There is no single Slavic word order type

Radek Šimík   Katja Jasinskaja

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1   Introduction

In their target article, Haider & Szucsich (henceforth H&S) argue that head-initiality vs. head-finality is not all there is to the head-directionality parameter, at least not when it comes to the directionality within the (big) VP. Slavic languages are claimed to be of a third type, namely the ambidirectional type, where objects are licensed both to the right and to the left of their verbal head. The empirical signature of an ambidirectional-type language is (i) that they allow for the (S)VO order very freely and (ii) that whenever there is a restriction imposed on the SVO type, the restriction does not apply to that language: it can be "side-stepped" by using (deep) (S)OV.[1]

In our commentary, we focus on H&S's implicit premise that Slavic languages belong to a single word order type. By looking at selected empirical phenomena from Russian and Czech, we demonstrate that the premise is false. While Russian squares fairly well with the authors' claims (though not perfectly), Czech – by H&S's own criteria – does not align with any one of the three word order types assumed by H&S.

Our paper is divided into two parts. In section 2, we provide an additional argument to the ambidirectionality of the Russian VP, lending further support to H&S. In section 3 we revisit four of H&S's empirical criteria in which Czech turns out not to align with the ambidirectional type, but instead with the SVO type, counter to H&S's expectation. While section 2 concentrates on Russian and section 3 on Czech, we provide data from the other language for comparison, where relevant. What we find is that even the Russian pattern is not as straightforward as presented by H&S. The implications are discussed in section 4.

2   Further support for ambidirectionality

In this section we point to an interface phenomenon that might be taken as an additional argument in favour of H&S's claim, specifically concerning Russian.

H&S contend that whenever grammar allows for word order variation, pragmatics, and information structure in particular, will make use of that freedom, assigning different grammatical word order variants different functions in discourse. Therefore, the relatively high frequency of use of SVO as compared to SOV order in Slavic languages need not necessarily tell us anything about its privileged status in the grammar, but could simply

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[1]H&S do not explore the reverse prediction, namely that ambidirectional-type languages should be free of (S)OV-specific restrictions (those which do not apply to (S)VO languages). We do not attempt to address this kind of prediction here.

be due to the fact that SVO is the pragmatically "neutral" order, while SOV is not. In this section, we present some reasons to believe that both SVO and SOV orders in Russian are, in fact, information-structurally neutral, for what it's worth.

From the point of view of information structure, the "neutral" order is standardly identified as the one that allows for focus projection. That is, the occurrence of the nuclear accent on a constituent does not only allow for a reading with a narrow focus on that constituent, but can also be interpreted as broad focus on the VP or the entire clause. In a vast array of languages of different word order types, including English, German and Russian, this property has been associated with (direct) objects: in a simple transitive clause the nuclear accent on the object can indicate narrow focus on the object, or VP focus, or broad all-sentence focus. (In contrast, nuclear accent on the transitive verb can only indicate narrow focus on the verb or verum focus.)

A broadly accepted assumption is that in Russian, objects can only project focus when they occur in the sentence-final position, i.e. in the "neutral" SVO configuration. However, it has been pointed out a number of times that projection is also possible for SOV (Slioussar 2007, pp. 188–191; Dyakonova 2009, pp. 64–82; Jasinskaja 2016, pp. 720-722). Dyakonova (2009) presents the most detailed argument for this claim, using a number of criteria and tests. For a brief illustration, compare Dyakonova's example with SOV (1b), and its SVO variant in (1a). Both sentences can serve as felicitous answers to all the three questions in (2), which shows that they allow both for narrow focus on the object constituent *kabinet himii* 'the chemistry classroom', for VP focus, and for broad focus on the whole sentence.

(1)   a.   Vaš mal'čik raznes   [kabinet   HIMII].
              your boy.NOM blow.up.PST.MASC   classroom.ACC chemistry.GEN
    b.   Vaš mal'čik [kabinet HIMII] raznes.
              'Your boy blew up the chemistry classroom.'

