ubject), V(erb) and O(bject). All six orders can be attested, unlike in English, where the canonical ordering is SVO, except for the much rarer OSV when O is topicalised. Example (1) provides the six possible grammatical orderings of S, O and V of the same constituents without any semantic shift:

(1)	a.	Student napisal statʹu student wrote article	SVO
	b.	Student statʹu napisal student article wrote	SOV
	c.	Statʹu student napisal article student wrote	OSV
	d.	Statʹu napisal student article wrote student	OVS
	e.	Napisal student statʹu wrote student article	VSO
	f.	Napisal statʹu student wrote article student ‘The/A student wrote the/a article.’	VOS

Despite this apparent freedom in surface constituent orders, there are two important questions to ask. First, are all orderings context-independent? That is to say, can each of the six possible formulations be interpreted in the same contextless way or is there a discourse effect obtained by choosing a particular order? Related to this, if certain orderings do create a context-driven

discourse effect, then which ordering is the canonical contextless one? And second, how are the alternative orders achieved? Is it that each one is base-generated in the syntax? Or is it that there is an underlying ordering from which all other orders are derived, i.e. through movement operations? These are two of the issues I attempt to address in this paper.

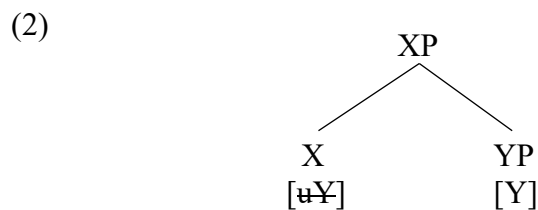
Section 2 is descriptive in nature. I draw on evidence and analyses from various Russianists on a number of different word order phenomenon in Russian in an attempt to establish a basic word order for Russian, and to discover the effects, if any, word order has on semantic or discursal interpretation. Section 3 takes a more theoretical approach by attempting to understand some of the possible mechanisms and motivations for word order variation in Russian. Section 4 is the conclusion.

2. Russian word order patterns: establishing a canonical order

Bailyn (2012) presents evidence for establishing the basic Russian constituent order as SVO for transitive clauses and VS for intransitive clauses. In this section, I summarise his arguments.

2.1 Head-initial constituency

According to Greenberg's (1963) classification, Slavic languages fall into Type 10, which is a type of languages which exhibit canonical SVO ordering, have prepositions, have genitives following the nouns they modify, and have adjectives preceding nouns. Crucially, such languages are typically head-initial, which means the Complements to Heads are merged to the right:



Evidence for this in Russian is abundant if we take a selection of Head-Complement constructions:

- (3) a. [PP na [DP stole]]
 [PP on [DP table]]
 'on the table'

- b. [VP xočat' [CP čtoby ty pri'exal]]
[VP want [CP that you came]]
'want you to come'
- c. [QP dva [NP novyx studenta]]
[QP two [NP new students]]
'two new students'
- d. [CP čto [TP on zakončil]]
[CP that [TP he finished]]
'that he finished'

In each of the cases above, the heads P, V, Q and C select for their complements with rightward directionality.

2.2 Transitives: the order of V and O

Typologically, languages are commonly classified as being either head-initial (e.g., English) or head-final (e.g. Japanese). However, following Dryer (2013), Haider & Szucsich (2022) make the claim that Slavic languages belong to a third type which they term ambidirectional, meaning the object may be linearised either to the left or the right of V. Šimík & Jasinskaya (2022) refute this claim for Slavic as a whole due to contradictory evidence from Czech. However, with regards to Russian, the ambidirectional label fits.

Establishing the neutral constituent order of Russian is problematic. Haider & Szucsich (2022) argue that in languages that have scrambling, the motivation for non-neutral ordering of constituents is often influenced by pragmatics such that information may be ordered in a particular way to achieve different discursal functions. Of course, establishing which order is the neutral order is a problem within itself. This may often be achieved by considering word order universals, the frequency of different word orders, syntactic tests, intonation patterns and native speaker judgements. (A fuller discussion of each of these can be found in Bailyn, 2012: 248-253).

