Aspect interacts with phasehood: evidence from Serbian VP-ellipsis

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In this paper I show that VP-ellipsis in Serbian is aspect-sensitive, because only certain aspectual mismatches between the antecedent and the elided VP (henceforth the target) allow for it. These apparently unsystematic mismatches are argued to follow from a phase-constrained approach where only phases (with argument ellipsis) and phasal complements (with sluicing) can be elided (Bošković 2014), with an additional requirement: target and its antecedent need to be phasally identical, i.e. if target is a phase, the antecedent must also be a phase; the same holds for phasal complement targets.

Restrictions on VP-ellipsis in Serbian Stjepanović (1997) observes a discrepancy in the availability of ellipsis of non-finite VPs in Serbian: ellipsis is fine with non-finite VP antecedents (1), but not with finite VP antecedents (2). Non-finite participle VP antecedents (1a), and infinitival VP antecedents (1b) allow for the ellipsis of either participle or infinitival VP. However, finite VP antecedents disal-

- (1) a. Aca je već pobedio Anu, ali Iva nije pobedio Anu/ neće pobediti Anu. Aca is already won Ana but Iva isn't (won Ana)/ won't (win-inf. Ana)
 - 'Aca has defeated Ana, but Iva hasn't (defeated Ana)/ won't (defeat Ana).'

low deletion of either participle or infinitival VP (2).

- b. Aca će pobediti Anu, ali Iva nije pobedio Anu / neće pobediti Anu. Aca will win Ana but Iva isn't (won Ana) / won't (win-inf. Ana) 'Aca will defeat Ana, but Iva hasn't (defeated Ana) / won't (defeat Ana).'
- (2) *Aca čita knjigu, a Iva nije <u>čitao knjigu</u>./ neće <u>čitati knjigu</u>.

 Aca reads book but Iva isn't (read-past.part.) won't (read-inf. book)

 'Aca is reading a book, but Iva hasn't (read a book) / won't (be reading a book).'

Following Lasnik's (1995) approach to verbal morphology whereby not all verbs in a language enter the derivation inflected, and Infl is freely featural or affixal, Stjepanović argues that finite forms in Serbian enter the structure inflected, their inflection being featural, whereas non-finite ones enter it bare, their inflection being affixal. If only featural, but not affixal identity is required for ellipsis, she argues, finite forms are illicit antecedents of non-finite forms (2), whereas non-finite forms are not, even with a "sloppy" identity with the target in (1).

Empirical problems for Stjepanović's analysis Although aspectual specifications of VPs are irrelevant for the examples from Stjepanović (1997) (due to the aspectual identity of antecedent and target), they become important with aspectual mismatches between antecedent and target are considered. Note first, the aspectual value is always marked in the verbal root in Serbian, e.g. bacati 'to throwimpf.' and baciti 'to throw-pf.'. In (3), the antecedent and the target are match in aspect: both are perfective, but the target is a root perfective, and the antecedent is a derived perfective – a prefix *iz*- is added to the root perfective stem, changing only its lexical properties, but not the aspectual value (cf. Milićević 2004). Ellipsis is disallowed with either non-finite (3a) or finite antecedents (3b).

- (3) a.*Aca nije izbacio čizme, a ni Ana nije bacila čizme /neće baciti čizme. Aca isn't out.thrown-pf. boots, and nor Ana isn't thrown-pf. won't throw-pf. boots 'Aca didn't puts the boots outside, and neither did/will Ana (throw the boots away).'
 - b.* Aca nikad ne izbaci čizme, a ni Ana nije bacila čizme /neće bacili čizme. Aca never not out.throws-pf. boots and nor Ana isn't thrown-pf./ won't throw-pf. boots

'Aca never puts the boots outside, and neither did/will Ana (throw the boots away).'

Furthermore, the finiteness differences noted by Stjepanović can disappear even when the antecedent and target do not share the aspectual value. When the antecedent is the imperfective counterpart of the perfective target, both non-finite (4a) and finite VPs (4b) are felicitous antecedents.

- (4) a. Aca je izbacivao čizme, a Ana ni tada nije izbacila čizme /neće izbaciti čizme. Aca is out.thrown-impf. boots and Ana nor then isn't out.thrown-pf./won't out.throw-pf. boots 'Aca was putting the boots outside, while Ana didn't/ won't (put the boots outside) even then'
 - b. Aca izbacuje čizme, a Ana ni tada nije izbacila čizme /neće izbaciti čizme. Aca out.throws-impf. boots and Ana nor then isn't out.thrown-pf./won't out.throw-pf. boots
- 'Aca is putting the boots outside, while Ana didn't/ won't (put the boots outside) even then.' Since finiteness discrepancies with antecedents disappear ((3), (4)), the question arises why aspect affects ellipsis, and why there is a discrepancy between (3) and (4).

