Higher School of Economics, Moscow
February 28, 2020

Depictives in Ossetic and Cross-Linguistic Variation in Modification by Depictives[*]

David Erschler
Ben-Gurion University of the Negev
erschler@bgu.ac.il

What I will do today:

- Present the properties of depictives in Ossetic and show that they are sensitive to the contrast between arguments and adjuncts.
- Argue that the relationship between a depictive and its host in Ossetic is that of anaphoric binding.
- Propose that anaphoric binding is capable to account for the host-depictive relationship cross-linguistically.
- Argue that the attested variation is reducible to the variation in adjunction sites of DepP and in its binding domain.

DISCLAIMER: Work in Progress

1. Introduction
1.1 Depictives

- Depictives are constituents (typically APs) that describe the state of a participant of the situation described by the main verb during that situation.
- A depictive must not be a subconstituent of the DP that expresses the participant.
- I will use the term "host" for the participant modified by the depictive.
- I will indicate the relationship between a depictive and its possible hosts by indices.

(1) a. Mary$_i$ ate the fish$_j$ **raw**$_{\#i/j}$**/ drunk**$_{i/\#j}$.
     b. John$_i$ served Mary$_j$ coffee **drunk**$_{i/*j}$.

- Depictives have been the subject of a vast literature, see e.g. Himmelmann and Schultze-Berndt (2004), Rothstein (2017), and Potsdam & Haddad (2017), and the references there.
- The semantics and, to some extent, the morphological marking of depictives, have been relatively extensively studied crosslinguistically, see, e.g. Schultze-Berndt and Himmelmann (2004); Himmelmann and Schultze-Berndt (2005); Schroeder et al. (2008), and Schultze-Berndt (2017).

- The variation in what can serve as a depictive host across languages has been studied much less.

1.2 Possible depictive hosts

- In English, only subjects and direct objects can serve as hosts[1], Williams (1980).
- The same pattern obtains in several other well-studied languages, e.g. Spanish, Demonte (1987), Basque, Obria (2014) via Bárány (2018).
- Many analyses effectively take this observation as a primitive, see e.g. You (2016) for Spanish.
- But there are languages where it is not so, see e.g. Nichols 1978: (120-121) for Finnish (2a), Marušič et al (2003; 2008) for Slovenian (2b), and Irimia (2005) for Romanian and Albanian.

(2)   a.   Finnish, Nichols 1978

pro$_i$ lahetimme   **hänelle$_j$**   rahaa   **lapsena**$_{i/j}$
1PL   we.sent   s/he.ADESS[2]   money.PART   child.ESS
'We sent him money as a child (when we/he were/was a child)'

        b.   Slovenian, Marušič et al (2003)

Včeraj   smo   [na   **Vid**-a_i] **še**   **čisto**   **pijan-ega**$_i$
yesterday   AUX   onto   V-ACC still   completely   drunk-ACC
naleteli   na   Prešercu
ran   on   Prešeren-square
'Yesterday we ran into Vid$_i$ at Prešeren square, and he$_i$ was still completely drunk$_i$'

- There has been relatively little systematic cross-linguistic research on what constituents can be modified by depictives.

2. Analyses in the literature

BASIC QUESTIONS:
  ➤ How is the relation established between a depictive and its host?
  ➤ What is the syntactic position of the depictive?

2.1 DepP
- I will use the notation DepP for the immediate constituent containing a depictive.
- At a first approximation, there is a large consensus in the literature about the internal structure of DepP.
- The nature of Dep^0 and of its Spec depends on the specific proposal, more of that later.

---

[1] This generalization has apparent exceptions, see Maling (2001) and Demonte (1987) for examples, and Pylkkänen (2008) for a discussion.

[2] Glosses and abbreviations: ADESS adessive; ABL ablative; ALL allative; Appl applicative; CVB converb; DAT dative; ESS essive; GEN genitive; INS instrumental; LOC locative; PART partitive; POSS.1/2/3.PL/SG possessive proclitic; PRV preverb; REFL reflexive; SUP superessive;

(3)

```
                    DepP
          ┌──────────┴──────────┐
        Spec                   Dep'
                        ┌────────┴────────┐
                      Dep⁰               AP
                                          △
```
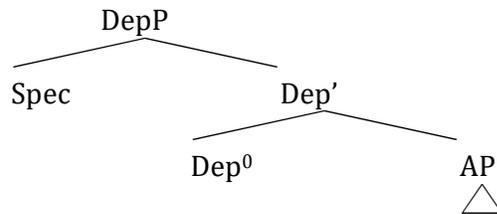
- The head Dep^0 is assumed to be responsible for the idiosyncratic morphological marking that the adjective receives (e.g. the instrumental marking in Russian (4)), and for the depictive semantics.
- Adjectives that serve as a depictives can be modified (4), therefore it is reasonable to assume that DepP contains an AP rather than a bare adjective.

(4) Russian
vas^{j}a$_i$ vernuls^{j}a   iz   otpuska   [**soveršenno čern-ym**$_i$
Vasya.M.NOM returned   from vacation   totally   black-M.INS
ot   zagara]
from   tan
'Vasya returned from the vacation completely black with tan.'

2.2 Proposals in the literature

MAIN CONTENDERS IN THE LITERATURE for this relation:
- Control
- Binding
- Semantic combination with arguments at the LF
- Grafting of DepP to the finite clause
- Merger of DepP (with the host DP as its subject) in the position of the host.

2.2.1 Control of PRO

- Spec DepP is taken to be occupied by PRO.
(Chomsky (1981: ch. 2.6); Safir (1983: 735); Stowell (1983); Hornstein & Lightfoot (1987: 27); Franks & Hornstein (1992); Bowers (1993); Legendre (1997: 44); Szajbel-Keck (2015); and others)

(5) John [met Mary$_i$] [$_{DepP}$ PRO$_i$ angry]   Rothstein (2006)

2.2.2 Binding

Rothstein (1983) for English; Bailyn (1995, 2012) for Russian; Richardson (2007) for Russian and other East Slavic languages.

- The restriction to subjects and direct objects was taken to be semantic by Rothstein (1983: 154).

- With the advent of a richer clause structure, specifically, with the introduction of vP and ApplP, this property has become to be deducible syntactically (more about this later).

2.2.3 Semantic combination with arguments at LF

Pylkkänen (2008):
- Makes a proposal about the semantics of Dep and Appl (based on Geuder 2000).
- Applicatives can be "high" and "low", that is, they can be higher or lower than V^0.
- The semantics of high and low applicatives are different.
- DepP can only adjoin to vP (VoiceP in her notation) and VP (for type matching reasons)
- DepP cannot combine with low applicatives (for semantic reasons) but can do so with high applicatives.
- Apparently, her analysis massively over-generates.
- Some of Russian indirect objects are demonstrably high applicatives, Boneh & Nash (2017), but they are still unable to be modified by depictives (6c).

