

## Chapter 12

# A description of verb-phrase ellipsis in Hocak

Meredith Johnson

In this paper, I argue that Hocak displays verb-phrase ellipsis (VPE) and provide the first thorough description of this phenomenon. VPE in Hocak displays the two defining characteristics of VPE cross-linguistically: it targets all VP-internal material, and it is licensed by a functional head. In the case of Hocak, I propose that the licensing head is active *v*. Furthermore, Hocak VPE also shows many other traits of VPE in other languages: the ellipsis site can be found in coordinated and adjacent clauses in addition to embedded and adjunct clauses, VPE is insensitive to the contents of the VP, and VPE gives rise to both strict and sloppy readings. Lastly, I argue that VPE in Hocak is derived by deletion of a full-fledged VP, and that the ellipsis site cannot be analyzed as a null *pro* form.

## 1 Introduction

This purpose of this paper is to both argue that Hocak displays verb-phrase ellipsis (VPE) and to provide the first thorough description of this phenomenon. In VPE constructions, a VP goes unpronounced when there is an appropriate antecedent VP and a licensing head that identifies the gap. Both of these properties can be seen in the examples of VPE in Hocak in (1) below. In each example, the VP in the second conjunct is interpreted as identical to the VP in the first conjunct, even though the former has no phonological realization. Instead, the light verb *uq* takes the place of the VP.

- (1) a. *Cecilga* [<sub>VP</sub> *wažqtirehižq ruwĩ*] *kjane anqga nee šge* [*ha'uq*]  
*Cecil-ga wažqtire-hižq Ø-ruwĩ kjane anqga nee šge ha-uq*  
Cecil-PROP car-INDEF 3s/o-buy FUT and I also 1s-do  
*kjane.*  
*kjane*  
FUT  
'Cecil will buy a car, and I will too.'



- b. *Cecilga* [VP *xjanqre waši*] *anqga Bryanga* *šge* [uu].  
*Cecil-ga* *xjanqre*  $\emptyset$ -*waši* *anqga Bryan-ga* *šge*  $\emptyset$ -*uu*  
Cecil-PROP yesterday 3s-dance and Bryan-PROP also 3s-do  
'Cecil danced yesterday, and Bryan did too.'

Throughout this paper, I rely on the set of diagnostics of VPE established by Goldberg (2005), and subsequently used for Indonesian by Fortin (2007). Goldberg (2005) uses characteristics of English VPE to establish a typology of VPE crosslinguistically, noting that "English VP Ellipsis has a characteristic set of behavioral traits, the confluence of which is not found in other types of null anaphora" (Goldberg 2005: 27).

Goldberg developed this set of traits in order to diagnose verb-stranding verbphrase ellipsis (VVPE) in a variety of languages, including Hebrew, Irish and Swahili. In VVPE, the verb has undergone raising before the remainder of the VP is elided. On the surface, VVPE can be ambiguous between a null object analysis or VPE analysis; thus, some of her diagnostics serve to distinguish these two approaches. An example of VVPE in Hebrew is provided in (2):

- (2) *Tazmini et Dvora la-misiba? Kvar hizmanti.*  
invite.2FUT Dvora to.the-party already invite.1PST  
'Will you invite Dvora to the party? I already invited (Dvora to the party).'  
(Goldberg 2005: 14)

Hocak VPE does not face this problem: there is an overt light verb standing in for the VP, much like English VPE. Nonetheless, the data from Hocak are consistent with all of the characteristics that Goldberg argues are diagnostic of VPE crosslinguistically. Furthermore, I show that these traits also distinguish VPE from other elliptical phenomena found in Hocak, including gapping, stripping and null complement anaphora.

This paper is structured as follows. In §2, I establish that putative VPE in Hocak displays the two most important characteristics of VPE: it targets all VP-internal material, and it is licensed by a functional head. In the case of Hocak, I propose that the licensing head for VPE is active *v*. In §3, I show that Hocak VPE displays other traits that have been attributed to VPE crosslinguistically. §4 demonstrates that VPE in Hocak must be analyzed as a deletion process, rather than a null *pro* form. §5 concludes the paper.

## 2 Establishing the presence of VPE in Hocak

In this section, I show that the construction that I argue instantiates VPE in Hocak displays the two defining characteristics of VPE. In §2.1, I demonstrate that the ellipsis site includes all VP-internal material. In §2.2, I show that VPE is subject to the presence of an appropriate licensing head.

### 2.1 *uy* targets the VP

VPE is possible with both intransitive and transitive verbs, as seen in (3-4) below. (3a) and (3b) show that *uy* can target intransitive VPs. In the examples in (4) with transitive verbs, the direct object is also included in the ellipsis site.

- (3) a. *Cecilga* [VP *kere*] *anaga Matejaga* *šge* [*uy*].  
*Cecil-ga*  $\emptyset$ -*kere*, *anaga Mateja-ga* *šge*  $\emptyset$ -*uy*  
 Cecil-PROP 3S-leave and Mateja-PROP also 3S-do  
 ‘Cecil left, and Mateja did too.’
- b. *Meredithga* [VP *nijp*] *anaga Sarahga* *šge* [*uy*].  
*Meredith-ga*  $\emptyset$ -*nijp* *anaga Sarah-ga* *šge*  $\emptyset$ -*uy*  
 Meredith-PROP 3S-swim and Sarah-PROP also 3S-do  
 ‘Meredith swam, and Sarah did too.’
- (4) a. *Matejaga* [VP *waisgap sguuhižq rook’i*] *anaga Sarahga* *šge*  
*Mateja-ga* *waisgap sguu-hižq*  $\emptyset$ -*rook’i* *anaga Sarah-ga* *šge*  
 Mateja-PROP cake-INDEF 3S/O-bake and Sarah-PROP also  
 [*uy*].  
 $\emptyset$ -*uy*  
 3S-do  
 ‘Mateja baked a cake, and Sarah did too.’
- b. *Meredithga* [VP *waaruchižq hogiha*] *anaga Bryanga* *šge*  
*Meredith-ga* *waaruc-hižq*  $\emptyset$ -*hogiha* *anaga Bryan-ga* *šge*  
 Meredith-PROP table-INDEF 3S/O-paint and Bryan-PROP also  
 [*uy*].  
 $\emptyset$ -*uy*  
 3S-do  
 ‘Meredith painted a table, and Bryan did too.’

VPE can also target other internal arguments. Both indirect objects and resultative phrases are typically analyzed as VP-internal (see e.g., Larson 1988 and

Levin & Rappaport Hovav 1995), and they are also subject to VPE. The ditransitive example in (5) shows that both a direct object and indirect object can be contained in the ellipsis site.