(2)   a.   What did our son blow up?   object focus
    b.   What did our son do?   VP focus
    c.   What happened?   S focus

What is essential but not always clearly stated in the discussions of this observation, is that regardless of the order, the projection possibility exists only if the nuclear accent (indicated by small caps) stays on the object constituent, *kabinet himii* 'the chemistry classroom', realized on its last word *himii* in our case. In the SOV case (1b), that means that the sentence-final verb *raznes* 'blew up' cannot bear an accent, or can at best bear a minor secondary accent that is significantly less prominent than the accent on the object constituent. As long as this condition is met, SVO and SOV sentences display the same range of possible information structures.

In other words, it seems that the VO/OV variation is, in fact, *not* exploited by information structure in Russian, unless it goes together with relevant changes in accentuation. There have been attempts to pin down the pragmatic difference between these two patterns (see e.g. Dyakonova's attempt to characterize it in terms of D-linking, see also Jasinskaja's arguments against that proposal), but all in all "the interpretational difference between 'VO' and 'OV' sentences proved to be very elusive" (Slioussar 2007, p. 189), and the only point the researchers of this phenomenon seem to agree upon is that OV is more common in colloquial Russian. This led Slioussar to suggest that colloquial Russian could be developing into an OV basic word order language.

Provided with the third option, the VO/OV proposed by H&S, one should naturally

wonder whether the information-structural equivalence of the two word orders in Russian, and moreover, the fact that they can be both characterized as "neutral", is a consequence of Russian being a VO/OV language. If so, one could even entertain a stronger hypothesis, that basic word orders should generally be information-structurally neutral, and if a language has more than one basic word order, then all of them should be.

However, not all Slavic languages behave like Russian in this respect, Czech being one language where we do not observe the same information-structural equivalence of VO and OV. As shown in (3), the SOV order with O carrying nuclear accent is unacceptable regardless of information structure.[2]

(3)   a. Váš syn   zničil   [učebnu   CHEMIE].
           your son.NOM destroyed classroom.ACC chemistry.GEN
      b. *Váš syn [učebnu CHEMIE] zničil.
           'Your son destroyed the chemistry classroom.'

Czech (S)OV is systematically acceptable only if the object does not carry nuclear accent, which in turn typically happens when the object is discourse given (Šimík & Wierzba 2015, 2017). SOV is thus by no means a neutral order in Czech, unlike in Russian.

In the next section, we suggest that the VO/OV variation discussed above has implications for other domains of grammar, namely the ordering within verb clusters (subsection 3.1) and the launching site of left-branch extraction (subsection 3.2).

3   The mixed behavior of Czech (and Russian)

Compared to Russian, which is used extensively by H&S, Czech is underrepresented in their sample. In the core empirical section, it is only in §2.2 (in-situ wh-subjects), where evidence from Czech is applied. In this section, we discuss selected diagnostics of H&S and show that in four of the seven criteria, Czech observes the restrictions claimed to be characteristic of SVO languages. In the three criteria not discussed here, Czech aligns with the SOV (or ambidirectional) type.

3.1   Rigid word order of auxiliaries (cf. H&S's §2.7)

H&S claim that "[i]f a simple clause [in SVO languages] contains more than one verb, the verbs are serialized in an invariant relative order." The left-to-right order corresponds to the syntactic and/or semantic selection, cf. the English order *would have been willing to go*. A characteristic property of SOV languages (more particularly German and Dutch) is that the order of auxiliaries, modals, and lexical verbs is comparatively free. H&S provide evidence from Polish, BCS, Russian, and Bulgarian that a modal combined with a lexical verb can be ordered in both possible ways (Mod > V, V > Mod). They do not show the relative ordering of more than 2 verbal elements under the presumption that "Slavic languages either have a very restricted set of auxiliaries (e.g. Russian) or the auxiliaries in most cases appear in an enclitic form (e.g., BCS, Czech) [. . .]." However, provided that modal and semi-lexical verbs "count" for purposes of H&S's generalization (as is evident from the provided examples), it is easy enough to find a sequence of up to four non-clitic

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[2]For supporting evidence from controlled acceptability rating experiments, see Šimík & Wierzba (2017), who found that OV orders with accented and focused O (corresponding to context (2a)) are unacceptable (as compared to VO) not only in Czech, but also Slovak and Polish.

verbs in Czech. One such naturally occurring example is in (4), combining the future auxiliary *budete* 'will.2PL', the modal *chtít* 'want', the causative *dát* 'have' (lit. 'give'), and the lexical verb *zastřelit* 'shoot'. These verbs are in the left-to-right order predicted by their syntactic/semantic selection.

