

Slavic languages – "SVO" languages without SVO qualities?

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Abstract

Slavic languages are commonly filed under "SVO language", with an exceptional property, though, namely an atypical word order variability. However, a systematic comparison of Slavic languages with uncontroversial SVO languages reveals that exceptional properties are the rule. Slavic languages are 'exceptional' in so many syntactic respects that "SVO" becomes a typological misnomer. This fact invites a fresh look. Upon closer scrutiny, it turns out that they are not exceptional at all, but regular members of a different type. They are representative of a yet unrecognised type of clause structure organisation. The dichotomy of 'head-final' and 'head-initial' does not exhaustively cover the system space for the make-up of phrases. In addition, there seems to exist a third option. This is the type of phrasal architecture in which the head of the phrase is directionally unconstrained. It may precede its dependents, as in VO, it may follow, as in OV, and it may be sandwiched by its arguments. From this viewpoint, the Slavic languages are not exceptional. They are regular representatives of the latter type, and their syntactic properties match the properties of this type, with all corollaries.

1. Introduction

There is a remarkable consensus in the literature that Slavic languages have their place in the SVO type of the Greenbergian word order typology, although this verdict is based first and foremost on a forced choice¹ among the three options *VSO*, *SVO*, *SOV*, that is, Greenberg's (1963:41) types I, II, III, respectively.² SVO seems to be the least inappropriate label, given the consensus that Slavic languages are exceptional when compared with other Indo-European SVO languages, such as North-Germanic, Romance, or English. If Slavic languages are assigned to the least inappropriate class of the Greenbergian word order types, the predictive power with respect to properties of Slavic languages is little but the loss of predictive accuracy for typology with respect to the SVO type is high. This should raise concerns.

Dixon (2011:183) has made the following point: "*More of the world's languages are like Russian than are like English.*" If taxonomic considerations coerce a grouping of Slavic languages together with English, North-Germanic or Romance, then Slavic languages have to be acknowledged as highly exceptional when comparing their syntactic profile with that of uncontroversial SVO languages. This indicates that the type assignment misses essential generalizations.

The fact that the *word order* in (1a) and (1b) happens to be identical is not a sufficient justification for assigning English and Russian to the same *clause structure* type. The shared S-V-O

¹ "*It is generally acknowledged that Russian is an SVO language in neutral contexts*" (Bailyn 2002:280). A more accurate way of rendering the facts would be this: The word order "subject-verb-object" is a frequent word order in sentences in neutral contexts. For Dryer (2013), Slavic languages are SVO, with two exceptions, namely Sorbian, filed under SOV, and Belarusian, with "*no dominant order*". Given the uniformity of word order patterns across neighbouring languages, Mayo's (1993) assessment of Belarusian seems to be appropriate also for Polish, Russian, and Ukrainian. Sorbian is not strictly SOV, as (i) illustrates:

(i) *hdyž pak přidže tutón twój syn*

(Kaiser & Scholze 2008: 315)

if however *comes* this-one your son

² Greenberg (1963:66-67) lists Serbian in appendix I, and Slavic in appendix II, and in each case as SVO.

linear order in the given examples is a partial overlap only since English lacks all the word order variants, e.g. (1c,d), that alternate with (1a). It is a general property of Slavic languages that depending upon the information structure setting, any of the six permutations of the three major constituents yields an **acceptable** sentence, two of which are (1a,c). This is clearly not true for English and other SVO languages. And there are additional and systematic differences (see Table 1, below). It is worth emphasizing that these differences are not language specific. These are systematic differences between typical SVO languages and Slavic languages.

- (1) a. Bol'š-aja sobak-a *gonjala* malen'k-uju košk-u. Russian
 big-Nom dog-Nom *chased* little-Acc cat-Acc
 b. A big dog chased a little cat
 c. Malen'k-uju košk-u *gonjala* bol'š-aja sobak-a.
 d. Bol'š-aja sobak-a malen'k-uju košk-u *gonjala*.

Already in the early days of Generative Grammar, Ross (1967:75) coined the term "scrambling" and applied it to Russian (1970:251) in his account of gapping. In Generative Grammar, from then on, and without independent positive justifications, Slavic languages tend to be regarded as SVO languages with excessive scrambling options. Dixon (2011:183) justly objects to such a derivational coverage of the exceptional property of an alleged SVO language:

“At a late stage, Chomskians realised that not all languages are like English in this respect. What to do about? Generate the words in a fixed order, then have a ‘scrambling’ rule saying that they can be put in any order. This is a bit like a parliament passing a law and saying, at the same time, that no one need abide by it. Why impose word order, and then dis-impose it?”

Dixon would *not* have a point if it could be shown that Slavic languages share many relevant syntactic properties of uncontroversial SVO languages except for those which scrambling accounts for. However, this is exactly not the case, as Table 1 summarizes. If scrambling has to be invoked merely as an excuse for the very word order properties that robustly contrast with uncontroversial SVO languages, Dixon's point is well taken, it appears.

Slavic languages do not share characteristic grammatical properties of languages with an SVO clausal architecture but they instead share properties of SOV languages to a large extent. Nevertheless, Slavic languages are regarded as SVO languages with additional, grammatical properties that are absent in typical SVO languages. If Slavic languages are assigned to the SVO type, this covers 1/8th of the properties listed in Table 1, namely the least significant one (i), and only by begging the question.

The contrasts listed in Table 1 are not so much contrasts between SVO and SOV but contrasts between types of phrasal architectures. On the one hand, there is the *structurally highly constrained* type that consists of head-*initial* phrases only, namely the SVO setting. Since a VP is at the base of the clausal architecture, an SVO clausal architecture reflects properties of head-initial VPs plus the unique structural positioning of the subject in SVO.

On the other hand, and for principled reasons to be explicated in section 3, the SOV architecture is structurally less tightly constrained, and so is the – yet to be characterized – type that Slavic languages are argued to belong to. What SOV and Slavic languages share is the *absence* of constraints that apply to a strictly head-initial phrasal architecture, and this absence of particular

constraints is responsible for the parallels between SOV languages and Slavic languages in the following table.

Table 1 – Synopsis of SVO, SOV, and Slavic commonalities and differences

	SVO	SOV	SLAVIC	sect.
i. S-V-O as an acceptable order	☑	no	☑	1
ii. obligatory preverbal subject	yes	no	no	2.1
iii. subject wh-in-situ restriction	yes	no	no	2.2
iv. adverbial wh-in-situ restriction	yes	no	no	2.3
v. left-adjoined adjuncts	adjacent	unconstr.	unconstr.	2.4
vi. fillers for left branch gaps	no	yes	yes	2.5
vii. rigid word order	yes	no	no	2.6
viii. rigid relative order of auxiliaries	yes	no	no	2.7

Given the lack of parallels between SVO and Slavic languages, it would be unreasonable to characterize them as an 'exceptional' subset of SVO. This would be tantamount to the claim that Slavic languages are SVO languages without SVO properties.

In syntactic typology, "SVO" is still understood ambiguously, at different levels of analytic depth. Greenberg's original notion is the phenomenological one. A language is assigned the label SVO if in a simple clause, the sequence of subject-verb-object is an acceptable and common word order for a declarative clause in the given language.

In this purely descriptive sense, which takes the order S-V-O as a type marker, Polish (2a), English (2b), and German (2c) would count as SVO languages,³ which is highly uninformative, of course. For German, this would not acknowledge the fact that the order (2c) is one of many alternatives within the range of possibilities of a verb-second language, that is, with respect to the choice of the clause-initial phrase. In typology, the V2 property is known at least since Mallinson & Blake (1981:129).⁴ For Polish (2a), the SVO attribution would obscure the fact that the word order variants of a simple declarative clause differ significantly from the English word order (2b). In fact, any one of the 4! (= 24) possibilities of sequencing the four words of (2a) is a grammatical Polish sentence and acceptable in an information-structurally adequate context.

(2)a. Marek *dał* Ewie kwiaty.

Polish

Marek_{Nom} gave Eve_{Dat} flowers

b. Mark gave Eve flowers.

³ Appendix II, Greenberg (1963:67), files German, Dutch, and Slavic languages all as type II, that is, SVO. Gell-Mann and Ruhlen (2011) agree with this type assignment (see the appendix of their paper).

⁴ "The order used for a stylistically unmarked version of *John saw Mary* in German would be SVO, too, but to simply call German an SVO language would disguise the verb-second nature of its word order."

c. Markus *gab* Eva Blumen.
Markus gave Eve flowers

German

The classification used by Haspelmath & Dryer (2013) is essentially phenomenological, too. In chapter 81, "Order of subject, object and verb", Russian is characterized as follows: "*Russian is an example of a language with flexible word order in which SVO order can be considered dominant, so Russian is shown on the map as SVO.*" The only criterion for this assignment is the fact that SVO is "*the order that is more frequently used.*"⁵ Such a criterion is misleading.

