In response to the responses

Hubert Haider♣ & Luka Szucsich♠

♣Dept. of Linguistics & Centre for Cognitive Neuroscience, Univ. Salzburg – ♠Dept. of Slavic & Hungarian Studies, Humboldt-Univ. zu Berlin

1. Paola Merlo & Guiseppe Samo – "Calculemus!"

To emphasize that we are extremely grateful to Paola Merlo and Giuseppe Samo (M&S) for having devised and run computational experimental tests of two central predictions of our theoretical claim would be an understatement. What they did is unique. Their experimental tests have been carried out so promptly that they are published jointly with the paper. This was Wundt's (1888) aim when he laid the scientific foundations of psychology. Here is his trend-setting advice for replacing introspection as data source.

"*It is totally in the hands of psychologists to take care that these defects disappear more and more. The only thing they have to do is to seize the experimental method.*"[1] And he adds: "*Presently, there are two circumstances that stand in its way. One is arrogance. There are still people who consider experimenting a philistine art which one must not deal with, if one doesn't want to risk losing the privilege of residing in the pure ether of thought.*" Wundt (1888: 308).

In Wundt's time, linguistics was a model of methodological rigor[2], whereas psychology had just been founded as an academic discipline. Today, the introspectionism criticized by Wundt, which in psychology has been completely abandoned and replaced by objective data assessment, is still commonplace in linguistics.

M&S "*seize the experimental method*" and demonstrate how to apply it in discerning a theoretical issue. If Slavic languages are T3 rather than [S[VO]], this must show in a measurable global distance between Slavic language structures and the structures of uncontroversial [S[VO]] languages. Second, if T3 is the diachronic predecessor of Romance [S[VO]], the development from Latin to modern Romance languages must be accompanied by a significantly decreasing entropy score. Hypothesis 1 predicts that the structural distance between Slavic and T3 is smaller than between [S[VO]] languages and Slavic. Hypothesis 2 predicts that Old French is structurally closer to Latin (T3) than to modern French [S[VO]] due to its T3 qualities. The hypotheses are confirmed and "*as predicted by the target paper, the entropy of Old French is comparable to the entropy for Czech* […] *and Slovenian*". This also re-confirms the findings of Kuboň (et als. 2016), who report that in all measures calculated by them (viz. max-min, Euclidian distance, cosine similarity, and entropy), Czech, Slovak, and Slovenian go together with Latin and Ancient Greek in their highly positive scores on word order freedom.

The starting point of the development of Romance languages are varieties of Latin known as "vulgar Latin", that is, varieties of spoken vernacular. Arguably, these were varieties of a T3 language. Suffice it to mention that word order variation of the verb relative to objects and the subject seems to have been common, just as in classical Latin (see Danckaert 2015). We cannot go into details of the syntax of vulgar Latin here and into the problem of the notorious shortage

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[1] „*Es ist ganz in die Hand der Psychologen gegeben, dafür zu sorgen, dass diese Fehler mehr und mehr ganz verschwinden. Es ist dazu nur das eine nötig [...] sich der experimentellen Methode selber [zu] bemächtigen.*"

[2] See for instance the Neogrammarian maxim of *exceptionless sound laws*, posited by Karl Brugmann and Hermann Osthoff in 1878, with Verner's law from 1875 as a showcase.

of evidence. Adams (1977: 68-69) notes that OV and VO orders are well documented in the texts[3] analyzed by him. Although SVO is frequent, SOV and VOS orders occur. OVS and OSV are rarely attested (Adams 1977: 74). The grammars of the transition periods such as Old French, still contain many T3 traits which get sieved out during the ongoing evolution of these grammars[4] in the following half millennium, both in the Romance as well as in the Germanic family. It is only consequent for us to predict that the outcome of the very same measurements applied to Old Germanic languages in comparison to middle and modern varieties of Germanic languages will be similar to the Romance outcomes, modulo the VO/OV split in the Germanic family.

2. Matthew Dryer –Inclusion versus exclusion

We greatly appreciate Matthew Dryer's (MD) contribution to the debate of type assignment concerning (his) criteria of *inclusion* and (ours of) *exclusion*. Typologists standardly ground their decisions on inclusion, that is, shared properties. In the target paper, we intentionally employ only criteria of exclusion, that is, properties that languages of a particular type *must not* display. At first glance, such an alternative appears to be merely a different perspective on the same issue. Upon second thought however, it turns out that the two perspectives demonstrably lead to contradicting results. It is this apparent inconsistency that deserves attention and must be resolved. MD argues that Russian qualifies as SVO because it shares what seems to be SVO core properties. We, on the other hand, argue that Russian must not be classified as an [S[VO]] language because quite a few grammatical properties are inconsistent with core properties of this very type. Let us therefore start with the inclusion relation (1).

Let L_i be a natural language, P_{1-n} a conjunction of n grammatical properties, and W a word order type. An inclusion-based type assignment rests on the implication (1a) or its equivalent form (1b).

(1) **Inclusion**: a. If $P_{1-n}(L_i)$ then $L_i \in W$ b. If $L_i \notin W$, then $\neg P_{1-n}(L_i)$

If (1) is to serve as the premise of a valid inference (by modus ponens), the premise must be empirically true. However, this is not guaranteed in the context we are dealing with. Languages of a given type may happen to partially share properties of another type. This invalidates inferences based on the inclusion condition. Here is an example.

Afrikaans, Amharic, Dutch, Frisian, German, Kurdish, or Persian, to name but a few languages, are head-final for verbal heads of phrases (SOV), but noun phrases and PPs are head-initial. Genitives follow the noun. Relative clauses follow the noun in most of these languages. Thanks to Dryer & Haspelmath (2013), these facts can be retrieved from the WALS database. What these languages illustrate is a so-called disharmonic phrase structure organization. In Dutch, moreover, the most frequent and in many cases the only grammatical relative order of auxiliaries ('dominant') is a relative order as in English. So, according to an inclusion criterion based on the four properties adduced by MD, Dutch would qualify as an SVO language. Grammarians however insist that it is an SOV language with a superimposed V2-property of the finite verb in main clauses. Why would grammarians insist on Dutch being SOV? They factorize the web

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[3] Letters of Claudius Terentianus to his father from the time of the middle of the 2nd century A.D.
[4] Evolution of grammar is Darwinian evolution in the domain of cognitive evolution; see Haider (2021).

of properties, subtract the interfering irrelevant ones (e.g. the V2 property) and identify the bare SOV structure.[5] It surfaces most clearly in non-finite structures. No unquestionable [S[VO]] language *obligatorily* places nominal objects in front of the non-finite main verb:

(2) a. iemand de oplossing (te) vertellen   [compare: (*to*) tell someone the solution]
        someone$_{IO}$ the solution (to) tell

     b. iemand de oplossing verteld   [compare: (*has*) *told someone the solution*]
        someone$_{IO}$ the solution told$_{past-participle}$

In sum, an inclusion criterion is reliable only if the adduced criteria are necessary *and* sufficient for the given type, or in other words, if no other type is compatible with the selected criteria. This is not the case for the set of four properties adduced by MD.[6] Such indeterminacies reduce the discriminatory as well as the predictive power of typological classifications.

"Dominant word order" is a case in point. The way SVO is defined in typological surveys is not selective enough:[7] „*Where a language is shown* […] *as having a particular order as the dominant order in the language, this means that it is either the only order possible or the order that is more frequently used.*" (Dryer 2013b). The *either-or* condition ties together two mutually exclusive properties, namely languages with word order variation and languages with strict word order. So, only because of this definition, English ends up in the same type as Russian, although most of the word order variants of Russian are ungrammatical in English, and although the English word order pattern is just one of the many grammatical patterns of Russian. The two grammars are obviously disjoint but the languages allegedly belong to the same type.

T3 languages are wholly compatible with MD's four properties and this is what we claim for Slavic languages, too. We base our type assignment exclusively on *exclusion* criteria. The set of properties we adduce is not shared by the crucial type, that is SVO. Hence the exclusion condition (3) is factually valid and an inference is logically sound. According to the set of criteria we adduced, Russian cannot be assigned to the [S[VO]] type since each property is a property that disqualifies a language for this type.