Šimík & Jasinskaya (2022) contend that there is no single neutral word order in Russian, unlike in other scrambling languages, and that both SVO and SOV are canonically equal in terms of neutrality. Their reasoning is centred around focus projection and the position of nuclear accent. Wells (2006: 291) defines focus as “the concentration of attention on a particular part of the message [...] either bring[ing] everything into focus (**broad** focus), or

[...] selectively on one part of it (**narrow** focus).” Generally, the use of nuclear accent on a constituent can indicate a narrow focus, for example on the direct object. Šimík & Jasinskaya reject the general assumption that in the case of Russian, objects must be in sentence-final position in order to project narrow focus. Their claim (following Dyakonova (2009), Jasinskaja (2016) and Slioussar (2007)) is that focus projection is also possible for verb-final orderings. Taking Dyakonova’s examples to illustrate this, we see how the same narrow focus can be achieved regardless of constituent ordering as long as the nuclear accent (indicated here by small caps) stays on the constituent under focus, in this case, the direct object:

- (4) a. Vaš mal’čik raznes [kabinet HIMII].
 your boy blew.up classroom chemistry
- b. Vaš mal’čik [kabinet HIMII] raznes.
 your boy classroom chemistry blew.up
 ‘Your boy blew up the chemistry classroom.’

Crucially, this is evidence to suggest that the syntax of Russian has little role to play in focus interpretation, and thus information structure, and that it instead lies in the domain of phonology. Therefore, in such circumstances at least, there is no difference between OV and VO orders in Russian. In section 2.7, I explore findings by King (1995) that shed more light on topic and focus constructions and evidence that syntax does in fact have a greater role to play.

Based on corpus studies by Sirontinina (1965/2003), Slioussar (2007) observes that OV is more common in colloquial Russian – OV accounts for 40% in the corpora of colloquial Russian – and even suggests that Russian is gradually shifting from being a VO type language towards being an OV type language.

Looking more closely at Sirontinina’s data, a distinction is made between given information and new information: 59.7% of objects are post-verbal when referring to new information, but 60.9% of objects are pre-verbal when referring to given information. One criticism of this is that the data does not specify which of the pre-verbal objects had been intentionally topicalised. A second, and important, criticism is, as Slioussar recognises, is that in Sirontinina’s data, both full DPs and pronominal arguments have been collapsed together, so

it would be interesting to explore whether there is a difference in frequency between the positioning of full DP objects and pronominal objects around the verb.

King (1995) uses the term ‘emotive’ to refer to sentences in which a focused object is placed pre-verbally, something others have called contrastive focus. However, Slioussar sheds doubt on this conclusion as she points out that speakers’ acceptability judgements may be flawed in their interpreting of which sentences are more emotive due to the fact the sentences are presented out-of-context.

Finally, Šimík & Jasinskaya (2022) discuss a number of constructions that point towards Russian either aligning with VO or with OV order. Šimík & Jasinskaya’s analyses are based on work by Haider & Szucsich (2022). For constraints of space, I am unable to provide details of the nature of each of these constructions and I simply report their findings as they relate to the focus of this paper.

First, it has been observed that intransitive process passives in Russian pattern in the same way as languages like Italian and Spanish and is therefore evidence in support of a SVO basic word order. Similarly, left-adjoined adjuncts behave in a way typical of SVO languages. In contrast, fillers of gaps in left branches, as well as the variability in word order of auxiliaries (see section 2.6), pattern like SOV type languages.

2.3 Intransitives

Intransitives differ slightly from transitives in that the neutral (surface) word order is for S to follow V, rather than SV as might be expected. The thematic role of the argument has no influence on the argument’s position; in fact, the same surface order is preferred for both accusative and unergative verbs. The only two occasions when the order SV is licenced are when S is topicalised or generic (Bailyn 2012: 254-6). Example (5) is my own; the others are Bailyn’s:

- (5) včera šjol doš’d VS
yesterday went rain.NOM
‘It rained yesterday.’

- (6) a. Na beregu reki pojavilis' stariki. VS (neutral context)
 on bank river appeared old men.NOM
 'On the river bank there appeared old men.'
- b. #Na beregu reki stariki pojavilis'. #SV (not context neutral)
 on bank river old men.NOM appeared
 'On the river bank, *the* old men appeared.'

2.4 The position of adjuncts

Russian adjuncts are restricted in their positioning around other phrasal categories. PP and CP adjuncts may only adjoin to the right of NPs, whereas AP modifiers adjoin to the left of the NP. This summary is based on Bailyn (2012), but the examples are my own.