- (5) *Cecilga* [VP *Meredithga wiiwagaxhižq hok'u*] *anąga*  
*Cecil-ga Meredith-ga wiiwagax-hižq ∅-hok'u* *anąga*  
 Cecil-PROP Meredith-PROP pencil-INDEF 3s/O-give and  
*Matejaga šge [u]*.  
*Mateja-ga šge ∅-u*  
 Mateja-PROP also 3s-do  
 'Cecil gave Meredith a pencil, and Mateja did too.'

In (6), we see examples of VPE with resultative constructions in which the direct object and result have both been elided.

- (6) a. *Cecilga* [VP *wažqtirehiža šuuc hogiha*] *anąga Bryanga šge*  
*Cecil-ga wažqtire-hiža šuuc ∅-hogiha anąga Bryan-ga šge*  
 Cecil-PROP car-INDEF red 3s/O-paint and Bryan-PROP also  
 [u].  
 ∅-u  
 s-do  
 'Cecil painted a car red, and Bryan did too.'
- b. *Meredithga* [VP *mąqshiža paras gistak*] *anąga Matejaga*  
*Meredith-ga mąqs-hiža paras ∅-gistak anąga Mateja-ga*  
 Meredith-PROP metal-INDEF flat 3s/O-hit and Mateja-PROP  
 šge [u].  
 šge ∅-u  
 also 3s-do  
 'Meredith hit metal flat, and Mateja did too.'

VPE also targets various adjuncts. (7) shows that VPE targets VPs containing temporal adjuncts.

- (7) a. *Cecilga* [VP *xjanqre waši*] *anąga Bryanga šge [u]*.  
*Cecil-ga xjanqre ∅-waši anąga Bryan-ga šge ∅-u*  
 Cecil-PROP yesterday 3s-dance and Bryan-PROP also 3s-do  
 'Cecil danced yesterday, and Bryan did too.'
- b. *Meredithga* [VP *haqpte'e kšeehižq ruuc*] *anąga*  
*Meredith-ga haqpte'e kšee-hižq ∅-ruuc anąga*  
 Meredith-PROP today apple-INDEF 3s/O-eat and Mateja-PROP

*Matejaga šge* [u].

*Mateja-ga šge* Ø-u

also 3s-do

‘Meredith ate an apple today, and Mateja did too.’

In (8), locative adjuncts are included in the ellipsis site.

- (8) a. *Cecilga* [VP *hosto eja waši*] *kjane anaga Bryanga*  
*Cecil-ga hosto eja* Ø-*waši kjane anaga Bryan-ga*  
 Cecil-PROP gathering there 3s-dance FUT and Bryan-PROP  
*šge* [u] *kjane*.

*šge* Ø-u *kjane*

also 3s-do FUT

‘Cecil will dance at the gathering, and Bryan will too.’

- b. *Cecilga* [VP *ciinək eja wažqtirehižq ruwī*] *anaga*  
*Cecil-ga ciinək eja wažqtire-hižq* Ø-*ruwī anaga*  
 Cecil-PROP city there car-INDEF 3s/O-buy and

*Bryanga šge* [u].

*Bryan-ga šge* Ø-u

Bryan-PROP also 3s-do

‘Cecil bought a car in the city, and Bryan did too.’

(9) exemplifies VPE with a comitative.

- (9) *Cecilga* [VP *hinukra hakižu waši*] *anaga Bryanga šge*  
*Cecil-ga hinuk-ra hakižu* Ø-*waši anaga Bryan-ga šge*  
 Cecil-PROP woman-DEF be.with 3s-dance and Bryan-PROP also  
 [u].

Ø-u

3s-do

‘Cecil danced with the woman, and Bryan did too.’

(10) demonstrates that various manner adverbs can also be subject to VPE.

- (10) a. *Bryanga* [VP *teejaki ništašjak taaxu racgq*] *anaga Sarahga*  
*Bryan-ga teejaki ništašjak taaxu* Ø-*racgq anaga Sarah-ga*  
 Bryan-PROP often coffee 3s-drink and Sarah-PROP  
*šge* [u].

*šge* Ø-u

also 3s-do

‘Bryan often drinks coffee, and Sarah does too.’

- b. *Cecilga* [<sub>VP</sub> *pīihī maqni*] *anaga Bryanga* *šge* [*u*].  
*Cecil-ga* *pīihī*  $\emptyset$ -*maqni anaga Bryan-ga* *šge*  $\emptyset$ -*u*  
 Cecil-PROP quietly 3s-walk and Bryan-PROP also 3s-do  
 ‘Cecil walked carefully/quietly, and Bryan did too.’
- c. *Meredithga* [<sub>VP</sub> *hikuhe niitašjak taaxu racgq*] *anaga Bryanga*  
*Meredith-ga* *hikuhe niitašjak taaxu*  $\emptyset$ -*racgq anaga Bryan-ga*  
 Meredith-PROP quickly coffee 3s-drink and Bryan  
*šge* [*u*].  
*šge*  $\emptyset$ -*u*  
 also 3s-do  
 ‘Meredith drank coffee quickly, and Bryan did too.’

In all of the examples in (7)–(10), the adjunct in the antecedent VP is interpreted as being present in the ellipsis site, indicating that *u* targets the entire VP rather than just the object(s).

Lastly, complement clauses can also be included in VPE. The example in (11) has two possible interpretations: either that Meredith also bought a car, or that Meredith also said that Cecil bought a car. Under the second reading, VPE targets the matrix clause, eliding the verb and its complement clause.

- (11) *Bryanga* [<sub>vp</sub> *Cecilga wažqtirehižq ruwiže ee*] *anaga*  
*Bryan-ga* *Cecil-ga wažqtire-hižq*  $\emptyset$ -*ruwi-že*  $\emptyset$ -*ee anaga*  
 Bryan-PROP Cecil-PROP car-INDEF 3s/O-buy-COMP 3s-say and  
*Meredithga* *šge* [*u*].  
*Meredith-ga* *šge*  $\emptyset$ -*u*  
 Meredith-PROP also 3s-do  
 ‘Bryan said that Cecil bought a car, and Meredith did too.’

## 2.2 Licensing of VPE

The main characteristic that distinguishes VPE from other elliptical processes is the presence of an overt licensing head located in the inflectional domain above the VP. VPE in English can be licensed by a variety of functional elements, such as *do* in (12a), *be* in (12b), *have* in (12c), *can* in (12d) and *will* in (12e). The obligatory presence of an inflectional head has led previous researchers to argue that VPE is licensed by T/Infl (Bresnan 1976; Sag 1976; Zagona 1988; Lobeck 1995).

- (12) a. Lily wore a skirt, and Molly **did** too.  
 b. Lily is reading a book, and Molly **is** too.

- c. Lily hasn't finished the book, but Molly **has**.
- d. Lily can ride a bike, and Molly **can** too.
- e. Lily will leave, and Molly **will** too.