In the theoretically informed reading of 'SVO', this label refers to languages with a particular clause structure, namely a clause structure based on a head-*initial* VP plus an *obligatory, structurally determined*, VP-external subject position. The informed reading has a broad and a narrow interpretation. In the narrow interpretation 'SVO' refers to the particular clause structure, based on the head-initial VP. In the broad reading, 'SVO' stands for languages with head-*initial* phrases in general, in combination with the special structural position for subjects. English is SVO in the narrow as well as in the broad sense. In English, all phrases are head initial. Analogously, languages are SOV in the narrow sense if the clause structure is based on a head-final VP. In the broad sense, this label covers languages in which every phrase with a lexical head is head-final.

German or Dutch are SOV languages in the narrow sense only, that is, with a head-final VP, but with head-initial NPs. In addition, these languages are 'V-second'. In a declarative main clause, the finite verb figures in a VP-external, clause-initial position, preceded by a single slot for an arbitrary constituent. This is the hallmark of the Germanic V2 property. Whenever a subject is put into the clause-initial position and the clause contains only a single verb plus an object, the resulting order happens to be S-V-O. However, the clause-initial position is not reserved for the subject. This has been understood and stated explicitly already more than a century ago by Erdmann (1886: 183).

In a declarative main clause of the Germanic V2-languages, irrespective of their being SVO or SOV, there are always two alternative structural positions for a verb, namely its head-position in the VP, and a secondary, fronted position, for the verb when it is finite. The position preceding the finite verb is open for a single phrase of any grammatical function.

Slavic languages in general, and Polish in particular, do not neatly fit into the defining schemes for VSO, SOV, or SVO languages, although each of these sequences is a grammatically admissible sequence for a Polish declarative clause, for instance, as illustrated by (3). Evidently, Polish could not be filed as an SVO language that is simultaneously a VSO and an SOV language. If someone insists that (3a) is an object scrambling variant of (3c), and (3b) a subject-postponing variant of (3c), this is an ad-hoc reaction to counterevidence for the SVO conjecture, as long as this conjecture is *systematically* contradicted in other relevant aspects (see Table 1).

- | | | |
|--|------|-----------------------|
| (3) a. Marek książkę czyta. | SOV? | Leszkowicz (2015:121) |
| Marek _{Nom} book _{Akk} reads | | |
| b. Czyta Marek książkę | VSO? | |
| c. Marek czyta książkę. | SVO? | |

⁵ This criterion must have been waived for Belarusian, which is filed under "no dominant word order" as the only Slavic language. Frequency counts are not given.

If Slavic languages were legitimately filed as SVO languages, they would be bound to share a substantive set of the defining properties of SVO languages, that is, the properties that follow directly from this particular clausal architecture. SVO languages may vary in peripheral properties, but not in their core properties. Slavic languages differ from uncontroversial SVO languages in syntactic core properties.

In the following section, Slavic languages will be checked for the properties listed in Table 1 and compared with uncontroversial SVO languages on the one hand and non-SVO languages on the other hand. The results of this check do not support the hypothesis that Slavic languages are typed best as – perhaps somewhat bizarre – SVO languages.

2. Defining characteristics of SVO languages in comparison with Slavic languages

The frame of reference for cross-checking the syntactic properties in Table 1 is a comparison of Slavic languages with Indo-European SVO languages such as English, North-Germanic and Romance. A comparison within a sample of diachronically related languages guarantees a close enough setting of potentially shared grammatical features. Comparison across language families would incur a higher risk of potentially interfering, irrelevant factors that might be responsible for at least some of the observed contrasts. In other words, if a subfamily of languages that is suspected to be of the same syntactic type as languages of other subfamilies of the same phylum turns out to be systematically different, then the likelihood that this difference is the effect of independent, interfering factors is sufficiently small and the onus of proof is on the side of those who suspect that there might exist independently interfering factors that account for the differences.

2.1 A structural subject position is obligatory in SVO but not in Slavic

In the SVO clause structure, there is a VP-external, preverbal, obligatory position for the subject. This is a unique and defining property of SVO languages, with the effect that on the one hand, the distribution of subjects is positionally restricted and on the other hand, clauses may not end up truly subjectless. (4a) and (4b) illustrate a consequence of this property. The derived nominative phrase needs to be fronted in a passive construction English (4a,b). In Dutch (4c) or German (4d), with their SOV clause structure, the direct object changes its case, too, but this derived syntactic subject may keep its original position.

- (4) a. In a famous experiment, *children* were shown a bag of sweets
 b. *In a famous experiment was/were shown *children* a bag of sweets.
 c. In een befaamd experiment werd kinderen *een zak met snoepgoed* getoond.
 in a famous experiment was_{sg} children_{pl-Ind.Ob.} a bag_{sg-Nom} with sweets shown
 d. In einem berühmten Experiment wurde Kindern_{Dat} *ein Sack_{NOM} mit Naschwerk* gezeigt.

In the absence of a subject candidate of the verb, the obligatory subject position of an SVO clause must be filled by a dummy item. Otherwise, a subjectless clause is ungrammatical (4b). SOV or VSO languages do not obey such a restriction.⁶

⁶ McCloskey (1996) has stressed that the Celtic VSO languages do not admit subject expletives. As for SOV languages, there is no language known that requires an obligatory subject expletive in otherwise subjectless clauses. German is a clear case of an SOV language that does not tolerate an expletive subject (Haider 2010:11).

Scandinavian languages such as Norwegian are particularly instructive in this respect because of the free alternation between various options for targeting the obligatory structural subject position (Taraldsen 1979:49; Lødrup 1991:127). In a passive construction, the would-be-subject of the verb is syntactically cancelled. The obligatory subject position is filled by another item. This may be the direct object (5a) which has turned into a derived subject. However, in (5b), the so-called pseudo-passive, the complement of the prepositional object is turned into a subject, and in (5c), the subject position is filled with a dummy subject in spite of there being available candidates for the role of a syntactic subject.

- (5) a. (at) *frimerker* ble klistret på *brevet*. Norw.
 (that) stamps were pasted on letter_{DEF}
 b. (at) *brevet* ble klistret frimerker på.
 (that) letter_{DEF} was pasted stamps on
 c. (at) *det* ble klistret frimerker på *brevet*.
 (that) EXPL was pasted stamps on letter_{Def}.

For Slavic languages, such a clear-cut difference in the positioning of subjects and non-subjects would be more difficult to pin down, for principled reasons. First, there are the notorious word order variations, and second, null-subject options are an interfering factor. On the other hand, it is equally difficult to produce conclusive evidence for an obligatory structural subject position in Slavic languages. Moore & Perlmutter (2000: 373) claim that there is such evidence, namely dative subjects. "*We show that Russian has a true dative- subject construction in which surface subjects are in the dative case.*"

If correct, this would be the best evidence available for the existence of an obligatory structural subject position in a Russian clause since the subjecthood of these datives would be a direct effect of their structural position. Only in a structurally determined subject position could a dative gain subject properties. Only SVO languages can provide such a position, namely the VP-external, structural subject position. Icelandic is known for its oblique subjects. In OV languages, dative subjects could not be structurally defined since there is no unique VP-external structural position for a subject. In OV, the subject is a VP-internal argument, on a par with other arguments. It is defined by its privileged case & agreement relation. The subject is the argument that is assigned nominative in a finite clause and agrees with the finite verb. Consequently, dative subjects are unknown in OV languages, and in VSO languages, too.

Moore & Perlmutter (2000:377) emphasise the distinction between preverbal dative *objects* as in (6a,b) and what they argue to be dative *subjects* in (6c). However, Sigurdsson (2002:697), who evaluates their arguments for dative subjecthood in detail and in comparison with Icelandic dative-subject constructions, concludes that "*M&P's arguments in favour of their position are seriously flawed and in fact untenable.*" In (6), the Dative is part of a copula construction. The copula is missing in the present tense due to the null-copula property of Russian, according to Franks (1995:250). In the preterite tense, the copula is required (6b,d), as an exponent of the specified tense marking.

- (6) a. Borisu veselo Russian
 Boris_{DAT} (is) merry_{NEUT.SG}
 b. Borisu bylo veselo.

- Boris_{DAT} was_{NEUT.SG} merry_{NEUT.SG}
- c. Borisu ne istratit' tak mnogo deneg na sebja.
 Boris_{DAT} NEG spend_{INF} so much money on self
 'It is not (in the cards) for Boris to spend so much money on himself.'
- d. Borisu bylo ne istratit' tak mnogo deneg na sebja.
 Boris_{DAT} was_{N.SG} NEG spend_{INF} so much money on self
 'It was not (in the cards) for Boris to spend so much money on himself.'

Since Moore & Perlmutter deny subjecthood for the dative in (6a,b) and since there are no compelling reasons (s. Sigurdsson 2002) to handle (6c,d) differently, the alleged evidence from (6c,d) does not qualify as evidence for dative subjects upon closer scrutiny. Russian datives in preverbal position do not function as dative subjects. They lack essential properties of subjects, as a comparison with genuine cases of dative subjects in Icelandic confirms.