(3) **Exclusion** a. If P$_{1-n}$ (L$_i$), then L$_i \notin$ W   b. If L$_i \in$ W, then non $\neg$P$_{1-n}$ (L$_i$)

In the final paragraph, MD concludes that "*there is a way to explain why Russian exhibits the VO characteristics noted without saying that the language is syntactically SVO.*" We totally agree since we think that this is exactly what we have tried to achieve. T3 languages subsume grammatical properties shared by VO languages as a subset of their properties. This is also the reason why T3 languages have hitherto not been acknowledged as a type of its own.

3. Jacek Witkoś – On binding & scope, and an invitation for testing a prediction

"*It is a pleasure to comment on*" the comment of Jacek Witkoś (JW), too. His discussion of binding and scoping effects associated with fronting of binders or bindees not only shows that

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[5] WALS (Dryer 2013a) adopted the opposite strategy: "*Where languages differ in their order between main clauses and subordinate clauses, the order in main clauses is used to classify them.*"

[6] If zoologists classified fish by exactly four criteria, namely aquatic vertebrate, living wholly in water, with streamlined body, and with fins, this would include mammals such as whales and dolphins. The exclusion criterion "*not endothermic*" would eliminate them, however.

[7] For this reason, Hawkins (1983:16) dismisses the S-V-O order pattern as a type indicator altogether.

Polish and German behave alike in this respect and unlike the showcase for SVO, namely English. This is what Frey (1993) has contrastively studied, contrasting German with English, and theoretically modelled in detail first.[8] It is summarized in Haider (2010: 150-152). While a displaced binder in a well-formed binding relation is always the chain head (viz. the highest element of a movement chain), scoping, on the other hand, can operate on every chain link (Frey 1993). A quantifier Q can attain a wide scope reading with respect to an expression E, if Q c-commands at least one member of the chain of E (see also Aoun & Li's 1993 scope principle). This is what JW confirms for Polish too, with his examples (27) and (28), repeated here under (1) and (2), respectively.

(1) my_1 pokazaliśmy [dwóm kolegom$_3$][każdy plik listów od siebie nawzajem$_{1/?3/}$]$_2$
       we showed two friends$_{DAT}$ every folder$_{ACC}$ of letters from each other
       'We showed two friends every folder of letters from each other. (two > every, *every > two)

(2) my_1 pokazaliśmy [dwa listy od siebie nawzajem$_{1/*3/}$]$_2$ [każdej grupie kolegów]$_3$ t2.
       we showed two letters$_{ACC}$ from each other every batch$_{DAT}$ of friends
       'We showed two letters from each other to every batch of friends. (two > every, every > two)

In (2), but not in (1), the dative object c-commands the trace of the scrambled accusative. Therefore, it may get scope over the fronted direct object although it does not c-command its surface position.

It is this set of circumstances that offers a possibility of directly testing the T3 *V-positioning* hypothesis against the *DP-fronting* ('scrambling') hypothesis of the Generative framework. Scrambling does not operate string-vacuously. It results in a change of the base order of arguments of the verb (Haider & Rosengren 2003, Haider 2010: 185). Therefore, wide scope of a dative over a scrambled accusative is possible in the configurations in (3b) since the dative DP c-commands the *trace* of the scrambled accusative DP.

(3) a. …. V Acc$_i$ Dat t$_i$ ….
       b. …. Acc$_i$ V Dat t$_i$ …..

The crucial constellation for the T3 vs. the DP-fronting ('scrambling') analysis is the array (4a). In the T3 analysis (4b), the two objects are in base order in their base positions, with the verb in the foot position of the VP. In (4c), the scrambling analysis with an SVO base structure, the objects are fronted across the head of the VP into higher up spec positions.

(4) a. …. Dat … Acc … V …
       b. …. [Dat … [Acc … [V …]]]$_{VP}$ (T3 structure)
       c. …. [Dat$_j$ … [Acc$_i$ … [V [t$_i$ ... [t$_j$ …]]]]]$_{FP}$ (DP-fronting: 'scrambling' across V)

The predicted scope relations for (4a) go in parallel with the different analyses. For (4b), the predicted scope is the same as for (1), namely *unambiguous*. It is irrelevant for scopeing That the verb in (1) is in a higher position in the T3 V-chain in (4b). The predicted scope for (4c), however, is as *ambiguous* as for (2). The dative may receive a wide scope interpretation because it c-commands the accusative DP. On the other hand, the accusative c-commands a chain link of the dative, and therefore it may receive wide scope interpretation. In sum, if the Generativist analysis is correct, (4c) will be just as scope ambiguous as (2), which we doubt, however. We

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[8] He deserves credit for it, but the international recognition of priority suffers from the language barrier.

trust in our theory and therefore, we predict that adequately chosen instances of (4a) – ceteris paribus[9] – are not scope ambiguous. We are looking forward to confirmations from Slavic languages.

4. Artemis Alexiadou – On the role & significance of subject expletives

We are thankful to Artemis Alexiadou (AA) for highlighting on one of the syntactic core diagnostics for separating [S[VO]] clause structures from other types, namely the *VP-external, obligatory structural subject position* of [S[VO]] clauses. Since this structural position must not end up as syntactically unemployed and radically empty, the insertion of an expletive is the last resort measure for saving grammaticality in otherwise subjectless [S[VO]] sentences. The obligatory expletive is just the superficial indicator of a crucial difference between the sentence architecture of [S[VO]] and that of other types.

In our paper, the focus is narrowed to what we take to be the limiting case of this indicator. A limiting case is a constellation with as little as possible interference. In our case, the limiting case is the passive of a verb with a single argument, i.e. the subject. When such a verb is passivized, the subject argument gets syntactically neutralized. The result is a clause without any argument. This is the limiting case, but of course and by far not the only context for identifying obligatory expletive subjects. Here is once more a selection of data that illustrates the predicted contrasts between SVO, with and without a null-subject property, and SOV.

(1) a. dass gelacht wurde   German   (SOV: no expletive)
       that laughed was

   b. Waar *niet wordt gelachen*, wordt niet geleerd'[10]   Dutch   (SOV: no expletive)
       where not is laughed, is not taught

   c. att *det* var dans   Swedish   (SVO: expletive)
       that it was danced

   d. *Il* fut dansé, sauté, ballé.[11]   French   (SVO: expletive)
       it was danced, jumped, danced.   [see discussion below]

   e. *Qui è stato lavorato troppo poco   Italian (SVO, no expletive
       here is worked too little   available)

   f. *that (it)/(there) was laughed   (SVO, no expletive available)

German and Dutch are OV. The SOV clause structure does not provide a VP-external subject position since all arguments find their place within the verb projection in the same directionality domain, namely in preverbal positions. Consequently, there is no room for an expletive that takes care of an otherwise empty obligatory subject position (Haider 2014, 2019).

Swedish and French are testimonies for SVO languages with an obligatory subject expletive. In both cases the expletive is homonymous with a third person singular pronoun. Such a pronoun would be turned into a null pronoun in pro-drop languages. But Romance pro-drop languages, represented by Italian (1e), confirm that a null-expletive does not exist.[12] An

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[9] The test items should be free of scope-biasing factors such as specific information structure conditions like focus on one of the two objects, and the content should not favor a specific reading.

[10] https://ikwerkaanwerkplezier.nl/professional/blog/stress-burnout-en-overspanning/drie-tips-om-leren-leuker-te-maken-voor-jezelf

[11] La Fontaine, Contes II, 518.

[12] We are reminded by AA that "*pro-drop languages lack null expletives, as argued for in detail in Alexiadou & Anagnostopoulou (1998)*". We abstained from referring to other publications for this generalization simply

oxymoronic concept such as an *"empty expletive"* is a theoretical fiction that has not 'materialized' in any language. *Expletive* subjects, however, must not be confounded with *semantically empty subject arguments* (for details see Haider 2019) and their null versions, as in the Italian example (2a).