In contrast, there is no such inflectional head found with stripping or gapping. Stripping is an elliptical phenomenon in which an entire clause is elided except for a single element that is stranded. This is illustrated in (13a). In gapping constructions, the verb (and other potential material) is left unpronounced, while there are two elements that are stranded. An example of gapping can be seen in (13b).

- (13) a. Lily came over, and Molly too.
- b. Lily brought bagels, and Molly danishes.

In Hocak, the licensing requirement on VPE is different: VPE is conditioned solely by the presence of the light verb *uy*. We have seen this in all of the instances of VPE given above. The examples in (14)–(18) illustrate that *uy* is indeed a light verb: it productively combines with both nouns and verbs to create complex predicates. Based on its distribution, I assume that *uy* realizes the functional head *v* (Hartmann 2012: Examples 14–18).

- |      |                                     |   |
|------|-------------------------------------|---|
| (14) | a. <i>maqnaqpeja</i><br>'warrior'   | b. <i>maqnaqpeja uy</i><br>'be in the military' |
| (15) | a. <i>nqawağoğo</i><br>'fiddle'     | b. <i>nqawağoğo uy</i><br>'play the fiddle'     |
| (16) | a. <i>waruc</i><br>'food'           | b. <i>waruc uy</i><br>'cook, prepare food'      |
| (17) | a. <i>waagax</i><br>'paper, letter' | b. <i>waagax uy</i><br>'write (a letter)'       |

- (18) a. *hooxiwi*  
‘cough’ (verb)
- b. *hooxiwi uyu*  
‘have a cold’

Tense and modals can be present in VPE constructions; however, they are never obligatory. When present, tense and modals always co-occur with the light verb *uyu*. (19a) shows that the future tense marker *kjane* can follow *uyu*, while (19b) and (19c) demonstrate that the modals *nq* and *s’aare* can also appear after *uyu*. When *uyu* is omitted, the result is ungrammatical.

- (19) a. *Cecilga wažqtirehižq ruwı kjane anqga nee šge \*(ha’uyu)*  
*Cecil-ga wažqtire-hižq ∅-ruwı kjane anqga nee šge ha-uyu*  
 Cecil-PROP car-INDEF 3S/O-buy FUT and I also 1s-do  
***kjane.***  
***kjane***  
 FUT  
 ‘Cecil will buy a car, and I will too.’
- b. *Meredithga hqəke wažqtirera pij’u ruxurukni nünige*  
*Meredith-ga hqəke wažqtire-ra ∅-pij’u ruxuruk-ni nünige*  
 Meredith-PROP NEG car-DEF 3S/O-fix-NEG but  
*Matejaga \*(uyu) nq.*  
*Mateja-ga ∅-uyu nq*  
 Mateja-PROP 3S-do can  
 ‘Meredith can’t fix the car, but Mateja can.’
- c. *Meredithga hqəke nıjšak taaxu ruwıni nünige*  
*Meredith-ga hqəke nıjšak taaxu ∅-ruwı-ni nünige*  
 Meredith-PROP NEG coffee 3S/O-buy-NEG but  
*Matejaga \*(uyu) s’aare.*  
*Mateja-ga ∅-uyu s’aare*  
 Mateja-PROP 3S-do must  
 ‘Meredith didn’t buy coffee but Mateja must have.’

Thus, we see that T/Infl does not play the same role in VPE licensing in Hocak as it does in other languages. However, VPE in Hocak is constrained by the type of predicate. As the examples in (20) show, VPE is not licensed with non-agentive verbs:

- (20) a. \**Meredithga kšee gipi anqga Bryanga šge uyu.*  
*Meredith-ga kšee ∅-gipi anqga Bryan-ga šge ∅-uyu*  
 Meredith-PROP apple 3S-like and Bryan-PROP also 3S-do  
 (Intended: ‘Meredith likes apples, and Bryan does too.’)



- b. \* *Cecilga wijxra waaja anąga Meredithga šge ɥɥ.*  
*Cecil-ga wijx-ra wa-∅-haja anąga Meredith-ga šge ∅-ɥɥ*  
 Cecil-PROP duck-DEF 3O.PL-3S-see and Meredith-PROP also 3S-do  
 (Intended: ‘Cecil saw the ducks, and Meredith did too.’)
- c. \* *Meredithga hoišq anąga Bryanga šge ɥɥ.*  
*Meredith-ga ∅-hoišq anąga Bryan-ga šge ∅-ɥɥ*  
 Meredith-PROP 3S-busy.STAT and Bryan-PROP also 3S-do  
 (Intended: ‘Meredith is busy, and Bryan is too.’)
- d. \* *Cecilga hjičge nuņige Bryanga haqke ɥuņi.*  
*Cecil-ga ∅-hjičge nuņige Bryan-ga haqke ∅-ɥu-ņi*  
 Cecil-PROP 3S-tired.STAT but Bryan-PROP NEG 3S-do-NEG  
 (Intended: ‘Cecil is tired, but Bryan isn’t.’)

Like other Siouan languages, Hocak exhibits an active-stative alignment pattern: the active set of verbal person markers is used to index the subject of transitive verbs and active intransitive verbs, while the stative set is used to index the object of transitive verbs and the subject of stative intransitive verbs. This alignment pattern interacts with VPE in revealing ways. While VPE is banned with most stative intransitive verbs, such as those in (20c) and (20d), VPE is possible with certain stative intransitives when they have an agentive reading. *Hokqre* ‘to fall in’ is normally a stative intransitive verb, but it is possible to use it in VPE contexts if the subject falls *deliberately*, as in (21). In this context, *ɥɥ* takes the active person marker set. In (21b), the verb takes the second person active marker *š-*; the stative marker *ni-* is not permitted. The marker *ni-* is the one that would typically be found on the verb *hokqre*, as shown in (22).

- (21) a. *Meredithga niĵ eeja hokqre anąga Bryanga šge ɥɥ.*  
*Meredith-ga niĵ eeja ∅-hokqre anąga Bryan-ga šge ∅-ɥɥ*  
 Meredith-PROP water there 3S-fall.in and Bryan-PROP also 3S-do  
 ‘Meredith fell into the water (deliberately), and Bryan did too.’
- b. *Meredithga niĵ eeja hokqre anąga (nee) šge š’ɥɥ/\*ni’ɥɥ.*  
*Meredith-ga niĵ eeja ∅-hokqre anąga nee šge š-’ɥɥ/ni-’ɥɥ*  
 Meredith-PROP water there 3S-fall.in and you also 2S-do  
 ‘Meredith fell into the water (deliberately), and you did too.’