(6) a. Russian, Boneh & Nash (2017: 903)
Ivan   otpravil   Vase   čemodan
I.   sent   Vasya.DAT.M   suitcase
'Ivan sent Vasya a suitcase.'

b.
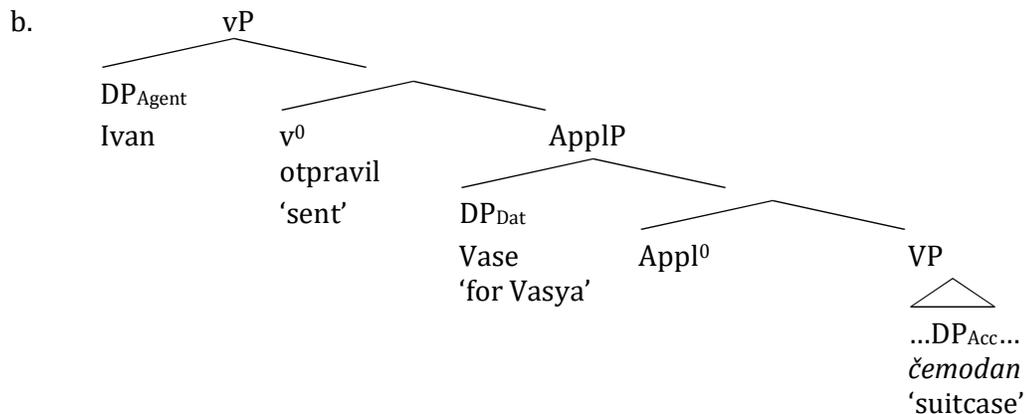
c. Ivan$_i$ otpravil Vase$_j$ čemodan   paralizovann-ym$_{i/*j}$
I.   sent   Vasya.DAT.M   suitcase paralyzed-INS.M
'Ivan sent Vasya a suitcase paralyzed.'

- NB Bruening (2010, 2018a, 2018b) effectively argues against the low-applicative analysis of ditransitives in English.
- If his reasoning is correct, Pylkkänen's analysis is inapplicable even to English.

2.2.4 Grafting

- Rapoport (1999) for English; You (2016) for Spanish; Rapoport & Irimia (2018)
- DepP and the rest of the clause are derived separately.
- Then, a multidominance structure is created.

(7)   Spanish, You (2016: 723-725)
    a. Juan   comió la   carne cruda
        J.   ate   DEF.F meat raw.F.SG
        'Juan ate the meat raw.'

    b.

```
              PrP₁
         ┌──────┴──────┐
       Juan           Pr'
                 ┌──────┴──────┐
                Pr            VP
                        ┌──────┴──────────────────┐
                        V              DO Subj        PrP₂
                       eats              meat     ┌─────┴─────┐
                                                 Pr'
                                            ┌─────┴─────┐
                                           Pr          raw
```
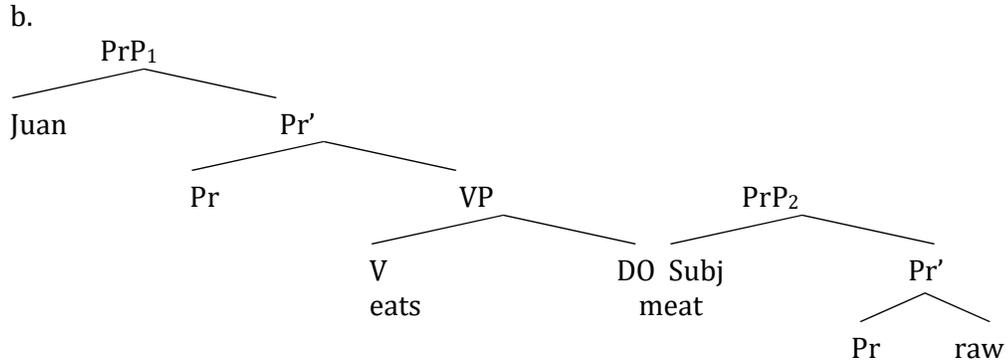
- Rapoport (1999) and Irimia & Rapoport (2018) implement grafting differently.
- It is unclear how such systems account for restrictions on the type of a host.

2.2.5 Merger of DepP in lieu of the host DP: Marušič et al (2003, 2008) for Slovenian

- In Slovenian, no restrictions obtain on DPs that host depictives.
- Proposal: The host DP is the subject of a small clause whose predicate is the depictive.
- The respective small clause is merged wherever the respective DP could be merged.

(8)   Slovenian, Marušič et al. (2008)
    a. Včeraj   smo   na   Vida$_i$
        yesterday   AUX.1PL   onto Vid.ACC
        še   čisto pjanego$_i$ naleteli   na   Prešercu
        still completely drunk ran   on   Prešeren.square
        'Yesterday we ran into Vid at Prešeren square, and he was still completely drunk.'
    b.

```
              PP
         ┌─────┴─────┐
         P          DepP
              ┌──────┴──────┐
             DP            
                      ┌──────┴──────┐
                    Dep⁰            AP
```
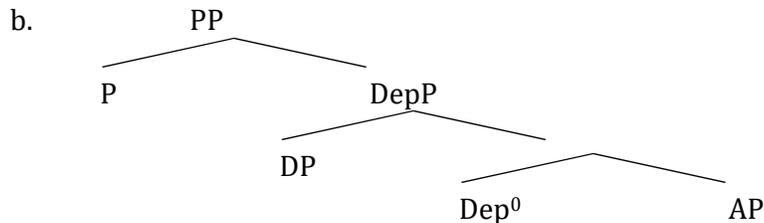
- It's not fully clear how to modify this proposal to make it sensitive to differences between hosts.
- Later on, I will argue that their proposal can be modified to naturally fit into the parametric system I'll lay out.

- To recapitulate:

Type of Proposal	Languages it's been proposed for
Binding	English, Eastern Slavic
Control	English, Polish
Merger of DepP in lieu of the host DP	Slovenian
Composition on LF	proposed to be universal
Grafting + Multidominance	English, Spanish

- Out of these, the grafting-based approach and that of Pylkkänen (2008; 2010) can be rejected out of hand.
- The main contenders for depictives sensitive to the type of a host are binding and control.