(4) Jestli mě budete chtít   dát   zastřelit...
    if   me will.2PL want.INF give.INF shoot.INF
    'If you will want to have me shot...'

Examples (5) through (7) demonstrate that the order in (4) really is the only fully grammatical order available. The right-aligned numbers correspond to the verbs' default position. The examples in (5) show that the lexical verb cannot be placed freely within the sequence of the functional verbs; it must come last.[3] The examples in (6) show an analogous behavior for the finite future auxiliary: it must be placed first.[4] And finally, the examples in (7) show all the possible permutations of the functional verbs, keeping the lexical verb final. Again, the only acceptable order is the basic one.

(5)	a.	Jestli mě budete chtít dát *zastřelit*	1234
	b.	*Jestli mě budete chtít *zastřelit* dát	1243
	c.	*Jestli mě budete *zastřelit* chtít dát	1423
	d.	*Jestli mě *zastřelit* budete chtít dát	4123

(6)	a.	Jestli mě *budete* chtít dát zastřelit	1234
	b.	*Jestli mě chtít *budete* dát zastřelit	2134
	c.	*Jestli mě chtít dát *budete* zastřelit	2314
	d.	?Jestli mě chtít dát zastřelit *budete*	2341

(7)	a.	Jestli mě [budete chtít dát] zastřelit	[123]4
	b.	*Jestli mě [budete dát chtít] zastřelit	[132]4
	c.	*Jestli mě [chtít budete dát] zastřelit	[213]4
	d.	*Jestli mě [chtít dát budete] zastřelit	[231]4
	e.	*Jestli mě [dát budete chtít] zastřelit	[312]4
	f.	*Jestli mě [dát chtít budete] zastřelit	[321]4

It is worth noting for the sake of completeness that Czech and Russian pattern differently in this respect, with Russian following the pattern of SOV languages as predicted by H&S. Moreover, the variability of the order of verbs in the cluster both in Russian and in SOV languages such as Dutch is sensitive to the position of the nuclear accent in a way similar to the VO/OV variation discussed in section 2. In the order dictated by syntactic/semantic selection, the lexical (non-auxiliary, non-modal, etc.) verb *zastrelit'* 'shoot' occurs last and bears the nuclear accent:[5]

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[3]The lexical verb, presumably as part of a (remnant) VP can A′-move to the left periphery. This also holds for larger VP chunks (such as 'have [me] shot' or 'want to have [me] shot'). However, A′-fronting is not relevant for H&S's argumentation.

[4]The only marginally acceptable example is (6d), which presumably involves A-scrambling of the VP in front of the future auxiliary, whose final position and contrastive stress triggers a verum focus interpretation.

[5]The example is modelled after the Czech naturally occurring example (4), but the analytic future with the auxiliary *budete* of the imperfective verb *hotet'* 'want' negatively affects the acceptability of this example. Therefore the modal 'want' is replaced by the equivalent of 'try'. Alternatively, one could use the perfective form of 'want': *zahotite dat' zastrelit'*. This would result in a cluster with only three verbs, but similar word order options as long as the nuclear accent stays on *zastrelit'* 'shoot'.

(8) 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...'

(9) shows some admissible order variations: As long as the nuclear accent stays on the lexical verb 'shoot' the information structure of the clause is not affected. The same is true for the word order variants in Dutch: the information-structurally neutral nuclear accent on the lexical verb *gebeurd* 'happened' moves together with the verb.

