

Role of Aspect in VP-Ellipsis in Serbian: Phase-Governed Approach

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1 Introduction

This paper derives the fact that VP-ellipsis in Serbian is sensitive to aspectual specification of the antecedent and the target, i.e., it is allowed only with certain aspectual mismatches between the antecedent and the target VP. I propose that the apparent unsystematic discrepancies in the availability of VP-ellipsis in Serbian can be accounted for under a phase-governed approach to ellipsis, whereby only phases and phasal complements can be elided, as argued in Bošković (2014). However, I argue that VP-ellipsis in Serbian is even more constrained in that, beside the phasal status of the target, the phasal status of the antecedent also matters. More specifically, general parallelism requirement on ellipsis extends to the parallelism in terms of phasal status between the antecedent and the target, i.e., either both are phases or both are phasal complements.

One interesting puzzle discussed in the paper refers to ellipsis of secondary imperfective VPs, i.e., imperfectives derived by adding a suffix *-va* to the perfective stem, as in (1). As shown in (2a) and (2b), imperfective VPs can be elided with a perfective antecedent they are derived from. These configurations seem to pose a problem for the above approach since there is no corresponding antecedent, i.e., the target projects more structure than the antecedent. Furthermore, there is an issue of recoverability, i.e., the inability to reconstruct the missing material, since there seems to be no structure in the antecedent that can help recover the interpretation of the elided material. I show that these two issues are only apparent – the target does not contain more structure than the antecedent, and the local environment helps obtain the necessary information.

- (1) pobediti – pobedji-va_{IMPF}-ti
win-inf.**pf** win-inf.**impf**
- (2) a. Iva je ovog puta pobedio Ana, a Aca je redovno ?? ~~pobedivao Ana~~ /
Iva is this time won-**pf**. Ana and Aca is regularly won-**impf**. Ana/
će uvek ?~~pobedivati Ana~~.
will always win-**impf**. Ana
'Iva has defeated Ana this time, while Aca was regularly/will regularly be (defeating Ana)'
- b. Aca ponekad izbacila smeće, a Ana je redovno ?? ~~izbacivala smeće~~ /
Aca sometimes out.throws-**pf**. trash, and Ana is regularly out.thrown-**impf**. trash/
će redovno ?? ~~izbacivati smeće~~
will regularly out.throw-**impf**. trash
'Aca sometimes takes out the trash, while Ana was always/will always be taking out the trash'

2 The Effects of Aspect on the Availability of VP-ellipsis in Serbian

Stjepanović (1997) discusses the role of finiteness in the availability of VP-ellipsis in Serbian. What has not been noticed thus far, however, is that VP-ellipsis in Serbian is aspect-sensitive, i.e., certain aspectual specifications of the antecedent and the elided VP allow for it, whereas others disallow it. More precisely, VP-ellipsis is disallowed when the target is root perfective, i.e., a verbal form whose aspectual value is specified in the verbal root (3a), while the antecedent is a derived perfective, i.e., a prefixed verbal form, where the prefix is added to the perfective stem (3b). This is illustrated in (4a) for non-finite, and in (4b) for finite antecedents.¹

- (3) a. baciti b. **iz-** baciti
throw-**pf**.inf out-throw.**pf**.inf
'to throw' 'to throw out'

¹Most examples include only non-finite antecedents; finite antecedents equally (dis)allow ellipsis of non-finite VPs. This is a problem for Stjepanović (1997) who argues that only the former allow for ellipsis of non-finite target VPs (see Todorović (to appear) for the interaction of aspect and finiteness).