My proposal:

- In Ossetic, the relationship between a host and a depictive is that of anaphoric binding.
- As standardly assumed in binding-based approaches, different readings correspond to different base positions of the DepP.
- DepP can adjoin to VP, ApplP, and vP.
- Spec DepP is occupied by a null anaphor.
- Furthermore, I speculate that the binding-based approach (with varying adjunction sites) can cover the entire extent of cross-linguistic variation.

The argument briefly

- "Depictive control" in Ossetic is very different from the "normal" adjunct control. Only subjects and direct objects may control non-finite adjuncts.
- On the other hand, the relationship between a depictive and its host is reducible to binding under c-command (with some additional assumptions).
- The arguments are of the same type that are standardly marshalled to tell apart control and binding, Landau (2013: 57-58).

3. Case Study: Depictives in Ossetic
3.1 Background on Ossetic

- Ossetic: Two closely related Iranian languages, Iron Ossetic and Digor Ossetic, spoken in the Central Caucasus, Erschler (2018; to appear).
- Predominantly head final, with a moderately large case system, for a recent nanosyntactic analysis of case in Ossetic, see Caha (2019).
- The case is marked on the right edge of DP.
- The DP is rigidly ordered and unsplittable; it shows no overt agreement, either in case or in number, (9).
- Ossetic lacks morphological gender.

(9) a. aʧi   ustur wors beχ   Digor Ossetic
         this   big   white horse
         'this big white horse'

     b. aʧi-Ø ustur-Ø   wors-Ø   beχ-**t-en**   Digor Ossetic
         this   big   white   horse-PL-DAT
         'for these big white horses'

- Constituents tend to be head-final, but the constituent order in a finite clause is relatively flexible (see Kudzoeva (2003) and Erschler (2012) for a discussion of restrictions it is subject to).

(10) Digor Ossetic
     a. sk'ola-j   rajdajen   k'laʃ-t-i   kuston
         school-LOC   beginning   class-PL-LOC I.worked
         'I worked in elementary school (lit. "in beginning classes at school").'
         from a recorded text
     b. ma   hewot ba-kuston   aχurgeneg-ej rajdajen   k'laʃ-t-i
         and   so   PRV-I.worked   teacher-ABL beginning   class-PL-LOC
         'And I had worked so as a teacher in elementary school.' *from the same recorded text*

3.2 Depictives in Ossetic
3.2.1 Marking and Meaning of Depictives

- Ossetic lacks resultatives (i.e. secondary predicates like *dry* in '*John wiped the table dry*.'), but widely uses depictives.
- Depictives are obligatorily marked with the ablative, (11a), no matter what the case of the host DP is. They do not agree with the host in number (11 b).

(11) a. soslan **<tuzmeg-*(ej)>**   raʦudej   **<tuzmeg-*(ej)>**   Digor
         S.   angry-ABL   s/he.left
         'Soslan left angry.'

     b. inne-tæ=ba   **eguppeg-ej**   badunʦe
         other-PL=CTR silent-ABL   sit.PRS.3PL
         'Others are sitting silent.' Ikati 2011: 23

- The obligatory ablative marking rules out the possibility that what looks like a depictive and its host are actually fragments of a single split constituent.
- In other instances of non-verbal predication, the ablative marking does not arise.

(12) a. copular clauses
         je=der   **keʣos**   adtej   Digor
         it.NOM=too clean.**NOM** was
         'It (air) was clean too.' (from a recorded narrative)

b. 'become X'

sɐ=tsard=dɐr	**tsubur**	issɐj	Digor
their=life.NOM=too	short.**NOM**	became	

'Even their life became short.' (from a recorded narrative)

'consider to be X'

c.	[χʷarz lɐg]-**bɐl**	ke	nimmaj-un	ɐnʁɐzuj?	Digor
	good man-**SUP**	who.ACC	count-INF	is.possible	

'Who can be considered a good person?' (from a recorded narrative)

d.	**adgin**=imɐ	kɐs-uj	fuʃ-i	fid	Digor
	sweet=ALL.3SG	look-PRS.3SG	sheep-GEN	meat	

'He considers mutton tasty.' (from a literary text)

- CONCLUSION: Depictives are a separate class of predicates in Ossetic, *cf* the argument of Matushansky's (2019) against a one-serves-all PredP.
- I assume that the ablative is assigned to the AP by Dep^0.
- SEMANTICS Depictives in Ossetic express stage level properties (that is, ones that are not permanently present), see the contrast between the grammatical sentence in (11a), where 'angry' is a stage level property, and the ungrammatical one in (11b), with 'tall', an individual level (i.e. permanent) property.

(13)	*soslan	**berzond-ɐj**	ratsudɐj	Digor Ossetic
	S.	tall-ABL	left	

'*Soslan left tall.'

- DEPICTIVES VS ADVERBS Depictives in Ossetic are distinct from adverbs: only depictives carry the obligatory ablative marking.
- In (14), *rɐsuʁd* 'beautiful(ly)' is an adverb that modifies the writing event.

(14)	mɐdinɐ	**rɐsuʁd(*-ɐj)** fins-uj	Digor Ossetic
	M.	beautiful-ABL write-PRS.3SG	

'Madina writes beautifully.'

- I abstract away from possible semantic restrictions on the finite verb[3] in the clause that hosts a depictive, see e.g. Rapoport (1999) for English.

3.2.3 Depictive hosts: Arguments vs. Adjuncts

- Any verb argument in Ossetic, no matter which morphological case marks it (except the Iron comitative), can host a depictive.

---

[3] For instance, in Russian, a language that normally allows objects to be depictive controllers, the following sentence (based on an English example in Rapoport 1993) is ungrammatical for most speakers.

(i)	*ja	pnul	košku	mokroj
	I.NOM	kicked	cat.F.ACC	wet.F.INS

'I kicked the cat (when it was) wet.' (intended)

- ABOUT DATA COLLECTION: stimuli were offered to language consultants who were asked to judge which of the participants the depictive modifies. ("Who is drunk in this sentence?")
- In the sentences below, the notation (X: 1, Y 2; X/Y: 3) means that 1 consultant judged X to be the only appropriate host, 2 consultants judged so Y, and 3 consultants judged so both participants.

(15) Direct object[4]
    a.   accusative marked DO

ɐʒinɐ	**ɐrvong-ɐj**$_{i/j}$	**soslan-i**$_j$	pro$_i$	fɐjjidton	Digor
yesterday	sober-ABL	S-ACC		I.saw	

'Yesterday, I saw Soslan (when I/Soslan was) sober.' (Subj: 2; Obj: 6; S/O: 7)

    b.   unmarked DO

soslan	χ^{w}ɐrgenasɐ$_i$	χ^{w}ɐruj	**tsɐχgun-ɐj**$_i$	Digor
S	cucumber	eats	salted-ABL	

'Soslan is eating a/the cucumber salted.' (Subj: 2; Obj: 12; S/O: 0; 2 people rejected the sentence.)

