What is (im)possible when Tense is not there?

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1.Goals:

- ➢ To illustrate cross-linguistic asymmetries in the availability of VP-ellipsis under the finiteness mismatches and in the distribution of aspect with aspectual tenses, i.e. Aorist and Imperfectum.
- ➢ **Proposal:** TP layer is absent in languages without morphological realization of Tense; parametric variations in the presence or absence of a TP layer can unify the two phenomena and account for the observed cross-linguistic differences.
- ➢ Temporal interpretations can be derived in the absence of TP by means of perfective and imperfective aspect, aspectual component Perfect and a modal component *woll.*
- ➢ To argue that cross-linguistic asymmetries receive a unified explanation under a parametric approach to the presence or absence of TP.
- ➢ To illustrate that, in the absence of TP, temporal interpretations can be derived by the means of aspectual and modal components.
- ➢ To argue that, under a no TP-analysis, we can account for a range of non-deictic interpretations of periphrastic past, Aorist and future forms in Serbian, which are otherwise puzzling under the analysis which posits Tense in the language.
- ➢ To show that traditional classifications of verbal forms are often misleading and to call for their re-examination.

1. VP-ellipsis under finiteness mismatches

1.1   VP-ellipsis in European Portuguese

- ➢ European Portuguese (EP), a V-raising language with rich verbal morphology, allows VP-ellipsis, as in (1).

- ➢ **Finiteness parallelism requirement**: VP-ellipsis is sensitive to finiteness; the antecedent and the target VP need to match in finiteness (see also Cyrino and Matos 2005).

- ➢ If a finite form of the main verb is antecedent to a non-finite form (2), (3), VP-ellipsis is impossible. Finiteness mismatches are not tolerated in EP.

(1)   Ele tinha <u>saído</u>, mas ela não tinha   ~~saído~~.
       he had left   but she not had   left
      'He had left, but Maria hadn't.'   (Cyrino & Matos 2005:88)

(2) *O   João <u>trabalha</u> e   a   Ana também há-de ~~trabalhar~~.
       the João   works   and the Ana also   has-to work
       'João works and Ana also has to work.'   (Cyrino & Matos 2005:93)

(3) *Ela <u>perguntou</u> se alguém <u>lera</u>   o   jornal,   mas ninguém tinha
       she asked   if anybody read$_{PluPerf}$ the newspaper, but nobody   had
       ~~lido o   jornal.~~
        read the newspaper
       'She asked if anybody read the newspaper, but nobody had.'   (Cyrino & Matos 2005:98)

> **Proposal: Finiteness mismatches in EP are not tolerated due to a mismatch in the T feature.**

➢ If a finite verb raises to T in Portuguese (Nunes & Zocca 2009) entering into a feature checking relation with T, and if there is a T feature only with finite forms, then, <u>the feature identity requirement</u> for ellipsis (Merchant 2008, *i.a.*) <u>will not be satisfied</u>, under finiteness mismatches.

➢ **Other languages** patterning with EP: Brazilian Portuguese, Bulgarian, Hungarian, Danish; all these languages have temporal morphology, have <u>TP</u> (see Todorović 2016).

1.2   <u>VP-ellipsis in Serbian</u>

➢ Serbian lacks tense-dedicated morphology. In Serbian, ellipsis of non-finite VPs (both participle and infinitive) is <u>allowed</u> with the corresponding non-finite antecedents:

(4) a. Aca je već   **pobedio**   Anu, ali Ivan nije **pobedio**   Anu/
       Aca is already win.pf.part.masc.sg Ana but Ivan isn't (win.pf.part.masc.sg Ana)/
       neće   **pobediti**   Anu.
       won't (win.pf.inf.   Ana)
      'Aca has already defeated Ana, but Ivan hasn't (defeated Ana)/won't (defeat Ana).'
    b. Aca će **pobediti**   Anu, ali Ivan nije **pobedio**   Anu/
       Aca will win.pf.inf.   Ana but Ivan isn't (win.pf.part.masc.sg Ana)/
       neće   **pobediti**   Anu.
       won't (win.pf.inf. Ana)
       'Aca will defeat Ana, but Ivan hasn't (defeated Ana)/won't (defeat Ana).'

➤   <u>Contrary to EP</u>, finiteness mismatches <u>are allowed</u>. Ellipsis of non-finite VPs is also <u>acceptable</u> with finite antecedents (5).

