Passive vP is not phasal in Bosnian/Croatian/Serbian

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1. Introduction

- Chomsky (2000, 2001) proposes that syntactic derivations are cyclic:

→ A **phase** is a piece of structure whose derivation is encapsulated–it serves as a point at which an intermediate result of the derivation is *spelled out* and given an interpretation at both the PF and LF interfaces

→ Postulating certain heads (e.g., C and v) to be phasal is an attempt to derive successive-cyclic movement

→ Since Chomsky 2000, 2001, spell-out domains have also been discovered below the word level; they are hypothesized to be the same kind of entity as Chomskyan phases (e.g., Marantz 2001, 2007, Embick 2010, 2021)

- Using data from Bosnian/Croatian/Serbian (BCS), I'll argue that:

Intermediate steps of (A'-) movement do not correspond perfectly to phasal edges (see also Preminger 2019, contra e.g., Legate 2003)

→ Important because even very recent work takes (optional) stopping points of A'-movement to diagnose phases (see e.g., Van Urk 2020)

2. Roadmap

§3: Chomskyan and DM phases; Legate's (2003) "phasehood" diagnostics

§4: BCS passive v is not phasal but it passes Legate's tests; intermediate steps of A'-movement are not restricted to edges of spell-out domains

§5: Discussion

3.   Background

- Chomsky identifies v^* (v with an external argument) and C as phasal heads; proposals were subsequently made to both expand and reduce this inventory

→ The Phase Impenetrability Condition (PIC) in (1) is formulated with the goal of deriving successive-cyclic movement

(1)   **Phase Impenetrability Condition** (PIC2) (Chomsky 2001:14)
Given the structure [ZP Z . . . [HP α [H ′ H YP]]], where H and Z are phase heads, the domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations.

→ Chomsky and others take phases to be potential targets for movement; C and v^* may have an EPP-feature, which provides a position for XP-movement

   NB: Both DM and classical syntax recognize that PIC2 is required for empirical reasons (see e.g., Sigurðsson 2002, Embick 2010); PIC2, however, does not enforce successive-cyclic movement to the specifier of a phase head–an additional stipulation (such as that all phase heads have an EPP feature) is required to achieve this

- Since Chomsky 2000, there has been interest in identifying spell-out domains below the 'word' level (e.g., Marantz 2001, 2007, Embick 2010, 2021)

→ There appear to be locality constrains on allomorphy and allosemy, which are best accounted for if lexical heads (v, n, a) are assumed to be phase heads

- The merger of a phase head (P1) triggers spell-out at the next phase head (P2); P2 and the material merged above it should not be able to influence the form or meaning of the material merged below P1 and vice versa; (2) illustrates:

(2)
$$[_{nP}\ n\ \text{-ing}\ [_{vP}\ v\ \text{-iz(e)}\ [_{\sqrt{P}}\ \sqrt{\text{catastroph-}}\ [\dots\ ]]]]$$
phase head ... *phase head*
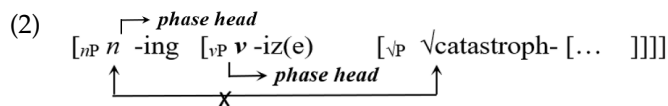
- For Chomsky, passive (and unaccusative) v are non-phasal; Legate 2003 argues, based on data like (3), that English passive v is a phase because reconstruction for binding purposes is allowed in its specifier

- Assuming the *wh*-phrase to stop over in spec, vP is the only way to account for the acceptability of (3a), since a binding condition is violated in both the *wh-*'s base position and its surface position[1]

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[1]This assumes a cascade structure in which *at*-phrases are merged as the lowest argument in the VP; see Pesetsky 1995 (cf. *Every man was introduced to Mary at the first party he invited her to.*)

- (3b) is bad because there is a binding violation at every step of movement

(3) a. [At which of the parties he$_i$ invited Mary$_k$ to]$_1$ was every man$_i$
         ✔$_1$ introduced to her$_k$ ✗$_1$?

     b. *[At which of the parties he$_i$ invited Mary$_k$ to]$_1$ was she$_k$
         ✗$_1$ introduced to every man$_i$ ✗$_1$?