- (7) a. s [NP drugom [PP iz Moskvi]]
 with friend from Moscow
- b. *s [NP [PP iz Moskvi] drugom]
 with from Moscow friend
 'with a friend from Moscow'
- (8) a. posmotrel [NP fil'm [CP kotorij ja rekomendoval]]
 watched film which I recommended
- b. *posmotrel [NP [CP kotorij ja rekomendoval] fil'm]
 watched which I recommended film
 'watched the film (which) I recommended'
- (9) a. novaja_A interesnaja_A kniga_N
 new interesting book
- b. *kniga_N novaja_A interesnaja_A
 book new interesting
 'a new interesting book'

With VP/vP modification, there is more flexibility: adverbs and PPs may adjoin either to the left or the right of the VP/vP:

- (10) a. ona [AP redko] xodit v zal
 she rarely goes to gym
- b. ona xodit v zal [AP redko]
 she goes to gym rarely
 'She rarely goes to the gym.'

- (11) a. my [_{PP} s **odnoklassnikami**] pošli v bassejn
 we with classmates went to pool
- b. my pošli v bassejn [_{PP} s **odnoklassnikami**]
 we went to pool with classmates
 ‘We went to the pool with some classmates.’

2.5 Verb-object adjacency

Sirotinina (1965/2003: 3-39) provides examples of sentences in which a prepositional phrase modifier appears between a verb and its object. However, what is important is that in such cases the object appears only post-verbally. The ordering is V-PP-O:

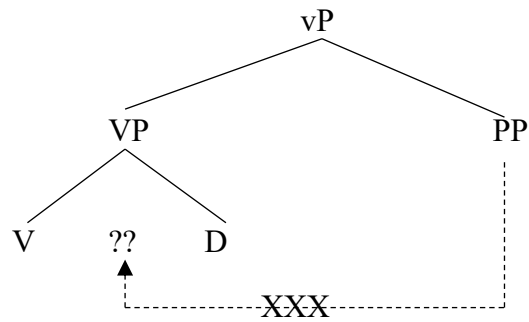
- (12) a. vosproizvodit’ [_{PP} u **krolikov**] arterioskleroz
 create in rabbits arterial sclerosis
 ‘create arterial sclerosis in rabbits’
- b. pozval [_{PP} k **sebe**] syna
 called to self son
 ‘(He) called his son [over] to him.’

If we assume that this ordering is not base-generated, then some kind of movement operation has to have taken place. Bailyn (2012: 246) lists a number of possibilities for the derivation of these structures:

- (13) (i) the PP begins right adjoined to VP; PP moves left to between V and DO.
 (ii) the PP begins right adjoined to VP; DO moves over it to the right.
 (iii) the PP begins left adjoined to VP; PP lowers to the right to between V and DO.
 (iv) PP begins left adjoined to VP; V raises over it (to v).
 (v) PP begins left adjoined to vP; V raises out of vP (into the T domain).

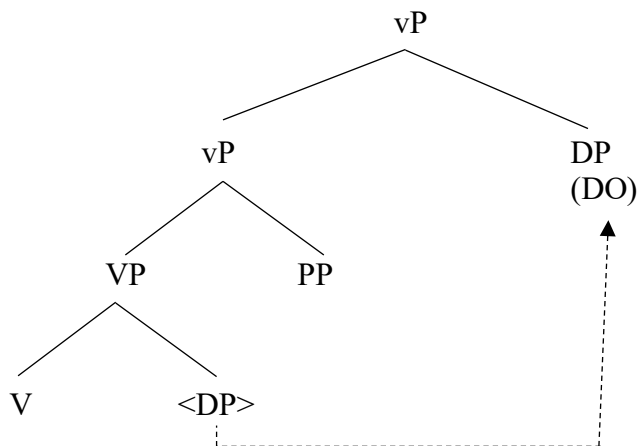
He immediately rules out (i) and (iii) since both of these options would involve the PP moving between the Head V and its Complement DP, which is impossible as there is no available landing site in this position. This is schematised in the following tree for a right-adjoined PP, but can also be reversed for a left-adjoined PP. In both cases, the result is the same, that is, there is no available position for the PP to move to between V and DP.