(5)   Oni ne **pobediše** Mariju, a   ni Petar neće   **pobediti** Mariju/
       they not   win.3pl.aor. Marija and   nor Petar not.will   win.pf.inf. Marija
       a   ni   Petar još nije   **pobedio**   Mariju.
       and nor Petar still not.is win.pf.part.masc.sg   Marija
       'They haven't defeated Marija, and Petar won't either/   and Petar still hasn't either.'

➤   <u>Why is this surprising?</u>: If there is a T feature on the finite form, the featural mismatch is expected to arise and the ellipsis is <u>incorrectly</u> predicted to be <u>impossible</u>.

       <u>No T feature – no mismatch</u>

> **Proposal: Finiteness mismatches in Serbian are tolerated due to the lack the T feature, hence the lack of mismatch in the T-feature.**

➤   More specifically, <u>there are no T features to start with</u>, due to <u>the lack of TP</u> in the language.

➤   <u>If TP were present</u>, finiteness mismatches would be expected to be impossible; <u>there would always be a featural mismatch</u>.

➤   If TP, however, is <u>not</u> present, then there are no T features to cause the mismatch between finite and non-finite forms, explaining why (5) is acceptable in Serbian.

➤   **Other languages** patterning with Serbian: Slovenian, Russian, Polish; all these languages do not have temporal morphology, lack <u>TP</u> (see Todorović 2016).

2. **Serbian**

➤ Serbian has <u>rich verbal morphology</u>. However, despite its richness, <u>no</u> morphemes can be singled out as <u>temporal markers</u>.

➤ Instead, traditional temporal-dedicated morphology actually denotes <u>agreement and aspectual markers</u> (6):

(6)

	Pres. tense *raditi* 'to work'	Aorist *uraditi* 'to do sth completely' (pf.)		Imperfectum *orati* 'to plow' (ipf.)	
1sg	/radi+m/ [radi+m]	/uradi + x + m/	[uradi + x]	/ora+x+m/	[ora+x]
2sg	/radi+ʃ/ [radi+ʃ]	/uradi +x + ʃ/	[uradi + ø]	/ora+x+e/	[ora+ʃ+e]
3sg	/radi+ø/ [radi+ø]	/uradi + x + ø/	[uradi + ø]	/ora+x+e/	[ora+ʃ+e]
1pl	/radi+mo/ [radi+mo]	/uradi + x + mo/	[uradi + s + mo]	/ora+x+mo/	[ora+s+mo]
2pl	/radi+te/ [radi+te]	/uradi + x + te/	[uradi +s + te]	/ora+x+te/	[ora+s+te]
3pl	/radi+e/ [rad+e]	/uradi + x +e/	[uradi + ʃ + e]	/ora+x+u/	[ora+x+u]

➢ Aspectual richness: In addition to aspect being already specified on the root (6), Serbian derives perfective (7), (8) and imperfective interpretations (9) with an array of affixes (contributing both situation (VP-internal) and viewpoint (VP-external) aspectual information (Todorović 2014)).

(7) a. bac**i**ti   b. bac**a**ti
         throw-**pf**.inf   throw-**impf**.inf
(8)   **Pre-**skočio   je potok.
         over-jumped.**pf**.3.m.sg.   is stream.
         'He jumped over the stream.'
(9)   **Iz- po- iz-** bacivao   je sve flaše   iz   kuhinje.   (Milićević 2004:293)
         cmpl-dstr-out-thrown-3.m.sg.**pf**. is all bottles from kitchen
         'He threw out all of the bottles from the kitchen.'
(10) a. iz-baciti   b. iz-baci-**va**-ti
         out-throw-**pf**.inf   *out*-throw-**impf**-inf

➢ In that sense, despite its rich verbal morphology, Serbian patterns with languages that lack overt temporal-dedicated morphology, but use a variety of aspectual markers, e.g. Chinese.

➢ Markers *le* (11) and *gou* (12), and *zai* (13) and *zhe* (14) in Chinese are aspectual. Importantly, even in the absence of temporal morphology, temporal interpretation can be successfully derived.

(11)   Ta da **le**   majiang.   (Smith and Erbaugh 2005:721)
        she play le   mahjong.
        'She played/has played mahjong.'
(12)   Zhangsan chu-**guo**   guo.   (Klein, Li and Hendriks 2000:760)
        Zhangsan leave-guo country
        'Zhangsan has been to other countries.'
(13)   Lisi **zai** chuan yi-jian   qunzi.   (Klein, Li and Hendriks 2000:727)
        Lisi zai put-on one-CL   skirt
        'Lisi is putting on a skirt.'
(14)   Lisi   chuan-**zhe** yi-jian quinzi.   (Klein, Li and Hendriks 2000:727)
        Lisi   wear-zhe   one-cl skirt
        'Lisi wears a skirt.'