        Idiosyncratically marked second argument
    c.   Ablative 'to fear X-ABL'

soslan$_i$**χeteg-ɐj**$_j$	**rasug-ɐj**$_{i/j}$	tɐrsuj	Digor
S Kh-ABL	drunk-ABL	fears	

'Soslan fears Khetag drunk.' (Subj: 8; Obj: 3; S/O: 5)

    d.   Superessive 'to trust X-SUP'

soslan$_i$	**χeteg-bɐl**$_j$	**rasug**-ɐj$_{i/j}$	ɐwwɐnduj	Digor
S	X-SUP	drunk-ABL	trusts	

'Soslan trusts Khetag drunk.' (Subj: 5; Obj: 3; S/O: 6)

    e.   Allative 'desire X-ALL'

soslan	χ^{w}ɐrgenasɐ-mɐ$_i$	bɐlluj	**tsɐχgun**-ɐj$_i$	Digor
S	cucumber-ALL	desires	salted-ABL	

'Soslan wishes/desires a cucumber salted.' (Subj: 3; Obj: 13; S/O: 0)

        Ditransitives
    f.   dative marked host

soslan$_i$**χeteg-ɐn**$_j$	maʃin-i	deʁɐl-tɐ	**rasug-ɐj**$_{i/j}$	ravardta	
S Kh-DAT	car-GEN	key-PL	drunk-ABL	gave	

'Soslan$_i$ gave Khetag$_j$ the car keys when he$_{i/j}$ was drunk.' Digor
(S: 10; IO: 1; S/IO: 5)

    g.   ablative marked host (Iron Ossetic)

ʃoʃlan	**χeteg-ɐj**$_j$	maʃin-ə	deʁɐl-tɐ	**raʃɐg-ɐj**$_{i/j}$	rajʃta
S	Kh-ABL	car-GEN	key-PL	drunk-ABL	took

'Soslan$_i$ took the car keys from Khetag$_j$ when he$_{i/j}$ was drunk.' (S: 1; S/IO: 3)

---

[4] Ossetic exhibits Differential Object Marking.

h.   ablative and superessive marked hosts
      soslan-ɐjⱼ=**meɓel**ᵢ <u>rasug-ɐj</u>ᵢ/ⱼ   rawadɐj   Digor
      S-ABL=SUP.1SG   drunk-ABL   befell
      'I had it from Soslan (when I/Soslan was) drunk.' (Abl: 4; Sup: 2; Abl/Sup: 4)

- On the other hand, for the majority of consultants, adjuncts are never able to be modified by depictives. The subject wins out even when the resulting interpretation is pragmatically odd, like in (16a).

(16)   Case-marked adjuncts
    a.   tikisᵢ **soslan-ɓel**ⱼ <u>**rasug-ɐj**</u>ᵢ/*ⱼ χussuj   Digor
        cat   S-SUP   drunk-ABL   sleeps
        'The cat sleeps on Soslan (when it/*Soslan is) drunk.'
        (S: 12; Adjunct: 2; S/Adjunct: 0)

    b.   soslanᵢ ɐrbatsudɐj   **alan**-mɐⱼ   <u>**rasug-ɐj**</u>ᵢ/*ⱼ   Digor
        S   came   A-ALL   drunk-ABL
        'Soslan came to Alan drunk.' (S: 15; Adjunct: 0; S/Adjunct: 0)

    c.   **soslan**ᵢ   χeteg-ɓelⱼ   <u>**rasug**</u>-ɐjᵢ/*ⱼ ʥoruj   Digor
        S   Kh-SUP   drunk-ABL   speaks
        'Soslan speaks about Khetag drunk.' (S: 13; Ajunct: 0; S/Adjunct: 0)

    d.   PP adjunct
       soslan alan-i **raʒi**   rasug-ɐj   lɐwuj   Digor
       S   A-GEN in.front.of   drunk-ABL   stands
       'Soslan stands in front of Alan drunk' (S: 16; Adjunct: 0; S/Adjunct: 0)

- The contrast between the superessive NPs in (15d), where it's an argument, and in (16), where it's an adjunct, show that it is not the case marking, but indeed the argument/adjunct status that is responsible for the ability of NPs to control depictives in Ossetic.
- Possessors cannot host depictives.

(17) a.   [**soslan**-iᵢ   ɐnsuvɐrⱼ]   χeteg-ɓelₖ   **rasug**-ɐj*ᵢ/ⱼ/ₖ isɐmbaldɐj
            Soslan-GEN   brother   Khetag-SUP   drunk-ABL   s/he.met
            'Soslan'sᵢ brotherⱼ met Khetagₖ drunk*ᵢ/ⱼ/ₖ.'   Digor
    b.   [**soslan**-iᵢ   χeʣarɐⱼ]   basuʁdɐj   **rasug**-ɐj*ᵢ/ⱼ
            Soslan-GEN   house   burned   drunk-ABL
            'Soslan's house burned drunk.'   Digor

3.2.4 Apparent exceptions

- The generalization about the argument vs. adjunct dichotomy leaks somewhat.
- While the regular possessor of an argument is unable to host a depictive (17), possessors are able to do so if they are "indirect arguments" of the verb, i.e. when occurring in idiomatic predicates like 'to take X's picture' 'to go to X's heart = to please X', etc., (17a-b).

(18) a. soslan_i   **[alan-i   χuʑɐ_j]**   iʃista   **rasug-ɐj** _{i/j}   Digor
S   A-GEN   picture   took   drunk-ABL
'Soslan took Alan's picture when drunk.'

b. mɐdinɐ_i   **[soslan-i_j   zɐrdɐ-mɐ]**   tsɐwuj **rasug-ɐj** _{i/j}   Digor
M   S-GEN   heart-ALL   goes   drunk-ABL
'Soslan likes Madina (*lit.* Madina goes to Soslan's heart) when drunk.'

- Thus, possessors in idiomatized constructions seem to violate the generalization that only arguments may host depictives.
- This violation, however, is merely spurious: the depictive in such a construction is actually hosted by the entire DP, e.g., 'Alan's picture' in (18a) and 'Soslan's heart' in (18b), and then the DP gets idiomatically interpreted as referring to its possessor, e.g. 'Soslan's heart' gets interpreted as 'Soslan'.
- An alternative possibility is that possessor raising occurs in such cases. I leave the issue for further research.