(14)

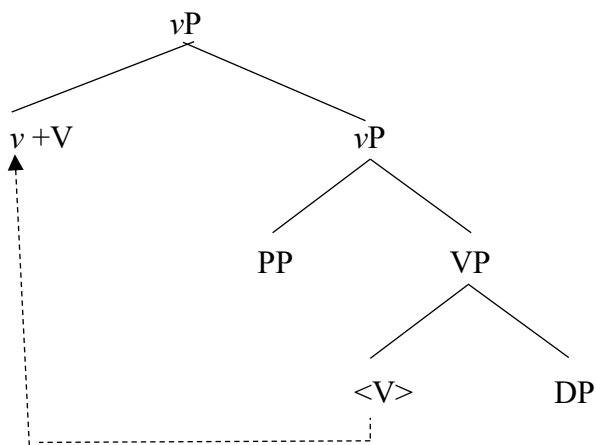


Options (ii) and (iv), however, are possible derivations since they do not result in movement to a non-existent landing site:

(15) **PP begins right adjoined to VP; DO moves over it to the right**



(16) **PP begins left adjoined to VP; V raises over it (to v)**



The final option (v) is also a possibility since PP and vP adjunction is common. However, Bailyn rules this out as a possible analysis on the account of the fact it would involve V-raising out of the vP domain, which is not possible in Russian for independent reasons. Of the remaining two workable options – (ii) and (iv) – he states a preference for option (iv). His reasoning is that it does not involve rightward movement which would necessitate the revision of movement rules commonly accepted for Russian movement, i.e. that movement generally happens leftwards.

2.6 *The order of serial verbs*

Following on from the discussion in section 2.2 about the greater importance of nuclear accent rather than word order on information structure, Šimík & Jasinskaya (2022) illustrate the same effect on serial verb constructions. Taking their example to illustrate this, we see four possible orderings of the four verbs in the same sentence. In each case, the nuclear accent remains on the lexical verb (*zastreliť* – to shoot), regardless of its position, and in each case, the information structure remains unchanged.

- | | | | |
|------|----|--|------|
| (17) | a. | Esli vy menja budete pytat'sja dat' ZASTRELIT'
if you me will.2PL try.INF give.INF shoot.INF
'If you will try to have me shot ...' | 1234 |
| | b. | Esli vy menja budete dat' ZASTRELIT' pytat'sja | 1342 |
| | c. | Esli vy menja pytat'sja dat' ZASTRELIT' budete | 2341 |
| | d. | Esli vy menja dat' ZASTRELIT' budete pytat'sja | 3412 |

This is thus further evidence for the fact that scrambling in Russian plays little or even no effect on semantic interpretation.

2.7 *Topic and focus*

King (1995) takes the stance that linear order of Russian constituents does indeed encode discourse functions, although she does agree that there is no grammatical effect of scrambling. She sets out a detailed description of how the positioning of a constituent in a Russian sentence can affect its discursal interpretation. In an intonationally neutral sentence (one in which the right-edge of a focused constituent is marked with a falling tone), initial constituents are topics and final ones are foci.

There is a tradition in the literature on Russian syntax to divide Russian sentences into two parts: the theme and the rheme. The theme is akin to the topic and contains the given information of the sentence whereas the rheme introduces new information, and this is essentially the focus.

King prefers a three-part system, following Firbas (1965), in which in addition to the theme and rheme, the verb is considered to be the third part and plays a transitional role between the theme and rheme. The argument for this is that the verb is not always focused (so is not strictly part of the rheme), but at the same time, is not thematic. It is not only the verb that appears in the transition, but other discourse-neutral material may appear there. Thus, we have theme-transition-rheme.

Regardless of whether one accepts the three-part system or not, what is generally agreed upon is that in intonationally neutral sentences (i.e., non-emotive ones), the ordering of constituents is influenced by the theme and the rheme. Specifically, the theme, i.e., topic precedes the rheme, i.e., the focus. In other words, given information precedes new.

What is important to note, however, is that as I mentioned, this schema only holds for sentences with neutral intonation. As King (1995: 78, following Yokohama (1986), Krylova and Khavronina (1988) tells us, “once emphatic stress is introduced [...], the word order variation increases dramatically.

The following sentences (which are my own) illustrate the interaction between topics and rhemes and how the word order can influence interpretation.

- (18) a. [Na polu] lejala sobaka
 on floor lay dog
 ‘There was a dog (lying) on the floor-TOP.’
- b. [Sobaka] lejala na polu
 dog lay on floor
 ‘The dog-TOP was (lying) on the floor.’