In traditional terminology, (6a,b) and (6c,d) are regarded as subjectless clauses. This would be at odds with SVO characteristics. So, Perlmutter & Moore (2002, sect. 3) resort to an auxiliary hypothesis, originally proposed by Sobin (1985), viz. "*The Silent Expletive Hypothesis (SEH): Impersonal clauses have a silent expletive (dummy) as subject.*" In (6a,b) and in (7b), an empty expletive is assumed to plug the structural subject slot.

- (7) a. Takie stat'i ne byli opublikovany za granicej. Russian
 such articles_{NOM} NEG were_{PL} published_{PL} beyond border
 'Such articles were not published abroad.'
- b. Za granicej ne bylo opublikovano takix statej.
 beyond border NEG were_{NEUT} published_{NEUT} such articles_{GEN}
 'There weren't any such articles published abroad.'

The silent-expletive hypothesis is an unsatisfactory solution, however. A 'silent expletive' is not only a contradiction in terms, it is empirically inadequate, too. An expletive is a lexical item that makes an otherwise empty position 'audible'. A position 'filled' by an empty expletive could not be distinguished from a truly empty position. Immediate counterevidence can be located in Romance languages. In the Romance null-subject languages, as for instance Spanish (8a) or Italian (8b,c), the standard passive applied to intransitive verbs is ungrammatical. In French (d,e), it is not, but French employs an overt expletive pronoun:

- (8) a.* Fue trabajado duro aquí. Spanish
 was worked hard here
- b.* È stato dormito in questo letto Italian
 has been slept well in this bed
- c.* È stato tossito per il fumo
 has been coughed because-of the smoke
- d. *Il* a été dormi dans ce lit French
 EXPL has been slept in this bed (Rivière 1981:42)
- e. *Il* a beaucoup été fumé dans cette salle (Gaatone 1998:124)
 it has much been smoked in this room

If a null expletive were an option, (8a-c) would be the perfect null-expletive counterparts of the French expletive *'il'*. However, this construction is ungrammatical in Romance null-subject languages. Romance languages are SVO and an 'empty expletive' is not admissible as a licit filler of such a subject position.⁷ An 'empty expletive' could not be regarded as a language specific option either (see Haider 2017). An empty expletive is a theoretical construct without empirical substance whose only theoretical justification is the saving of a generalization. Those who invoke it need it as an ad-hoc auxiliary hypothesis for immunizing their theory that posits a *universal* subject position against counter evidence from non-SVO languages.

2.2 Restrictions on interrogative subjects in SVO

Multiple wh-constructions are infrequent enough to be free of normative regulations. Hence, they provide direct insights into grammatical restrictions of SVO languages that are absent in OV languages. The two characteristic restrictions of SVO languages are the restriction against wh-subjects in situ and restrictions against in-situ wh-adverbials of a certain class, that is, *'why'* and *'how'*.

In SVO languages with wh-fronting, a characteristic priority rule holds for the in-situ wh-expressions. An interrogative subject must not be left behind. English (9a,b) is representative also for SVO-Germanic⁸ and Romance SVO languages.

- (9) a. Who(m) has this/**what* shocked?
 b. It is unclear who(m) this/**what* has shocked.
 c. Where did he hide this/*what*? – What did he hide *where*?
 d. It is unclear where he hid this/*what* – It is unclear what he hid *where*.

In OV languages, there is no asymmetry of this kind. Both orders are grammatical and acceptable. Dutch and German counterparts of the English examples are illustrated in (10). Both, the unacceptable as well as the acceptable order of English are acceptable orders in an SOV clause. For a detailed cross-linguistic explication of this phenomenon, please consult Haider (2010, ch. 3.4).

- (10) a. Wen hat *was* schockiert?
 whom has what shocked
 b. Es ist unklar, wen *was* schockiert hat.
 it is unclear whom what shocked has
 c. afspreken wanneer *wie* een casus voorbereid op de volgende bijeenkomsten⁹
 arrange when *who* a case prepares at the coming meetings

⁷ In Vèneto, the vernacular of the Italian province Veneto, intransitives can be passivized, but only in the presence of an obligatory expletive of the *'there'*-type. Gratefully acknowledged source for data confirmation: Cecilia Poletto (p.c.). i. *Z'è stà parlà de ti* Regional variant: *Gh'è stà parlà de ti*
there has been spoken about you

⁸ Here are two data points from Swedish (Google search; N= news, B = books)

i. Vem har sagt vad? (Who has said what?).	Google: unrestr.: 3690;	N: 8;	B: 7.
ii. Vad har vem sagt? (What has who said?).	Google: unrestr.: 3	N: 0;	B: 0.
iii. Vem ska göra vad? (Who will do what?).	Google: unrestr.: 48.800	N: 83;	B: 40.
iv. Vad ska vem göra? (What will who do?).	Google: unrestr.: 13	N: 0;	B: 0

⁹ <http://devriesenrijke.nl/wp-content/uploads/Vervolg-2016-2017.pdf>

- d. Wie bepaalt hoe lang *wie* de gelegenheid krijgt zich waarvoor hoe te kwalificeren?¹⁰
 who determines how long who the chance gets REFL what-for how to qualify

The crucial point is this. In SVO, the subject is VP-external. It is assigned a unique structural position reserved for the subject.¹¹ In OV, the subject remains in its original position within the directionality domain of the verbal head, viz. the VP. Hence the subject shares structural properties with the other VP-internal arguments, namely those staying in their base positions.

Slavic languages allow for multiple fronting of *wh*-words (see, among many others, Rudin 1988, Bošković 1997, 1998; Meyer 2003, 2004). The examples in (11) are taken from Czech, since it is definitely a Slavic language in which multiple *wh*-phrases cannot be assumed to form a single constituent that is fronted to the sentence initial position.¹² Czech canonically fronts all interrogative phrases to the left¹³, but allows for material intervening between the initial *wh*-phrase and a second one (11c,d).¹⁴

- (11) a. Kdo co doporučil komisi? (Meyer 2004: 253)
 who_{NOM} what_{ACC} recommended committee_{DAT}
 ‘Who recommended what to the committee?’
 b. Co kdo doporučil komisi?
 what_{ACC} who_{NOM} recommended committee_{DAT}
 c. Kdo *ho* kde viděl je nejasné? (Toman 1981: 298)
 who him_{CLITIC} where saw is unclear
 d. Kde *ho* kdo viděl je nejasné? (Toman 1981: 298)
 where him_{CLITIC} who saw is unclear

As illustrated by (11b,d), there is no English-like restriction on an in-situ *wh*-subject in Czech. Just like in German, an interrogative phrase may precede an interrogative subject in a multi-interrogative question. With inanimate objects, there is not even a preferred order. With an animate object *wh*-phrase, *koho* ‘whom’, instead of *co* ‘what’ in (11a,b), there is a preference for the order subject > object, but the order object > subject is by no means ungrammatical (cf. Meyer 2003 and 2004 for details). Stepanov (1998) confirms an analogous picture for Russian (12) and Bošković (1997, 1998) for Bosnian/Croatian/Serbian (13).

- (12) a. Kto kogo ljubit? Russian
 who whom loves
 b. Kogo kto ljubit?
 c. Kto kogo ty xočeš', čtoby pobil?
 who whom you want that-subj. beat
 ‘Who do you want to beat whom?’
 d. Kogo kto ty xočeš', čtoby pobil?

¹⁰ p. 231: Kees van der Wolf & P. Huizenga (Red.) 2011. Het Nederlandse Beroepsonderwijs: valt daar iets aan te doen? Antwerpen: Garant.

¹¹ The head position is the position of the finite auxiliary or of the expletive auxiliary ‘do’.

i. [In English, [_{FP} a subject_i [_F does_{FP} [not [_e follow an object]]]]]

¹² This is a common analysis for Bulgarian (cf. Rudin 1988, Bošković 1997, 1998).

¹³ Marginally, *wh*-phrases may appear in the postverbal position (*wh*-final) without having an echo-reading (cf. Meyer (2004) for a detailed discussion; esp. p.217).

¹⁴ Sturgeon (2007) argues that the interrogative elements that follow the position of the second position clitic in are adjoined to VP.

- (13)a. Ko je koga vidio? Bosnian/Croatian/Serbian
 who is whom seen ('Who has seen whom?')
 b. Koga je ko vidio?
 whom is who seen

Each of these variants is grammatical but of course these variants are not equivalent in their information structure effects. The order in (14) presents 'kogo' (whom) as the sorting key for for the <object, subject> pairs asked for. This presupposes a discourse setting for which *object-participant before subject-participant* is adequate serialization in terms of discourse structure.

- (14) Kogo_j kto_i ty xočeš', čtoby e_i pobil e_j? Russian
 whom who you want that -- beat --

This difference in information-structure fitting accuracy is reflected in comparative judgments with a slight preference for the pattern (12a, 13a) over (12b, 13b), respectively, when such sentences are judged in isolation.

Another source of preferences among otherwise equally grammatical variants is processing-based. Even if the grammar of a Slavic or an SOV language such as German does not block fronting of a wh-object across a wh-subject, the computation of the filler-gap structures faces different demands by different serializations, as illustrated by German (15a,b); see Haider 2010:126-128).