- In section 4, I argue that this diagnostic does not test for what it claims to test–
  non-phasal elements can serve as intermediate stopping points for movement

4. Intermediate movement steps do not diagnose phasehood

- I present novel BCS data from from (i) theme vowel quality, (ii) apparent non-
  local allomorphy and allosemy, and (iii) agreement facts to support the claim
  that passive vP is not phasal in this language

- Comparing my findings with Legate's, I show her diagnostic(s) puts BCS pas-
  sive participles on a par with active verbs, and patterns with the English data

- This, I argue, supports the view that Legate's diagnostics are not phasehood
  detectors at all (cf. Preminger 2019)

- Specifically, allowing intermediate movement steps through one's specifier does
  not make one a phase

4.1. Initial observation: BCS active and passive v are distinct

- There are morphological indications that active and passive v in BCS are distinct

- Namely, there are systematic active/passive differences in the exponence of the
  verbal theme vowel

  NB: I gloss BCS passive participles PASS throughout, to differentiate them from active participles
  (ACT), but both of these are **(deverbal) adjectives** (see Bešlin in press, in prep, a.o.)

- As shown in (4), BCS passive participles, like active verbs, obligatorily contain
  verbal theme vowels, argued to be exponents of v (Svenonius 2004, Caha &
  Ziková 2016, Biskup 2019, Bešlin in press)

- In (4), from Bešlin in press, we can observe that the theme vowel in the pas-
  sive changes systematically to *-e* for over half of the verb classes (4c-e), while it
  remains the same for the classes in (4a-b):

(4) (a) gled-**a**-ti   'watch'   gled-**a**-n   'watched'
         watch-V-INF   watch-V-PASS

     (b) šut-**nu**-ti   'kick'   šut-**nu**-t   'kicked'

     (c) vol-**e**-ti   'love'   volj-**e**-n   'loved'

     (d) uč-**i**-ti   'study'   uč-**e**-n   'studied'

     (e) pas-∅-ti   'graze'   paš-**e**-n   'grazed'

- While this piece of evidence does not bear directly on the phasal status of passive *v*, the systematicity of the change does at least suggest that active and passive *v* are distinct in BCS

4.2.   A case of apparent non-local allomorphy/allosemy

- In this section, I look at ROOT-*v*-*a* configurations and show that the BCS participial morpheme (*a*) is in the same spell-out domain as the root across passive *v*, but not across active *v*

→ This provides an argument that BCS active *v*, but not passive *v*, is a phase

- As we saw in section 4.1, BCS passive participles contain verbal theme vowels, and they may also contain verbal (aspectual) prefixes (5)-(7)

- The participial suffix is attached above (at least) the verbalizer *v*

- If categorizers are phasal heads, the form of the participial suffix–an adjectivizer– should not be influenced by the identity of a particular root

- There are two distinct exponents of the passive suffix: *-n* and *-t* (5a-b)

- While the *-n/-t* distinction is sometimes predictable based on verb class, each of the pairs in (5)-(7) belong to the same verb class, as witnessed by the identity of their theme vowels across the paradigm

- Still, in each of the pairs, the (a) member forms the passive with the suffix *-t*, while the (b) member does so with *-n*

- This suggests that the form of the adjectivizer in the passive is determined by the root (and not, e.g., by a particular *v* head), in apparent violation of locality

- Furthermore, the passive participle in (7a) has an alternative form *dones-e-n* 'bring-V-PASS', which is parallel to (7b)

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- This optionality between *-n* and *-t* in (7a) can be accounted for only if it is determined by the particular root; otherwise, we would expect it to extend at least to (7b), contrary to fact

		INFINITIVE	PASSIVE PARTICIPLE	ACTIVE PARTICIPLE	PRESENT
(5)	(a)	*priznati*	pri-zn-a-t	pri-zn-a-o	pri-zn-a-m
		admit.INF	PREF-admit-V-PASS	PREF-admit-V-ACT	PREF-admit-V-1SG
	(b)	*naslikati*	na-slik-a-n	na-slik-a-o	na-slik-a-m
		paint.INF	PREF-paint-V-PASS	PREF-paint-V-ACT	PREF-paint-V-1SG
(6)	(a)	*poslati*	po-sl-a-t	po-sl-a-o	po-šalj-e-m
		send.INF	PREF-send-V-PASS	PREF-send-V-ACT	PREF-send-V-1SG
	(b)	*zavezati*	za-vez-a-n	za-vez-a-o	za-vež-em
		tie.INF	PREF-tie-V-PASS	PREF-tie-V-ACT	PREF-tie-V-1SG
(7)	(a)	*doneti*	don-e-t	don-e-o	dones-e-m
		bring.INF	bring-V-PASS	bring-V-ACT	bring-V-1SG
	(b)	*sneti*	snes-e-n	sn-e-o	snes-e-m
		lay.INF	lay-V-PASS	lay-V-ACT	lay-V-1SG