- (22) *Honiĵqre.*  
 <ni>*hokqre*  
 <2S>fall.in.STAT  
 ‘You fell in(to something).’ (Hartmann 2012)

This restriction on VPE is not due to lexical properties of *yu*: when *yu* functions as a light verb, it can form non-agentive verbs, as in (23):

- (23) a. *hooxiwi yu* ‘have a cold’ (stative intransitive)  
b. *roo taakac yu* ‘have a fever’ (stative intransitive)  
c. *paaxšišik yu* ‘have an upset stomach’ (stative intransitive)  
(Hartmann 2012)

To formalize this restriction on VPE in Hocak, I adopt Merchant’s (2001) proposal that ellipsis takes place when a so-called “[E]-feature” is present on the relevant licensing head. In the case of Hocak, I propose that an [E]-feature is present only on the agentive *v* head.<sup>1</sup> This accounts for the fact that VPE is solely conditioned by the presence of the light verb (or *v*) *yu*, and furthermore that only agentive verbs can be elided: if there is a non-agentive *v* present, then ellipsis will not be licensed.

This conclusion is in line with other research that argues that *v* is responsible for licensing VPE crosslinguistically. Many recent approaches to ellipsis have argued for a link between phases and elliptical phenomena (Holmberg 2001, van Craenenbroeck 2004, Gengel 2007, Yoshida & Gallego 2008, Gallego 2009, among others). Specifically, they propose that ellipsis results when a phasal head (e.g. *v*, C, D) licenses deletion of its complement. These theories are a natural development of Chomsky’s (2000; 2001; 2004) theory of phases: if ellipsis is PF-deletion, it follows that the units that are sent cyclically to the PF interface are precisely the ones that can be targeted for deletion. More concretely, Rouveret (2012) adopts the phasal analysis of ellipsis, and puts forward a theory to predict which languages permit VPE. He argues that *v* always has an uninterpretable [tense] feature, and that, in languages with VPE, the [tense] feature is valued on *v* phase-internally. Rouveret proposes that the elements that license VPE are all merged in *v*, and subsequently move to Infl. All of these approaches are compat-

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<sup>1</sup> This agentivity requirement on a process that affects the VP is not completely unique to Hocak. For example, Hallman (2004) notes that English *do so* replacement is restricted to agentive VPs, even though other uses of *do* are not subject to this constraint (e.g., *Max loves studying French, and Mary does (\*so) too.*) Rouveret (2012) also shows that VPE in Welsh is licensed uniquely by the light verb *gweund*, and furthermore that VPE is not permitted with stative predicates. The only possibility with stative VPs is VVPE. However, Rouveret also shows that *gweund* is also incompatible with stative predicates in its non-elliptical uses. This contrasts with the behavior of *yu* in Hocak and *do* in *do so* in English.

ible with the Hocak data, with the caveat that VPE is more restricted in Hocak: it is only licensed by active *v*.

### 3 Crosslinguistic characteristics of VPE

In the previous section, I demonstrated that Hocak displays the two defining characteristics of VPE: the elliptical process in question targets the entire VP, and is conditioned by the presence of a licensing head. Goldberg (2005) discusses five other characteristics of VPE that are not shared by other elliptical phenomena, which are listed in (24):

- (24)
- a. Possible in both coordinated and adjacent CPs
  - b. Insensitive to contents of elided VP
  - c. Ellipsis site can be in a syntactic island
  - d. Ellipsis site can be embedded
  - e. Presence of strict and sloppy readings

In the subsections that follow, I show that Hocak VPE also generally conforms to this typology. In the areas where Hocak appears to differ from English, I demonstrate that this is due to other differences between the two languages that are independent of ellipsis.

#### 3.1 Ellipsis licensed in both coordinated and adjacent CPs

Goldberg (2005) notes that English VPE is possible with a variety of sentence types. VPE is licit when the antecedent VP and elided VP are found in conjoined CPs (25a), in adjacent CPs uttered by the same speaker (25b), and when the antecedent is in a question and the ellipsis site in the answer (25c). In this section, I show that the same is true in Hocak.

- (25)
- a. Lily hates beets, but Molly doesn't.
  - b. Lily hates beets. Molly does too.
  - c. Who hates beets? Molly does.

All of the examples of VPE we saw in §2 involved two clauses joined by the coordinator *anqqa* 'and'. VPE is also possible with disjunction, as seen in (26) with *nunige* 'but'.

- (26) a. *Cecilga wažqtirehižq ruwī nūņige nee haqke ha'ūņi.*  
*Cecil-ga wažqtire-hižq ∅-ruwī nūņige nee haqke ha-ūņ-nī*  
 Cecil-PROP car-INDEF 3S/O-buy but I NEG 1S-do-NEG  
 'Cecil bought a car, but I didn't.'
- b. *Sarahga haqke haas gihini nūņige Matejaga uū.*  
*Sarah-ga haqke haas ∅-gihi-nī nūņige Mateja-ga ∅-uū*  
 Sarah-PROP NEG berry 3S-pick-NEG but Mateja-PROP 3S-do  
 'Sarah didn't pick berries, but Mateja did.'

(27) shows that VPE is also licit in adjacent CPs. In each example, the antecedent VP is found in the first sentence while the ellipsis site is in the second sentence.

- (27) a. *Meredithga waaruchižq hogiha. Bryanga šge uū.*  
*Meredith-ga waaruc-hižq ∅-hogiha Bryan-ga šge ∅-uū*  
 Meredith-PROP table-INDEF 3S/O-paint Bryan-PROP also 3S-do  
 'Meredith painted a table. Bryan did too.'
- b. *Meredithga haqke waisgap sguu xuwuxuwuhižq ruucni.*  
*Meredith-ga haqke waisgap sguu xuwuxuwu-hižq ∅-ruuc-ni*  
 Meredith-PROP NEG cookie-INDEF 3S/O-eat-NEG  
*Bryanga uū.*  
*Bryan-ga ∅-uū*  
 Bryan-PROP 3S-do  
 'Meredith didn't eat a cookie. Bryan did.'

Lastly, VPE also occurs in question-answer pairs in Hocak. In (28a), a yes-no question contains the antecedent VP and the answer contains the gap. (28b) demonstrate that the same holds of *wh*-questions.

- (28) a. Question: *Njitašnjak taaxu šuruwi?* Answer: *Ha'ū.*  
*njitašnjak taaxu šu-ruwī ha-ū*  
 coffee 2s-buy 1s-do  
 Q: 'Did you buy coffee?' A: 'I did.'
- b. Question: *Peežega Cecilga gišja hii?* Answer: *Bryanga uū.*  
*peežega Cecil-ga ∅-gišja hii Bryan-ga ∅-uū.*  
 who Cecil-PROP 3S/O-visit Bryan-PROP 3S-do  
 Q: 'Who visited Cecil?' A: 'Bryan did.'