- (4) a. *Aca je u petak iz-bacio flaše, a Ana je u sredu
 Aca is in Friday *out-thrown*.**pf.** bottles and Ana is in Wednesday
~~bacila~~—~~flaše~~ / će u sredu ~~baciti~~—~~flaše~~.
 thrown-**pf.** bottles / will in Wednesday throw-**pf.inf** bottles
 ‘Aca threw the bottles out on Friday, while Ana threw the bottles away on
 Wednesday/ will throw the bottles away on Wednesday’
- b. *Aca svakog petka iz-baci flaše, a Ana je u sredu
 Aca every Friday *out-throws*.**pf.** bottles and Ana is in Wednesday
~~bacila~~—~~flaše~~ / će u sredu ~~baciti~~—~~flaše~~.
 thrown-**pf.** bottles / will in Wednesday throw-**pf.inf** bottles
 ‘Aca throws the bottles out every Friday, while Ana threw the bottles away on
 Wednesday/ will throw the bottles away on Wednesday’

On the other hand, VP-ellipsis is allowed when the target is derived perfective (5a) or root perfective (5b), and the antecedent is the imperfective counterpart of the perfective target.

- (5) a. Aca je redovno iz-baci-va-o flaše, a Ana je jedanput
 Aca is regularly *out-throw*-**impf**-part. bottles and Ana is once
 iz-bacila—flaše / će ovaj put iz-baciti—flaše.
 out-thrown.**pf.** bottles/ will this time *out-throw*.**pf.inf** bottles
 ‘Aca was throwing the bottles out regularly, while Ana has (thrown the bottles out)
 once/ will (throw the bottles out) this time’
- b. Aca je redovno pobeđivao Anu, a Iva je jedanput ~~pobedio~~—~~Anu~~/
 Aca is regularly won-**impf.** Ana and Iva is once (won-**pf.** Ana)/
 će ovaj put ~~pobediti~~—~~Anu~~.
 will this time (win-**pf.** Ana)
 ‘Aca has always been defeating Ana, while Iva has defeated Ana once/ will defeat Ana
 this time’

The aim is thus to account for the discrepancies in the availability of VP ellipsis in (4) and (5). In section 3, I briefly discuss the nature of aspect in Serbian. In section 4, I illustrate a phase-constrained approach to ellipsis, which, provides a systematic explanation for the above discrepancies in section 5. Section 6 deals with ellipsis of seemingly problematic secondary imperfective VPs. Section 7 concludes the paper.

3 Nature of Aspect: Situation vs. Viewpoint Aspect

Based on the semantic contribution, there are two types of aspect: a) lexical, situation aspect or *Aktionsart* which distinguishes between telic and atelic predicates, i.e., between predicates that have and those that do not have an inherent endpoint; b) grammatical viewpoint aspect which refers to viewing the situation as bounded, i.e., from the outside, seeing its beginning and end, or viewing it as unbounded, i.e., seeing its internal structure. Two types of aspect are argued to be structurally different; situation aspect is argued to be within the VP (Travis 2010, cf. Marantz 2001, 2007 *i.a.*), while viewpoint aspect is argued to be in AspP (See Pancheva 2003, Travis 2010, Wurmbrand to appear *i.a.*). I propose that in Serbian, both situation and viewpoint aspect exist, but their syntax (VP-internal vs. external aspect, cf. Travis 2010) and semantics (telicity vs. boundedness, cf. Borik and Reinhart 2004, Travis 2010, Todorović 2013 *i.a.*) are different.

3.1.1 Derived Aspectual Forms

In addition to perfectivity being specified in the root, Serbian makes use of prefixes that derive perfectivity. One group of those prefixes changes lexical properties of verbs, contributing idiosyncratic meanings, and sometimes affecting the thematic structure of the verb (Milićević 2004). In (6b), the prefix *iz-/is-*, added to the stem *skočiti* ‘to jump-pf.’, requires an NP argument, unlike (6a). I refer to these as lexical prefixes, and the form derived by prefixation as derived perfective.

- (6) a. *Skočio* je. b. *Pre-skočio* je potok.
 jumped-**pf**.3.m.sg. is over-jumped.**pf**.3.m.sg. is stream.
 ‘He has jumped.’ ‘He jumped over the stream.’

Given that lexical prefixes affect the thematic structure and derive a lexically novel verb, Milićević (2004) argues that they are markers of situation aspect (See also Borer 2005; cf. Filip 2001, 2003, Svenonius 2004 *i.a.*). Assuming situation aspect is VP-internal, I propose that derived perfectives introduce an additional VP projection on the top of a VP containing root perfective:

- (7) [_{VP2} derived pf. [_{VP1} root pf.]