4. Towards an analysis
4. 1 Against control

- The behavior of control clauses is very different from that of depictives.
- We are interested primarily in control into adjuncts, because Deps are adjuncts, but control into complements behaves in the same manner.
- Converb clauses: Subject or Direct Object Control, see also Belyaev & Vydrin (2011: 123-124) for Iron Ossetic.

(19)   Subject control
a.   soslan_i je=nsuvɐr-ɐj_j   [PRO_{i/*j}   χod-gɐ-j]   ralɐdzuj
Soslan POSS.3SG=brother-ABL   laugh-CVB-ABL runs.away
'Soslan is running away from his brother laughing.'   Digor

b.   Object control
soslan mɐdin-i_j   fɐjjidta   [PRO_j zar-gɐ-(j)]
Soslan Madina-ACC   see.PST.3SG   sing-CVB-ABL
'Soslan saw Madina sing.'   Digor

- Other arguments cannot control converbial clauses, although we have seen that they can serve as depictive hosts.
- This is illustrated for a dative-marked IO in (20a). The sentence with a depictive in (20b) serves as a minimal pair.

(20) a.   fidɐ_i   ɐ=furt-ɐn_j   dɐʁɐltɐ   Digor
father.NOM   POSS.3SG=son-DAT   keys
[kust-mɐ   PRO_{i/*j} ratsɐwu-gɐ-j]   ravardta
work-ALL   go.away-CVB-ABL   give. PST.3SG
'The father_i left the keys to his son_j when PRO_{i/*j} leaving for the work.'

b.   soslan_i**χeteg-en**_j   maʃin-i   deʁel-te   **<u>rasug-ej</u>**_{i/j}   ravardta
      S   Kh-DAT   car-GEN   key-PL   drunk-ABL   gave
      'Soslan_i gave Khetag_j the car keys when he_{i/j} was drunk.'

CONCLUSION: The relationship in Ossetic between a DepP and its host is not that of control.

3.2 In favor of binding
3.2.1 What can bind anaphors

- Subjects and DOs can bind anaphors

(21) a.   Subject
        ez   **me=χe**   enamond   ne=χon-un   Digor
        I   POSS.1SG=REFL unlucky   NEG=call-PRS.1SG
        'I do not call myself unlucky.' Aghuzarti A.

    b.   DO
        soslan-i   **e=χe**   **χetstse**   ba-zonge   kodton
        S-ACC   POSS.3SG=self with   PRV-known   do.PST.1SG
        'I introduced Soslan to himself.'

- Arguments with lexical case marking can bind anaphors

(22) Iron Ossetic
    a.   'to praise X-ABL'
        ʃoʃlan-ej_i   je=mad   eppele   je=χi_i   raʒə
        Soslan-ABL   POSS.3SG=mother   praises   POSS.3SG=REFL in.front.of
        'Soslan's mother praises him in front of himself.'

    b.   'to believe (in) X-SUP'
        ʃoʃlan-əl_i   je=mad   ewwende   je=χi_i
        Soslan-SUP   POSS.3SG=mother   believes   POSS.3SG=REFL
        fersə
        for.the.sake
        'Soslan's mother believes in him for his own (lit. himself's) sake.'

- IOs can bind anaphors

(23) a.   soslan-me_i   e=χe_{i/*j}   bavdiston   Digor
        S-ALL   POSS.3SG=self I.showed
        'I have shown Soslan himself'

    b.   e=χe-me_{i/*j}   soslan-i_i   bavdiston   Digor Ossetic
        POSS.3SG=self-ALL   S-ACC   I.showed
        Idem

- As we have seen, all these entities can serve as depictive hosts.

- Idiomatic possessors can bind anaphors:

(24) a. *X's heart laughs at Y* 'X feels offended by Y'
          soslan-i   zɐrdɐ ɐ=χe-bɐl   χoduj   Digor
          Soslan-GEN   heart POSS.3SG=REFL-SUP   laughs
          'Soslan feels offended by himself.'
      b. soslan ɐma mɐdin-i   zɐrdi-tɐ   kɐredʒe-bɐl χoduntsɐ
          Soslan and Madina-GEN   heart-PL   REC-SUP   laugh
          'Soslan and Madina are offended by each other.'

      c. *Y goes to X's heart* 'X likes Y'
          soslan-i   zɐrdɐ-mɐ   tsɐwuntsɐ   ɐ=χe-bɐl   χabɐrttɐ
          Soslan-GEN   heart-ALL go   POSS.3SG=REFL-SUP stories
          'Soslan likes stories about himself.'

3.2.2 What cannot bind anaphors

- Adjuncts cannot bind anaphors (25a). The grammatical (25b) where the IO binds
  a reflexive in an adjunct is shown as the baseline.

(25) a. χetɐg$_i$ radʒoruj   soslan-bɐl$_j$ ɐ=χets-ɐn$_{i/*j}$ Digor
          Kh.NOM   tells   Soslan-SUP   POSS.3SG=REFL-DAT
          *'Khetag is telling himself$_j$ about Soslan$_j$.'

      b. χetɐg$_i$ radʒoruj   soslan-ɐn$_j$ ɐ=χe-bɐl$_{i/j}$ Digor
          Kh.NOM   tells   Soslan-DAT   POSS.3SG=REFL-SUP
          'Khetag is telling Soslan$_i$ about himself$_i$.'

- Non-idiomatic possessors and PP complements cannot bind anaphors
(26) a. Possessor
          batradz$_i$ warzuj [ɐ=χe-bɐl$_{i/*j}$ soslan-i$_j$ radʒur-tɐ-mɐ
          Batraz   loves POSS.3SG=REFL-SUP   Soslan-GEN   story-PL-ALL
          PRO$_i$ iʁos-un]
                  listen-INF
          'Batraz$_i$ loves to listen to Soslan$_j$'s stories about himself$_{i/*j}$.'   Digor

      b. Postposition complement
          *ɐ=χe   soslan-i   χetstsɐ ba-zongɐ   kodton
          POSS.3SG=self.ACC   S-GEN   with   PRV-known   do.PST.1SG
          lit. 'I made himself$_i$ acquainted with Soslan$_i$.' (intended)   Digor

- As we have seen, adjuncts, possessors, and PP complements cannot serve as
  depictive hosts.