### 3.2 Ellipsis and the contents of the VP

Goldberg (2005) distinguishes VPE from null complement anaphora (NCA) based on the type of constituent that is elided. In NCA, a matrix verb is stranded and its complement is elided. However, NCA is constrained by the contents of the VP: only propositions can be elided. This is illustrated by the contrast between the grammatical NCA examples in (29a) and (29c) and the ungrammatical examples in (29b) and (29d):

- (29) a. Pat doesn't know **that Terry is moving to Japan**, but Robin knows.  
 b. \* Pat doesn't know **how to speak Inuktitut**, but Robin knows.  
 c. Pat forgot **to close the door**, but Robin remembered.  
 d. \* Pat forgot **the answer**, but Robin remembered. (Fortin 2007: 245)

In contrast, the grammaticality of VPE is not dependent on the contents of the VP. The examples in (30) show that VPE is possible regardless of whether the complement of the VP expresses a proposition or not.

- (30) a. Pat doesn't know **that Terry is moving to Japan**, but Robin does.  
 b. Pat doesn't know **how to speak Inuktitut**, but Robin does.  
 c. Pat forgot **to close the door**, but Robin didn't.  
 d. Pat forgot **the answer**, but Robin didn't.

As Fortin (2007) points out, this diagnostic does not serve to distinguish VPE from NCA in languages with null objects. Hocak allows both null subjects and objects, as seen in (31b):

- (31) a. *Wijukra šuykra hoxataprookeeja haja.*  
*Wijuk-ra šuyk-ra hoxatap-rook-eeja Ø-haja*  
 cat-DEF dog-DEF woods-inside-there 3s/o-see  
 'The cat saw the dog in the woods.'  
 b. *Hoxataprookeeja haja.*  
*hoxatap-rook-eeja Ø-haja*  
 woods-inside-there 3s/o-see  
 '[The cat] saw [the dog] in the woods.' (Johnson, Rosen & Schuck 2013: 7)

Thus, it is not surprising that both propositional and non-propositional verbal complements can be null in Hocąk. In (32), the complement of the verb *hiperes* ‘know’ can be null both when it is a proposition (32a) or an embedded question (32b). Likewise, both propositional (33a) and DP object (33b) complements of *wakikununi* ‘forget’ surface as null.

- (32) a. *Sarahga Meredithga rookhožura ruucra hiperes,*  
*Sarah-ga Meredith-ga rookhožu-ra ∅-ruuc-ra ∅-hiperes*  
 Sarah-PROP Meredith-PROP pie-DEF 3s/O-eat-COMP 3s-know  
*anąga Matejaga šge hireperesšąnq.*  
*anąga Mateja-ga šge ∅-hiperes-šąnq*  
 and Mateja-PROP also 3s-know-DECL  
 ‘Sarah knows that Meredith ate the pie, and Mateja knows too.’
- b. *Sarahga jaagu’u Meredithga kerera hiperes, anąga*  
*Sarah-ga jaagu’u Meredith-ga ∅-kere-ra ∅-hiperes anąga*  
 Sarah-PROP why Meredith-PROP 3s-leave-COMP 3s-know and  
*Matejaga šge hiperesšąnq.*  
*Mateja-ga šge ∅-hiperes-šąnq*  
 Mateja-PROP also 3s-know-DECL  
 ‘Sarah knows why Meredith left, and Mateja knows (why Meredith left) too.’
- (33) a. *Bryanga niįtašjak taaxu ruwira wakikununi, nuņige*  
*Bryan-ga niįtašjak taaxu ∅-ruwi-ra ∅-wakikununi nuņige*  
 Bryan-PROP coffee 3s-buy-COMP 3s-forget but  
*Meredithga haąke wakikununiņi.*  
*Meredith-ga haąke ∅-wakikununi-ņi*  
 Meredith-PROP NEG 3s-forget-NEG  
 ‘Bryan forgot to buy coffee, but Meredith didn’t forget.’
- b. *Bryanga waisgap sguura wakikununi, nuņige Meredithga*  
*Bryan-ga waisgap sguu-ra ∅-wakikununi nuņige Meredith-ga*  
 Bryan-PROP cake-DEF 3s/O-forget but Meredith-PROP  
*haąke wakikununiņi.*  
*haąke ∅-wakikununi-ņi*  
 NEG 3s/O-forget-NEG  
 ‘Bryan forgot the cake, but Meredith didn’t forget (the cake).’

Thus, this particular diagnostic does not work for Hocak due to independent factors. The complement of verbs like ‘know’ and ‘forget’ can always be null, presumably due to the availability of object *pro* drop.<sup>2</sup>

### 3.3 Ellipsis in syntactic islands

Goldberg (2005) notes that the ellipsis site in VPE constructions can be inside an adjunct island, while gapping is not permitted in adjuncts. This is shown by the contrast between (34a) and (34b) below:

- (34) a. Lily finished her sandwich before Molly did.  
 b. \*Lily finished the sandwich before Molly the pizza.

The same contrast is found in Hocak. The examples in (35) show that the gap in VPE constructions can be found inside adjunct clauses (which precede the main clause in these examples). In (35a), the ellipsis site is in the clause headed by ‘if’, in (35b) the ellipsis site is in the clause headed by ‘because’, and in (35c) it is in the clause headed by ‘before.’

- (35) a. *Bryanga uꞥ kjanegi Meredithga Hunterga (nišge)*  
*Bryan-ga Ø-uꞥ kjane-gi Meredith-ga Hunter-ga (nišge)*  
 Bryan-PROP 3S-do FUT-if Meredith-PROP Hunter-PROP also  
*gišja hii kjane.*  
*Ø-gišja hii kjane*  
 3S/O-visit FUT  
 ‘Meredith will visit Hunter if Bryan will.’
- b. *Bryanga haqke uꞥniꞥ Meredithga (nišge) haqke*  
*Bryan-ga haqke Ø-uꞥ-niꞥ-ga Meredith-ga (nišge) haqke*  
 Bryan-PROP NEG 3S-do-NEG-because Meredith-PROP also NEG  
*Hunterga gišja hiini.*  
*Hunter-ga Ø-gišja hii-ni*  
 Hunter-PROP 3S/O-visit-NEG  
 ‘Meredith didn’t visit Hunter because Bryan didn’t.’

<sup>2</sup> A full comparison of NCA and VPE is not possible in Hocak. VPE with verbs like ‘know’ and ‘forget’ is ungrammatical (examples omitted for space purposes) since these verbs are non-agentive.

- c. *Keenį Sarahga uęųń Matejaga*  
*keenį Sarah-ga Ø-uę-ńń Mateja-ga*  
 before Sarah-PROP 3S-do-NEG Mateja-PROP  
*waisgap sguu xuwuxuwuhiżq ruucşqńq.*  
*waisgap sguu xuwuxuwu-hiżq Ø-ruuc-şqńq*  
 cookie-INDEF 3S/O-eat-DECL  
 ‘Mateja ate a cookie before Sarah did.’

In contrast, gapping is ungrammatical in adjuncts. (36) illustrates that the the gap cannot be located in an adjunct clause headed by ‘if’ (36a), ‘because’ (36b) or ‘before’ (36c).