(2) a. Non se ne parla affatto   Italian (*si* passivante)
      not REFL of speak in-fact
      'In fact, one does not speak about'
  b. Om det prata*s det* mycket.   Swedish (*s*-passive)
      about it speak*Passive* EXPL much
  c. Darüber spricht *es* sich leichter.   German (middle)
      about-it speaks *it* REFL easier
  d. Darüber wird (*es) gerne gesprochen.   German (passive)
      about-it is (it) talked gladly talked

The examples in (2a-c) are grammatically closely related. Both, the Italian impersonal *si*-construction (2a) and the Swedish *s*-Passive (2b) are diachronic successors of a middle construction illustrated by German (2c). The *semantically empty subject* "es" (it) is obligatory in German intransitive middles (2c) but "es" is ungrammatical as an expletive in subjectless passives (2d). In Italian, the semantically empty subject is a null subject due to the null-subject property (*pro-drop*). This is the key for understanding the contrast between the passive (3a) and the *si*-construction (3b) in a Romance pro-drop language.

(3)   a. * È stato parlato di te.   Italian
      has been talked about you
    b.   Si e parlato di te.

If the standard passive (viz. *be*-auxiliary plus perfect participle) is applied to an intransitive verb in a pro-drop language, as in (3a), a pronominal expletive would be phonetically null, because of the pro-drop property. However, *null expletives* would be unidentifiable. A semantically empty subject as in (3b), on the other hand, can be identified by virtue of being related to an argument of the verb. Arguments are specified in the lexical entry of the verbal head. So in (3b), the counterpart of the German 'es' (it) in (3c) is the null-subject of middle constructions and its successor construction in Italian.

It is crucial to distinguish between expletives and semantically empty subject in Slavic languages, too. Perlmutter & Moore (2002) as well as AA, who follows them, do not honour this difference. The subject of impersonals such as (4a) is a null pronoun representing the semantically empty subject argument. For ease of reference we repeat an example from our answer to Šimík & Jasinskaja (4a), contrasting with an example of passive from our paper (4b).

(4)   a. Souseda ranilo.   Czech
      neighbor$_{acc}$ injured$_{neut}$
      'The neighbor was injured.'

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because of an earlier source for this generalization, namely Haider (1987), which is discussed e.g. by Grewendorf (1990: 310); see Haider (2020: 395).

    b. czy było rano sprzątane   Polish [IPIPAN_1301920030513][13]

        whether was cleaned in-the-morning (intransitive)

        'whether cleaning took place in the morning'

    c. Die Boote hat *es* in Stücke gerissen

       the boats$_{Acc}$ has$_{sg.}$ it$_{Nom}$ in pieces ripped ('The boats broke in pieces')

    d. Bátana hefur broti í spón.   (Zaenen & Maling 1990:145)

       boats$_{Def.-Acc}$ has$_{sg.}$ broken in pieces

(4a) involves a *null subject*, but (4b) is *subjectless*. The accusative on the object in (4a) is the indicator of the presence of a null subject.[14] In undisputed SVO languages, the subject position of (4b) would have to be filled with an expletive or the sentence would be ungrammatical. The null subject in (4a) is the null variant of the semantically empty subject "es" (it) in the impersonal variant of many transitive verbs in German (4c). (4d) is the Icelandic counterpart of (4a), with a null pronoun for semantically empty subjects, familiar also from weather verbs. Both in Czech as well as in other Slavic languages, and in Icelandic, too, weather verbs are the simplest instance of verbs with a *semantically empty null* subject in these languages. AA's examples (8) are not representative of null *expletives* but of the semantically empty subject *argument* of meteorological verbs in a null-subject option.[15]

Having explicated this neglected but indispensable issue once more – i.e. overt expletive subjects vs. semantically empty subject argument, with a null pronoun in pro-drop languages only for the latter (see Haider 2019) – we are ready to delve into the debate proper.

AA cites Pitteroff & Schäfer as authorities for the ungrammaticality of "*strict*" intransitive passives in French. According to them, a bare intransitive passive such as (1d) is ungrammatical. Sadly, this implicates an imperfect command of French by La Fontaine.[16] We do not feel compelled to accept their rating. Instead, we prefer the evidence of grammars and large corpora.

As for grammars, Rowlett (2009: 46) explicitly states: "*This conclusion is further supported by the existence of impersonal passives based on intransitives, as in (87).*" His example #87 is AA's starred example, viz. "*Il a été dansé*". Heriaut (1989:164) is an earlier testimony for the very same example, and Miclosich (1883:81) an even earlier one. They all refer to the very specimen as grammatically well-formed French. Corpus searches readily produce tokens of this expression, too. Here (5) are two more examples of the same structure as La Fontaine's (1d).

(5)   a. Il a été dansé et chanté.[17]

       EXPL was danced and sung   ['There was dancing and singing']

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[13] Example from the Polish National corpus, provided by an anonymous reviewers.

[14] In nominative-accusative case systems, accusative assignment presupposes nominative assignment. In the absence of a nominative, the object is assigned nominative, but not accusative; see Haider (2000b) and Szucsich (2006) for a discussion of Russian adversity impersonals.

[15] Perlmutter & Moore's (2002) ungrammatical examples of Russian non-raising contexts with phasal verbs (begin, stop, continue), cited by AA as (7b,c), do not demonstrate obligatoriness of raising. They are ungrammatical for independent reasons. There is neither a licit context for the dative nor the nominative. However, if the raising/phasal verb agrees with the nominative in AA's (7c), a grammatical outcome without obligatory raising is
(i): Načal Boris rabotat' na ètom zavode. Russian
     began Boris work at this factory   ['Boris began to work at this factory.']

[16] Could Gustave Flaubert be mistaken, who declared that La Fontaine is "*the only French poet to understand and master the texture of the French language before Hugo*"? (source: New World Ecyclopedia)

[17] http://www.decotidien.com/sciences/Sur-des-Bequilles-au-Kilimandjaro-Il-est-encore-une-Jambe-et-cela-peut-vraiment-beaucoup-h6232.html

b. Il a été marché, piétiné, martelé par une foultitude de clients.[18]
   EXPL was walked, trampled, hammered by a multitude of customers

For the sake of discussion, let us grant Pitteroff & Schäfer a possibly measurable contrast in acceptability between "*Il a été dansé*" and (1d) or (5). Would the examples of Gross (1975: 99) in (6) achieve slightly worse acceptability ratings if the parts in italics were truncated? What could be responsible for it? Would Pitteroff & Schäfer be proved right then? The answer is "Definitely No!" since they make a *grammaticality* claim. For an *acceptability* claim, it would be "Perhaps Ay!"

(6) a. Il a été *beaucoup* dormi *ici*
        it has been much slept here
     b. Il a été parlé *à Marie de cela*
        it has been talked to Marie about this
     c. Il a été ri *de cette histoire*
        it has been laughed about this story

The very same effect could be measured in German or other Germanic languages as well. We predict that in controlled tests, a difference in acceptability is likely to show in German between (7a) and (7b), although both utterances are grammatically well-formed.

(7)   a.(?)Getanzt/Gefeiert wurde.
            danced/partied was
        b. Getanzt/gefeiert wurde *bis Sonnenaufgang*
           danced/partied was *until sunrise*

We surmise that the potential contrast is a correlate of the test subjects' efforts when imagining a situation while processing the test item in which the utterance to be judged would be felicitous. The truncated utterances (6c) or (7a), for instance, merely present a bare event denoted by the verb. There was a laughing or a dancing event. In Gricean terms, a cooperative conversation is presupposed to honor the maxims of quantity and relation. If such a sentence is presented *out of the blue,* as test sentences are usually administered, it lacks two essential anchoring parameters, namely place and relation. These are typically supplied in the form of prepositional phrases in standard average European languages. The coordinated verbs, on the other hand, signal that the focus is on the kind of event rather than on situating it.

In short, what we are dealing with is a pragmatically caused *test artefact* rather than a structural property. For the truncated version of (6c) and for (7a), it is more difficult to imagine a felicitous utterance situation than for the enriched utterances. Anyway, for our argument, this is of no relevance. The passive of intransitive verbs in an SVO language is ungrammatical if the structural subject position remains empty, and this is independent of the presence or absence of optional postverbal material.