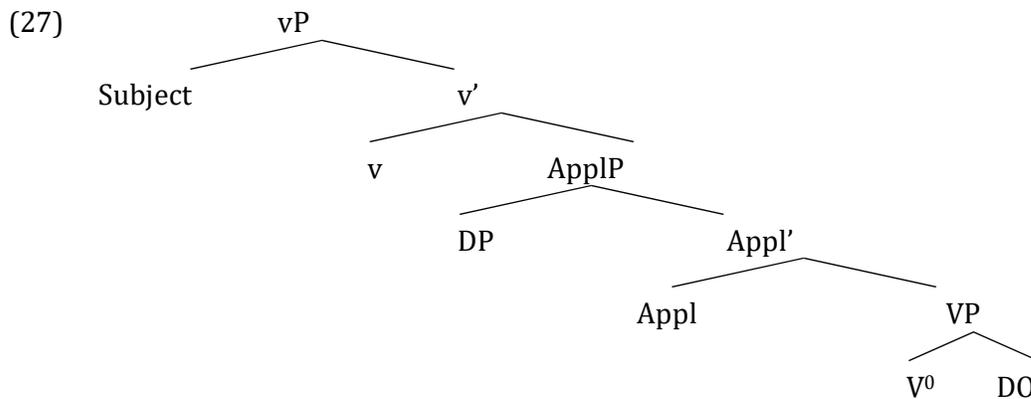CONCLUSION: A full parallelism exists between hosting depictives and binding anaphors in
Ossetic.

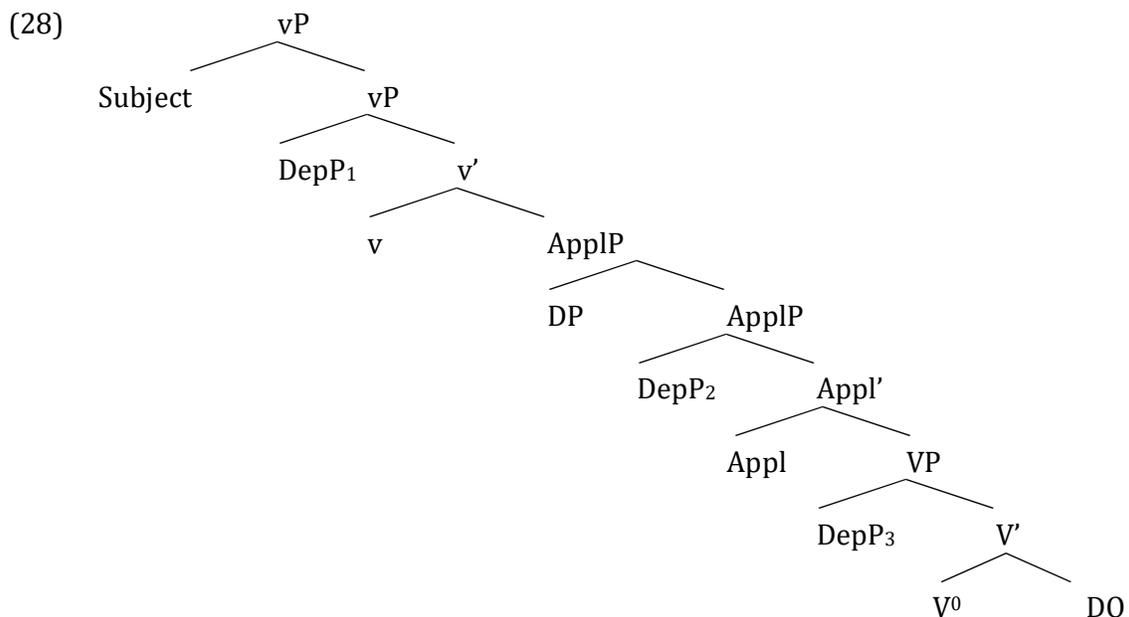## 4. Proposal

To repeat, BASIC QUESTIONS:
  ➢ How is the relation established between a depictive and its host?
  ➢ What is the syntactic position of the depictive?

4.1 Basic Answers

- ✓ The relation is that of anaphoric binding under the appropriately defined c-command relationship. Specifically, I assume that only maximal projections count for the purposes of c-command (m-command).
- ✓ DepP can adjoin to VP, ApplP, and vP.

- I make fairly standard assumptions about the clause structure (27).
- Nothing in the proposal depends on whether DO is generated as the complement of V^0, as shown in (27), or as the specifier of a respective functional projection, as in Borer (2005); Ramchand (2008), Adger (2013), a.o.
- Likewise, nothing hinges on whether idiosyncratically case-marked internal arguments (15 c-e) are Spec ApplPs or are the complements of the respective V^0's.

(27)

```
                    vP
              ╱          ╲
        Subject          v'
                    ╱         ╲
                   v          ApplP
                          ╱        ╲
                         DP        Appl'
                               ╱        ╲
                             Appl        VP
                                      ╱      ╲
                                    V⁰        DO
```

- REMARK: The order DO>IO is also possible, see the binding facts in (23).
- Accordingly, DepP may occupy the positions shown in (28).
- In (28), DepP$_1$ is a subject-oriented depictive; DepP$_2$ is an applicative-oriented depictive; and DepP$_3$ is an object-oriented one.

(28)

```
                    vP
              ╱          ╲
        Subject          vP
                    ╱         ╲
                DepP₁          v'
                          ╱        ╲
                         v         ApplP
                               ╱        ╲
                              DP        ApplP
                                    ╱        ╲
                                 DepP₂        Appl'
                                          ╱        ╲
                                        Appl        VP
                                              ╱        ╲
                                           DepP₃        V'
                                                    ╱      ╲
                                                  V⁰        DO
```

14

- REMARK I show DepPs to be adjoined lower than the respective Specs. Alternatively, we can assume that it is the m-command or perhaps phase-command of Bruening (2014), rather than c-command, relationship that is relevant here[5].
- The c-command relationship between a DP and a depictive that modifies it must hold at the base position. It doesn't need to hold on the surface.

(29) rasug-ɐj$_i$ <soslan-i$_i$> nekɐd fɐjidton <soslan-i$_i$> Digor
      drunk-ABL Soslan-ACC never I.saw Soslan-ACC
      'I've never seen Soslan drunk.'

4.2 Deriving the properties of Ossetic depictives

- RULING IN ARGUMENTS: this follows immediately from the c-command condition.
- RULING OUT PP COMPLEMENTS AND REGULAR POSSESSORS (that is, possessors other than in idiomatic expressions): this again follows immediately from the(underlying) c-command condition.
- Possessors occupy Spec DP in Ossetic, Erschler 2019.