(9) a. Esli vy menja budete pytat'sja dat' ZASTRELIT'   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

(10) a. (dat iets) GEBEURD   zou   kunnen zijn
         that something happened.PART would can.INF be.INF
         'that something would be possible to have happened'
     b. (dat iets) zou kunnen GEBEURD zijn
     c. (dat iets) zou kunnen zijn GEBEURD

Finally, we contend that the rigid ordering in Czech (cf. the pattern in (5), in particular) boils down to the fact that Czech – unlike Russian – cannot easily realize the nuclear accent in a clause-medial position without a proper information structural motivation. Having this option is a prerequisite for non-final object placement (section 2) as well as non-final main verb placement, as shown in this subsection.

In summary, with a somewhat more liberal take on the notion of auxiliary, both Czech and Russian can form longer sequences of serialized verbs, but while Russian shows a similar pattern of word order variability as an SOV language such as Dutch, Czech has a rigid order. If H&S are right that verb order rigidity is indicative of head-initiality in the VP, then Czech is a genuine SVO language, just like English.

3.2 Fillers of gaps in left branches (cf. H&S's §2.5)

As H&S claim, "it is a cross-linguistically robust property of [S[VO]] languages that preverbal phrases are grammatically illicit domains for gaps of fronted fillers." H&S go on to show that left-branch extraction (LBE) in Russian, Polish, and BCS can affect preverbal NPs. The examples below show that this is not the case in Czech, where LBE from preverbal NPs is much less acceptable than extraction from postverbal NPs. Interestingly, this holds not just of objects (11), but also of subjects (12).[6]

(11) a. Kterou$_1$ Pavel koupil své   ženě [$_{NP}$ t$_1$ knihu]?
         which   Pavel bought his.REFL wife   book
         'Which book did Pavel buy for his wife?'
     b. *Kterou$_1$ Pavel [$_{NP}$ t$_1$ knihu] koupil své ženě?
         Intended: 'Which book did Pavel buy for his wife?'

(12) a. Která$_1$ to upekla [$_{NP}$ t$_1$ kuchařka]?
         which it baked   cook.F
         'Which cook baked it?'

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[6]These intuitions have recently been supported by a quantitative rating study with 96 participants (hitherto unpublished). Contact the authors for details.

b. *Která$_1$ to [$_{NP}$ t$_1$ kuchařka] upekla?
Intended: 'Which cook baked it?'

We hypothesize that the unacceptability of the (b) examples above correlates with the unavailability of information structure-independent clause-medial accent placement in Czech (section 2). Indeed, as one would expect, the nuclear accent in Russian examples like (13) (from H&S) is realized on the preverbal object *mašinu* 'car', a prosodic and word order pattern that is independently available in Russian (section 2).

(13) Kakuju$_1$ Ivan [$_{NP}$ t$_1$ mašinu] kupil svoej žene?
which Ivan car bought his.REFL wife
'Which car did Ivan buy for his wife?'

Based on the above observations, we can conclude that Czech, unlike Russian, patterns with English in the relevant respect and is therefore – following H&S's logic – a genuine SVO language.

3.3   Intransitive passives (cf. H&S's §2.1)

Building on Haider (2019), H&S argue that genuine SVO languages require the presence of a structural subject. If no thematic subject is available, an expletive must be used. If, in addition, an SVO language is pro-drop (such as Italian or Spanish) and thus has no expletive at its disposal (H&S militate against phonologically null expletives), the consequence is that the language does not have impersonal constructions of the intransitive passive type. H&S show that Russian, Bulgarian, and Polish all have intransitive passives and thus pattern with German.

As shown in (14), Czech has no productive intransitive passives. Examples (14a) and (14b) are tailored after H&S's Spanish and Italian examples ((5a/b) in H&S), respectively, in order to facilitate comparison.[7]

(14) a. *Tady bylo pilně pracováno.
here was.SG.N hard.ADV work.PASS.PTCP.SG.N
Intended: 'People/Someone worked hard here.'
  b. *V této posteli bylo dobře spáno.
in this bed was.SG.N well sleep.PASS.PTCP.SG.N
Intended: 'People/Someone slept well in this bed.'
  c. *Kvůli kouři bylo v místnosti kašláno.
because.of smoke was.SG.N in room cough.PASS.PTCP.SG.N
Intended: 'People/Someone coughed in this room because of the smoke.'