- (15) a. [?]Was_i hat sie *wen* gebeten [für sie e_i zu recherchieren]? German
 what has she *whom* asked [for her to investigate]
 b. Ich weiß nicht, *wen was* geärgert hat.
 I do not know whom *what* bothered has
 c. *What did she ask *who* to investigate for her?
 d. *I do not know who *what* has bothered.

In (15a), the parser meets a second wh-item *before* the gap for the first item can be identified lower in the tree. This extra load for the buffer¹⁵ would not arise in the equally grammatical variant of (15a) in which '*wen*' is fronted and '*was*' remains in situ. In (15b), such an effect does not materialize since the gap comes right after the in-situ wh-subject. In an SVO language such as English, however, it is the grammar that is at stake. (15c,d) are not merely degraded for processing reasons, they are ungrammatical and fully unacceptable. An in-situ wh-subject is ungrammatical in multiple wh-constructions.

2.3 Restrictions on adverbial wh-items in the preverbal position

In English, in Romance, and in the Germanic SVO languages, '*why*' and '*how*' are the odd balls among adverbial interrogatives, as (16a) illustrates. In OV-languages, this contrast is unknown (16b,c).

- (16) a. Who has answered this question *when/where/*why/*how*?
 b. Wer hat diese Frage *wann/wo/weshalb/wie beantwortet*? German

¹⁵ If the two involved wh-items are formally identical, this leads to a processing break-down, as expected.

i. *Wen_i hast du *wen* gebeten, [e_i zur Party einzuladen]?
whom_{Acc} did you *whom_{Acc}* ask [to the party to invite]

- who has this question *when/where/why/how* answered
- c. Dare-ga *naze* soko-ni itta no? Japanese (Saito 1994:195)
 who_{-nom} *why* there-to went Q-PARTICLE

Semantically, 'why' and 'how' are higher-order quantifiers. They do not quantify over individual-type variables but over properties, that is, sets of individuals. 'Why' and 'how' ask for explanatory statements, whereas 'who', 'what', 'when', 'where' ask for individual *items* such as objects, points of time, points of location. The domain of higher order quantifiers must contain the base position of the (finite) verb. Consequently, the wh-adverbial should precede the VP and its in-situ position should be the position of the corresponding adverbials. (17) illustrates the dilemma of SVO clauses. Although adverbials may precede the VP (17a,b), their wh-counterparts are ungrammatical in this position (17c,d).

- (17) a. He has *very carefully* answered the question.
 b. He has *very often* asked the same question
 c. *Which question has he *how* (carefully) answered?
 d. *Which question has he *how* (often) asked?

The only position left for this kind of wh-adverbials is the clause-initial one (18a). However, there is a competition for this position in case the subject is a wh-phrase as well. This leads into a no-win impasse (18b). For (18b), there is no acceptable alternative. If 'who' is placed first, there is no licit position left for 'how often'.

- (18) a. *How often* has he asked which question?
 b. *How often has *who* asked this question?

For English, this set of facts is without any exception. In an aggregated 5.8 billion word corpus, that is BNC, Coca, and NOW taken together, there is not a single sequence attested for "*has how often*" or "*has how carefully*" followed by a verb. English is representative of the Germanic SVO languages.¹⁶ Romance languages confirm the picture. If Slavic languages are SVO languages, they should pattern like the other SVO languages in this respect, but they don't. Russian is an apt test case since Russian does not obligatorily front multiple wh-items.

- (19) a. Mne interesno, kakoj fil'm Boris *kak často* smotrel Russian
 me interests which film Boris *how often* saw
 b. *Mne interesno, kakoj fil'm Boris smotrel *kak často*
 me interests which film Boris saw *how often*
 c. Mne interesno, kakuju poezdku Maša *kak dolgo* planirovala
 me interests which journey Mary *how long* planned
 d. *Mne interesno, kakuju poezdku Maša planirovala *kak dolgo*
 me interests which journey Mary planned *how long*

In Russian as well as in other Slavic languages, 'how' may precede or *follow* an interrogative

¹⁶ Fanselow (2004:85) reports that three of his five informants rated (i) as acceptable. (ii) went unchecked. Internet searches of Swedish do not produce a single sentence with a fronted wh-item followed by *varför* (ii) or *hur ofta* (how often). This in contrast with facts from OV-Germanic. Google searches for German produce these results: "*wer wie oft*" (who how often): 2120 (Books), 939 (News). "*wer warum*" (who why): 6820 (B), 2150 (N).

i. *Det spelar ingen roll vem som skrattade *varför*.

it plays no role who that laughed *why*

ii. *Det spelar ingen roll vem som *varför* skrattade.

subject, and, as Russian illustrates, the second interrogative does not need not to be in the clause initial position, but it must precede the finite verb. This, however is exactly the position where an in-situ interrogative item may not be placed in an uncontroversial SVO language.

2.4 Left-adjoined adjuncts

Let us stay within the same area of grammar and switch the focus to another syntactic property of adjuncts. *Left* adjuncts of *left*-headed phrases, that is, of head-initial phrases, are constrained in yet another way. The head of the left-adjoined adjunct of a head-*initial* phrase must be adjacent to the phrase it is adjoined to (see Haider in press). Crucially, this constraint does not hold for left adjuncts of right-headed, that is, head final, phrases.

This constraint is operative in Germanic as well as Romance languages and arguably it is a cross-linguistically valid constraint. For brevity's sake, let us call it LLC, that is, the *left-left-constraint*. In both sub-families – Germanic and Romance – noun phrases are head-initial, and in Romance and the North-Germanic group plus English, the VP is head-initial, too. Hence, in both groups, the LLC applies to adjuncts of noun phrases, and in the Romance, English, and North-Germanic, the LLC constrains adjuncts of VPs as well.

- (20) a. He has [[much more profoundly (*than others)] [studied this phenomenon]].
 b. This is a [[much more powerful (*than a missile)] [weapon]]
 c. Lausanne a [[plus souvent (*que Berne)] perdu]. French
 Lausanne has more often (than Bern) lost
 d. une [[fière (*de soi)]_{AP} femme]
 a proud (of herself) woman

In German and Dutch, only NPs are head-initial, while VPs and APs are head final. So, the LLC applies only to adjuncts of NPs but not to adjuncts of VPs or APs.

- (21) a. Sie hat das Problem *genau so schnell wie ihr Konkurrent* gelöst German
 he has the problem *exactly as fast as her competitor* solved
 b. eine ebenso geniale (*wie Newtons) Lösung
 an as ingenious (as Newton's) solution
 c. De ziekte heeft zich [veel sneller dan werd verwacht] verspreid. Dutch
 the disease has itself [much faster than was expected] spread
 h. een veel sneller (*dan een paard) dier
 a much faster (than a horse) animal

The prediction for Slavic languages is obvious. If they are SVO languages, they have to pattern with SVO languages and consequently their *preverbal* adverbial phrases must be constrained by the LLC. This is not the case, however. The following illustrations taken from an East, West, and a South Slavic language are representative of Slavic languages in general.

- (22) a. V prošlom godu [gorazdo bol'še čem Igor] vyigrala tol'ko Maša Russian
 in previous year [much more *than Igor*] won only Mary
 ‘Last year, only Mary has much more won than Igor.’
 b. [?]W zeszłym roku [dużo więcej niż Jarek] pracowała tylko Roza Polish
 in last year much more *than Jarek* worked only Roza

- c. Prošle godine je [mnogo više *od Želimira*] radila samo Branka B/C/S
 last year has much more *than Želimir* worked only Branka

If the position of the verb in (22) was the position of the head of a head-initial VP, then the LLC would apply, but it does not. Preverbal adverbial phrases in Slavic behave just like preverbal adverbial phrases in OV languages. If they get lengthy, they tend to be postponed, but not because they would be ungrammatical otherwise.

In Slavic languages, not only VPs but also NPs evade the LLC, as the following examples from Bulgarian, Russian and Polish demonstrate (23a-c). What this implies is that an NP does not count as a strictly head-initial phrase in these languages either. But, this is apparently not a cross-Slavic property. Languages of the B/C/S-group seem to be subject to the LLC, as (23d) testifies.

- | | |
|---|---------|
| (23) a. [verni-jat (na žena si)] muž | Bulg. |
| faithful _{Def} to wife his _{REFL} husband | |
| b. [vernyj (svoej žene)] muž | Russian |
| faithful his wife _{DAT} husband | |
| c. [wierny (swojej żonie)] mąż | Polish |
| faithful his wife _{DAT} husband | |
| d. [v(j)eran (*svojoj ženi)] muž | B/C/S |
| faithful (his wife _{DAT}) husband | |

2.5 Fillers of gaps in left branches (LBE – left-branch extractions)

The following examples (24) illustrate a well-known property of Slavic languages.¹⁷ Adnominal attributes may be fronted and thereby get separated from their NP. This is common for questions (24a), and also for the corresponding answers (24b).