RULING OUT ADJUNCTS
- ✓ Adjunct bare DPs are introduced by null adpositions.
- ✓ Alternatively, we may just posit that adjuncts cannot bind in Ossetic.
- Either assumption is unfortunately stipulative, but at least it reduces restrictions on depictives to restrictions on anaphor binding

4.3 What exactly is bound?

- Ossetic data do not allow us to decide whether Spec DepP is null (in which case the host binds Dep^0 or DepP) or occupied by a dedicated anaphor.
- The locality domain for this anaphor in the Ossetic can be taken to be the minimal finite clause.

5. Cross-linguistic generalizations

- CONJECTURE: cross-linguistically, binding can account for the properties of the depictives
- The variation comes from variation in the lexical properties of Dep^0 and in the binding properties of the anaphor in Spec DepP.
- The lexical properties of Dep^0 are responsible for possible adjunction sites of DepP.

---

[5] We need to account for binding of VP adjuncts by DOs anyway:
(i) a. ?Tibal^{j}d zastal Romeo i Džul^{j}etu v domax drug druga
         Tybalt apprehended Romeo and Juliet in houses REC.GEN
         'Tybalt apprehended Romeo and Juliet in each other's houses.'
     b. ?Tibal^{j}d narisoval Romeo i Džul^{j}etu v tetradkax
         Tybalt drew Romeo and Juliet in houses
         drug druga
         REC.GEN
         'Tybalt drew Romeo and Juliet in each other's notebooks.'

- The size of the binding domain of the anaphor is its lexical property.

5.1 Why does the binding domain matter?

CASE STUDY 1: Russian instrumental-marked depictives
- Russian has object-oriented depictives, but lacks applicative-oriented ones.

(30) ja$_j$ zakoldoval   malyša$_j$ jevo   dedu$_k$ p^{j}jan-ym$_{i/j/*k}$
      I.   jinxed   kid.ACC   his   grandfather.DAT   drunk-INS.M
      'I jinxed the kid for his grandfather drunk.' Boneh & Nash (2017: 926)[6]

- IOs are able to bind DOs in Russian (see e.g. Nash & Boneh 2017)
- If the binding domain of depictives were the same as for regular anaphors, we would have predicted that applicatives would be able to bind depictives adjoined to VP.
- Proposal: the binding domain of the respective depictive anaphor is the category it adjoins to.
- Under this assumption, DepP adjoined to VP is not visible either the subject or any applicative.

CASE STUDY 2: Tyvan (Turkic)
- Tyvan only has DO-depictives; subject depictives are expressed by converbial clauses, Nevskaya (2019).

(31)   Tyvan, Nevskaya (2019)
       a.   ol   etti   čig-ge   či:r
             he   meat-ACC   raw-DAT   eats
             'He eats meat raw.'
       b.   ol   anïyaq tur-γaš   čoq.apar-γan
             s/he   young   stand.AUX-CVB die-PERF
             'S/he died young.' (lit. 'being young')

PROPOSAL: DepP only can adjoin to VP in Tyvan, and VP serves as its binding domain.
CONJECTURE: Depictive anaphors always have the narrow binding domain.

Table 2. Cross-linguistic predictions

Adjunction site of DepP	Predictions	Languages
DP	no sensitivity to the type of a host	Slovenian; possibly case-agreeing depictives in Russian
vP	only subject depictives	?
VP	only object depictives	Tyvan
vP, VP	subject and object depictives	The Standard European system
vP, VP, ApplP	any arguments	Ossetic

---

[6] The judgment that the depictive can be DO-oriented is mine.

6. Conclusion

- I have described the properties of depictives in Ossetic.
- In these languages, they are demonstrably a separate type of predication.
- Unlike the situation in the languages where the syntax of depictives has been studied in depth, any arguments but no adjuncts can bind a depictive in Ossetic.
- At the present stage of research, it is hard to tell whether the Ossetic system is typologically rare.
- The relation between a noun phrase modified by a depictive and the depictive in Ossetic is that of binding.
- A binding-based account has enough flexibility to explain the cross-linguistic variation in the realm of depictives.

Bibliography

Adger, David. 2013. *A Syntax of Substance*. Cambridge MA: MIT Press.

Belyaev, Oleg & Arseniy Vydrin. 2010. Participle-converbs in Iron Ossetic: Syntactic and semantic properties. In Agnes Korn, Geoffrey Haig, Simin Karimi, & Pollet Samvelian (eds.), *Topics in Iranian Linguistics*, 117-134. (Beiträge zur Iranistik 34.) Wiesbaden: Reichert.

Boneh, Nora & Nash, Lea. 2017. The syntax and semantics of dative DPs in Russian ditransitives. *Natural Language and Linguistic Theory* 35(4): 899-953.

Borer, Hagit. 2005. *The Normal Course of Events*. Oxford: OUP.

Bowers, John. 1993. The syntax of predication. *Linguistic Inquiry* 24:591–656.

Bruening, Benjamin. 2010. Ditransitive asymmetries and a theory of idiom formation. *Linguistic Inquiry* 41:519–562.

Bruening, Benjamin. 2014. Precede-and-Command Revisited. *Language* 90: 342--388

Bruening, Benjamin. 2018a. Double Object Constructions and Prepositional Dative Constructions Are Distinct: A Reply to Ormazabal and Romero 2012. *Linguistic Inquiry* 49(1): 123-150.

Bruening, Benjamin. 2018b. Depictive Secondary Predicates and Small Clause Approaches to Argument Structure. *Linguistic Inquiry* 49(3): 537--559.

Caha, Pavel. 2019. Case competition in Nanosyntax. A study of numeral phrases in Ossetic and Russian. lingbuzz/004875

Demonte, Violeta. 1987. C-command, prepositions and predication. *Linguistic Inquiry* 18: 147–157.

Erschler, David. 2012. From preverbal focus to preverbal "left periphery'': The Ossetic clause architecture in areal and diachronic perspective. *Lingua* 122: 673-699.

Erschler, David. 2018. Ossetic. In: Haig, Geoffrey and Khan, Geoffrey. (eds.) *The languages and linguistics of Western Asia: An areal perspective.* 861-891. Berlin: Mouton de Gruyter.

Erschler, David. 2019. A new argument for existence of the DP in languages without articles. *Journal of Linguistics* 55(4): 879-887.

Erschler, David. to appear. Iron Ossetic. In: Polinsky, Maria (ed.) *The Oxford Handbook of the Languages of the Caucasus*. Oxford: OUP.

Geuder, Wilhelm. 2000. Oriented Adverbs: Issues in the Lexical Semantics of Event Adverbs. University of Tübingen Doctoral Dissertation.