Main analysis of the role of aspect I argue that for VP-ellipsis in Serbian to be felicitous, the target needs to: a) be a phasal complement or a phase (Bošković 2014); b) match in phasal status with the strict aspectual antecedent, i.e. either both are phasal complements or both are phases, where a strict aspectual antecedent is part of the antecedent that completely matches a VP target in terms of aspectual properties, both lexical and functional. I adopt a contextual approach to phases (e.g. Bobaljik and Wurmbrand 2005, Bošković 2005, den Dikken 2007), in particular a version of Bošković (2014) where the highest VP in a series of VPs is a phase. This means that root perfective VP is a phase; however, when there is an additional derived perfective VP on top of it, and assuming that derived perfective prefixes are VP-internal (Travis 2010), introducing an additional VP layer on the top of the VP containing the root perfective, only this higher VP counts as a phase.

Consider first (4). Note that the imperfective is derived by adding a suffix -va (Filip 2000, Ramchard 2004 i.a), which only changes the aspectual value of its perfective counterpart, without affecting its lexical meaning. Following Borer (2005), I assume that secondary imperfective is in the higher, viewpoint aspect domain, whereas root and derived perfectives are in the lower, lexical aspect domain. I argue that, in Serbian, secondary imperfective is located in the AspP, i.e. [AspP -va [VP2 iz- [VP1 root-pf. izbacivati 'to throw out'-impf. I also suggest that, due to both functional and lexical nature of aspects in Serbian, not all aspectual information is a part of an extended VP domain. Rather, I propose that lexical and viewpoint aspect are parts of two separate phasal domains. Applying the analysis to (4), the target VP is a phase, and its strict aspectual antecedent VP2 is also a phase (5). Both prerequisites are met and ellipsis is correctly predicted to be allowed. Under this analysis, the secondary imperfective antecedent should disallow the ellipsis of a root perfective target (6); although the target VP is a phase, its strict aspectual antecedent VP1 is a complement of a phase. The prediction is borne out (7).

- (5) $\sqrt{\text{antec.:}}[_{\text{AspP}} \text{-va}]_{\text{VP2}} \text{iz-}[_{\text{VP1}} \text{ root pf. targ.:}]_{\text{VP2}} \text{iz-}[_{\text{VP1}} \text{ root pf.}]$
- (6) *antec.:[AspP -va [VP2 iz- [VP1 root pf. targ.:[VP root pf.
- (7) a.*Aca nije izbacivao čizme, a ni Ana tada nije bacila čizme / neće baciti čizme.

 Aca isn't out.thrown-impf. boots and nor Ana then isn't thrown-pf. / won't throw-pf. boots 'Aca wasn't putting the boots outside, and neither Ana did/will (throw the boots away) then.'
 - b.*Aca nikad ne izbacuje čizme, a ni Ana tada nije bacila čizme /neće baciti čizme. Aca never not out.throws-impf. boots, and nor Ana then isn't thrown-pf./won't throw-pf. boots 'Aca is never putting the boots outside, and neither Ana did/will (throw the boots away) then.'

However, a secondary imperfective suffix can also be added directly to a root perfective stem. When this form is an antecedent to a root perfective target, ellipsis is allowed (8) since both the target and its strict antecedent VP are phases (9a). Finally, we can explain the lack of ellipsis in (3): the target is a phase, but its strict antecedent VP_1 is a phasal complement – derived perfective introduces an additional VP layer in the antecedent, closing the VP domain, counting as a phase, and thus rendering VP_1 a phasal complement. Thus, only one condition for ellipsis is met (9b). In the talk, I will show that the analysis can easily be extended to ellipsis of secondary imperfectives, as well as to superlexical perfectives, i.e. perfectives formed by prefixation of a secondary imperfective base.

- (8) a. Aca je uvek pobeđivao Anu, a Iva ni tada nije pobedio Anu /neće pobediti Anu. Aca is always won-impf. Ana and Iva nor then isn't won-pf. Ana/ won't win-pf. Ana 'Aca has always been defeating Ana, while Iva didn't/won't (defeat Ana) even then.'
 - b. Aca uvek pobeđuje Anu, a Iva ni tada nije pobedio Anu /neće pobediti Anu. Aca always wins-pres.impf. Ana and Iva nor then isn't won-pfv. Ana/won't win-pf. Ana 'Aca is always defeating Ana, while Iva didn't/won't (defeat Ana) even then.'
- (9) a.√antec.:[AspP−va [VProot pf. targ.:[VProot pf. b.*antec.:[VP2 iz-[VP1root pf. targ.:[VP-root pf. In sum, seemingly unsystematic discrepancies in the availability of VP-ellipsis in Serbian clearly follow from an analysis relying on strict phasal identity between antecedent and target.

Selected references: **Borer**, H. *Structuring Sense* II. **Bošković**, Ž. 2014. Now I'm a phase, now I'm not a phase: On the variability of phases with extraction and ellipsis. *LI*. **Milićević**, N. 2004. The lexical and superlexical verbal prefix iz- and its role in the stacking of prefixes. In Nordlyd 32:279-300. University of Tromsø. **Stjepanović**, S. 1997. VP Ellipsis in a Verb Raising Language and Implications for the Condition on Formal Identity of Verbs. UConn WPL 8.