➢   <u>Morpological reflex analogy: The category DP can be projected in a language only if articles are morphologically realized in the language </u>(Fukui 1988, Corver 1992, Bošković 2005, 2008, 2012, *i.a.*).

Proposal: TP must be realized by overt temporal morphology, languages without overt temporal morphology lack TP.

➢ Similar claims have been made for: Yukatek Maya (Bohnemeyer 2002), Halkomelem Salish (Wiltschko 2003; cf. Matthewson   2005), Chinese (Lin 2006), Paraguayan Guaraní (Tonhauser 2011), Slovene, Czech, Slovak,   Polish, Serbian (Migdalski 2013), Russian (Jung & Migdalski 2015), Hausa (Mucha 2013), Turkish (Zanon 2014), Korean (Kang 2014); cf. Matthewson (2006) for Lillooet Salish; see also Bošković 2012 for a broader claim (cf. Ritter & Wiltschko 2014).

➢ **No pure temporal morphology – rich aspectual morphology**:
➢ Temporal interpretations can be achieved through either traditional Tense or Aspect, i.e. either traditional tense-dedicated morphology or aspect morphology.

➢ Given the main proposal, absence of temporal morphology in a language leads to rich aspectual morphology, needed to express temporal relations.

Claim: Given the tendency to minimize redundancy, languages with rich aspectual morphology tend not to have pure temporal morphology.

➢   This is indeed the unifying property of the above languages.

➤ <u>Possible correlation with a nominal domain</u>: Assuming cross-linguistic structural differences in the nominal domain, i.e. NP vs. DP, Bošković (2012) suggests that the parametric variations in the nominal domain can have their parallel <u>at the clausal level</u>.

➤ Articless languages lack pure temporal markings, and a number of other TP-related properties (e.g. SOT). If DP is the counterpart of IP, and assuming a parallelism between domains, then, <u>a language that lacks DP would also lack TP</u> (for details on morphological realization of these projections, and further parallelism from e.g. VP-ellipsis, see Todorović 2016).

3. The effects of the presence/absence of TP

<u>3. 1. Aspectual tenses in Serbian and Bulgarian</u>

<u>Aspectual tenses in Serbian</u>

➤ In Serbian, past interpretations are obtained with periphrastic past forms (15). These forms <u>allow for both</u> the imperfective (15a), and the perfective (15b).

(15) a. Jovan je <u>radio</u>   domaći.
            Jovan is done-$_{impf.}$ homework
          'Jovan was writing his homework.'
      b. Jovan je <u>uradio</u>   domaći.
            Jovan is done-$_{pf.}$ homework
          'Jovan wrote up his homework.'

➤ Serbian also makes use of two aspectual tenses:
a) <u>Aorist</u>, which typically denotes punctual and/or completed events and
b) <u>Imperfectum</u>, which describes incompleted, long-lasting or repetitive events. Imperfectum is archaic, but Aorist is still used, e.g. in vivid narration.

➤ <u>Aspectual restrictions</u>: <u>Aorist</u> occurs only with <u>perfective</u> aspect (16a), and <u>Imperfectum</u> only with <u>imperfective</u> aspect (16b).

(16) a. Stiže   / *stiza   Jovan!
       arrive-_{pf.AOR} / *arrive-_{impf.AOR}   Jovan
       'Jovan arrived!'/*'Jovan was arriving!'
    b. Oni pecijahu   / *ispecijahu   hleb.
       they bake-_{impf.IM}/ bake-_{pf.IM}   bread
       'They used to bake bread.'/*'They used to finish baking bread.'

Aspectual restrictions in Bulgarian

➢ Unlike Serbian, Bulgarian has temporal morphology (Scatton 1984). Bulgarian also uses
  Aorist and Imperfectum, but imposes no aspectual restrictions: both Aorist (17) and
  Imperfectum (18) can occur with either imperfective or perfective aspect.

➢ The difference in meaning between the two forms in (17) and (18), respectively, is crucially
  contributed by aspect, e.g. whether the emphasis is placed on the completion, or the lack
  thereof (Scatton 1984).

(17) a. Včera   pročetoh   edna kniga.
       yesterday read-_{pf.AOR.1sg} one   book
       'Yesterday I read a book (and finished it).'
    b. Včera   četoh   edna kniga.
       yesterday read-_{impf.AOR.1.sg} one   book
       'Yesterday I was reading a book.'
(18) a. Sedeše   na čardaka.
       sit-_{impf.IM.1.sg} on verandah
       'He was sitting/ he used to sit on the verandah.'
    b. Večer   sedneše   na čardaka.
       evening sit-_{pf.IM.1.sg}   on verandah
       'In the evening he would sit down on the verandah.'