For completeness, we provide analogous data from Russian. While Russian intransitive result passives are grammatical (examples (6a–c) in H&S), intransitive process passives are not, as shown in (15).

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[7]The translations of some of the examples in H&S's (6) (e.g., (6a), (6b), or (6f), are grammatical in Czech. However, these are (result) state passives (and hence more like adjectives) rather than process passives (and hence more like genuine verbs). An important role is also played by prepositional phrases which can be construed as quasi-internal arguments. Note, for instance, that all of the 166 occurrences of *pracováno* 'work.PASS.PTCP.SG.N' in the Czech syn v8 corpus (Křen et al. 2019; over 5 billion tokens) involve an internal argument in the form of a PP – either 'work with X' or 'work on X'.

(15) a. *Tut bylo   tjaželo   rabotano.
          here was.SG.N hard.ADV work.PASS.PTCP.SG.N
          Intended: 'People/Someone worked hard here.'
      b. *Iz-za   dyma v komnate bylo   kašljano.
          because.of smoke in room   was.SG.N cough.PASS.PTCP.SG.N
          Intended: 'People/Someone coughed in this room because of the smoke.'

In summary, if process passives are the decisive criterion, as suggested by H&S's Romance data, Czech – and this time also Russian – pattern with Italian and Spanish in this respect – languages that are considered SVO by H&S.

3.4 Left-adjoined adjuncts (cf. H&S's §2.4)

Following Haider (in press), H&S argue that "the head of a left-adjoined adjunct of a head-initial phrase must be adjacent to the phrase it is adjoined to" (dubbed the "left-left constraint"). Using examples tailored closely after H&S's Dutch and German data in (21), we see that Czech does not pattern with SOV, but rather with SVO. Example (16a) shows a vanilla left-adjoined VP adjunct. The head of the adjunct (*rychleji* 'faster') is adjacent to the VP. Example (16b), where the adjacency is broken by the postmodifier *než experti očekávali* 'than the experts expected', is unacceptable. Example (16c) shows that right-adjoining the complex VP adjunct is fully acceptable. Interestingly, example (16d), which is tailored after H&S's Slavic (Russian, Polish, Bosnian-Serbian-Croatian) examples (22), is quite acceptable. Notice, however, that in this kind of example, the subject is postverbal. Postverbal subjects in Slavic languages are standardly derived by leaving the subject in its thematic position (typically Spec*v*P) and by letting the verb move out of the VP/*v*P (see, e.g., Bailyn 2004). If this analysis is correct, it follows that the complex adjunct in (16d) is not left-adjoined to VP, but to a higher projection. It is immaterial whether the adjunct is base-generated there or has scrambled there (see Biskup 2011 for relevant discussion).[8]

(16) a. Nemoc se   tentokrát mnohem rychleji rozšířila.
          disease REFL this.time much   faster   spread
          'This time the disease spread much faster.'
      b. *Nemoc se   tentokrát mnohem rychleji než   experti očekávali rozšířila.
          disease REFL this.time much   faster   than experts expected spread
          Intended: 'This time the disease spread much faster than the experts expected.'
      c. Nemoc se tentokrát rozšířila mnohem rychleji než experti očekávali.
          'This time the disease spread much faster than the experts expected.'
      d. Tentokrát se mnohem rychleji než experti očekávali rozšířila ona nemoc.
          'This time it was that disease that spread much faster than the experts expected.'

A quick look at Russian reveals a striking similarity to Czech in this case, albeit with a slight contrast in the quality and severeness of the unacceptability (a contrast impossible to meaningfully verify based on just the authors' judgements).

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[8]Since H&S's Slavic evidence consists entirely of VS sentences, it is susceptible to the criticism discussed here.