Another derived form is secondary imperfective, the imperfective form derived by suffixation of the perfective stem, as in (8) (see Milićević 2004; see also Forsyth 1970, Filip 2000, *i.a.* for illustrations and accounts of secondary imperfective in other Slavic languages).

- (8) *kupi-ti* – *kupo-va-ti*
 buy.**pf**-inf. buy-**impf**-inf.

Secondary imperfective has been classified in the higher domain, the domain of viewpoint aspect (Borer 2005; cf. Filip 2000, Svenonius 2004 *i.a.*). In Serbian, secondary imperfective does not affect the telicity of the event, and it does not change the lexical properties of the verb; it only changes the boundedness of the event ((9) vs. (10)), and it interacts with Tense, affecting the availability of morphological present tense with the Utterance Time interpretation (Todorović 2013) ((11) vs. (12)). Given the above properties, I propose that secondary imperfective is exclusively a marker of viewpoint aspect in Serbian (See also Milićević 2004). Secondary imperfective as a viewpoint aspect is standardly assumed to be in the AspP (cf. Svenonius 2004, Borer 2005, Travis 2010 *i.a.*), so I assume the structure in (13).²

- (9) *Jovan je u kontinuitetu pobedjivao* protivnika.
 Jovan is in continuity won-**impfv**. rival
 ‘Jovan was continuously defeating his rival’
 (10) *Jovan je tom prilikom pobedio* protivnika.
 Jovan is that occasion won-**pfv**. rival
 ‘Jovan defeated his rival then’
 (11) **Jovan prepriča* knjigu Marku.
 Jovan retells-**pfv**. book Marko
 ‘Jovan has retold a book to Marko (just now)’
 (12) *Jovan prepričava* knjigu Marku.
 Jovan retells-**impfv**. book Marko
 ‘Jovan is retelling a book to Marko (right now)’
 (13) [_{AspP} sec. impf. [_{VP2} derived pf. [_{VP1} root pf.]]]
izbacivati ‘to throw out’ –impf.

4 Phase-Constrained Approach to Ellipsis

Under a phase-constrained approach to ellipsis in Bošković (2014), the elided material must be either phasal complement or full phase. The availability of ellipsis of phasal complements has extensively been argued for (see Gengel 2006, Boeckx 2009, Gallego 2009, van Craenenbroeck 2010, Rouveret 2012 *i.a.*), one the arguments being sluicing, i.e., IP ellipsis of the complement of C, a phasal head (See Merchant 2001, van Craenenbroeck 2010 *i.a.*):

- (14) John bought something, but I don’t know [_{CP} what [_{TP} ~~John bought~~]]. (Merchant 2001)

²Note that secondary imperfective can also be added to the root perfective stem, in which case I assume nothing changes– it is still located in AspP: [_{AspP} sec. impf. [_{VP} root pf.]].

Regarding the ellipsis of full phases (see also Holmberg 2001), argument ellipsis, allowed in Japanese, Korean, Turkish, Chinese *i.a.* (see Şener and Takahashi 2010, D., Takahashi 2008a,b, 2010 *i.a.*), is standardly taken to target full phases, e.g., CP in (15) in Japanese.

- (15) Hanako-wa [_{CP} zibun-no teian-ga saiyoosareru to] omotteiru ga,
 Hanako-top self-gen proposal-nom accepted-be that think though
 Taroo-wa _____ omotte inai.
 Taroo-top think not
 ‘Hanako_i thinks that her_i proposal will be accepted, but Taroo_j does not think that her_i/his_j proposal will be accepted.’ Shinohara (2006)

Bošković (2014) notes there are discrepancies in the availability of extraction out of an ellipsis site: extraction is acceptable out of elided phasal complements, as in the case of sluicing, but not out of elided phases, as in the case of argument ellipsis. He also shows that otherwise puzzling VP-ellipsis facts in multiple auxiliaries in English in (16) can be accounted for under the approach where both phasal complements and phases can be elided. Assuming contextual approach to phasehood (e.g., Bobaljik and Wurmbrand 2005, 2013, Bošković 2005, 2013, 2014, den Dikken 2007, Gallego and Uriagereka 2007 *i.a.*), in particular a version of Bošković (2014) where the highest projection in the extended domain of a lexical projection is a phase, he argues that AspP₁ is a phase in (16), and only AspP₁ and VPf₂ can be elided ((16a, 16b); crucially, VP cannot (16c).