3.2 Deriving aspectual restrictions

➢ **Proposal**: Restrictions on aspect in aspectual tenses can be accounted for under the
  parametric approach to TP, i.e. TP is absent in Serbian, but present in Bulgarian.

➢ **The lack of restrictions in Bulgarian**:

  Assuming that:

a) the major contribution of <u>perfective and imperfective</u> in (17) and (18) is aspectual, i.e.

  situation (telicity) and viewpoint <u>aspect</u> (boundedness), while the major contribution of

  <u>Aorist and Imperfective</u> is to locate the event in the <u>past</u>, and

b) the <u>temporal</u> component is computed in <u>TP</u> in Bulgarian, and the <u>aspectual</u> one in <u>AspP</u>,

  <u>then</u> nothing in principle prevents the possibility of <u>combining aspectual tenses with</u>

  <u>either aspectual value in Bulgarian</u>, correctly predicting their co-occurrence.

➢ **Restrictions in Serbian**: Due to the absence of Tense, Aorist and Imperfectum are

  <u>aspectualized</u> in Serbian, i.e. they highlight certain aspectual, rather than temporal properties,

  and impose restrictions on the aspectual specifications.

<u>3.2.1 Aorist in Serbian</u>

➢ Aorist highlights the <u>completeness</u> of the event (19a) or <u>punctuality</u> of the event (19b).

(19) a. (Konačno)   <u>napisah</u>   domaći!
          finally   write-1sg.**aor**.   homework
          'I finally finished my homework!'
      b. U tom trenu   ga   <u>odalami</u>   tako   jako...
          in that moment him-cl   slam-3.sg.**aor**   that   strong
          'And then (s)he slammed him with such a force...'

➢ <u>Compatibility with perfectives</u>: Given the meaning of completeness or punctuality that Aorist

  conveys, it can <u>only occur with perfective verbs</u> in Serbian, since only perfectives mark the

  end point of the event and only perfectives occur with instantaneous events.

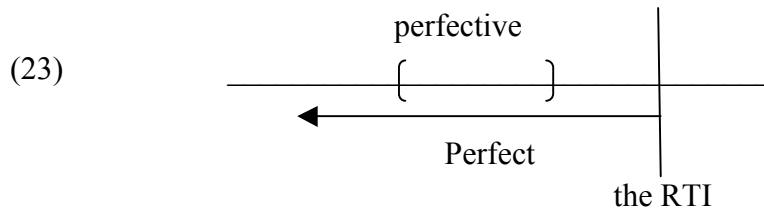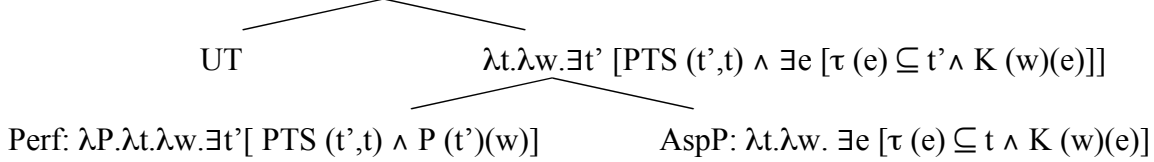<u>3.2.2 Past-orientation of Aorist</u>

➢ In the absence of TP, Aorist could be structurally represented as a <u>two-tiered aspectual</u>

  <u>system</u> (Smith 1991, Pancheva 2003, Pancheva 2013), as in (22):

a) <u>viewpoint aspect</u> specified for perfective (20), and

b) <u>Perfect</u>, a time span that generalizes over time intervals and extends backwards from the

  contextually salient reference time interval (RTI) ((21) à la Iatridou et al. 2001, Pancheva

  2003, 2013). The RTI is <u>the Utterance Time</u> (UT) unless contextually specified otherwise.