AA endorses Pitteroff & Schäfer's conjecture "*that the overt element in Spec,TP in French or its covert counterpart in Russian is not a real expletive and needs to associate with an argument*". This is contrary to the facts. *First*, there is no compelling evidence but counterevidence

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[18] *Le Soleil* , Dec.15th 2001, p. E2.

for the assumption that "il" associates with something in (1d,e), (5), and (6a,c). Syntactically, "il" does not behave like an element that needs an associate, as the agreement contrast between parallel constructions in English and French document in (8). "*There*" needs an associate from which to copy agreement features (8a,b). "*Il*" does not associate (Haider 2019). "*Il*" in (8c) is a real expletive.

(8)   a. There *have$_{pl.}$* emerged some profound questions$_{pl.}$

       b. There *has$_{sg.}$* emerged a profound question$_{sg.}$

       c. Il est$_{sg.}$ apparu des disparités$_{pl.}$ French

         it is$_{sg.}$ appeared some disparities$_{pl.}$

       d. Des disparités $_{pl.}$ *sont$_{pl.}$* apparues

         some problems have$_{Pl.}$ appeared

The fact that '*there'* is associated with a post-verbal argument disqualifies it, by the way, as an expletive in the English intransitive passive (Haider 2019:35-36). However, if we look more closely, it is not the item "*there*" but the structural subject position that is associated with the donor of agreement features, and "*there*" cannot provide such features by itself. This is evident from locative inversion data that can easily be retrieved from corpora.[19] In French, the expletive is a pronoun, and pronouns provide agreement features, namely 3rd sg. in the case of 'il'. *Second*, if "*a covert counterpart*" of a lexical expletive were a grammatically available option, this would entail that Romance null-subject languages passivize intransitive verbs, which is contrary to the facts, as AA admits (see fn. 12 above).

Let us turn now to Icelandic as the oddball among North Germanic languages with respect to subject expletives. As for Icelandic impersonal passive, there is a clear contrast and it supports our theory. In embedded clauses, Icelandic employs an expletive (9a,b) while German forbids it, as the direct counterpart (9c) demonstrates.

(9) a. Þeir segja [að *það* verði dansað í brúðkaupinu].   (Thráinsson 2007: 355)

     they say that EXPL will-be danced at wedding-the

    b. Hún sagði [að *það* hefði verið dansað í gær].   (Maling & Zaenen 1978: 491)

     he said that EXPL has been danced yesterday

    c. Er sagte dass (*es) getanzt wurde auf der Hochzeit

     they say that (it) danced was at the wedding

Second, there is an essential difference between Icelandic and other SVO languages, such as English or Romance languages which accounts for the apparent absence of a subject expletive in V2 clauses. The difference concerns the syntactic properties associated with the structural subject position. In Icelandic, the subject argument is not bound to end up in the VP-external structural subject position. Nominative may be assigned VP-internally and the subject may remain in-situ, while a non-subject argument is placed into the structural subject position. This is the renowned and well-studied "quirky subject" property of Icelandic. What this shows is that in Icelandic, the structural subject position is not *obligatorily* involved in case-management. It

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[19] i. *On this spot has* been re-erected a monument.

   ii. Just *on this spot have* been burnt the very corpses of Upasálhakas.

is a *structurally* obligatory, VP-external position that is open for the subject, or, alternatively, in case the subject is a lower ranked argument, for the higher ranked argument, as in (10a). In (10b) an expletive serves as the dummy subject for the structural subject position and is then raised to Spec-C.

(10) a. Hafa honum fyrirgefist *allir glæpirnir*?   Thráinsson (2007: 292)
    have$_{pl.}$ him$_D$ been-forgiven$_{pl.}$ *all crimes$_{Def}$*-Nom.pl.

  b. Það var barinn strákur.   Thráinsson (2007: 276)
    there was hit$_{m.sg.}$ boy$_{Nom.sg.m.}$ Icelandic standard passive with expletive

The only remarkable property of Icelandic in this respect is the fact that even a *trace* of virtually anything that can be fronted to Spec-C can also serve as a filler for the spec-T position. This is a peculiarity, but Icelandic is not the alleged exception to the structural subject requirement of SVO languages. It is because other items and especially the trace of fronted items can serve as fillers as well that Icelandic does not always present an expletive in the otherwise empty structural subject position The overall outcome is simple and clear: subject expletives are an [S[VO]] property. They are absent in OV and T3 languages, and this is what the data show.

A final aside on modern Greek: We learn from a native source (Tzanidaki 2016:10, 47) that all six permutation variants of subject, object and verb in a declarative clause such as (11) are truth-conditionally equivalent and grammatically well-formed.

(11) Latrevi [ton iperealismo] [i Antigoni]
    adore$_{3s}$ [the surrealism]$_{acc}$ [the Antigoni]$_{nom}$
      'Antigone adores surrealism.'

Given this fact, we wonder how sustainable the final message in AA's comments will be, which states that "*it is uncontroversial that Greek is a VO language*". T3 seems to be at least a plausible alternative.

5. Eric Fuß – Early Germanic is not Slavic.[20]

Readers may be surprised finding themselves confronted with a treatise on Old High German in a volume devoted to Slavic languages. However, the subject is well-chosen since arguably, T3 is the clause type of early stages of Germanic languages, too. Unfortunately, readers are not assisted by background information in the target paper.

Let me do away with a potential misunderstanding first. The presupposition of the title question – "*Early German = Slavic*" – is not what we claim. Early German and modern Slavic languages aren't grammatical twins. What we do claim is that Slavic languages and the Old Germanic languages, too, are T3 languages, as proposed in Haider (2013, ch. 5.4) and (2014). Languages with T3 structures are as diverse as languages with [S[VO]] structures, but they share the core properties of the type.

Hardly anyone would claim that Romance languages and English cannot be members of the same clause structure type only because there are numerous grammatical properties they do not share.[21] Relevant is the following. If a given type assignment is empirically adequate, languages

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[20] The responsibility for the content of this section rest with the first author of the target paper.

[21] English, for instance, does not displace main verbs, cliticizes pronouns, has no impersonal or passive middle, does not inflect infinitives, etc.

of a given type are expected and predicted to share core properties of that type unless independently ascertained factors interfere, not more and not less.

Let us start with an easily accessible property, namely word order variation. It is commonplace that classical languages, viz. Ancient Greek, Latin, and Sanskrit, display this property beyond doubt. The introduction to section 2 of the target paper contains relevant references, such as Spevak (2010) on Latin, and Speyer (2018:161) on Ancient Greek, Latin, and Sanskrit. Remember also the results of the computational corpus study by Kuboň (et als. 2016), referred to in the response to Šimík & Jasinskaja below, as well as Merlo & Samo (this vol.).

Eventually, it is handbook wisdom that Old Germanic languages display word order freedom: Faarlund (1994: 54, 63) reports that "*Old Scandinavian generally has a rather free word order. This is true also at the phrasal level*" and "*The sentence in Old Scandinavian is characterized by [...] a relatively free word order, in the sense that the relative order of phrases in terms of grammatical function is variable. The order of elements in terms of discourse function, on the other hand, is rather fixed.*"

According to Van der Wal & Quak (1994:105) "*Word order in Old High German and Old Saxon was rather free. The modern SVO or verb-second order in unmarked declarative sentences is by no means obligatory in the earliest texts.*" The period of word order freedom extends well into the so-called 'middle' periods of each Germanic language. In these periods, the directionality of the verbal heads got fixed. This can be studied best in the Germanic family, with their split into OV and VO languages (Haider 2014).

As for the theoretical coverage, it seems I have not been successful in expounding the sharp difference between a competing account in section 3 of Haider (2014), otherwise EF could not have misunderstood it when writing that my "*approach in terms of Variable Head Positioning (VHP) seems to be very similar in spirit to the Double Base Hypothesis (DBH) proposed by Susan Pintzuk*" and "*moreover, the approach by Pintzuk is embedded under a general theory of language change in terms of Grammar Competition (Kroch 1989), which captures quantitative and variationist aspects of word order change.*"

In fact, I argue for the very opposite. First, "grammar competition"[22] between VO and OV in a stage of English could be plausibly assumed only in a situation of massive bilingualism. The proponents do not present evidence for massive bilingualism. Moreover, the data structures that motivate the grammar-competition conjecture are by no means specific to English. The very same patterns are found in any other Germanic language from the Old to Middle Germanic periods. So each and every speaker of a Germanic language would have had to be bi-grammatical, constantly switching between two grammars. Whoever is happy with such a theory is free to endorse it. We don't, since it is too far from plausible; see the discussion in Haider (2014).