- (36) a. \* *Matejaga rookhożuhiżqgi Meredithga waisgap sguuhiżq*  
*Mateja-ga rookhożu-hiżq-gi Meredith-ga waisgap sguu-hiżq*  
 Mateja-PROP pie-INDEF-if Meredith-PROP cake-INDEF  
*rook’i kjane.*  
 Ø-rook’i kjane  
 3S/O-bake FUT  
 (Intended: ‘Meredith will bake a cake if Mateja will bake a pie.’)
- b. \* *Sarahga ważq honqkipińńihiżqge Matejaga ważqtirehiżq*  
*Sarah-ga ważq honqkipińńi-hiżq-ge Mateja-ga ważqtire-hiżq*  
 Sarah-PROP bicycle-INDEF-because Mateja-PROP car-INDEF  
*ruwį.*  
 Ø-ruwį  
 3S/O-buy  
 (Intended: ‘Mateja bought a car because Sarah bought a bicycle.’)
- c. \* *Keenį Bryanga waisgap sguu xuwuxuwuhiżqńńi Meredithga*  
*keenį Bryan-ga waisgap sguu xuwuxuwu-hiżq-ńńi Meredith-ga*  
 before Bryan-PROP cookie-INDEF-NEG Meredith-PROP  
*kşeehiżq ruucşqńq.*  
*kşee-hiżq Ø-ruuc-şqńq*  
 apple-INDEF 3S/O-eat-DECL  
 (Intended: ‘Meredith ate an apple before Bryan ate a cookie.’)

### 3.4 Ellipsis in embedded clauses

Goldberg (2005) also shows that the ellipsis site in VPE constructions can be inside an embedded clause, while this is not true of other types of ellipsis. (37a)



demonstrates that VPE is licit in an embedded clause, while (37b)–(37c) illustrate that neither gapping nor stripping are possible in an embedded clause.

- (37) a. Lily went to the zoo, and I think (that) Molly did too.  
 b. \* Lily went to the zoo, and I think (that) Molly the aquarium.  
 c. \* Lily went to the zoo, and I think (that) Molly too.

In Hocak, VPE is licit in the complement clause of various matrix verbs, including ‘know’ (38a), ‘want’ (38b), ‘think’ (38c) and ‘say’ (38d).

- (38) a. *Bryanga haqke niĵtašjak taaxu ruwiŋi, nuŋige Meredithga*  
*Bryan-ga haqke niĵtašjak taaxu ∅-ruwi-ni nuŋige Meredith-ga*  
 Bryan-PROP NEG coffee 3S-buy-NEG but Meredith-PROP  
*uŋra yaaperesšaq.*  
*∅-uŋ-ra <ha>hiperesšaq*  
 3S-do-COMP <1S>know-DECL  
 ‘Bryan didn’t buy coffee, but I know Meredith did.’
- b. *Meredithga haqke Hunterga gišja hiini nuŋige*  
*Meredith-ga haqke Hunter-ga ∅-gišja hii-ni nuŋige*  
 Meredith-PROP NEG Hunter-PROP 3S/O-visit-NEG but  
*Bryanga uŋ roogu.*  
*Bryan-ga ∅-uŋ ∅-roogu*  
 Bryan-PROP 3S-do 3S-want  
 ‘Meredith didn’t visit Hunter, but Bryan wants to.’
- c. *Matejaga haqke wažq honqkipiŋi hižq ruwiŋi, nuŋige*  
*Mateja-ga haqke wažq honqkipiŋi-hižq ∅-ruwi-ni nuŋige*  
 Mateja-PROP NEG bicycle-INDEF 3S/O-buy-NEG but  
*Cecilga uŋže yaare.*  
*Cecil-ga ∅-uŋ-že <ha>hire*  
 Cecil-PROP 3S-do-COMP <1S>think  
 ‘Mateja didn’t buy a bicycle, but I think Cecil did.’
- d. *Sarahga haqke waarucra hogihani, nuŋige Meredithga*  
*Sarah-ga haqke waaruc-ra ∅-hogiha-ni nuŋige Meredith-ga*  
 Sarah-PROP NEG table-DEF 3S/O-paint-NEG but Meredith-PROP  
*uŋže ee.*  
*∅-uŋ-že ∅-ee*  
 3S-do-COMP 3S-say  
 ‘Sarah didn’t paint the table, but Meredith said she did.’

Unlike English, Hocak does not exhibit any constraint on gapping in embedded contexts. (39a) and (39b) show that the gap can be embedded under the verbs *hire* ‘think’ and *ee* ‘say’, respectively.

- (39) a. *Meredithga wažq honqkipiñihižq ruwi anqga Bryanga*  
*Meredith-ga wažq honqkipiñi-hižq ∅-ruwi anqga Bryan-ga*  
 Meredith-PROP bicycle-INDEF 3s/o-buy and Bryan-PROP  
*wažqtirehižq yaare.*  
*wažqtire-hižq <ha>hire*  
 car-INDEF <1s>think  
 ‘Meredith bought a bicycle, and I think that Bryan bought a car.’
- b. *Meredithga kšeehižq ruuc anqga Matejaga*  
*Meredith-ga kšee-hižq ∅-ruuc anqga Mateja-ga*  
 Meredith-PROP apple-INDEF 3s/o-eat and Mateja-PROP  
*wažqzihžq hihe.*  
*wažqzi-hižq <ha>ee*  
 orange-INDEF <1s>say  
 ‘Meredith ate an apple and I said that Mateja ate an orange.’

The examples in (40) show that Hocak exhibits stripping. (40a) illustrates stripping with an object remnant after the coordinator ‘and’, while the example in (40b) has an object remnant with disjunction. (40c) shows that stripping is also possible with a subject remnant after the coordinator.

- (40) a. *Sarahga šyukhižq haja, anqga wijukhižq šge.*  
*Sarah-ga šyuk-hižq ∅-haja anqga wijuk-hižq šge*  
 Sarah-PROP dog-INDEF 3s/o-see and cat-INDEF also  
 ‘Sarah saw a dog, and a cat too.’
- b. *Meredithga haqke kšeehižq ruucni, nuñige*  
*Meredith-ga haqke kšee-hižq ∅-ruuc-ñi nuñige*  
 Meredith-PROP NEG apple-INDEF 3s/o-eat NEG  
*waisgap sguu xuwuxuwuhižq.*  
*waisgap sguu xuwuxuwu-hižq*  
 but  
 ‘Meredith didn’t eat an apple, but a cookie.’
- c. *Bryanga niñtašnjak taaxu racgq, anqga Matejaga šge.*  
*Bryan-ga niñtašnjak taaxu ∅-racgq anqga Mateja-ga šge*  
 Bryan-PROP coffee 3s-drink and Mateja-PROP also  
 ‘Bryan drank coffee, and Mateja too.’