(20) Perfective: $\lambda P.\lambda t.\lambda w.\exists e\ [time(e) \subseteq t\ \&\ P(w)(e)]$ (Kratzer 1998)

(21) $[\![PERFECT]\!] = \lambda P.\lambda t.\lambda w.\exists t'\ [PTS(t', t)\ \&\ P(t')\ (w)]$
PTS (t', t) iff t is a final subinterval of t'

(22) $\lambda w.\ \exists t'\ [PTS\ (t',t_c) \wedge \exists e\ [\tau\ (e) \subseteq t' \wedge K\ (w)(e)]]$

UT $\lambda t.\lambda w.\exists t'\ [PTS\ (t',t) \wedge \exists e\ [\tau\ (e) \subseteq t' \wedge K\ (w)(e)]]$

Perf: $\lambda P.\lambda t.\lambda w.\exists t'[\ PTS\ (t',t) \wedge P\ (t')(w)]$ AspP: $\lambda t.\lambda w.\ \exists e\ [\tau\ (e) \subseteq t \wedge K\ (w)(e)]$

(23)

perfective

Perfect

the RTI

3.2.3 Imperfectum in Serbian

➢ Imperfectum is archaic and almost never used nowadays. It can, however, be described as denoting <u>continuity</u>, for instance, by marking a permanent state:

(24) Prizor je bio divan: pod   planinskim vrhovima **prostirahu se**   tamne šume borova...
     sight   is   been gorgeous under mountain   peaks   spread-**IM** SE   dark   forests pine-pl.
     'The view was amazing: endless forests of pine trees were spreading out below the
      mountain peaks...'   (Stanojčić and Popović 1992:384)

➢ <u>Ongoingness</u> or the lack of completion is <u>compatible with</u> the meaning of <u>imperfectives</u>, but <u>not with perfectives</u>, which patterns with the observed aspectual restrictions on Imperfectum.

➢ <u>Past-orientation of Imperfectum</u>: Similarly to Aorist, Imperfectum consists of two aspectual layers, i.e. Perfect and viewpoint aspect, as in (26).

➢ <u>Difference</u>: Viewpoint aspect with Imperfectum forms is specified for the imperfective value:

(25) Imperfective: $\lambda P.\lambda t.\lambda w.\exists e\ [t \subseteq time(e)\ \&\ P(w)(e)]$ (Kratzer 1998)

(26) $\lambda w.\exists t'$ [PTS $(t',t_c) \wedge \exists e$ [$t' \subseteq \tau$ (e) $\wedge$ K (w)(e)]]

UT $\lambda t.\lambda w.\exists t'$ [PTS $(t',t) \wedge \exists e$ [$t' \subseteq \tau$ (e) $\wedge$ K (w)(e)]]

Perf: $\lambda P.\lambda t.\lambda w.\exists t'$[PTS $(t',t) \wedge$ P (t')(w)]   AspP: $\lambda t.\lambda w.\exists e$ [$t \subseteq \tau$ (e) $\wedge$ K (w)(e)]

3.3. Other temporal interpretations in the absence of TP

3.3.1 Periphrastic past

➢ In the absence of TP, a structure similar to (22) and (26) can also refer to periphrastic past with perfective and imperfective verbs, respectively.

➢ <u>Periphrastic past vs. Aorist</u>: Aorist has more connotations, e.g. expressive meaning in sentence-initial position (Halupka-Rešetar & Todorović 2014) or the 'Hot news' Perfect connotations (cf. McCowley 1971), as in (27), which is not necessarily associated with a temporal component (Portner 2003).

(27) <u>Pobediše</u>   ovi   naši!
      win-3.pl.aor   these ours
      'Our team has won!'

3.3.2 Future interpretations

➢ **Proposal:** Future interpretations comprise a modal *woll* component which introduces a time interval <u>extending forward from a contextually salient RTI</u> (28) (cf. backwards-shifting Perfect (21)) (for definitions of *woll* see also Abusch 1985, 1988, Copley 2002, Kaufmann 2005 *i.a.*).

(28) ⟦WOLL⟧ $_{MB}$ = $\lambda P.\lambda w.\lambda t. \forall w'[w \in 'MB(w,t) \rightarrow AT ([t, \_),w',P)]$ (Condoravdi 2002)
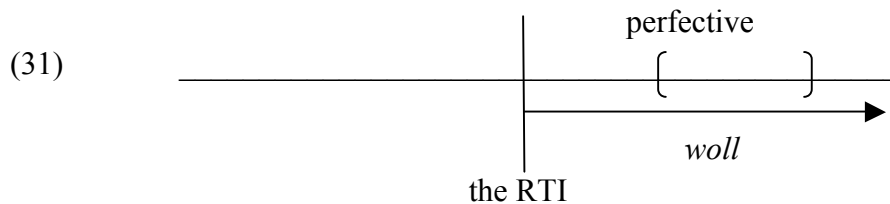
➢ Future perfectives (29b) are computed as in (30); future imperfectives (29a) differ only in the value of viewpoint aspect.