Second, even the Old-to-Middle English data fail to fit Kroch's and Pintzuk's competition hypothesis. If they fitted, we would be able to neatly factorize the data into two complementing subsets, namely SVO and SOV structures. But, this is not the linguistic reality. What we see is the complete array of T3 structures (1). The proponents overlook the attested word order patterns that are ungrammatical both in SOV and in SVO, but licit in T3. This is the crucial piece

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[22] This would mean that speakers dispose of two independent grammars and switch back and forth between them (grammatical code switching), permanently engaged in a duel of languages, as Myers-Scotton (1993) entitled it.

of evidence, and it is discussed at some length in Haider (2014). For ease of reference a minimally contrasting set is repeated here. The relevant examples are (1a,b).

(1) a. Se mæssepreost sceal [mannum [*bodian* þone soþan geleafan]]
        the priest must [people [*preach* the true faith]]   (Ælet 2 (Wulfstan1) 175)

     b. þæt hi [urum godum [*geoffrian magon* ðancwurðe onsægednysse]]
        that they our god *offer may* thankful offering   (ÆC Hom I, 38.592.31)

     c. Ac he sceal [þa sacfullan *gesibbian*]
        but he must the contenders *reconcile*   (Ælet 2 (Wulfstan1) 188.256)

     d. Se wolde [*gelytlian* þone lyfigendan hælend]
        he wanted *humiliate* the living saviour   (Ælet 2 (Wulfstan1) 55.98)

(1a) and (1b) illustrate an *object-V-object* order variant that is familiar from T3 languages (see Slavic). The indirect object precedes, the direct object follows the verb. This order is ungrammatical in SOV as well as in SVO languages, such as late Middle English and modern English. (1c) and (1d) illustrate the head-final and the head-initial option of a T3 language, respectively. (1) represents a set of serialization variations for the main verb in a T3 grammar. Only (1c) and (1d) are covered by the "competing grammars" conjecture. The crucial orders (1a,b) remain unaccounted for. They do not fit since they are neither SOV-type orders nor SVO-type orders.

The "general theory" of grammar change that, according to EF, is missing, is the theory presented in Haider (2014), which characterizes Germanic SOV and SVO as successors of T3, with a single change, namely the fixing of the directionality of the verbal head. There are only two possible options for instantiating a directionality value, namely either $V_{\rightarrow}O$ or $O_{\leftarrow}V$. In the Germanic family, each option has found its implementation, with VO in the North-Germanic group and OV in the continental West-Germanic group.

The "general theory of change" rests on a "general theory of structure" which has been developed in the past thirty years, starting with Haider (1992). For a commented research bibliography please consult the preface of Haider (2013:ix-x). A succinct exposition is given in Haider (2015). The bare fundamentals are presented in the target paper in section 3.2, in Haider (2014), and once more here. The central 'axioms' are the following two:

(A1) The projecting node of lexical projections is universally the right node as in (2), (viz. 'right branching' = BBC = *Basic Branching Condition*), and

(A2) Phrases are endocentric, viz. projections contain a head category in their foot position.

What we observe in the majority of languages are lexical heads with fixed directionality. This property is parametric, with two alternative values. Let us refer to them as "left" or "right". In an OV-language (2a), the verb licenses its arguments to the left. In a VO language, it licenses to the right (2). In the former case, the universal condition (A1), viz. universal right branching, cannot be instantiated in complex projections unless the verb is re-instantiated (2b).[23] The result is the so-called shell structure of complex head-initial VPs.

(2) a. $[XP_{Sub.} \leftarrow [YP_{IO} \leftarrow [ZP_{DO} \leftarrow \mathbf{V°}]$ head-final (the subset congruent with OV)

     b. $[XP \leftarrow [\mathbf{V_{i}°}_{\rightarrow} [YP_{IO} \leftarrow [\mathbf{e_i}_{\rightarrow} ZP_{DO}]]]]$ head-initial (the subset congruent with VO)

     c. $[XP \leftarrow [YP_{IO} \leftarrow [\mathbf{V°}_{\rightarrow} ZP_{DO}]]]$ intermediate position (the subset of T3 only)

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[23] In VSO languages, the verb is re-instantiated once more, in front of XP.

    d. [**V** [XP **V** [YP$_{IO}$ [**V** ZP$_{DO}$]]]]$_{VP}$ possible *alternative* V positions in T3-VPs

T3 is the option with an empty value for the directionality parameter. This means that directionality is unvalued or un(der)specified. In diachronic terms this often turns out as *not yet* specified. In T3 structures, the verb may show up in any of the structurally available positions, that is, in the foot-position, as in SOV, and in any higher position, as in SVO (2b) or VSO (2d). In other words, the T3 languages display the cumulative serialization patterns of SOV (2a) and SVO (2b), and in addition (2c). It is this pattern that immediately indicates a T3 structure. The other patterns, especially the frequent pattern (2b), have led to confounds. Such languages have been misfiled as SVO, which is a main topic of the target paper.

The theory of grammar change based on this tripartite typing invites the prediction that diachronically, a period with fixed directionality is typically preceded by a T3 period. The Indo-European languages are testimonies for this claim. On the other hand, languages with fixed directionality are unlikely to devalue directionality but they may re-value it occasionally. We are especially grateful to Merlo & Samo (this vol.) for having tested the prediction for the development of Romance languages. It is an example of a diachronic development, beginning with a T3 language and resulting in a family of SVO languages as offspring.

In the school of Generative Grammar, the sentence structure of the SVO language English is the prototype of the universal clause structure. SOV is a 'distortion' of it, caused by the obligatory displacing of phrases. This is bluntly contradicted by what is known about grammar changes. SVO languages are a point of no return, as Gell-Mann & Ruhlen (2011:17291) summarize it in their figure 1. An SOV language may change by drift or evolution into SVO but not vice versa (cf. Haider 2021). So how would SOV languages come into being if the centre of grammatical gravitation is SVO? Why engage in all kinds of movements that distort SVO if a grammar *without* such movements is a more perfect system? This is the question. Approaches in the main stream Generative framework are unable to answer it satisfactorily since this theory puts the cart before the horse.

EF mainly discusses data from Old High German. These texts, however, are notorious for an inescapable drawback. They primarily teach us how monks translated Latin texts into local idioms. The only text that is likely to come close to a spoken variety is a 4 page fragment of a travel guide, viz. the "*Parisian conversations*" ("Pariser Gespräche"). EF excerpts "Isidor", which is a collection of translations of texts of Isidor of Sevilla, and "Notker", a collection of translations[24] by a Benedictine monk in St. Gallen.

Braune (2004[15th] §la) emphasizes that "*Old High German language is accessible only in a very small opening. The writers of OHG glosses and texts were monks and clerics. What they wrote belongs to a highly specialized text type. Everyday language is not at our disposal, except for the Paris conversations.*" (translation$_{HH}$).

Nevertheless, the academic opinion and EF in his own publications favor SOV, apparently as the least inappropriate type for OHG. Frequent VO orders are explained away either by invoking extraposition, although extraposition of noun phrases is ungrammatical in any modern Germanic OV language,[25] or by assuming that VO "*simply mimics the ordering found in the*

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[24] For the use in convent schools, he translated classical literature and Bible texts; notably the Psalter.
[25] See Schallert (2007:71) for cases of allegedly extraposed non-extraposable items in OHG.

corresponding Latin clause." On the other hand, a small percentage of divergences between the Latin text and its OHG translation (16% in the Tatian corpus, according to EF's Table 1), where the Latin order is VO and the translation is OV, is adduced as evidence for SOV. Evidently, this is faulty reasoning. It is by no means excluded that the *parallel* orders show that in OHG and in Latin, the very same order is acceptable while in a minority of cases, the translator prefers fronting some items, arguably for information structure reasons. Who could tell exactly when the translating monk 'mimics' and when he abides by the grammar? All we see is that there are about fifty-fifty OV and VO orders,[26] just as one expects to see in a T3 language. This hypothesis straightforwardly accounts for them, without invoking unmotivated extraposition (partly of unextraposable elements) or alleged grammatically deviant "mimicking".