- Note also that the form of the passive suffix does not depend in any way on the phonological form of the root/stem: homonymous verbs like *izdati* 'publish' and *izdati* 'betray' are formed with distinct passive suffixes (!): *izda-t* 'published' and *izda-n* 'betrayed'

- The active participle suffix shows no variability whatsoever, see (5)-(7)

- I'd like to argue that this contrast between active and passive participles stems from the fact that active *v*, but not passive *v*, is a phase head in BCS

- Since passive *v* does not trigger spell-out, the material merged below it can communicate with the (phasal) material merged above it for the purpose of determining form and meaning, which I turn to now

- On the meaning side, we see in (8) that roots like *bac* 'throw', *udar* 'hit' and *pomer* 'move' may acquire an idiomatic interpretation when they are used to derive passive participles, despite the intervention of verbal material

- The idiomatic meaning is crucially dependent on the presence of the passive suffix; neither the finite future form nor the active participle of *(za)bac-* or *pomer-/udar-* can mean 'remotely locate' or '(be) crazy' (9)

(8)   a.   Salaš   je   za-bač-e-n   u   dolini.
           farm   is   PREF-throw-V-PASS   in   valley
           'The farm is remotely located in the valley.'

      b.   Malo   je   pomer-e-n   /   udar-e-n   otkad   je   došao.
           little   is   move-V-PASS   hit-V-PASS   since   AUX   came
           'He is a little crazy since he came.'

(9)   a.   Za-bac-i-će   udicu   /   #kuće   u   dolini.
           PREF-throw-V-3.FUT   hook   houses   in   valley
           'He will throw the hook/houses behind him in the valley.'

      b.   Malo   je   po-mer-i-o   /   udar-i-o   nešto   kad
           little   is   PREF-move-V-ACT   hit-V-ACT   something   when
           je   došao.
           AUX   came
           'He hit /moved something a little when he came.'

- Again, the existence of allosemy with passive deverbal adjectives, but not with active ones, can be explained if passive v is not phasal in BCS

- The root in the passive construction is not spelled out when a is merged, which allows a to influence the root's meaning

4.3.   Agreement across passive v

- Evidence for the non-phasal status of BCS passive v also comes from agreement licensing by in-situ passive arguments

→ First, we use scope of negation to show that the post-verbal argument in (10b) has not moved past negation (Potsdam & Polinsky 2011)

→ Namely, while the preverbal subject in (10a) allows the universal quantifier to scope above or below negation, no such variability is observed with (10b): the quantifier unambiguously has low scope

→ If the argument is positioned below sentential negation (and the participle), it is reasonable to assume that it is in its base position (complement of the root)

→ Then, the fact that the agreement probe on the copula is still able to 'see' the argument and agree with it provides evidence that BCS passive v is not a point of spell-out, i.e., it is not a phase (11)

NB: It is a stipulation at this point that BCS *a* is a (DM) phase head; I argue for this conclusion based on independent evidence in Bešlin in prep

(10) a. Svi   studenti   ni-**su**   uhapšeni.
          all   students   not-are   arrested
          NEG>ALL; ALL>NEG

      b. Ni-**su**   uhapšeni   svi   studenti.
          not-are   arested   all   students
          NEG>ALL; *ALL>NEG

(11)   [$_{CopP}$ *cop* [$u\varphi$:3pl] su [$_{NegP}$ *Neg* ni- [$_{aP}$ *a* -n [$_{vP}$ $v_{(pass)}$ -e [$_{\sqrt{P}}$ $\sqrt{}$uhaps- [$_{NP}$ [φ:3pl] svi studenti]]]]]
       $\longrightarrow$ *phase head* $\longrightarrow$ *not a phase head*
       ✓

⋆ Potential caveat: What if the passive argument moves to spec *v*P (and the participle moves even higher)?