- | | |
|--|--|
| (24) a. Kakuju _i Alexandra kupila [--i knjigu]? | Russian |
| which Alexandra bought [-- book] | ('Which book did A. buy?') |
| b. Xorošuju _i Alexandra kupila [--i knjigu] | |
| good bought Alexandra [-- book] | ('It was a good book that A. bought'.) |

This kind of fronting results in a filler-gap constellation, according to accepted analyses of the construction for Russian (Baylin 2012: 62-64) and other Slavic languages (Bošković 2005, 2014, 2017) and therefore, this construction is a perfect testing ground for the SVO thesis. It is a cross-linguistically robust property of SVO languages that preverbal phrases are grammatically illicit domains for gaps of fronted fillers. As (25) illustrates, a filler may relate to a gap in a postverbal phrase but *not* to gaps in a *preverbal* phrase.

- (25) a. What_i has she preferred [dealing with --_i]?
 b. *What has [dealing with --_i] been real fun for her?
 c. Which book did he plagiarize [a chapter of --_i]?
 d. *Which book was [a chapter of --_i] plagiarized?
 e. Which surface_i would large impacts cause cracks [on --_i]?

¹⁷ Only Bulgarian and Macedonian do not share this property. Bošković (2005, 2014) correlates this with another exceptional fact of their noun phrase syntax, namely the so-called article system of these two languages. Bulgarian and Macedonian are languages with definiteness markers suffixed to the noun.

f.*Which surface would [on --_i], large impacts cause cracks?¹⁸

Given this cross-linguistically valid constraint, the prediction for SVO languages is evident. Whenever a phrase ends up in a position preceding the main verb in its VP-internal position, the phrase in its derived position is opaque for filler-gap relations terminating within this phrase. Let us call it the 'gap-phrase'.

Here comes the crucial prediction. If Slavic languages are SVO languages, they are expected to show the typical pre- vs- postverbal asymmetry for extractions. Left-branch extractions are predicted to be acceptable only for gap-phrases in *postverbal* positions but excluded when a gap-phrase is in a *preverbal* position. The prediction turns out to be wrong, and so the hypothesis must be wrong, too.

- | | |
|--|---------|
| (26) a. Kakuju _i Ivan [-- _i mašinu] <i>kupil</i> svoej žene?
which _i Ivan [-- _i car] <i>bought</i> his wife | Russian |
| b. Japonskujū _i Ivan [-- _i mašinu] <i>kupil</i> svoej žene.
Japanese _i Ivan [-- _i car] <i>bought</i> his wife | |
| c. Koju _i Petar [-- _i knjigu] daje svojoj ženi?
which _i Petar [-- _i book] gives his wife | B/C/S |
| c. Jaki _i Jarek [-- _i samochód] kupił swojej żonie.
which _i Jarek [-- _i car] bought his wife | Polish |

In each example in (26), the gap-phrase is preverbal. Nevertheless, each construction is acceptable, given an appropriate context for the information structure effect of the particular word order with a preverbal object. The respective grammars of these languages do not rule out such a construction.

An SOV counterpart of gaps in left-branches are gaps in clauses adjoined to head-final phrases, that is, to VPs. West-Germanic NPs are head-initial, so their syntactic properties are identical with the syntactic properties of NPs in SVO languages. The examples in (27) are taken from German. First, left-branch extractions comparable to (26) are – as predicted – licit for quantified wh-items (27a,b). Second, German scrambles, and it scrambles clauses as well as noun phrases and prepositional phrases. In (27c), the infinitival object clause is scrambled across the subject. In an SVO setting, a filler-gap relation into such a scrambled clause would be ruled out, under any analysis of scrambling. If scrambling *adjoins* the scrambled phrase to a head-initial VP, the gap is in a left branch and therefore it should be ungrammatical. If, on the other hand, the scrambled phrase is deemed to end up in a pre-VP functional *specifier* position, the gap would be in an inaccessible position, too. In each case, the predicted result would be 'ungrammatical'. However, in SOV, filler-gap relations terminating in a scrambled clause are grammatical and acceptable (Haider 2010: 155-157).

- | | |
|--|--------|
| (27) a. [Wen aller/alles] hat er angerufen?
[whom _{Acc} all _{Gen} /all _{Acc.neuter}] _{Acc} has he phoned-up?
'Who of all has he phoned up?' | German |
| b. Wen _i hat er -- _i <i>aller/alles</i> angerufen?
what has he <i>all</i> phoned-up | |

¹⁸ Note that PPs may be fronted in English, as the following example from the BNC illustrates:

i. that *on such a small surface*, large impacts would shatter the surrounding terrain, causing cracks.

- c. Was_i hat denn [-_i damit zu beweisen]_{CP} gerade jemand versucht?
 what has PARTICLE with-it to prove right-now someone_{Nom} attempted
 'What has someone attempted to prove with this right now?'

What (27) re-confirms is the fact that gaps contained in *left* branches of head-*final* phrases are accessible. The left-branch constraint is a constraint on *left* branches of head-*initial* constituents.

2.6 Rigid word order in head-initial phrases

If Slavic languages are SVO languages, their VPs are head-initial. A characteristic collateral property of head-initial phrases is the rigid word order of head-initial phrases. It is a popular legend that free word order directly correlates with overt morphological markers for case. It is easy to falsify the legend. On the one hand, there are languages with free word order in the absence of morphological marking, and on the other hand, there are languages with morphologically distinct case marking that do not permit word order variation at all. Bulgarian (28) is an example for the former, and Icelandic (30) for the latter constellation. The variability of word order in Bulgarian is as free as in any other Slavic language. The subject and the objects may be serialized freely, with the familiar, concomitant effects on information structuring. (28a,b) are just two variants (see Avgustinova 1997:132) out of the set of variants.

- (28) a. Ivan izprati kuklata na decata Bulgarian
 Ivan sent doll_{Def.} to children_{Def.}
 b. Kuklata Ivan na decata izprati (with focus on 'na decata')

In English, an unambiguous morphological identification does not warrant word order variation, as (29) illustrates. (29b) would be a fully licit serialization variant in Bulgarian, however.

- (29) a. Bill gave dolls to children
 b. *Bill gave to children dolls

In Icelandic, the word order is rigid in spite of rich case marking by distinctive paradigms. In (30), dative and accusative are distinctively marked on the nouns. This notwithstanding, Dehé (2004: 94) reports that "*the inverted order was rejected*", that is, the order (30b), was rejected by all her informants, without exception.

- (30) a. Þau sýndu foreldrunum krakkana. Icelandic
 They showed parents-DEF-DAT kids-DEF-ACC
 b. *Þau sýndu krakkana foreldrunum
 They showed kids-DEF-ACC parents-DEF-DAT

Dutch (and the other OV-Germanic languages) contribute another facet to this picture. In Dutch, as well as German (Haider 2013:207-210), Frisian or Afrikaans, prepositional objects may be 'scrambled' within a head-*final* phrase such as the VP (Geerts et al.1984: 989f.), but the very same phrases crucially may not get scrambled in a head-*initial* phrase, such as an NP. This can be demonstrated in a minimal-pair context. VPs are head final, NPs are head initial, and a verb can be converted into a noun, as a nominalized infinitive. This yields the closest possible context for comparisons. The facts show that 'scrambling' is not a holistic property of a given language. It is a property of phrase structure. Head-final phrases enable scrambling, head-initial phrases impede it; for details see Haider (2015).

- (31) a. Toen hebben [de autoriteiten *het kind* aan de moeder teruggegeven]_{VP}
 then have the authorities the child to the mother back-given
 c. Toen hebben de autoriteiten aan de moeder_i *het kind* --_i teruggegeven
 d. het [teruggegeven van het kind aan de moeder]_{NP}
 the back-give of the child to the mother
 b.*het teruggegeven aan de moeder_i van het kind --_i

If Slavic languages were filed as genuine SVO languages, their word order variability would appear to be truly exceptional in more than one respect. First, they allow for VP-internal word order variation in a head-initial VP, and second, they allow for word order variation across the boundary of a VP and in particular to positions preceding the allegedly head-initial verbal head of the VP. In other words, they would have to be acknowledged as SVO languages that freely scramble within the VP and out of the VP. This serialization freedom for objects is absent and ungrammatical in uncontroversial SVO languages such as English, North-Germanic, and Romance VO languages.

2.7. Rigid word order of auxiliaries

The final property to be called up in this paper is once more an invariable property of SVO languages. If a simple clause contains more than one verb, the verbs are serialized in an invariant relative order. In other words, auxiliaries and quasi-auxiliaries, such as modals or causative verbs, are invariably serialized in such a sequence that the morpho-syntactically dependent verb follows the verb it depends on. In English, modals select a bare infinitive, the tense auxiliary 'have' selects a participle, and the auxiliary 'be' selects the "-ing"-form when coding the durative aspect, or a participle when coding the passive. In each case, the selected form invariably follows the selecting verb.