(29) a. Ja ću   pisati   tezu.
         I will-1.sg. write-**impf**.inf   thesis
         'I will be writing my thesis.'
     b. Ja ću   u nekom trenu   napisati   tezu.
         I will-1.sg. in some   moment   write-**pf**.inf. thesis
         'I will have finished my thesis by some point.'

(30) $\lambda w. \forall w' [w' \in MB (w,t_c) \rightarrow \exists e [\tau (e) \subseteq [t_c, \_) \wedge K (w')(e)]$

UT $\lambda t. \lambda w. \forall w' [w' \in MB (w,t) \rightarrow \exists e [\tau (e) \subseteq [t, \_) \wedge K(w')(e)]$

woll$_{MB}$:$\lambda P.\lambda t.\lambda w. \forall w'[w' \in MB(w,t) \rightarrow P([t, \_) (w')]]$ AspP: $\lambda t''.\lambda w''.\exists e [\tau(e) \subseteq t'' \wedge K (w'')(e)]$

(31)

perfective / woll / the RTI

3.4   Relative interpretations of Perfect and *woll*

➢ **Prediction of a TP-less approach**: If Perfect and *woll* are non-deictic components, i.e. not strictly anchored to the UT, unlike Tense (Klein 1994, *i.a.*), then forms containing them should have relative interpretation, i.e. not strictly past or future. This is borne out.

➢   **Future-in-the-past**: certain embedded clauses

(32)   Jovan je onomad   rekao da **će**   **doći** u julu. Sad je avgust, a njega ni   od korova.
        Jovan is back.then said that will come in July now is August and him not.even from weed
        'Jovan said back then that he would come in July. It's August and he's nowhere to be found.'

➢ **Perfect-in-the-future**: when- and if-clauses, and matrix clauses
(33) Context: I am asking you to go around Serbia and visit your friends.
          Kad si   **stigla**   u Beograd,   javi se Dragani.
          when are-2.sg. arrived   in Belgrade, call SE Dragana
          'When you arrive to Belgrade, call Dragana.'
(34)   Context: You are starting to work today.
          Za pola godine, ako **si**   dobro   **poslovala**, dobićes   povišicu.
          for half year   if are-2sg. well   operated   get.will-2sg raise
          'In half a year, if you have worked well, you will get a raise.'

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(35)   Ako nas   uhvate,   **nastradali smo**.   (Riđanović 2012:309)
          if   us.cl catch-3.pl.pres. suffered   are
          'If they catch us, we've had it.'

(36)   **Propao   sam**!   (Riđanović 2012:309)
         fell.through am
         'I'm doomed!'

➢ **Relative interpretations of Aorist** (see also Arsenijević 2013):

➢ Future interpretations:

(37)   Ako   ne budemo odlučni, **propadoše**   nam svi planovi.   (Riđanović 2012:317)
         if   not be   decisive fall.through –**aor**.3.pl we-acc. all plans
          'If we are not decisive, all our plans will fall through.'

(38)   Ako   **pođoh, nagledah**   se jada...   (Stanojčić and Popović 1992:384)
         if   go-**aor**.1.sg. see-**aor**.1.sg SE sorrow
         'If I go, I will witness all the suffering...'

(39)   Nema   nam   spasa,   **pomrijesmo** od   gladi!   (Riđanović 2012:317)
          not.have-3.sg. we-acc. salvation die-**aor**.1.pl from hunger
          'We can't be saved – we will starve to death.'

➢ Habitual interpretations:

(40)   Ne diraj   mi   kompjuter – ti   **pokvari**   sve što dotakneš.
           not touch I-dat. computer   you break-**aor**.2.sg all that touch-pres.2.sg.
           'Don't touch my computer, you break everything you handle!'   (Riđanović 2012:316)

4. The Utterance Time interpretations

➢ In Serbian, eventive predicates that occur with <u>morphological present tense</u> and which denote

   events that overlap temporally with the UT are <u>compatible with imperfective aspect</u> (41a), but

   <u>incompatible with perfective aspect</u> (41b).

(41) a. Milan   jede   jabuku.
         Milan   eats-**impf**. apple
          'Milan is eating an apple right now.'
       b. *Milan   pojede   jabuku.
          Milan   eats-**pf**. apple
          Intended interpretation: 'Milan has eaten an apple (just now).'