- (16) Betsy has been being hassled by the police, and Peter
 a. has too.
 b. has been too.
 c. *has been being too. (Sag 1976)
 [_{TP} Peter_k has_i [_{VPf1} t_i [_{AspectP1} be_j+en [_{VPf2} t_j [_{AspectP2} ing [_{VPf3} be [_{VP} hassled t_k by the police]]]]]]]]]

Regarding VP-ellipsis in Serbian, I follow Bošković’s (2014) proposal that both phasal complements and phases are domains eligible for ellipsis. However, I argue that VP-ellipsis in Serbian is even more constrained in that, beside the phasal status of the target, the phasal status of the antecedent also matters. More specifically, I propose that general parallelism requirement on ellipsis extends to the parallelism in terms of phasal status between the antecedent and the target, i.e., a target needs to have the same phasal status as its strict aspectual antecedent (17), i.e., either both are phasal complements or both are phases.

- (17) A strict aspectual antecedent is part of a VP antecedent that completely matches a VP target in terms of aspectual properties, both lexical and functional.

In terms of a phasal status within the VP domain in Serbian, I adopt the assumption that highest phrase is a phase (Bošković 2013, 2014, Wurmbrand (2013, to appear)).^{3,4} Contextuality of this approach lies in the level of the structure projected both cross-linguistically, but also within a language, affecting which particular phrase within a major category domain will count as a phase. Regarding phasehood within a VP in Serbian, assuming the highest VP in a series of VPs is a phase (Bošković 2014), a VP containing root perfective is a phase, as in (18a). Moreover, assuming that lexical prefixes, as markers of situation aspect, are located within the VP-domain, projecting an additional VP on the top of the root perfective VP, and closing the VP domain, only these higher VPs will count as phases, as in (18b).

³For these authors, the highest projection in the extended domain of all major categories is a phase.

⁴Under my analysis, the highest projection in the VP-domain differs from the proposal in Grimshaw (1991), where the verbal domain extends all the way up to the CP. Bošković (2014), Wurmbrand (2013, to appear), place pure temporal projections (and CP) outside the extended domain of VP. I propose that, both purely functional temporal projections, and viewpoint aspectual projections are outside of the extended VP-domain.

- (18) a. [_{VP=phase} root pf. *baciti* ‘to throw’-pf. b. [_{VP2=phase} derived pf. [_{VP1} root pf. *iz-baciti* ‘to throw out’-pf.

Finally, I propose that, due to both functional and lexical nature of aspects in Serbian, situational aspect is within the VP domain, whereas viewpoint aspect in AspP, is part of a different phasal domain, i.e., outside of the VP phasal domain.

- (19) [_{AsPP} sec. impf. [_{VP=phase} derived pf. [_{VP} root pf. *izbacivati* ‘to throw out’-impf.

5 Deriving VP-Ellipsis under Aspectual Mismatches

5.1 Different Viewpoint Aspect of Antecedent and Target

With secondary imperfectives as antecedents, derived perfective targets can be elided (cf. (5)):

- (20) Aca je redovno *iz-baci-va-o* flaše, a Ana je jedanput
 Aca is regularly *out-throw-impf-part.* bottles and Ana is once
~~*iz-bacila*~~ ~~*flaše*~~ / *će* ovaj put ~~*iz-baciti*~~ ~~*flaše*~~.
out-thrown.pf bottles/ will this time *out-throw.pf.inf* bottles
 ‘Aca was throwing the bottles out regularly, while Ana has (thrown the bottles
 out) once/ will (throw the bottles out) this time’

Ellipsis in (20) is available due to identical phasal status of the target and its strict aspectual antecedent: the target is a phase, VP₂ being the highest projection in the VP domain, and its strict aspectual antecedent VP₂ is also a phase, since viewpoint and situational aspect are parts of two separate phasal domains (AspP is a part of a phase outside of a VP), viewpoint aspect not affecting the phasal status of VP₂ in the antecedent. The ellipsis is correctly predicted to be available.