$\rightarrow$ On the view that passive *v* is a phase, spec *v*P counts as a phase edge; the agreement probe on the auxiliary would be able to see the passive argument in that position, and the scope facts would still be borne out

$\rightarrow$ While the movement option may be available, there is no evidence that it is obligatory in BCS

$\rightarrow$ Therefore, the real argument comes not from the fact that agreement with the low passive argument is *possible*, but from the fact that it is *obligatory*

$\rightarrow$ If passive *v* were phasal and the argument stayed in situ, we would expect no agreement on T

$\rightarrow$ Combining this with the movement option, we would expect surface-level optionality for agreement in (10b), contrary to fact

● These agreement facts, along with the allomorphy/allosemy facts from Section 4.2, suggest that passive *v* is not phasal in BCS

4.4. Legate's diagnostics applied to BCS

● Legate's diagnostics applicable in BCS return the same results as in English and suggest that spec passive *v*P is a potential movement target

- I illustrate here with reconstruction for binding facts (though the same point is made with QR in antecedent contained deletion)

- In the passive sentence in (12), the idea is that the backeted constituent cannot obey the relevant binding conditions in the surface position (no binder for the anaphor *svojoj* 'self.MASC') or in the base position (the R-expression *Marija* is bound by the pronoun *njom* 'her')

- Given that the sentence is grammatical, there must be an intermediate stopping point for the bracketed constituent in spec (passive) vP, where both binding conditions are obeyed at the same time

- We can compare (12) to the ungrammatical sentence in (13) where there is a binding violation even in the in the intermediate position–this further suggests that (12) is good because of the availability of the intermediate stopping point

(12) [Na kojoj svojoj$_i$ žurci na kojoj je bila Marija$_k$]$_1$ je
     on which self.M party on which AUX was Mary AUX
     svaki čovek$_i$ ✔$_1$ upoznat s njom$_k$ ✗$_1$?
     every man introduced with her
     'At which of his parties Mary was at was every man introduced to her?'

(13) *[Na kojoj svojoj$_i$ žurci na kojoj je bila Marija$_k$]$_1$ je
     on which self.M party on which AUX was Mary AUX
     ona ✗$_1$ upoznata sa svakim čovekom$_i$ ✗$_1$?
     she introduced with every man
     'At which of his parties Mary was at was she introduced to every man?'

- If Legate's tests conclusively diagnosed phasehood, this would be an issue for the present analysis

- However, Legate's diagnostics identify *potential* stopping points, while one of the goals of phase theory is derive successive-cyclic movement, which is arguably obligatory

- Legate's diagnostics tell us nothing about obligatory stopping points; they tell us about a possible stopping point that is forced by binding considerations (cf. Preminger 2019)

- While diagnostics that invoke the locality of agreement and allomorphy/allosemy are intuitive diagnostics for phasehood given its definition, possible stopping points in intermediate specifiers are not

5.　Discussion & Conclusions

- So how can we define and diagnose phases?

- If Chomskyan phases and DM phases are indeed the same type of entity:

→ We cannot identify phases by simply looking for evidence of movement through a specifier (contra e.g., Van Urk 2020) because some non-phases allow this kind of movement

→ Intermediate A'-movement does not diagnose phasehood if (i) it is optional, or (ii) it is driven by factors other than phasehood (e.g., binding)

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Appendix

A.   Marantz 2013 on interface-specific locality considerations

- Are the spell-out domains for LF and PF necessarily the same?

- Marantz 2013 argues yes, but what counts as an "intervener" within a locality may not be the same at both interfaces

$\rightarrow$ The idea is that, in order to trigger allomorphy/allosemy, the "trigger" must be adjacent to the target at the relevant interface

$\rightarrow$ A syntactic element that counts as an intervener at one interface may not count as an intervener at the other interface

$\rightarrow$ A phonologically null element will not count as an intervener at PF, and a semantically null element does not count as an intervener at LF

$\rightarrow$ This, according to Marantz, is why Tense-conditioned allomorphy of the root (in English) is seen when v is phonologically null (cf. *go*→*went*) but not when the v is overt (e.g., *-ize*, *-ify*)

$\rightarrow$ On the meaning side, Marantz looks at Greek (stative) passive participles, which exhibit the same kind of allosemy as the BCS passive participles

$\rightarrow$ He argues that the allosemy triggered by the participial morpheme is possible across v because v in this kind of passive is semantically null (i.e., it does not introduce an event variable)

- Even if one subscribes to this approach, the root-conditioned allomorphy of the BCS participial suffix across overt v cannot be explained