- (19) Gotovit ob¹ed [mat']
 Cooks lunch mother
 'Mother-FOC is cooking lunch.'

Sentences (18a & b) differ in word order, which has an effect on interpretation. Whereas in (18a), the PP *na polu* is fronted (and thus topicalised) and the subject *sobaka* follows the verb, in (18b) the subject *sobaka* precedes the verb making it the topic. The result is that each sentence presents new and given information in different ways: in (18a) what was lying on the floor, i.e., the dog, is new information, while in (18b), the location of the dog, i.e. on the floor, is the new information. In sentence (19), the word order is VOS, which focuses *mat'*, the subject of the sentence, as the new information.

This only gets us so far, however. If we reexamine sentence (19), although the placing of the subject in final-position gives it a focused interpretation, the order of V and O is unaccounted for. In fact, we could easily restate (19) as (20), essentially reordering V and O, but no semantic or discursal effect will be achieved.

- (20) Ob¹ed gotovit [mat']
 lunch cooks mother
 'Mother-FOC is cooking lunch.'

While we have an account of how the final constituent in a string of S, O and V is interpreted, the ordering of the other two elements is left unexplained. To reiterate what I mentioned above, what we have just discussed relates to sentences with neutral intonation. However, the question remains what, if any, syntactic effect is rendered on the other elements of the sentence.

2.8 Interim Summary

This section has provided a description of particular word order phenomena in Russian, and explored opposing stances in the literature regarding the influence of syntax on semantic and discursal interpretations. While some linguists (Šimík & Jasinskaya 2022, Dyakonova 2009, Jasinskaja 2016 and Slioussar 2007) assert syntax plays little or no role on interpretation and only stress patterns have any influence, others (Haider & Szucsich 2022, King 1995) place more importance on structural positions for creating different discursal interpretations.

Furthermore, it still remains unclear as to the neutral, canonical word order of Russian. While there is relatively strong evidence to suggest SVO is the answer, there are cases where SOV is judged as completely equal to SVO so long as there is neutral intonation.

3. Deriving and motivating Russian scrambling orders

In this section, I provide a shallow dive into some of the mechanisms that may be at play in generating non-canonical word orders in Russian. I then provide a brief insight into a possible avenue of research about how scrambling is motivated.

Bailyn (2012) provides a detailed movement-based account of how Russian scrambled sentences are derived. The premise is that there is a basic underlying word order from which all scrambled alternatives are derived. There are two main movement operations that licence non-canonical orders. The first is inversion, which is a type of local A-movement, and this is feature-driven; the second is Movement-to-the-Far Left (MFL), which is a type of A'-movement similar in nature to wh-movement or topicalization. This type of movement is not feature-driven and is instead motivated by information structure. I take each of these in turn.