As is the case in English and other languages, stripping is ungrammatical in embedded clauses in Hocak. This is shown in (41a) for an object remnant with conjunction, (41b) for an object remnant with disjunction and (41c) for a subject remnant with conjunction.

- (41) a. \* *Matejaga wažahe gipj, anqa kšexete šge yaare.*  
*Mateja-ga wažahe Ø-gipj anqa kšexete šge <ha>hire*  
 Mateja-PROP banana 3S-like and pineapple also <1s>think  
 (Intended: ‘Mateja likes bananas, and I think (she likes) pineapple too.’)
- b. \* *Bryanga haqke wažqtirehižq ruwini, nuņige Cecilga*  
*Bryan-ga haqke wažqtire-hižq Ø-ruwi-ni nuņige Cecil-ga*  
 Bryan-PROP NEG car-INDEF 3S/O-buy-NEG but Cecil-PROP  
*wažq honąkipinihižq ee.*  
*wažq honąkipini-hižq Ø-ee*  
 bicycle-INDEF 3S-say  
 (Intended: ‘Bryan didn’t buy a car, but Cecil said (he bought) a bicycle.’)
- c. \* *Sarahga waisgap sguuhižq rook’i, anqa Bryanga*  
*Sarah-ga waisgap sguu-hižq Ø-rook’i anqa Bryan-ga*  
 Sarah-PROP cake-INDEF 3S/O-bake and Bryan-PROP  
*Meredithga šge ee.*  
*Meredith-ga šge Ø-ee*  
 Meredith-PROP also 3S-say  
 (Intended: ‘Sarah baked a cake, and Bryan said Meredith (baked a cake) too.’)

To conclude, the possibilities of having an ellipsis site in embedded contexts differ between English and Hocak: VPE and gapping are not differentiated by embedding, but VPE and stripping are. However, gapping and VPE are still distinguished in adjunct clauses: as we saw in 3.3, VPE is grammatical in adjunct clauses (35) while gapping is not (36).

### 3.5 Presence of strict and sloppy readings

Another characteristic of VPE is the fact that elided pronouns and anaphors give rise to two different identity readings. The English example in (42) is ambiguous. Under the so-called “strict” reading, the referent of the pronoun is identical in both the antecedent and elided VP. Under the “sloppy” reading, the pronoun

behaves like a variable, and the referent of the anaphor is different for each conjunct.

- (42) Lily saw herself in the mirror, and Molly did too.

*Strict reading:* Molly saw Lily in the mirror.

*Sloppy reading:* Molly saw herself in the mirror.

Fortin (2007) shows that stripping also gives rise to both strict and sloppy readings, as in the example in (43). However, there is another possible interpretation for the second conjunct: the remnant can be interpreted as the object of the stripped clause. Fortin terms this additional reading the “object reading.” This third reading is unique to stripping constructions, as the remnant DP in VPE is always interpreted as the subject of the elided constituent.

- (43) Lily saw herself in the mirror, and Molly too.

*Strict reading:* Molly saw Lily in the mirror.

*Sloppy reading:* Molly saw herself in the mirror.

*Object reading:* Lily saw Molly in the mirror.

In Hocak, strict and sloppy readings are available with both VPE and stripping, while the additional “object reading” is possible only with stripping. In the examples in (44), the antecedent VP contains a possessed object. (44a) is an instance of VPE, and the second conjunct has two possible interpretations: either Hunter visited Bryan’s mother (strict reading) or Hunter visited his own mother (sloppy reading). In (44b), the second conjunct contains a stripping ellipsis site. Both the strict and sloppy readings are available, but the object reading is also possible: the sentence could mean that Bryan visited Hunter.

- (44) a. *Bryanga hi’uŋi hiira homaŋiŋi anaga Hunterga ŝge*  
*Bryan-ga hi’uŋi ∅-hii-ra ∅-homaŋiŋi anaga Hunter-ga ŝge*  
Bryan-PROP mother 3S-POSS-DEF 3S/O-visit and Hunter-PROP also  
*uu.*  
*∅-uu*  
3s-do

‘Bryan visited his mother, and Hunter did too.’

- b. *Bryanga hi’uŋi hiira homaŋiŋi anaga Hunterga ŝge.*  
*Bryan-ga hi’uŋi ∅-hii-ra ∅-homaŋiŋi anaga Hunter-ga ŝge*  
Bryan-PROP mother 3S-POSS-DEF 3S/O-visit and Hunter-PROP also  
‘Bryan visited his mother, and Hunter too.’

The examples in (45) show that the same readings are possible with reflexives. The second conjunct of (45a) contains a VPE gap, and it has two interpretations: either Meredith hit Mateja (sloppy) or Meredith hit herself (strict). In the stripping example in (45b), both strict and sloppy readings are possible, but so is the “object reading” under which Mateja hit Meredith.

- (45) a. *Matejaga hokiji anaga Meredithga šge uu.*  
*Mateja-ga ∅<kii>hoji anaga Meredith-ga šge ∅-uu*  
 Mateja-PROP 3S<REFL>hit and Meredith-PROP also 3S-do  
 ‘Mateja hit herself, and Meredith did too.’
- b. *Matejaga hokiji anaga Meredithga šge.*  
*Mateja-ga ∅<kii>hoji anaga Meredith-ga šge*  
 Mateja-PROP 3S<REFL>hit and Meredith-PROP also  
 ‘Mateja hit herself, and Meredith too.’

Thus, while strict and sloppy readings are available with both VPE and stripping, stripping constructions have the additional reading that Fortin (2007) calls the “object reading”.

#### 4 Deletion vs. pro-form analysis

In the previous two sections, I presented arguments that Hocak exhibits VPE. In this section, I further argue that VPE in Hocak is derived by a deletion process. There are two main approaches to any given elliptical phenomena: the ellipsis site is either a deleted phrase or a null *pro*-form. Here, I extend two arguments in favor of a deletion approach of English VPE to Hocak. First, I show that extraction from the ellipsis site is possible. Second, I demonstrate that ellipsis sites can contain the antecedent to a pronoun outside of the gap.

Fiengo & May (1994) argue that English VPE is best analyzed as VP deletion. Their argument is based on cases of object extraction from the ellipsis site. In (46a), we see that the object of the second clause has undergone *wh*-movement out of the ellipsis site. (46b) illustrates the phenomenon known as antecedent-contained deletion (ACD). In ACD constructions, the ellipsis site is found inside of a relative clause and is licensed under identity with the matrix VP. The head of the relative clause (here, *everyone*) is the object of the elided VP. In both (46a) and (46b), movement of the object in the elided VP has taken place. This is not expected under a *pro*-form analysis of VPE: a *pro*-form has no internal structure, and thus there should be no object position inside the ellipsis site that the extracted object could have originated in. In contrast, a deletion analysis posits a

full-fledged VP in the ellipsis site which undergoes deletion at a later stage in the derivation. In the examples in (46), the object originated inside the elided VP, and underwent movement before deletion took place.