- (21) Target: [_{VP2=phase} ~~derived pf.~~ [_{VP1} ~~root pf.~~ *iz-baciti* ‘to throw out’-pf.
 Antecedent: [_{AsPP} sec. impf. [_{VP2=phase} derived pf. [_{VP1} root pf. *iz-baci-va-ti* ‘to throw out’-impf.

Regarding secondary imperfective antecedents, we further predict that, when formed from derived perfectives, they cannot be felicitous antecedents to root perfectives. The reason is the lack of parallelism in terms of phasal status. Namely, the target is a phase (22), since VP containing root perfective closes the VP domain. Its strict aspectual antecedent, i.e., VP₁ is a complement of a phasal head, given that there is an additional VP (VP₂) in the antecedent, introducing derived perfective, and closing the VP phasal domain. Ellipsis is correctly predicted to be unavailable (23):

- (22) Target: [_{VP=phase} ~~root pf.~~ Antecedent: [_{AsPP} sec. impf. [_{VP2=phase} derived pf. [_{VP1≠phase} root pf. *baciti* ‘to throw’-pf. *iz-baci-va-ti* ‘to throw out’-impf.

- (23) *Aca je redovno *iz-baci-va-o* flaše, a Ana je jedanput
 Aca is regularly *out-thrown-impf-part.* bottles and Ana is once
~~*bacila*~~ ~~*flaše*~~ / *će* ovaj put ~~*baci-ti*~~ ~~*flaše*~~.
thrown-pf. bottles/ will this time *throw-pf.inf* bottles
 ‘Aca was throwing the bottles out regularly, while Ana has (thrown the bottles away)
 once/ will (throw the bottles away) this time’

Conversely, secondary imperfectives formed by suffixation of root perfectives, as in (24), allow for ellipsis of root perfectives. Contrary to (22), the target and its strict aspectual antecedent have identical phasal status, as in (25). The target is a phase: VP containing root perfective closes the VP domain. Its strict aspectual antecedent, i.e., VP is also a phase, assuming secondary imperfective is in an independent phasal domain. Ellipsis is correctly predicted to be available (26).

- (24) [_{AspP} sec. impf. [_{VP} root pf. *pobeđivati* ‘to win’ –impf.
 (25) Target: [_{VP=phase} root pf. Antecedent: [_{AspP} sec. impf. [_{VP=phase} root pf.
 pobediti ‘to win’ –pf. *pobeđivati* ‘to win’ –impf.
 (26) Aca je uvek pobeđi-va-o Anu, a Iva je jedanput ~~pobedio~~ Anu/ će ovaj put ~~pobediti~~ Anu.
 Aca is always win-**impf**-part. Ana and Iva is once won-**pf**. Ana/will this time win-**pf.inf**Ana
 ‘Aca has always been defeating Ana, while Iva has (defeated Ana) once/ will (defeat Ana) this
 time.’

5.2 Same Viewpoint Aspect of the Antecedent and the Target, Different Situation Aspect

Further, we can account for the lack of ellipsis of root perfectives with lexical perfectives (cf. (4)):

- (27) *Aca je u petak iz-bacio flaše, a Ana je u sredu
 Aca is on Friday *out-thrown-pf*. bottles and Ana is in Wednesday
~~bacila~~ ~~flaše~~ / će u sredu ~~baciti~~ ~~flaše~~.
 thrown-**pf**. bottles/ will in Wednesday throw-**pf.inf** bottles
 ‘Aca threw the bottles out on Friday, while Ana threw the bottles away on
 Wednesday/ will throw the bottles away on Wednesday’

In (27), there is a lack of phasal identity between the target and its strict aspectual antecedent. As shown in (28), the target is a phase, i.e., VP containing root perfective closes the VP domain. Its strict aspectual antecedent, i.e., VP₁, is a complement of a phasal head, since there is an additional VP (VP₂) in the antecedent, introducing derived perfective specification and closing the VP phasal domain. Ellipsis is correctly predicted to be unavailable.