(17) a. Zabolevanie v ėtot raz gorazdo bystree rasprostranilos'.
          disease   in this time much   faster spread
          'This time the disease spread much faster.'

      b. ??Zabolevanie v ėtot raz gorazdo bystree čem eksperty ožidali rasprostranilos'.
          disease   in this time much   faster than experts expected spread
          Intended: 'This time the disease spread much faster than the experts ex-
          pected.'

      c. Zabolevanie v ėtot raz rasprostranilos' gorazdo bystree čem eksperty ožidali.
          'This time the disease spread much faster than the experts expected.'

      d. V ėtot raz gorazdo bystree čem eksperty ožidali rasprostranilos' imenno
          in this time much   faster than experts expected spread   specifically
          ėto zabolevanie.
          this desease
          'This time it was that disease that spread much faster than the experts ex-
          pected.'

If H&S's left-left constraint is real, then it follows from the pattern in (16) that not only Czech, but also Russian (counter to H&S's claim) are genuine SVO languages.

4 Summary and discussion

H&S's arguments for the ambirectionality of the Slavic VP are mostly drawn from Russian. We first supplied additional evidence of the ambidirectional nature of the Russian VP, namely that both VO and OV orders are neutral from the perspective of information structure. This lends support to the idea that the value of the directionality parameter may remain underspecified.

If we apply H&S's argumentation to Czech, however, we see that the latter does not pattern with the ambidirectional language type. Instead, four of the syntactic restrictions specific to SVO languages apply to Czech as well – at least using the empirical tests applied by H&S. And in fact, a more detailed look at the data reveals that even Russian does not fully conform to the ambidirectional type; in two of the seven criteria (on top of the acceptability of the SVO order), we have discovered SVO behavior.[9] We complement Table 1 with the last row – free VO/OV variation – discussed in section 2. This variation is not observed in Czech, where SOV is strongly information structurally conditioned, but it is observed in Russian, which we took as an argument for its ambidirectionality. The free variation is not expected to occur in SVO or SOV and arguably does not do so.

From H&S's perspective, this result does not mean that Czech or Russian are SVO languages. But they are not SOV either, nor do they fully align with the predictions for the ambidirectional type. What our data seem to show is that the cluster of syntactic properties indicative of the head-directionality paramater setting (or its underspecification) is not uniform.

This could be interpreted in at least two ways, neither of which is easily compatible with H&S's thesis. One option is that the properties selected do not really form a cluster indicative of the parametric (non-)setting. It could be, for instance, that additional

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[9]The labels for the syntactic properties – adopted with only slight modifications from H&S – are often rather broad ("obligatory preverbal subject", "fillers for left branch gaps") and should thus be treated with caution. What matters are not the labels and their potential broad implications, but rather the particular empirical tests that stand behind them.

Syntactic properties	H&S's results			Our results	
	SVO	SOV	ambidir.	Russian	Czech
SVO as an acceptable order	yes	no	yes	yes	yes
obligatory preverbal subject	yes	no	no	yes	yes
subject wh-in-situ restr.	yes	no	no	no	no
adverbial wh-in-situ restr.	yes	no	no	no	no
adjacent left adjuncts	yes	no	no	yes	yes
fillers for left branch gaps	no	yes	yes	yes	no
rigid word order	yes	no	no	no	no
rigid order of auxiliaries	yes	no	no	no	yes
free VO/OV variation	no	no	yes?	yes	no

Table 1: Summary of the relevant syntactic properties (adapted from H&S)

restrictions are at play (in Czech and Russian) that affect the results of these tests. If that is the case, however, then the empirical tests cannot be taken at face value without deeper empirical scrutiny, as the same "additional restrictions" could be responsible for the observations in the genuine SVO languages, too. Another possibility is that the directionality parameter has more than 3 values (positive, negative, underspecified); what values these should be and whether having more than 3 values is even compatible with the theory of parameters implicitly assumed by H&S is not immediately clear to us. Finally, one could doubt the usefulness of the directionality parameter itself. Perhaps the directionality parameter is just a proxy for a series of microparameters responsible for the differential results of the set of tests proposed by H&S. It is also good to keep in mind that H&S's language sample is relatively small and is used in a very selective way, so much more cross-linguistic variation can be expected once a larger and typologically more diverse sample is studied.

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