- (32) a. She *would*→*have*→*been*→ willing→ [to go further] (from BNC)
 b. It [certainly *may*→ [possibly *have*→ [indeed *been*→ [badly formulated]]]]
 (Quirk et al. 1985: §8.20, 495)

Evidence from OV languages shows that invariable ordering is a type-dependent property. In almost all¹⁹ Germanic OV languages, there is order variation among the verbs in a simple clause, and this is of course independent of the fronting of the finite verb due to the V2-property of Germanic languages. (33) illustrates this property for Dutch and (34) for German. These sequences are all clause-final sequences of verbs. The numbers are the Google search hits with the filter 'News', followed by those with the filter 'Books', followed by the number of unfiltered hits. All variants are synonymous.

- (33) a. (dat iets) gebeurd *zou* kunnen zijn (111; 827; 24.000)
 (that something) happened_{Participle} *would* can_{INF} be_{INF}
 'that something would be possible to have happened'
 b. *zou* kunnen gebeurd zijn (32; 128; 3.000)

¹⁹ Only Frisian does not permit order variation among the verbs. In other non-standardized varieties of German, for instance in Swiss-German regional varieties, the variation is even more extensive (see Wurmbrand 2004) in the sense, that the auxiliaries may precede objects. This is rare in standard German, but it is attested:
 i. dass er für ihn nicht *hatte* die Firma am Leben *halten wollen* (Thomas Mann, Buddenbrooks).

that he for him not *had* the company at life keep_{Inf} want_{Inf}

c. *zou* kunnen zijn gebeurd (4; 4; 28.000)

The highly frequent order in Dutch (33c) is ungrammatical in German, and the same is true vice versa, that is, the order (34a) is ungrammatical in Dutch.

(34) a. (dass es so) *hätte* gewesen sein können (94; 2420; 16.100)

(that is so) had_{Past-SUBJ} been be_{Inf.} can_{Inf.}

'that it had possibly could have been so'

b. gewesen *hätte* sein können (4; 597; 6530)

c. gewesen sein *hätte* können (4; 178; 2600)

This kind of verb order variation is absent in those SOV languages in which verbs are confined to their base position. In these languages – for example Japanese or Frisian – the relative order is the mirror image of the relative order in VO languages. The dependent verbs precede the verbs they depend on. The crucial difference between the OV and the VO situation is this: For VO not a single language is attested that would allow for verb order variation in the sense that in a simple clause, a dependent verb may follow *or* precede the verb it depends on. If there is word order variation in the relative order of the verbs of a simple clause, the language cannot be an SVO language.

The Slavic languages do not offer as ample testing opportunities as the Germanic languages provide. This is due to the fact that, first, a lot of Slavic languages either have a very restricted set of auxiliaries (e.g. Russian) or the auxiliaries in most cases appear in a clitic version (e.g. B/C/S, Czech) or as what has been labelled "mobile inflection" in Polish by Embick (1995). Second, a lot of Slavic languages lack modal verbs altogether. However, in those cases in which one can observe modal verbs or non-clitic auxiliaries, Slavic languages rather pattern with OV languages than with VO languages in terms of observable verb order variations.

(35) a. We wtorek *poukladać musisz* w szafie. Polish

on Tuesday *tidy-up must*_{2nd.sg.} in wardrobe

b. We wtorek *musisz poukladać* w szafie.

c. Sutra *pospremiti moramo* samo našu sobu. B/C/S

tomorrow *tidy-up must*_{1st.pl.} only our room

d. Sutra *moramo pospremiti* samo našu sobu.

e. Zavtra *ubirat' budem* v Izmajlovskom parke. Russian

tomorrow *tidy-up shall*_{1st.pl.} in Izmajlovo Park

f. Zavtra *budem ubirat'* v Izmajlovskom parke.

In Polish and B/C/S, the sequence of verbs must not be interrupted by inserting an adverbial. This may be an indication that the verbs form a cluster as it is known from OV languages, and the cluster may precede or follow arguments and pattern like a single verb.

3. There is more than head-initial and head-final

The above survey of syntactic characteristics of Slavic languages has produced two general results. First, the Slavic language-family is *uniform* across a sundry set of properties. Second, this set of properties does not match the syntactic profile of typical SVO languages.

In this situation, the obvious question to ask is the following. Is this a problem of Slavic languages or is it a problem of a taxonomy that files Slavic languages as SVO languages? It is a

problem for a taxonomy that does not provide adequate space for languages such as the Slavic languages, and there are a lot more languages that closely resemble Slavic languages cross-linguistically. Dryer (2013) lists 181 languages of his sample as languages "lacking a dominant word order" and this list needs to be extended by those languages that are misclassified as SVO, such as the Slavic language.

3.1 Taxonomic space for Slavic languages

The taxonomy of clause structuring is part of the taxonomy of cross-linguistically attested phrase structuring. A hitherto unquestioned assumption in phrase structure taxonomy is the *peripherality axiom*. Kornái & Pullum (1990:34) refer to Stowell's (1981:70) wrap up of X-bar theory, in terms of a list of "*plausible and potentially very powerful restrictions on possible phrase structure configurations at D-structure*". One of these restrictions is the head-peripherality axiom.

The head of a phrase is assumed to appear "*adjacent to one of the boundaries of X^l* ." Consequently, phrases would be either head final (36a) or head initial (36b). (36c) is a more complex structure with a head-initial VP and a VP-external subject position. (36) is but a sketch of the clause structure with or without a clause-initial complementizer. The arrow indicates the parametric *directionality property* of the head that structurally licenses its dependents and thereby determines whether the complements are to follow or to precede.

Presently, the theory of phrase structures acknowledges only phrases with a *peripheral* head position.²⁰ For VPs, the peripherality constraints admits only (36a-c). For the head-initial option, (36c) is the special case, in addition to VSO, with the verbal head preceding *all* of its arguments.

- (36) a. (C) [_{VP} S ←[O←V]] ←: unidirectional final = SOV
 b. (C) [_{VP} V→ S O]] →: unidirectional initial = VO, VP-internal subject
 c. (C) [S [_{VP} V→ O]] →: unidirectional initial = VO, VP-external subject

The evidence from Slavic and similar languages points to the conclusion that (36a) and (36b,c) do not exhaustively cover the system space of phrase structuring in natural languages. The peripherality generalization is arguably based on too narrow a sample of languages. Let us therefore assume that the peripherality constraint is not universal but characteristic of languages with a *specified* directionality of the head of the phrase (see Haider 2015).

Peripherality of the head of a phrase characterizes merely the subset of admissible structures with a *unidirectionally* licensing head. In other words, the licensing domain of the head is directionally constrained in these languages. In a parameter perspective, the directionality property for heads is parametrical. It permits the initial and the final setting. But there is a third option, namely an *unspecified* value, that is, a directionally *unspecified* option, in addition to the two *specified* options. This amounts to a '*third type*', in addition to the two types resulting

²⁰ In language typology, '*flexible order*' has been recognised as well: "*There are many other languages in which all six orders [of S, O, and V]_{HH} are grammatical. Such languages can be said to have flexible order. Flexible order languages are sometimes described as having "free" word order, though this is misleading, since there are often pragmatic factors governing the choice of word order.*" (Dryer 2013).

from the parametrically *specified* directionality. In this third type (i.e. head-initial, head-final, and third, VHP) – "T3" – a head may admit complements in either direction (37).

(37) (C) [VP ... ←[V→ ...]] ↔: ambidirectional (" T3"), e.g. Slavic

T3 admits the VO-like order (38a), the OV-like order (38b), and, in addition, a pattern that is excluded in both OV and VO, in which the verbal head is sandwiched by its objects (38c), and eventually even the VSO order (38d). In each case, the relative order of subjects and objects remains unaffected, but scrambling may apply. In comparison with SVO and SOV, it is the position of the verbal head that varies. In (38), the arguments of the verb are each in an admissible base position since an argument may join the head on either side in the T3 setting. Only from the perspective of an SVO language would (38b-d) appear to be of a derived status, with a 'scrambled' dative in (38b), two 'scrambled' objects in (38c), and a fronted verb in (38d).

- | | | | |
|---------|--|----------|--------|
| (38) a. | (že) Marek ← <i>dał</i> →Ewie kwiaty. | SVO-like | Polish |
| | (that) Marek _{Nom} gave Eve _{Dat} flowers _{Acc} | | |
| b. | (že) Marek Ewie ← <i>dał</i> →kwiaty. | ----- | |
| c. | (že) Marek Ewie kwiaty ← <i>dał</i> . | SOV-like | |
| d. | (že) <i>dał</i> → Marek Ewie kwiaty. | VSO-like | |

There are many languages that resemble the Slavic languages in their word order characteristics and they are likely to outnumber the genuine SVO languages since, as in the case of Slavic languages, these languages tend to be misidentified as SVO languages in a kind of taxonomic last resort strategy. After all, a pattern such as (38a) is a frequent pattern in these languages since it is an adequate pattern for utterances with an unmarked information structure. A subject followed by the verb is a good candidate for a topic or something given, and the rest can easily be interpreted as 'comment' or 'new information'. So, informants are likely to prefer this pattern if judging an isolated sentence and text counts will yield a higher frequency.