- (28) Target: [_{VP=phase} root pf. Antecedent: [_{VP₂=phase} derived pf. [_{VP₁≠phase} root pf.
 baciti ‘to throw’–pf. *iz- baciti* ‘to throw out’–pf.

As an interim summary, VP-ellipsis is available with aspectual mismatches if the requirement of identity in terms of phasal status is satisfied. Thus, secondary imperfectives allow for the ellipsis of perfective targets if the additional structure in the antecedent does not affect the phasal status of the strict aspectual antecedent, i.e., provided there is no derived perfective otherwise absent in the target. On the other hand, derived perfectives are never felicitous antecedents of root perfectives: the presence of additional perfective structure in the antecedent voids phasehood of the strict aspectual antecedent, making it non-identical with the target in terms of phasal status.

6 Deleting Secondary Imperfective: Impoverished Structure

Above I have outlined the mechanism that underlies ellipsis of perfective VPs with secondary imperfective antecedents. An interesting issue, however, arises in reverse cases where the secondary imperfective is not the antecedent, but rather the target in the deletion, and root or derived perfective is the antecedent. The two configurations are given in (29) with the corresponding example in (30), and (31), respectively; ellipsis of the target is allowed. Provided that AspP in the target is either a phase or a phasal complement (to which I return below), the idea of deleting a “legitimate” object in the second conjunct is satisfied. However, there is no corresponding antecedent, i.e., the target projects more structure than the antecedent. These configurations then pose a problem for our current approach to ellipsis, since there is no strict aspectual antecedent in the first place. Furthermore, the issue of recoverability arises, i.e., the inability to reconstruct the missing material, since there seems to be no structure in the antecedent that can help recover the interpretation of the elided material. Below I show that, under closer scrutiny, these two issues are only apparent.

- (29) a. √ Antecedent: [_{VP} root pf. b. √ Antecedent: [_{VP₂} derived pf. [_{VP₁} root pf.
 Targ.: [_{AspP} sec. impf. [_{VP} root pf. Targ.: [_{AspP} sec. impf. [_{VP₂} derived pf. [_{VP₁} root pf.

- (30) Iva je ovog puta pobedio Anu, a Aca je redovno ?? ~~pobedivao—Anu~~ /
 Iva is this time won-**pf.** Ana and Aca is regularly won-**impf.** Ana/
 će uvek ?~~pobedivati—Anu~~.
 will always win-**impf.** Ana
 ‘Iva has defeated Ana this time, while Aca was regularly /will regularly be (defeating Ana)’
- (31) Aca je ovog puta izbacio smeće, a Ana je celog prošlog semestra ~~izbacivala—smeće~~ /
 Aca is this time out.throw-**pf.** trash, and Ana is entire last semester out.thrown-**impf.** trash/
 će celog sledećeg semestra ??~~izbacivati—smeće~~.
 will entire next semester out.throw-**impf.** trash
 ‘Aca took the trash out this time, while Ana was/will be (taking the trash out) the entire semester’

Note there is an interesting parallel with English here which also confirms the special treatment of imperfective. Following Enç (1991), Smith (1991), Kamp and Reyle (1993), Wurmbbrand (to appear), *i.a.*, I assume that progressive forms in English are morphological reflexes of an imperfective aspectual specification. Postdam (1997) discusses examples like (32) where what is elided is *sitting quietly*. This deletion is strikingly similar to the Serbian configurations in (30) and (31), since we are deleting more than what is contained in the antecedent, and in both cases the target is imperfective. If VP-ellipsis is “blind” to the differences with respect to imperfective, we could explain why we observe a very similar pattern in English and Serbian.⁵

- (32) Why don’t you sit quietly? I am ~~sitting quietly~~. (Postdam 1997:6)

In fact, secondary imperfective is the only aspectual specification that allows for the richer structure in the target. VP-ellipsis is disallowed when derived perfective targets occur with a structurally poorer root perfective antecedent, as in (33). I suggest that two issues arise in (33). The first one is the lack of a structurally corresponding antecedent. This is related to the second issue, and that is recoverability. Recall that lexical prefixes can affect the thematic configuration of the root perfective stem and introduce the idiosyncratic meaning. Thus, their meaning cannot be recovered from the environment; there is simply not enough information that would indicate which exact prefix we are omitting in the target, and how exactly this is affecting the structure. Also, adverbials that occur with the target are not sufficient to recover the missing information because, with the addition of lexical prefixes to a perfective stem, the aspectual specification does not change; the adverbials which are compatible with both root perfectives and derived perfectives aspect tell us nothing about the lexical change on the verb, *i.e.*, we cannot determine if what is elided is a root perfective or lexically derived perfective. In thus seems impossible to recover the derived perfective as the elided material.