Finally, I must confess that I am short of any clue as to why EF reopens a discussion on ungrammatical V-Obj-Aux orders in section 2.2. The universal ungrammaticality of V-Object-Aux orders is a subcase of the universal restriction (A1), viz. the "Basic Branching Condition" (Haider 1992). This condition subsumes the FOFC[27] cases he refers to, since it rules out any left-branching (extended) projections. FOFC is just a partial descriptive generalization that immediately follows from (A1). This explanation has been published more than a decade before the acronym has been conceived of, as has been laid bare in Haider (2013: 132-135).

6. Radek Šimík & Katja Jasinskaja – Czech is not [S[VO]], but it may be mistaken for it

In their comment, Šimík & Jasinskaja (Š&J) put a most welcome focus on Czech. They subscribe to the widely entertained view according to which Czech is a language with a basic clause structure like English, as they explicate in Jasinskaja & Šimík (in press). We are grateful for their thought-provoking attempts of challenging our theory thoroughly by confronting it with properties of a Slavic language we have considered in the paper only in passing. After all, THE essential quality test for a theory is resolute and thorough falsification trials. Gladly we grasp the opportunity of demonstrating that our theory stands the test successfully. For ease of reference, we juxtapose their summary and the version we shall defend in Table 1:

ambidir.	Russian	Czech
yes	yes	yes
no	yes	yes
no	no	no
no	no	no
no	yes	yes
yes	yes	no
no	no	no
no	no	yes
yes?	yes	no

Syntactic properties		[S[VO]]	ambidirect.	RUSSIAN	CZECH
i.	S-V-O as an acceptable order	yes	yes	yes	yes
ii.	obligatory preverbal subject	yes	no	no	no
iii.	subject wh-in-situ restriction	yes	no	no	no
iv.	adverbial wh-in-situ restriction	yes	no	no	no
v.	LLC for left-adjoined adjuncts	yes	no	no	no
vi.	fillers for left branch gaps	no	yes	yes	yes
vii.	rigid word order	yes	no	no	no
viii.	rigid relative order of auxiliaries	yes	no	no	yes
ix.	free OV/VO word order	no	yes	yes	yes

Table 1   Š&J's summary   H&S' revised summary

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[26] In addition, OVO-orders occur, just like in OE, as Schallert (2006:139, 172) documents:
  i. tánne sie [búrg-réht [*scûofen* demo líute]]   (Notker NB 64,13)
     that they civil-right granted the people

[27] FOFC = "*final over final constraint*". In Haider (2020b), I ironically accused myself of "*anticipatory plagiarism*" because of having anticipated FOFC already in Haider (2000a), as a subcase of the Branching Condition; see Haider (2013:132-135). The bibliography of Biberauer et als. (2014) lists the paper (for other purposes), which *verbatim* presents the generalization that covers what they claim as their *own* original idea in their paper. "*If a functional projection is a functional extension of the projection of a lexical category, the BC rules out functional heads to the right in general.*" (Haider 2000a: 48). Flabbergastingly, they did not bother crediting it.

Š&J find fault with four properties we attribute to Slavic languages, when applied to Czech, namely (ii), (vi), and (viii), plus property (ix), which they add although it is a subcase of (vii.). Let us start with (viii) and an 'operating instruction' for the list of syntactic properties in the tables above. It is important to keep in mind that the values in the [S[VO]] column are values of *necessary* properties of [S[VO]] languages. In other words, if the grammar of a language does not meet the respective property for "yes" or for "no", respectively, the respective language cannot be an [S[VO]] language. T3 languages are members of the complement set. They are not subject to the constraints that hold in [S[VO]] language but it is possible for them to share one or the other property, for independent reasons. All we claim is that a language cannot be an [S[VO]] language if the relative order of auxiliaries or quasi-auxiliaries is variable. Languages with a uniform order of auxiliaries are consistent with any type. Therefore, we gratefully accept the information that in Czech, there are invariant orders of auxiliaries.[28] But, as corpus data confirm, there are at least quasi-auxiliaries[29] that are variable.

Let us continue with line (ix), which Š&J added to our table. In fact, free OV/VO order is a sub-instance of (vii.). Here, "free" is to be interpreted as *syntactically* free, that is, not constricted by *syntactical* conditions, or, as Siewierska & Uhliřová (2010:109) put it: *"In each of the Slavic languages, all twenty-four possible combinations of a subject, direct object, indirect object and verb occur as grammatical declarative orders."*

In OV or VO languages, nominal objects are distributionally restricted by the directionality requirement of the head they depend on. Nominal objects *obligatorily* precede the base position of the verb in OV. In VO, they *obligatorily* follow the verb. The order restriction holds independently of information structure properties, intonation effects, or other pragmatic preferences. In Czech, and in fact in all Slavic languages, even in Sorbian to a minor extent,[30] objects as well as the subject may precede *or* follow the verb. This fact cannot be seriously contested.

However, and crucially, "free" must not be interpreted as "anything goes, anytime". The existence of a pragmatically unmarked or neutral order is fully consistent with the syntactical variation potential. The fact that alternatively available orders are not always *freely exchangeable* in utterances is an independent issue. Information structure preferences partition the pool of syntactic variants. We do not want to repeat the explication of the interface effects presented in Haider (2020). Let us merely summarize it: "*In general, when syntax admits structural variation, this potential is captured and utilized by other subsystems of grammar.*" (Haider 2020: 375). All variants are syntactically well-formed, but, of course, they are not equivalent with respect to information structuring since they may be associated with particular focus, topic, or givenness properties. Importantly, the conditions of information structuring do not *constrain*

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[28] Š&J's Czech example, however, does not match the Polish counterpart. As the authors concede, it involves a semi-lexical verb *dát* 'give' and a modal *chtít* 'want', which systematically allows for finite embeddings with the subjunctive marker *by*, introduced by a complementizer *aby* 'that'. In contrast, the Polish modal *musieć* 'must' does not show this behaviour, and B/C/S *morati* 'must' only selects finite complements in varieties which have lost the infinitive or, at least, pushed it back. So, syntactically, Polish *musieć* (and Czech *muset*) differ from *chcieć* (and *chtít*).

[29] In brackets the number of hits of the respective search restricted to Google books:
    i. ležet nechali (198)   ii. nechali ležet (1130)
      lie let   (‚let lie')   let   lie ('let lie')

[30] Even Sorbian – although predominantly verb-final – is not *strictly* SOV, as (i) illustrates (Scholze 2015: 206):
    i. Ćeta *dari* mi rjaneho žurka (aunt *gave* me beautiful hamster).

syntax; they merely *exploit* the syntactically available options. On the other hand, if syntax does not admit variation, information structuring cannot coerce syntax, otherwise all languages would closely resemble Czech or Russian. It is a fact of Czech that there are acceptable utterances in which a direct object precedes a main verb *and* that there are acceptable utterances in which a direct object follows a main verb, finite or not, in main as well as in embedded clauses.

The relevant data are familiar and have been reconfirmed on independent grounds, for instance by computational methods, measuring the word order freedom in parsed corpora (tree banks). Kuboň (et als. 2016) present the following percentages for Czech, on the basis of a tree-bank corpus of 16,862 *main* clauses and 11.849 *embedded* clauses out of 87.913 sentences in total, in comparison with 22 other languages. (1) and (2) list the percentages of VO vs. VO serializations in main and embedded clauses.