It is crucial, however, that a word order with '*neutral information structure*' be not equivocated with '*base order*'. Phrase structure properties are grammatically determined. They are not servants of information structuring (see Fanselow & Lenertová 2011). The relation between syntax and information structure is asymmetric. Whenever syntactic structuring allows for word order variation, this variation space will be occupied by information structuring. On the other hand, if a syntactic structure imposes strict word order, information structuring is not able to unfasten the grammatical ties. Head-final structures ('SOV') as well as structures with variable head-positioning ('T3') provide much more headroom for information structuring than an SVO architecture (cf. Junghanns & Zybatow (1997), Kučerová (2007)).

As for scrambling proper, that is, variation in the relative order of arguments, the Slavic languages admit the same scrambling potential as head-final phrases, and in particular as head-final VPs (in addition to their T3 verb position alternations with the arguments in their base order). In general, local scrambling presupposes that the scrambled position is a position *within* the directionality domain of the head. This condition is met by languages with head-final as well as for languages with T3 phrases, but not for languages with head-initial phrases.²¹

²¹ In German, VP is head *final* and therefore a scrambling domain. NPs are head *initial* and therefore scrambling is not admitted, even for the very same constituents. (Haider 2010, 2015):

In the following subsection, it will be briefly pointed out how T3 structures neatly fit into the already existing theoretical setting that accounts for head-final and head-initial structures and their specific properties. It will become clear why type-3 and SOV share the properties they have been shown to share in the preceding section.

3.2 Grammar-theoretical space for Slavic languages

The peripherality axiom in combination with the binary-branching principle implies an empirically already disproved consequence of the X-bar model of phrase structures. If the initial and the final position of the head of a phrase were foot positions, that is, the lowest structural position, the respective phrase structures would have to be either left- or right-branching:

- (39) a. [Obj₁ [Obj₂ [YP V^o]]]_{VP} head-final structure
 b. [[[V^o YP] Obj₂] Obj₁]_{VP} (predicted but inexistent) head-initial structure

Head-final phrases have a right-branching structure (39a), that is, the branching node is the right node on the projection line. Head-initial structures, on the other hand, would have a *left-branching* structure (39b) in the X-bar model. As an immediate consequence, all terminals in these structures would have to come in the mirror image order of (39a), cross-linguistically. If a verbal head takes YP as its innermost complement, then Obj₂, and finally Obj₁, the resulting serialization is Obj₁←Obj₂←YP←V for head-final VPs. For head-initial VPs, it should be the mirror image order, namely V→YP→Obj₂→Obj₁. This is not true, however. The serialization (39a) is invariant across OV and VO, as a comparison between OV- and VO-Germanic demonstrates (40).

- (40) a. jemandem_{Obj1} etwas_{Obj2} in seine Tasche_{VP} stecken
 somebody_{Dat} something_{Acc} into his bag put
 b. put somebody_{Obj1} something_{Obj2} into his bag_{VP}

In fact, the structure (39b) is empirically inadequate in many respects. The syntactic predictions entailed by such a left-branching structure turn out to be wrong, as Barss & Lasnik (1986) showed for English. In reaction to their findings, Larson (1988) suggested to *derivationally* convert the structure (39b) into a right-branching "VP-shell" structure as an empirically more adequate structure. However, this is a curative approach. Why should an English VP start out with a structure that has to be repaired derivationally? Why could it not start with a grammatical structure right away? It can, but this structure is more complex for head-initial phrases than for head-final ones. What follows is merely a sketch. For details please consult Haider (2010), (2013), (2015).

Arguably, in no language would complex phrases be left-branching, that is, structured like (39b). The internal build-up of phrases is universally right-branching (Haider 1992/2000). They may be right-headed or left-headed, but their structure is nevertheless universally right-branching. It is the clash between the universal directionality of branching and the specific directionality of the head that is responsible for the VO-specific syntactic restrictions.

-
- i. Geld auf ein anderes Konto übertragen – auf ein anderes Konto Geld übertragen
 money to an other account transfer – to an other account money transfer
- ii. das Übertragen von Geld auf ein anderes Konto – *das Übertragen auf ein anderes Konto von Geld
 the transfer of money to an other account – the transfer to an other account of money

In the head-final setting, the directionality under which the head of the phrase accepts its complements is congruent with the universal directionality of the phrase structure, as indicated by the arrow-signs in (41). On each constituent level, the respective complement is a sister node of a node on the projection line on the canonical side, which is determined by the head of the phrase. It is a sister of the head or of one of its projections.

(41) [jemandem \leftarrow [v' etwas \leftarrow [v' in seine Tasche \leftarrow stecken] v'] v'] v_P

The complex structure of head-*initial* phrases is the immediate result of a directionality mismatch of the head and the general branching directionality. In (41), each object of the verb has as sister node a node of the projection line of the verbal head (i.e. a V' -node) and the object meets the directionality requirement. It precedes.

In the head-initial setting (42), the objects above the foot position of the verb are directionally 'misplaced'. In order to meet the directionality requirement of the head, they would have to *follow* the head or their respective sister node as a node on the projection line of the head. However, they precede, due to the universal branching requirement. In this case, the only admissible option is a re-instantiation of the head. The grammatical outcome would be (42a). Since there is only one lexical verb for three verb positions, the surface position is the highest position in the structure (42b),

(42) a. [v_P $put_{V^{\circ}\rightarrow}$ [somebody [v' $put_{V^{\circ}\rightarrow}$ [something [v' $put_{V^{\circ}\rightarrow}$ [into his bag]]]]]]]
 b. [v_P $put_{V^{\circ}\rightarrow}$ [somebody [v' $--v^{\circ}\rightarrow$ [something [v' $--v^{\circ}\rightarrow$ [into his bag]]]]]]]

An immediate empirical confirmation for the verb slots comes from VO-languages with particle verbs. Particles of particle verbs may be left behind, that is, stranded, when there is more than one position available for the verb. This is typically the case when a finite verb is fronted in a Germanic V-2 language (43a). In VO languages such as English (43b-d), however, there is another stranding option. A particle may get stranded in one of the verb positions in a structure such as (42b). In (43b-d), the particle position is one of the empty verb positions of (42b).

(43) a. Sie *gab* dem Angestellten die anderen Bücher *zurück* German
 she gave the clerk the other books *back*
 b. She gave the clerk *back* the other books (CocA)
 c. They won't mail the offer *out* to our people (CocA)
 d. She packed her daughter *up* a lunch (Dehé 2002:3)

How do Slavic languages fit into this system? Due to the ambidirectional licensing capacity of a verbal head, such as the verb in the Polish examples in (38), it can surface in any of the alternatively available positions in (44).

(44) a. (że) [Marek \leftarrow [Ewie \leftarrow [kwiaty \leftarrow *dał*]]]
 b. (że) [Marek \leftarrow [Ewie \leftarrow [\leftarrow *dał* \rightarrow kwiaty]]]
 c. (że) [Marek \leftarrow [\leftarrow *dał* \rightarrow [Ewie \leftarrow [\leftarrow $--v^{\circ}\rightarrow$ kwiaty]]]]]
 d. (że) [*dał* \rightarrow [Marek \leftarrow [$--v^{\circ}\rightarrow$ [Ewie \leftarrow [\leftarrow $--v^{\circ}\rightarrow$ [kwiaty]]]]]]]

The patterns in (44) are an aggregate of the patterns admissible in a strictly head-initial setting (44c) and the head-final patterns (44a) plus the pattern with a sandwiched verb (44b), which is diagnostic of the ambidirectional setting. It is absent both in SVO and in SOV languages.

In a diachronic perspective, SVO and SOV arise from T3, with a change from 'unspecified' to 'specified' directionality of heads, with the two familiar options. Patterns such as (44a) provide the link to the SOV-type with a head-final specification. A head-initial specification finds its link in (44c) and (44d), as the SVO and VSO type. The Germanic languages serve as a good example of such a diachronic development. They started out with a T3 grammar and then split into an SVO and an SOV group when the directionality value of the head got fixed (see Haider (2014) for details).

4. Recap - The syntactic properties of Slavic languages as T3 properties

This subsection reviews the properties discussed in section 2 in the same order of presentation and relates them to the theoretical background sketched in the preceding section 3. The specific syntactic profile of the Slavic clausal architecture is the profile of languages in which the position of the head of the VP is variable. Variable head-positioning is not restricted to the VP in Slavic languages. NPs, too, have this property in the majority of Slavic languages (see section 2.5. on left-branch extractions).

4.1 An *obligatory preverbal subject* is the hallmark of an SVO clausal architecture, with its obligatory, VP-external structural position for the subject. An immediate correlate of this property are obligatory *expletive* subjects (see section 2.1). In SVO, the VP-internal position of the subject argument precedes the verbal head and is therefore not in its directionality domain. As a consequence, it is raised to a VP-external functional spec-position. In subjectless constructions, the obligatory subject position is plugged by an expletive.