Irimia, Monica Alexandrina. 2005. Types of secondary predication. *Toronto Working Papers in Linguistics*, 25, 20–29.

Irimia, Monica Alexandrina & Rapoport, Tova. 2018. Staging Secondary Predication. Poster at the Predication Workshop at GLOW41, Budapest.

Kudzoeva, Andžela. 2003. *Porjadok slov i aktual'noe členenie v osetinskom jazyke*. Vladikavkaz: SOGU.

Landau, Idan. 2013. *Control in Generative Grammar*. Cambridge: CUP.

Maling, Joan. 2001. Dative: the heterogeneity of the mapping among morphological case, grammatical functions, and thematic roles. *Lingua* 111: 419-464.

Marušič, Franc, Marvin, Tatjana, and Žaucer, Rok. 2008. Depictive Secondary Predication with no PRO. In G. Zybatow, *et al.* (eds.) *Formal Description of Slavic Languages*. pp. 423-434. Frankfurt am Main: Peter Lang.

Marušič, Franc, Marvin, Tatjana, and Žaucer, Rok. 2003. Secondary Predication in Slovenian. In W. Browne *et al.* (eds) *FASL 11 (The Amherst Meeting, 2002)*. Ann Arbor: Michigan Slavic Publications.

Matushansky, Ora. 2019. Against the PredP Theory of Small Clauses. *Linguistic Inquiry* 50(1): 63-104.

Nevskaya, Irina. 2019. Конструкции с депиктивными второстепенными предикатами со своим собственным грамматическим субъектом в сибирских тюркских языках. [Constructions with depictive secondary predicates that have a subject of their own in Siberian Turkic] *Kritika i semiotika* 2019(2): 327-344.

Nichols, Joanna. 1978. Secondary predicates. In *BLS* 4. Berkeley, CA: Berkeley Linguistics Society. pp. 114-127.

Odria, Ane. 2014. Differential object marking and the nature of dative case in Basque dialects. *Linguistic Variation*. 289–317. DOI: https://doi.org/10.1075/lv.14.2.03odr

Pylkkänen, Liina. 2008. *Introducing Arguments*. MIT Press, Cambridge, MA.

Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: A First-Phase Syntax*. Cambridge: CUP.

Rapoport, Tova R. 1991. Adjunct Predicate Licensing and D-Structure . In: *Perspectives on Phrase Structure: Heads and Licensing*. Susan Rothstein (ed.). San Diego: Academic Press

Richardson, Kylie. 2007. *Case and Aspect in Slavic.* Oxford: OUP.

Rothstein, Susan. 2001. Predicates and their Subjects. Dordrecht: Kluwer.

Rothstein, Susan. 2006/2017. Secondary Predication. In: *The Blackwell Companion to Syntax*. Everaert, Martin and Henk van Riemsdijk (eds). Blackwell Publishing

Safir, Kenneth. 1983. On Small Clauses as Constituents. *Linguistic Inquiry* 14: 730-735.

Schein, Barry. 1995. Predication. In: Anna Cardinaletti and Maria Teresa Guasti (eds.). *Small Clauses*. New York: Academic Press.

Schroeder, Christoph, Hentschel, Gerd, and Boeder, Winfried. (eds.) 2008. *Secondary predicates in Eastern European languages and beyond*. Studia Slavica Oldenburgensia 16. Oldenburg: BIS-Verlag der Carl von Ossietzky Universität Oldenburg.

Schultze-Berndt, Eva. 2017. Depictive Secondary Predicates in Typological Perspective. *The Blackwell Companion to Syntax*. 2nd ed. Everaert, Martin and Henk van Riemsdijk (eds). Blackwell Publishing

Schultze-Berndt, Eva; Himmelmann, Nikolaus P. 2004. Depictive secondary predicates in cross-linguistic perspective. *Linguistic Typology* 8: 59–131.

Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11: 203 238.

Williams, Edwin. 1983. Against Small Clauses*. Linguistic Inquiry* 14: 287-308.

You, Eunjung. 2016. Parallel Derivation of Spanish Depictive Secondary Predicates. *Linguistic Inquiry* 47(4): 723-739.

Ik'ati, Avdul. 2011. *Cardi ajdænæ*. [The mirror of life] Dzæugighæw: CINÆI RPX.

Appendix: A Possible (but odd) analysis

- Assume that DepP is generated (together with the host) as a sister of V^0.
- All the arguments are generated as the specifiers of appropriate heads on the spine.

(32)   a.   Schematic English (imagine it's Ossetic)
               Mary saw John drunk.

b.   ...

```
                        VP
              ┌──────────┴──────────┐
             DO                    V'
            John          ┌────────┴────────┐
             ↑           V⁰                DepP
             │           saw        ┌───────┴───────┐
             │                     t_DO            Dep'
             │                              ┌────────┴────────┐
             └────────────────────────────Dep⁰            drunk-ABL
```
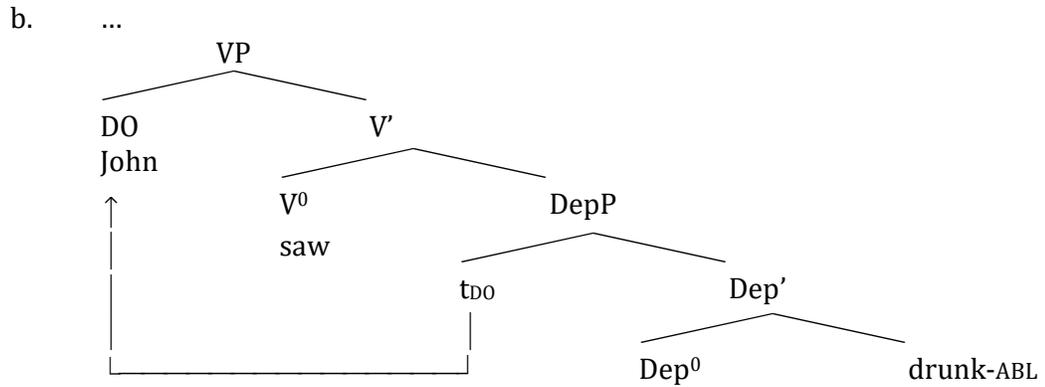
- The host DP then moves into an argumental position for case or theta-role reasons.
- Assuming Merge-over-Move priority, merged arguments do not create locality problems.
- Adjuncts either are impossible to move into, or do not bear the attracting features.
- The similarity with anaphor binding is taken to be epiphenomenal.
- However, on this type of analysis, it is not clear what blocks IOs from being depictive hosts in other languages.
- This consideration makes me reject this type of analysis.