(1) Order in main clauses:
     a. Czech: VO 61,2%   vs. OV 27,2%   rest: 11,6 %
     b. Slovenian: VO 50,0%   vs. OV 42,3%   rest: 7,7%
     c. English: VO 83,1%   vs. OV   0,0%   rest: 6,9%
     d. Portuguese: VO 85,8%   vs. OV 12,1%   rest: 2,1%

(2) Order in embedded clauses:
     a. Czech: VO 65,1%   vs. OV 24,6%   rest: 10,3%
     b. Slovenian: VO 32,9%   vs. OV 37,3%   rest: 29,8%
     c. English: VO 96,9%   vs. OV   0,1%   rest: 3,0%
     d. Portuguese: VO 79,6%   vs. OV 13,5%   rest: 6,9%

The percentages of Czech and Slovenian OV orders contrast clearly with undisputed SVO languages such as English or Portuguese, for instance. Kuboň et als. do not differentiate between pronominal and non-pronominal objects. This accounts for the "OV" orders in a VO language such as Portuguese – a language with pronominals cliticized to finite (auxiliary) verbs[31] – and English, a language without pronoun cliticization.

Kuboň et als. (2016:15) compare and rank their set of 23 languages by computing four measures of variation (viz. max-min, Euclidian distance, cosine similarity, and entropy). On each of the four measures, Czech ends up in the top group of five languages with respect to word order freedom (3). SVO languages, such as English and Portuguese, are in the opposite region, namely in the top group of languages with highly restricted word order. The entropy-ranking for languages with the greatest word order freedom is shown in (3), with the respective rank in brackets:

(3) a. main clauses: Ancient Greek (1), Latin (2), Slovak (3), Slovenian (4), *Czech* (5).
     b. embedded clauses: Slovenian (1), Ancient Greek (2), Latin (3), Slovak (4), *Czech* (5).

This is independent evidence for an essential difference between Czech and its kin languages on the one hand, and uncontroversial [S[VO]] languages on the other hand, and it supports the claim put forth in the paper. Merlo & Samo (this vol.) reinforce these results by their

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[31] i. O comprador não *o* teria encontrado
       the buyer not *it* would-have found

measurement of distances between [S[VO]] languages and Slavic, and between Latin, Old and modern French.

Let us turn now to another discriminating trait, namely the *obligatory preverbal subject position* of SVO languages. Actually, this is a type-defining property. The [S[VO]] clause structure implicates an obligatory structural position for the syntactic subject of the clause. This position is outside of, and preceding, the VP. An [S[VO]] clause is ungrammatical when this position is radically empty. This is the case when there is no subject argument available and the position is not filled with an expletive, as in the unacceptable example (4a), contrasting with (4b):

(4) a.*Dimanche 24 mai, a été procédé à l'installation du conseil municipal.
       Sunday 24 may, has been proceeded to the-installation of-the municipal council
    b. Dimanche 24 mai, *il* a été procédé à l'installation du conseil municipal.[32]
       Sunday 24 may, *it* has been proceeded to the-installation of-the municipal council

The limiting case of a subjectless construction is the passive of intransitives. If an intransitive verb is passivized, there is no argument left. So, the subject position must be filled with an expletive (4b) in SVO. In French, the expletive is the 3rd person sg. masc. pronoun. Pronouns falls prey to pro-drop in Romance null-subject languages. Consequently, Romance pro-drop languages cannot and do not passivize intransitive verbs since the expletive must not be a null pronoun[33] (Haider 2019). The same is true for English, for a different reason though. English lacks a suitable expletive since "*it*" as well as "*there*" turn out to be inept (see Haider 2019). In SVO, in contrast to T3, SOV and VSO, the resulting clause structure is ungrammatical without a subject expletive. Czech provides such constructions and the following corpus excerpts (5) are grammatical and acceptable despite the absence of an expletive.[34]

(5) a. *Bylo pracováno* s celkovými koncentracemi.
        was worked with total concentrations
    b. V tomto výzkumu *bylo pracováno* s konceptem statistické významnosti.
        in this research was worked with concept (of) statistical significance
    c. Rozkazu_{Dat.} *bylo uposlechnuto*.
        the order was obeyed
    d. S tím *se počítalo* na příští čtvrtletí[35]
        with that was reckoned for next quarter

Š&J present several unacceptable examples of intransitive passive clauses from Czech and Russian and conclude "*Czech – and this time also Russian – pattern with Italian and Spanish in this respect*." However, this is exactly not what their data show. In Italian and Spanish, the passive of *any* intransitive verb is ungrammatical. This includes cases such as (5a-d) and many others. However, (5a-d) are acceptable and grammatical in Czech. Š&J argue as if we had

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[32] https://www.haut-bocage.fr/2020/election-du-maire-et-des-adjoints/   [Nov. 28, 2021]
[33] Generative literature on "null expletives" is wrong in this respect. It fails to appreciate that intransitive passives are ungrammatical in Romance pro-drop languages exactly because empty expletives are theoretical entities that do not exist in the linguistic reality. See Haider (2019) for details.
[34] The German versions are fully parallel to their Czech counterparts.
    i.   Gearbeitet wurde mit höchsten Konzentrationen.   (= 5a)
    ii. Bei dieser Untersuchung wurde mit dem Konzept der statistischen Signifikanz gearbeitet.   (= 5b)
    iii. Dem Befehl_{Dat.} wurde gehorcht. (= 5c).   iv. Damit wurde gerechnet für das nächste Quartal.   (= 5d)
[35] https://digilib.phil.muni.cz/bitstream/handle/11222.digilib/121938/SpisyFF_246-1983-1_6.pdf?sequence=1

claimed that *any* passivized intransitive verb is fully acceptable in Czech or Russian. This we didn't and we wouldn't, simply because it is wrong, not only for Czech.

What we claim is this: If an intransitive verb is passivized in an [S[VO]] language, the subject position must not remain empty. If it is empty, the result is ungrammatical, as in English, unless an expletive is adduced for filling the obligatory subject position, as in French. In SOV and T3 languages however, there is no obligatory structural subject position, hence no room for a subject expletive. Czech behaves as expected and predicted for a T3 language, and so do other Slavic languages.

The passive of intransitives is not the only source of evidence, of course, but it is the syntactically most straightforward one. There are numerous papers on Czech impersonal constructions (cf. Guiraud-Weber & Kor Chahine 2013) with data such as (6), which have to be analyzed properly (see Szucsich 2006), however. As discussed in detail in Haider (2019:20), unlike expletives, *semantically empty subject arguments* are licit null-subjects in pro-drop languages. The presence of an accusative object in (6) is an indication of the presence of a null subject. So, technically, (6a,b,c) are not subjectless. In the German counterpart (6c), the semantically empty subject "es" (it) is audible. The verbs in (6) are agent verbs with a variant in which the subject argument is not agent but unspecified, that is, semantically empty. Preverbal objects are ungrammatical in prototypical [S[VO]] languages, unless they are wh-moved to a clause initial position.

(6) a. Bratra zabilo.   [Guiraud-Weber & Kor Chahine (2013:12)]
       brother$_{acc}$ killed$_{neut}$ ['(Somebody/something) killed my brother.']
    b. Souseda ranilo.
       neighbor$_{acc}$ injured$_{neut}$
       'The neighbor was injured.'
    c. Plötzlich hat *es* ihn$_{Acc}$ ohne erkennbaren Grund umgeworfen.
       Suddenly has *it* him without noticeable cause knocked-over
       'He suddenly knocked over, without noticeable reason'

Let us finish the data review with a clear-cut case of a subjectless clause, viz. (7a), taken from Guiraud-Weber & Kor Chahine (2013:9). Czech and German share the very same construction, namely a copula construction with a dative plus a nominalized verb in a PP. (7a) translates word by word into German (7b), with the exception of the cliticized negation. Such a construction is inaccessible in an [S[VO]] language since it does not contain a subject and, as German (7b) confirms, there is no (hidden) semantically empty subject involved.

(7) a. Petrovi (ne)bylo do smíchu / řeči / zpěvu.
       Peter$_{dat}$ (neg)was$_{neut}$ PREP laugh$_{gen}$ / talk$_{gen}$ / sing$_{gen}$
       'Peter felt/did not feel like laughing/talking/singing'
    b. Dem Peter war (*es) nicht nach Lachen / Reden / Singen.
       the$_{Dat.}$ Peter was (it) not PREP laughing / talking / singing

Let us summarize the discussion of property (ii). In the Czech sentence structure, a structural subject position is neither obligatorily present nor obligatorily filled. The contrast between Czech and undisputed [S[VO]] languages is clearly demonstrable. Czech behaves as expected & predicted for a T3 language.