In SOV and T3 grammars, any argument of a head finds its well-formed position *within* the directionality domain of its head. Although the subject may be singled out on morpho-syntactic grounds – by means of case or agreement – it remains structurally on a par with objects as a co-argument within the same phrase. For VPs, this means that all arguments have well-formed VP-internal positions in SOV, VSO and T3, but not in the SVO setting. Since in SOV, VSO, or T3 there is no VP-external subject position, there is no room for a subject expletive in these types (Haider 2015, 2017).

4.2. The *subject wh-in-situ* restriction (see sect. 2.2) is a direct correlate of the obligatory VP-external subject positioning in SVO. The external position is a functional spec position. A wh-item in a functional spec position is turned into an wh-operator. In-situ Wh-elements in base positions are linked to wh-operators (Haider 2010: 116-122). In SVO, the wh-subject is necessarily in an operator position, in SOV and T3 it is not. An operator wh-subject cannot be dependent on a preceding wh-item. This excludes dependent wh-subjects in SVO but allows such subjects for SOV and T3.

4.3. The restriction against *adverbial wh-phrases* in-situ in immediately pre-VP positions is a sequel of the LLC constraint (see next paragraph), that is, the constraint for adjuncts adjoined on the directionally non-canonical side of a phrase. However, this very position would be required for higher order wh-adverbials because their scope requirements are met only in a pre-VP position. Consequently, higher order adverbials are obligatorily fronted to the clauses initial position in SVO languages. This leads to an impasse, if the second wh-phrase in the clause is the subject. In this case, there is no grammatical outcome available.

Slavic languages confirm the diagnostics of the scopal requirements of 'why' and 'how'. If the Slavic counterparts remain in-situ, they are in a preverbal and never in a post-verbal position. In Slavic languages, however, a preverbal position is a position with the (ambidirectional) directionality domain of the verb. So, in-situ 'why' and 'how' may occur in these positions in T3, as well as in OV languages.

4.4. *Adjuncts of head-initial phrases* are adjuncts on the non-canonical side of a phrase. Since they are adjoined outside of the directional licensing domain of the head of the phrase, an adjacency condition (i.e. LLC, sect. 2.4) applies (Haider in press). In strict SVO languages, this restriction applies to preverbal adverbials as well as to prenominal attributes. In the Germanic OV-languages, adverbial phrases are exempt since the preverbal side is the canonical directionality side. However, in all Germanic languages, noun phrases are head-initial, so LLC applies in all these languages. In T3 phrases, prenominal as well as preverbal adjuncts are within the (ambidirectional) licensing domain of the respective head, whence the absence of an LLC effect for VP and NP adjuncts. It is this property that also explains the following Slavic property, namely left-branch extraction.

4.5. *Left-branch-extraction* (LBE) is illicit for left branches on the non-canonical side of a phrase, that is, from left branches of head-initial phrases. In SVO languages, this constraint applies to all kinds of phrases simply because any phrase is head-initial. In the Germanic SOV languages, it applies to left-branches of NPs (45a), since these are head-initial phrases, but not to left branches of VPs (45b).

- (45) a. *Bessere_i braucht man dafür [--_i Theorien]_{NP} Ger.
 better_{Acc-pl} needs one for-it theories ('One needs better theories for this')
- b. So eine Theorie_i wird [--_i zu verteidigen] wohl kaum jemand bereit sein Ger.
 such a theory shall [to defend] PRT hardly anyone ready be
 ('Hardly anyone shall be ready to defend such a theory')

In (45b), the infinitival object clause is scrambled across the subject. If scrambling is modelled by adjunction, then the scrambled clause is a left branch of the head-final VP. If, on the other hand, scrambling was modelled as fronting into a specifier position, it would be ruled out by the constraint that rules out any filler-gap relation terminating in a gap within a preverbal specifier position. In T3 languages, both configurations (45) are well-formed, since in each case the phrase that contains the gap is within the directionality domain of the head of either the NP or the VP.

4.6. The characteristic and illustrious *word order freedom* of Slavic languages is the overall result of several interacting factors, namely the scrambling potential of phrases within the directionality domain of the head **in its base position**, the wider range of filler-gap dependencies (see the factor discussed above) due to wider directionality domains, plus the variable positioning of the ambidirectional head in a given phrase as a T3 option, and eventually, the serialization variation for auxiliaries (see property 4.7 below).

Let us assume that V° in (46) is one of the many ditransitive verbs with an agentive subject, an experiencer as indirect object and a direct object. The arguments in the lexical argument struc-

ture are hierarchically organized and the projection onto phrase structure conserves this hierarchy. Under these premises, (46a-d) are results of the alternatively available head-positionings for the verb. Consequently, the argument positions in (46a-d) are base positions.

- (46) a. Subj V° Obj₁ Obj₂
 b. Subj Obj₁ V° Obj₂
 c. Subj Obj₁ Obj₂ V°
 d. V° Subj Obj₁ Obj₂

The relative order of the argument in (46) is identical. Next, scrambling may apply. The defining property of scrambling is a change of the base order of arguments. (47) lists *some* of the scrambling variants of (46).

- (47) a. Subj V° Obj₂ Obj₁ (scrambling variant of 46a)
 b. Subj Obj₂ V° Obj₁ (scrambling variant of 46a)
 c. Subj Obj₂ Obj₁ V° (scrambling variant of 46b or 46c)
 d. Obj₂ V° Subj Obj₁ (scrambling variant of 46d or A-bar topicalization)
 e. Obj₂ Subj V° Obj₁ (scrambling variant of 46a or 46b or A-bar topicalization)

Whenever the first argument in the clause is not the highest ranking argument of the lexical argument structure of the verbal head, there are two sources for this serialization. The order can be the result of scrambling or the result of topicalization, that is, the type of fronting that applies to interrogative phrases too. In technical terms, topicalization is an A-bar filler-gap relation while clause-internal scrambling is an A-type filler-gap relation. In other words, the filler is in an A-bar position or in an A-position, respectively. This characterization of word order variants is in accordance with the grammatical properties associated with these word order variants, especially with respect to their binding and scopal properties, as documented and discussed in the literature, for instance Bailyn (2003a,b; 2004; 2012), Junghanns & Zibatow (2007), Titov (2013).

Titov (2013:35), for instance, argues that the preverbal object in an OVS order in Russian is in an A-position rather than in an A-bar-position. This, together with a postverbal subject, is hard to reconcile with the clause structure of an SVO language, but it is fully compatible with a T3 clause-structure. The arguments are projected in their base order, preceded by the verb, with the object scrambled across the subject and the verb, within the directionality domain. Consequently, the scrambled object does not leave the argument domain. In an SVO structure, any position of an object preceding the finite verb and the subject is necessarily an A-bar position since it is a position outside the directionality domain of the verb.

In sum, the word order patterns of argumental expression in Slavic languages are expected patterns for T3 languages rather than unexpected, highly exceptional patterns of SVO languages. In a T3 architecture, they are part and parcel of the T3 system's potential. Under an SVO perspective, Dixon's question would remain unanswered: Why move things if such movements are illicit in typical SVO languages?

The correlation with information structure effects is not the cause but the effect. Whenever grammar admits variation, pragmatics takes advantage of it. Information structuring employs the syntactic freedom as a vehicle for partitioning this set of variants in terms of information structuring.

V-positioning is a means of clause-partitioning and scrambling allows for congruency between syntactic and information structure domains. Given this background, it need not come as a surprise that Prague School syntax has always regarded syntax from an information structuring vantage point. There has never been a chance of detecting an unequivocal SVO clause structure. SVO is a premise generated later, by Generative Grammar's primary focus on SVO languages, with English as a starting point and Romance and North-Germanic languages as its areas of success. Extending it to Slavic languages would mean overextending and adulterating the SVO profile.

4.7. The *variable serialization of auxiliaries* is a direct consequence of the ambidirectional licensing capacity of a T3 head, too. An auxiliary or quasi-auxiliary (e.g. modal, causative, epistemic verbs) selects the form of the dependent verbal head. In Indo-European languages, this is typically an infinitive, a supine (participle) or an aspectual form, such as the English durative marked by "-ing".

In VO, that is, in the head-initial setting, directional selection entails that the phrase with the selected head follows. In OV, the head-final setting, the selected phrase precedes. The T3 setting is ambidirectional. So, in principle, an auxiliary may follow or precede. This, in combination with the verb order variation within the selected VP permitted by the T3 quality of the VP, accounts for the variability of verb orders within a simple clause.

5. Summary

Filing Slavic languages as SVO languages is syntactically unjustified. Slavic languages are languages of a type that has not been sufficiently recognized yet in grammar theory, namely "Type 3". In this type, unlike in the head-initial vs. head-final types, the position of the head in the phrase is not determined directionally. Slavic languages are representative of the *unspecified* value of the parameter which – when valued – yields OV and VO. What appears to be highly exceptional from an SVO vantage point is completely regular in a T3 setting. Slavic languages ought to be recognized as what they are, namely regular T3 languages rather than highly exceptional SVO languages. This will enhance the predictive power, descriptive precision, and theoretical accuracy of fit of the respective type assignments considerably.

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