➢   Imperfectives:

(42) $\lambda w.\exists e\ [t_c \subseteq \tau\ (e) \wedge K\ (w)(e)]$

      UT   AspP: $\lambda t.\ \lambda w.\exists e\ [t \subseteq \tau\ (e) \wedge K\ (w)(e)]$

         Asp: $\lambda P.\lambda t.\ \lambda w.\exists e\ [t \subseteq \tau\ (e) \wedge P\ (w)(e)]$ $\lambda w.\ \lambda e.\ K(w)(e)$

➢ Incompatibility with perfectives: The aspectual restrictions in Serbian follow from the incompatibility of perfective viewpoint aspect and the domain above aspect (2015, Todorović and Wurmbrand 2015, and Wurmbrand 2014 for English).

➢ In (41b), with perfective aspect value, aspect would need to locate the event with respect to the RTI, i.e. the UT.

➢ If perfective aspect requires inclusion of the event within the RTI (cf. (20)), and if the UT is a relatively short interval (Giorgi & Pianesi 1997 *i.a.*), then perfective cannot be included within such a short interval (43), and the event cannot be temporally located; perfective is correctly excluded in (41b).

(43)

      UT   AspP: $\lambda t.\ \lambda w.\exists e\ [t \subseteq \tau\ (e) \wedge K\ (w)(e)]$

    Asp: $\lambda P.\lambda t.\ \lambda w.\exists e\ [\tau(e) \subseteq t \wedge P\ (w)(e)]$ $\lambda w.\lambda e.\ K\ (w)(e)$

➢ Note: Aorist cannot receive the interpretation where the event is completed at the UT, which is compatible with the constraints on perfective aspect in Serbian:

(44) Evo dođe   struja!   (Riđanović 2012:316)
      here come-**aor**.3.sg electricity
      'Power is on again!'
a)   it has been on for couple of seconds/minutes now
b) *lights are turning on as we speak

5. Further motivation for re-examination of verbal labels

➢ Aorist and Imperfectum, although used in Bulgarian and (to some extent) in Serbian, are not used in Slovenian, Polish or Russian (all these languages lack TP (Todorović 2016)).

➢ For obtaining past interpretations, these languages make use of participles.

<u>Slovenian</u>

➢ In Slovenian, past interpretations are obtained by a periphrastic form – Aux + participle.

(45)   Miha   je   <u>udaril</u>   Ano.
         Miha   is   hit-part.   Ana
         'Miha hit Ana.'

➢ <u>Non-past orientation of participles</u>: Participles are also used for obtaining future interpretations (46). Migdalski (2013) takes this as an indication that participle is not specified for past tense in Slovenian (and more generally in Slavic languages).

(46) Vsi   bodo   <u>dosegli</u>   svoj   cilj.   (Franks & King 2000:33)
     everyone be.pfv.1sg reach.part.pl self's   goal
     'Everyone will reach his/her goal.'

➢ Similar non-past uses of participles are observed in Russian (antecedents of conditionals, regardless of their temporal orientation) and Polish (future-interpretations).

➢ <u>Re-examination of traditional verbal labels</u>: The lack of obligatory past-orientation of traditional past participles in Slavic, and the different semantic properties of Aorist and Imperfectum in Serbian and Bulgarian call for re-examination of traditional verbal labels.

6. Conclusion

➢ The lack of overt temporal morphology in a language has a reflex in the absence of the structural part directly related to temporal properties, i.e. TP.

➢ <u>The parametric approach to TP</u> provides a <u>a systematic explanation</u> for cross-linguistic differences in aspectual distribution in so-called aspectual tenses, Aorist and Imperfectum.

➢ In the absence of TP, temporal interpretations in Serbian can be <u>derived</u> by the means of perfective and imperfective aspect, as well as the aspectual component Perfect and a *woll* component. Moreover, the absence of Tense in the language captures a range of available <u>non-deictic interpretations</u>.

➢ Semantic properties of Aorist, Imperfectum and participles in Slavic indicate that very often <u>traditional labels</u> are misleading and <u>should be re-examined.</u>

7. Appendix

7.1   Relative interpretations of morphological present

➢ **Prediction of a TP-less approach**: If morphological present forms do not contain Tense which would strictly anchor them to the UT, then these forms should also have relative interpretation. This is <u>borne out</u> (see also Todorović to appear and Todorović and Wurmbrand 2015).