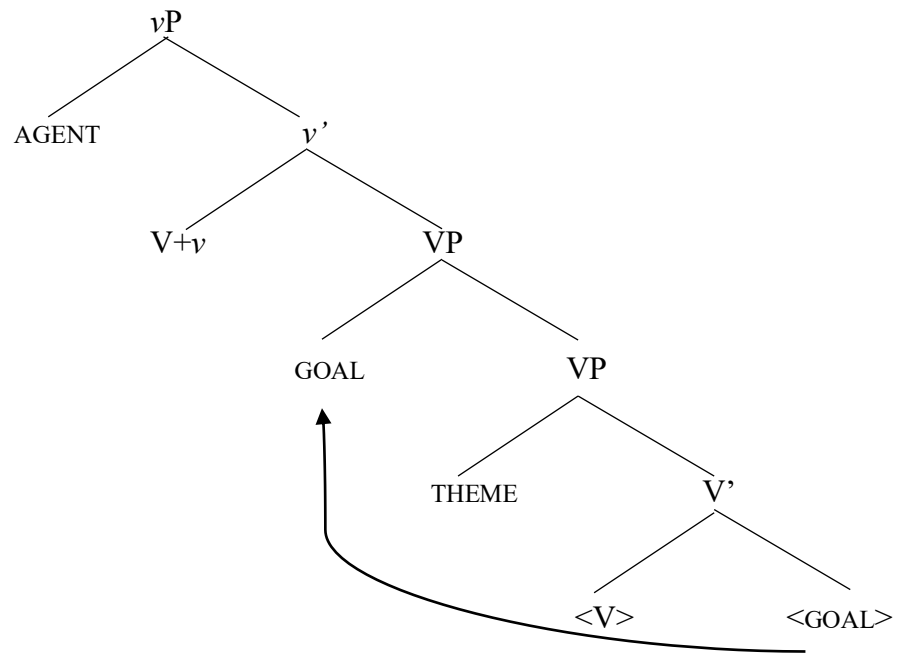
3.1 Inversion

Under this approach, objects may move over subjects to the left-edge of the TP. In Russian ditransitives, both V-Theme-Goal and V-Goal-Theme are acceptable and common orders, even though V-Theme-Goal is said to be the base-generated order. Interestingly, either the Theme or the Goal can act as antecedent for the other in a reciprocal construction, and both can occupy an A-position. The following data is from Bailyn (2012: 311). In both (21a) and (21b), the meaning is the same:

- (21) a. Mama predstavila **Petrov-yx** **drug drug-u.**
Mama.NOM introduced the.Petrovs-ACC.PL each.other-DAT
- b. Mama predstavila **Petrov-ym** **drug drug-a.**
Mama.NOM introduced the.Petrovs-DAT.PL each other-ACC
‘Mama introduced the Petrovs to each other.’

(21b) is derived from (21a) by VP-level inversion and is schematised as follows:

(22)



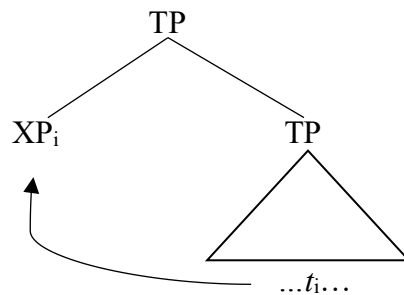
3.2 Movement-to-the-Far-Left (MFL)

Here an element undergoes A'-movement with possible analyses being for topic or focus. The following example is from Bailyn (2012: 315).

- (23)
- a. Ja xoču, čtoby Boris pozvonil Saš-e.
I.NOM want that Boris phone Sasha-DAT
'I want Boris to phone Sasha.'
 - b. Ja Saš-e xoču, [čtoby Boris pozvonil ____].
I.NOM Sasha-DAT want [that Boris phone ____]
'Sasha, I want Boris to phone.'

MFL is schematised as follows:

(24)



3.3 Motivating movement

Influenced by Move- α , various linguistics, such as Kawamura (2004), have proposed a scrambling feature that is present in the numeration on a given XP, which is then attracted by a higher functional category which ultimately triggers movement. However, Bailyn (2012) argues that this just provides an account of the mechanics of scrambling rather than addressing the motivation behind it. As he points out, most feature-driven movement has an effect in LF and thus has semantic relevance, but since Russian scrambling often leads to no impact on the semantics, the feature-driven account falls flat in providing an adequate explanation.

Bailyn also offers an alternative approach centred around Functional Form (FF), which involves scrambling being motivated by a set of rules involving intonation, a prominence hierarchy and a theory of tree splitting. Since this theory is complex and requires a lot of background, there is no scope to explore this here. For a detailed discussion of this, refer to Bailyn (2012) Chapter 7.3.2.

4. Conclusion

It is certainly clear that providing a full and succinct account of the mechanisms and motivations for scrambling is far from complete and is a work in progress, and there still appears to be no consensus as to the effects of scrambling plays in Russian. The overview I have presented has revealed two issues. First, establishing which order out of SVO and SOV is the canonical word order of Russian remains unclear. Second, although there is a camp of linguists who believe syntax plays little role in the interpretation of the various S, V and O orders, and believe only nuclear accent leads to discursal differences, others place greater

importance on different syntactic orders having much greater prominence in interpretational differences. Despite this, even those who believe in syntactic effects on interpretation in intonationally neutral sentences fail to provide a full account of all the orders of S, V and O. The only convincing evidence relates to information structure in terms of topic and focus such as when new information is placed later in the sentence, whether this be S or O, but accounts of Russian scrambling remain weak in their ability to explain the ordering of non-final constituents.

Although I hope that I have provided a clearer picture of how Russian constituent orders behave and some of the effects word order alternations play, many questions still remain unanswered and there still appear to be many open avenues of research on this topic.

Word count: 3901

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