- (46) a. I know which book Max read, and **which book** Oscar didn't.  
 b. Dulles suspected everyone who Angleton did. (Fiengo & May 1994: 229, 257)

Likewise, Hocak constructions with *uy* cannot be analyzed as a *pro*-form, as object extraction is permitted. (47a) shows that focused elements can be extracted from the ellipsis site, and (47b) exemplifies the movement of *wh*-words from the ellipsis site.<sup>3</sup>

- (47) a. *Meredithga waagaxra ruwi, nunige wiiwagaxra hqake*  
*Meredith-ga waagax-ra Ø-ruwi, nunige wiiwagax-ra hqake*  
 Meredith-PROP paper-DEF 3S/O-buy but pencil-DEF NEG  
*uyuni.*  
 Ø-uy-ni  
 3S-do-NEG  
 'Meredith bought the paper, but the pencil, she didn't.'
- b. *Jaagu Bryanga ruwira yaaperesšaq, nunige jaagu*  
*Jaagu Bryan-ga Ø-ruwi-ra <ha>hiperes-šaq nunige jaagu*  
 what Bryan-PROP 3S/O-buy-COMP <1S>know-DECL but what  
*Hunterga uyra hqake yaaperesni.*  
*Hunter-ga Ø-uy-ra hqake <ha>hiperes-ni*  
 Hunter-PROP 3S-do-COMP NEG <1S>know-NEG  
 'I know what Bryan bought, but I don't know what Hunter did.'

As the example in (48) shows, ACD is also grammatical in Hocak. ACD would not be possible if *uy* were a *pro*-form, since the head of the relative clause is the object of the elided VP.

- (48) *Bryanga ruwi, jaagu Meredithga uyra.*  
*Bryan-ga Ø-ruwi jaagu Meredith-ga Ø-uy-ra*  
 Bryan-PROP 3S/O-buy what Meredith-PROP 3S-do-COMP  
 'Bryan bought what(ever) Meredith did.'

<sup>3</sup> Like other Siouan languages, Hocak is a *wh*-in-situ language. However, *wh*-words can undergo focus driven movement.

The second argument in favor of a deletion analysis of VPE in Hocak comes from so-called “missing antecedents.” Hankamer & Sag (1976) demonstrate that the gap in English VPE constructions can contain the antecedent to a pronoun. In the non-elliptical example in (49a), the DP *a camel* in the second conjunct serves as the antecedent for the pronoun *it* in the third conjunct. In (49b), the VP in the second conjunct is elided, resulting in a missing antecedent for the pronoun *it*. Nonetheless, the sentence is still grammatical. It is important to note that the instance of *a camel* in the first conjunct cannot be the antecedent for the pronoun *it*: as (50) shows, DPs under the scope of negation cannot serve as antecedents for pronouns.

- (49) a. I've never ridden a camel, but Ivan's ridden a camel<sub>i</sub>, and he says it<sub>i</sub> stank horribly.  
 b. I've never ridden a camel, but Ivan has, and he says it<sub>i</sub> stank horribly.  
 (Hankamer & Sag 1976: 403)
- (50) \*I've never ridden a camel<sub>i</sub>, and it<sub>i</sub> stank horribly. (Hankamer & Sag 1976: 404)

Hankamer & Sag (1976) argue that the grammaticality of the example in (49b) points to a deletion analysis of VPE. These facts are not readily explained under a *pro*-form analysis: since the ellipsis site would not have internal structure at any point in the derivation, the elided VP in (49b) would never contain the antecedent for the following pronoun.

Examples of VPE with missing antecedents are also grammatical in Hocak. In (51a), the DP *kšexetehižq* ‘a pineapple’ in the second conjunct is the antecedent for the null pronominal subject of the verb *sguu* ‘sweet’. In (51b), the VP containing the antecedent is elided, and the resulting sentence is grammatical. Like English, a pronoun cannot find its antecedent in a negated clause (52).

- (51) a. *Hqkaga kšexetehižq haacni, nuņige Matejaga*  
*hqkaga kšexete-hižq ∅<ha>ruuc-ni nuņige Mateja-ga*  
 never pineapple-INDEF 3S<1S>eat-NEG but Mateja-PROP  
*kšexetehižq ruuc, anqga sguu ee.*  
*kšexete-hižq ∅-ruuc anqga ∅-sguu ∅-ee*  
 pineapple-INDEF 3S/O-eat and 3S-sweet 3S-say  
 ‘I never ate a pineapple, but Mateja ate a pineapple, and she said it was sweet.’

- b. *Hqkaga kšexetehižq haacnĭ nųnĭge Matejaga ųų,*  
*hqkaga kšexete-hižq ∅<ha>ruuc-nĭ nųnĭge Mateja-ga ∅-ųų*  
never pineapple-INDEF 3S<1S>eat-NEG but Mateja-PROP 3S-do  
*anqga sguu ee.*  
*anqga ∅-sguu ∅-ee*  
and 3s-sweet 3s-say  
'I never ate a pineapple, but Mateja did, and she said it was sweet.'

- (52) *Hqkaga kšexetehižq haacnĭ anqga sguu.*  
*hqkaga kšexete-hižq ∅<ha>ruuc-nĭ anqga ∅-sguu*  
never pineapple-INDEF 3S<1S>eat-NEG and 3s-sweet  
'I never ate a pineapple, and it was sweet.'

Both the extraction facts and pronoun antecedent facts point to an analysis in which the contents of elided VPs in Hocak are present syntactically, and that the omission of elided VPs is due to a deletion process.

## 5 Conclusion

In this paper, I examined an elliptical phenomenon that I argue instantiates VPE in Hocak. This process targets all VP-internal material, including direct objects, indirect objects, result phrases, temporal adjuncts, locative adjuncts, comitatives, manner adverbs and complement clauses. VPE is conditioned by the presence of a licensing head, which I showed is the light verb *ųų* in Hocak. However, Hocak VPE is constrained in that the antecedent verb must be active. I propose that this restriction is due to the fact that active *v* is the licenser. This elliptical process displays many other traits that Goldberg (2005) and Fortin (2007) demonstrate are characteristic of VPE crosslinguistically. I also briefly discussed that Hocak VPE should be analyzed as VP deletion, rather than a VP *pro*-form. This paper constitutes the first in depth description of VPE in Hocak, and contributes to the literature on the properties of VPE crosslinguistically.

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## Abbreviations

1, 2, 3	first, second, third person	PL	plural
	son	POSS	possessive
COMP	complementizer	PROP	proper
DECL	declarative		name
DEF	definite	PST	past tense
FUT	future	REFL	reflexive
INDEF	indefinite	S	subject
NEG	negative		agreement
O	object agreement	STAT = stative verb.	

## References

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