Future orientation

(1)   Da   ti   se   sve   želje   ostvare!
       DA   you.dat   SE   all   wishes come.true.3.pl.pres
       'May all your wishes come true!'
(2)   Kupujem   kuću   sutra.
       buy-1.sg.pres.impfv.   house   tomorrow
       'I am buying a house tomorrow.'
(3)   Da   Vesna pročita   ovu knjigu?
       DA   Vesna read.3.sg.pres   this book
       'Should Vesna read this book?'   [Vrzić 1996: 292: (2a)]
(4)   Odlučila   sam   da sutra   popodne prevedem   pesmu.
       decided.sg.fem   am   DA tomorrow   afternoon translate.1sg.pres.pfv.   poem
       'I decided to translate the (entire) poem tomorrow afternoon.'

Simultaneous (non-UT) interpretation

(5)   Pre pet godina,   Marija   je   tvrdila da je   trudna.
       before five years,   Marija   is   claimed DA is   pregnant
       'Five years ago, Marija claimed that she was pregnant.'
(6)   Jovan   je   tvrdio   da   <u>čita</u>   knjigu.
       Jovan   is   claimed DA   read.3.sg.pres.impfv.   book
       'Jovan claimed to be reading the book.'
(7)   Pokušala   sam   juče   da   <u>prevedem</u>   pesmu.
       tried.sg.fem   am   yesterday   DA   translate.1.sg.pres.pfv.   poem
       'I tried to translate the (entire) poem yesterday.'

7.2   Potential counter-examples as additional evidence of aspectual nature of Aorist

➢ **Aorist + imperfective**: Although severely limited, some examples of Aorist + imperfective are listed in traditional grammars (e.g. Stanojčić and Popović 1992).

➢ <u>Imperfect, rather than Aorist</u>: The listed examples all occur <u>in first person singular;</u> <u>the difference</u> between Aorist and Imperfect: <u>only one vowel</u>, i.e. –o for Aorist and –a/ –i for Imperfect (depending on the final vowel of the stem), as in (7).

➢ In the second or third person singular form, <u>the difference</u> in the morphological output between Aorist and Imperfectum becomes <u>more striking</u>.

➢ With certain verbs, second and third person singular form of <u>Aorist + imperfective</u> is <u>ungrammatical,</u> as in (8); thus, such apparent examples of aspectually unrestricted Aorist cannot be obtained.

(7) <u>Aorist</u> for *doći*-pfv. 'to arrive'   <u>Imperfectum</u>   for *raditi*-impfv. 'to work'
  sg.   pl.   sg.   pl.
1. dođ**o**h   1. dođosmo   1.rad**i**h   1. radijasmo
2. dođe   2. dođoste   2.radiše   2. radijaše
3.dođe   3. dođoše   3.radiše   3. radijahu

(8)   <u>Aorist + imperfective</u>:
        2.sg, 3.sg : *radi   (*raditi*-impfv. 'to work')

➢ <u>More plausible candidates</u> for licit Aorist + imperfective combination: *čitati* 'to read'.

➢ First person singular in both Aorist and Imperfectum has <u>the same form</u>, as in (9).

➢ To the extent that second and third person singular forms or Aorist in (9) are grammatical
  for some speakers, an account of their distribution is required.

(9) <u>Aorist</u> for čitati 'to read'
        sg.   pl.
   1.čitah   1. čitasmo
   2.**čita**   2. čitaste
   3.**čita**   3. čitaše

     <u>Imperfectum</u> for čitati 'to read'
        sg.   pl.
   1. čitah   1. čitasmo
   2.čitaše   2. čitaste
   3. čitaše   3. čitaše

➢ **Perfective interpretation**: Even when a seemingly imperfective verb derives Aorist, it is imposed a perfective interpretation, i.e. it is essentially imperfective semantically. In (10), the emphasis is placed on the completion of the event of reading.

(10) Do   ovog časa   čitah   ovu zanimljivu knjigu.
     until this hour   read-1.sg.**aor.impfv**. this interesting book
     'Until this moment, I was reading this interesting book.'
     (Stanojčić and Popović 1992:383)

➤ Striking similarity to aspect stacking in Serbian: In Serbian a verb marked for, e.g.

imperfective aspect can be perfectivized, and, further turned, by means of an affix, into an

imperfective verb, as in (11).

(11) pričati   – pre**PFV**-pričati   – pre**PFV**-priča-va**IMPFV**-ti
      'to tell'-inf.**impfv**.   to-retell-inf.**pfv**   to retell-**impfv**.

➤ Only aspect has this ability – Tense can never change aspectual properties of the

predicate, leaving them intact.

➤ Given that Aorist actually can do what is classified as an aspect-unique property, this

provides another argument for **Aorist being an aspect, rather than Tense in Serbian** (for

similar ideas, see also Arsenijević 2013).

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