Let us turn now to property (v.), viz. the absence of the LLC effect for immediately preverbal adjuncts in T3 languages. We predict that the LLC effect is absent in Czech because the VP does not count as a strictly head-initial VP in a T3 language such as Czech or Russian. Š&J's objection is easy to dismiss. What they present is two sentence pairs, namely their examples (16a,b) and (17a,b), from Czech and from Russian, respectively. They rate one sentence of each pair as ungrammatical. In each case this is a sentence that consists of a noun at the beginning and a verb at the end, with a *single, overlong, center-embedded* phrase as the 'meat' of this syntactic 'hamburger', which can be easily extraposed. We aren't surprised at all that such utterances would be rated less 'palatable' or even unacceptable, in comparison with the extraposed versions. But, we are surprised that this is presented as counter-evidence. Š&J have only shown that utterances are avoided that contain 'very heavy' center-embedded phrases that could be extraposed. But this is not the point. The point is that, *independently of their size*, pre-VP adjuncts must be *head-adjacent* to the VP in languages with strictly head-initial VPs. This is easy to test. The test is not restricted to APs. It is sufficient to adduce head-initial PPs.

A search in three big English corpora[36] confirms the effect of LLC in English (8b,c). The expression "*should more carefully*" is well attested in preverbal position. However, as predicted for a PP, the sequences "*should with care*", "*should with great care*", or "*should with more care*" are absent in these three corpora in the pre-VP position (see Haider 2018). They are frequently found in clause final or clause-initial positions, however. The same is true for French (*très*) *soigneusement* in comparison with *avec* (*grand*) *soin.*

(8) a. She (has) *much more carefully* examined the case
   b.*She (has) *with great care* examined the case
   c.*She (has) *after a few minutes* stopped the examination

It is easy to locate Czech corpus data showing adverbial PPs in immediately preverbal positions (9). Note that for English, the BNC for instance does not contain a single token of "*before midnight*", "*with great care*" or "*with pleasure*" immediately before the verb although more than thousand tokens of each PP can be retrieved from this corpus. In sum, Czech is evidently not subject to the LLC constraint. This is what is predicted if the Czech VP is directionally unconstrained, which is a defining T3 property.

(9) a. Moderní psychologie (...) [*s velkou pečlivostí*] definuje stovky nových termínů (…).[37]
      modern psychology [*with great care*] defines hundreds of new terms
   b. Říkala jsi, že tě Kristvin [*před půlnocí*] opustil, asi kolem jedenácté.[38]
      said you_Nom, that you_Obj. Kristvin [*before midnight*] left, about eleven o'clock.
   c. Rudla [*s radostí*] slyšel o jeho úspěších.[39]
      Rudla [*with pleasure*] heard about his successes.

Eventually, Š&J object to line (vi.) in the table, that is left-branch extractions from noun phrases

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[36] BNC = British National Corpus (100 million: British, 1980s-1993); CocA = Corpus of contemporary American English (520 million: US, 1990-2015); NOW = News on the web (5.2 milliard: Web news, since 2010).

[37] Link:https://www.google.de/books/edition/Malign%C3%AD_onemocn%C4%9Bn%C3%AD_psychika_a_stres/qPYOE-AAAQBAJ?hl=de&gbpv=1&dq=s+velkou+pe%C4%8Dlivost%C3%AD+zkou%C5%A1el&pg=PA134&printsec=frontcover

[38] Link:https://books.google.at/books?id=Ohq2DwAAQBAJ&pg=PT232&lpg=PT232&dq=%22p%C5%99ed+p%C5%AFlnoc%C3%AD+opustil%22&source=bl&ots=TkdxmP8_2p&sig=ACfU3U0cxpObMupulrQvXKpbLhf5na5FvQ&hl=de&sa=X&ved=2ahUKEwj2q4K9tbH0Ah-Voh_0HHVKtBEoQ6AF6BAgQEAM#v=onepage&q=%22p%C5%99ed%20p%C5%AFlnoc%C3%AD%20opustil%22&f=false

[39] Link:https://www.google.de/books/edition/Vzorek_bez_ceny_a_pan_Biskup_aneb_za%C4%8D%C3%A1/54pEAAAA-MAAJ?hl=de&gbpv=1&bsq=%22s+radost%C3%AD+sly%C5%A1el%22&dq=%22s+radost%C3%AD+sly%C5%A1el%22&printsec=frontcover

in preverbal positions.[40] The term 'preverbal' refers to the relevant positions in the clause structure of SVO language. The subject and any item fronted out of the verb phrase are 'preverbal' w.r.t. the base position of the verb in the clause. In [S[VO]] languages, sub-extraction out of an NP or PP is grammatically licit only out of phrases in 'postverbal' positions, that is, VP-internal positions. The 'preverbal' ones are either spec-positions or left-adjoined positions, and the CED constraint blocks extraction out of these position; see Haegeman et als. (2014) for details. We understand, as Š&J explain, that information structure restrictions may account for low frequencies of preverbal extraction sites in typical left branch extractions. Corpus searches, however, show that they exist nevertheless. Here are three specimens:

(10)   a. *Kolik* letos *lidí* onemocnělo v ČR chřipkou?[41]
          how-many this-year *people* got-sick in ČR (with) influenza
       b. *Kolik* letos *lidí* naběhlo podobným podvodníkům?[42]
          how-many this-year *people* headed-into similar fraudsters
       c. Nevím *kolik* tam *lidí* celkem bylo.[43]
          don't-know *how-many* there *people* in-total were

In an SVO clause-structure, patterns like (10) would be ungrammatical and unacceptable under any analysis, which evidently is not the case for Czech. In the T3 analysis, the phrase with the extraction site in (11) is within the licensing domain of the verb. Therefore, transparency for sub-extraction is expected. In (10), the containing phrase is not only preverbal, it is the subject. So, extraction would be a No Go option in an [S[VO]] language.

Šimík himself (2007), by the way, defends an analysis in which left-branch extraction operates on a noun phrase in a preverbal position in Czech. According to this analysis, the particle "to" in (11) is a focus-head, with the extracted wh-item in the spec position.

(11) *Kolik*$_i$ to [--$_i$ *knížek*] jste tam nechali ležet?   Šimík (2007:145)
      how-many TO *books* AUX+you there left lie?

At the end, Š&J's title message – "*There is no single Slavic word order type*" – invites an aside. It notably contrasts with the title of another paper of theirs, viz. "*Slavonic free word order*" (Jasinskaja & Šimík forthc.), referring to the pan-Slavonic word order property.[44] Slavonic free word order is a word order type[45], namely T3, and this type embraces all Slavic languages (except Sorbian). The Slavic word order type characterizes a type of languages with a clause structure of mobile verbal heads without directional licensing restrictions, and the concomitant potential for scrambling, or in other words, it is the T3 type.

In sum, thanks to the issues raised by Š&J, we are content to find ourselves in a comfortable position for concluding on solid empirical grounds that the evidence for classifying Czech as a Type 3 languages is good, and in fact as good as the evidence for other Slavic languages.

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[40] Sub-extraction presupposes that the extraction site and the containing phrase of the site is within the licensing domain of a lexical head. This is the case in T3 languages and in strict OV languages, such as Japanese. See Fukuda et als. (2016).

[41] https://www.novinky.cz/domaci/clanek/epidemie-chripek-konci-druha-vlna-hrozi-az-do-kvetna-284158

[42] https://www.ifauna.cz/okrasne-ptactvo/nemodforum/r/detail/828190/rozela-pestra-modra

[43] https://hlidacipes.org/cesi-a-nato-chceme-spolecnou-obranu-davame-na-ni-ale-malo-prestiz-zachranuji-zahranicni-mise/

[44] "*Another significant property of Slavic languages is their relatively free word order, which generally serves to express functional sentence perspective information rather than grammatical relations.*" Franks (2005: 376).

[45] According to Dryer (2007:113), "*languages with highly flexible word order are themselves a linguistic type.*"

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