- (33) *Aca je u petak bacio smeće, a Ana je u sredu ~~izbacila—smeće~~ /
 Aca is in Friday thrown-**pf.** trash and Ana is in Wednesday (out.thrown-**pf.** trash)/
 će ~~izbaciti—smeće~~-u sredu.
 will (throw-**pf.** trash) in Wednesday.
 ‘Aca throw the trash on Friday, while Ana threw the trash out on Wednesday/will throw the trash out on Wednesday’

The immediate questions arises: why are there no recoverability issues with secondary imperfective targets? Also, with secondary imperfectives as structurally richer targets we are violating the requirement of having a phasally and structurally identical strict aspectual antecedent. I argue that the latter problem is only apparent and that the target and the antecedent are structurally the same. I propose that the target is actually a VP and not an AspP, *i.e.*, in the case of ellipsis of secondary imperfectives, AspP is not projected. The problem of the target being structurally richer

⁵Note, however, that even if the imperfective nature is responsible for the transparency, allowing for the VP-ellipsis, this is restricted only to secondary imperfective targets, because root imperfectives in Serbian do not tolerate any aspectual specifications in VP-ellipsis other than the root imperfectives themselves (even under aspectual matching, VP-ellipsis of root imperfective is unavailable if the antecedent is a finite VP).

than the antecedent then does not actually arise. Importantly, I propose that AspP with secondary imperfectives is absent only in limited environments, specifically, in the case of their ellipsis. In all other cases where secondary imperfectives are phonologically overt, including the configurations in which they act as antecedents, AspP is present in the structure. I suggest the motivation for the lack of AspP in these environments can be found in the “structurally poorer” constructions in Chinese and Korean.

It is well known that, in Chinese, Tense is not morphologically realized. Lin (2003, 2005), Smith and Erbaugh (2005) *i.a.*, argue that temporal interpretation is derived from aspect and/or temporal adverbials. Importantly, these authors argue that even in the absence of overt aspectual marker, temporal and aspectual information can be derived. For instance, in (34a) and (34b) there are no aspectual markers, but the former can only have past, and the latter only present interpretation. These authors argue that the temporal interpretation comes from aspectual properties, which are derived from the telicity of the verb: telic verbs, as in (34a), come with perfective as a default, whereas atelic verbs, as in (34b), come with imperfective; default aspects are determined on the basis of verbs’ situation type, unless contextually specified otherwise. For example, in (35), the adverbial *zuotian* ‘yesterday’ dictates past temporal interpretation of the sentence. Aspectual markers, when present in the structure, have the same role. Crucially, even if there is no overt aspectual marker, information about aspect can still be decoded.

- (34) a. Ta dapuo yi-ge hua ping b. Wo xiangxin ni
 he break one-Cl flower vase I believe you
 ‘He broke a flower vase.’ ‘I believe you.’ (only present)
- (35) Ta zuotian hen mang
 he yesterday very busy
 ‘He was very busy’
- (all the examples are from Bošković 2012)

In this respect, consider also Korean. Kang (2012), notes that even though Korean makes use of overt aspectual markers, they can be omitted in certain conjuncts. Kang analyzes *-ess* in (36) and (37) as a perfective marker. She argues that although phonologically present only in the second conjunct in (36), this marker dictates the perfective interpretation of the first conjunct as well, given the lack of other overt adverbial or aspectual marker. Perfective interpretation further derives past temporal interpretation (For Kang, TP is absent in Korean; aspect and/or temporal adverbials denote temporal information). Similarly, the aspectual marker *-ess* is optional in the first conjunct in (37). Although the second conjunct receives present temporal interpretation, as indicated by *onul* ‘today’, the past interpretation of the first conjunct is due to *ecey* ‘yesterday’; the perfective marker *-ess*, compatible only with past interpretations, does not need to be phonologically overt. Crucially, Kang (2012) notes that the optionality of the aspectual marker is limited only to co-ordinated clauses in Korean; in order to derive the correct interpretation in embedded clauses, the aspectual marker needs to be present overtly. Despite the marker *-ess* in the matrix clause in (38), *-ess* in the embedded clause cannot be dropped.

- (36) Swuni-ka pap-ul mek-ko Chelswu-ka ppang-ul mek-ess-ta.
 Swuni-NOM rice-ACC eat-CONJ Chelswu- NOM bread- ACC eat-PAST-DECL
 ‘Swuni ate rice and Chelswu ate bread’ Shon, Hong and Hong (1996)
- (37) Mary-ka ecey ppang-ul mek-(ess)-ko onul pap-ul mek-nun-ta.
 Mary-NOM yesterday bread-ACC eat-past-CONJ today rice-ACC eat-PRES-DECL
 ‘Mary ate the bread yesterday but eats the rice today.’ Shon, Hong and Hong (1996)
- (38) Bill-un Mary-ka pap-ul mek-*(ess)-ta-ko sayngkakha-*(ess)-ta
 Bill-TOP Mary- NOM rice-ACC eat-asp-DECL-COMP think-decl-DECL
 ‘Bill thought that Mary had eaten rice’

I propose that Serbian is abstractly like Chinese and Korean in having no aspectual marker in certain environments. The difference is that, in these languages, the aspectual marker is missing with phonologically overt verbs, whereas in Serbian, it is missing in VP-ellipsis; more specifically, with the ellipsis of secondary imperfectives, and only in these environments, there is no secondary imperfective aspectual marker in the structure. Rather, in these environments, it is the VP,

and not the AspP that is deleted. If VP is deleted, then the derived and root perfective antecedents, structurally VPs, are not structurally richer than the secondary imperfective targets.⁶

Finally, note that in the case of the abovementioned constructions in Chinese and Korean, it is either the verb's situation type or the adverbial that indicates the aspectual specification in the absence of the overt aspectual marker. Is there such an indicator in the environment with elided derived imperfectives in Serbian? I argue that it is the adverbial that indicates the aspectual specification of the verb. For example, in (31), the adverbial *celog prošlog semestra* 'the entire last semester' is compatible only with imperfective aspect, thus, the elided VP can only be imperfective. The presence of the adverbial then explains why the recoverability issue does not arise with the ellipsis of secondary imperfectives despite the lack of the corresponding information in the antecedent. I propose that the local environment, i.e., the adverbial, makes the aspectual information recoverable (cf. Roveret 2012). Also, it is the very nature of secondary imperfectives that makes them recoverable: since they, unlike derived perfectives, do not change lexical properties of the stem to which they are suffixed, only contributing the aspectual information, then, unlike with derived perfectives, the presence of adverbial is enough to recover the exact meaning of the deleted VP. As for English progressives in (32), I suggest that the auxiliary constitutes local environment which provides information for the recoverability of *-ing* (cf. Rouveret 2012).

7 Conclusion

In this paper, it was shown that VP-ellipsis in Serbian is aspect-sensitive – it is not permitted with certain aspectual mismatches between the antecedent and the target. I argued that a number of seemingly unsystematic patterns in the availability of VP-ellipsis in Serbian can be accounted for under a phase-constrained approach to ellipsis where the target needs to be either a phase or a phasal complement (Bošković 2014). Moreover, I proposed that the general parallelism requirement on ellipsis extends to parallelism in terms of phasal status between the antecedent and the target, i.e., either both are phases or both are phasal complement. In addition, I have shown that even the targets that seem to be structurally richer than their antecedents, and, thus problematic for the illustrated approach, are only apparently more complex, and can be analyzed as structurally equal as their antecedents.

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⁶Note also if what is deleted is a VP, it is a phase, thus being a legitimate object for deletion.

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