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Publication Date

2025

DOI

10.7280/S9CJ8BJF

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**Modification by depictives:
In favor of a binding-based account**

David Erschler*

Abstract. In this paper, I use the properties of depictives in Digor and Iron Ossetic, two closely related Iranian languages of the Caucasus, to argue in favor of binding-based accounts of the depictive-host relationship. I show that anaphoric binding and the ability to host depictives in these languages pattern together – the two properties define identical, and nontrivial, classes of syntactic positions. I proceed to propose a parameterization of the analysis and show that it indeed accounts for a variety of attested depictive systems.

Keywords. syntax; typology; depictives; anaphoric binding; Ossetic

1. Introduction. Minimalist syntax only provides us with two basic tools to account for a relationship between two nominal expressions: Move and Agree. Descriptively, however, relationships between nominals appear fairly diverse. Whether, and how, this variety is reducible to application of the two basic operations is a matter of active discussion. One example is the polemics around the ways to analyze control; see, e.g., Hornstein (1999), Rodrigues (2007), Pires (2007), Hornstein & Polinsky (2010), and Martins & Nuñez (2017) for proposals to reduce control to movement, and arguments against such proposals in, e.g., Landau (2003, 2007), Bobaljik & Landau (2009), Ndayiragije (2012), and Wood (2012). For anaphoric binding, an array of works propose to reduce at least some instances of it to an application of Agree; see, e.g., Hornstein (2001), Rooryck & Vanden Wyngaerd (2011), Wurmbrand (2017), Murphy & Meyase (2022), and Paparounas & Akkuş (2023). For arguments against this line of thought, see, e.g., Charnavel (2019), Preminger (2019), and Rudnev (2020). Without taking a stance in these debates, it is obviously desirable to minimize the number of mechanisms that underlie interaction between nominals.

A peculiar case of an interaction between nominals is the one between a depictive and the nominal it modifies. Recall that a DEPICTIVE is a constituent (typically an AP or NP) that describes the state of a DP during the situation described by the main verb of a clause; see, e.g., Rapoport (1999: 654). Following the usage of the latter, I call the DP modified by a depictive the HOST of this depictive. I indicate the relationship between a depictive and its potential hosts by indices (1).

* I feel honored to contribute to this Festschrift for Masha Polinsky, to whose mentorship and guidance over the years I owe a great deal.

The main bulk of the data for this paper was collected during my fieldwork in North Ossetia in 2010-2016 in the city of Vladikavkaz and the village of Lesken. Unless indicated otherwise, the data in this paper come from my fieldwork materials. I thank the Takazov family for their hospitality; Aslan Guriev, Elizaveta Kochieva, and Fedar Takazov for crucial help in organizing the work; and all my consultants for their immensely generous and patient cooperation. Thanks go to Daniel Büring, Seth Cable, Kyle Johnson, Idan Landau, Tova Rapoport, Pavel Rudnev, and Rok Žaucer for their feedback and discussions at various stages of this research. Earlier versions of this work were presented at SLE 2019, GLOW45, Sinfonija 13, and HUJI Syntax Workshop, as well as at colloquia at Bar Ilan University, the University of Frankfurt, and the School of Linguistics, High School of Economics, Moscow. I thank the audiences at these venues for their feedback. Author: David Erschler, Department of Foreign Literatures and Linguistics, Ben-Gurion University of the Negev (erschler@bgu.ac.il).

- (1) a. Mary_i ate the fish_j **raw**_{#i/j}/**drunk**_{i/#j}.
 b. John_i served Mary_j coffee **drunk**_{i/*j}.

Cross-linguistically, depictives may require overt morphological marking – for instance, the locative postposition *-de* in Japanese (2a) (Koizumi 1994), the postposition *-lo* ‘as’ in Korean (2b) (Ko 2011), or the essive case in Finnish (2c) (Fong 2003).

- (2) a. Japanese (Koizumi 1994: 27)
 Taroo-ga_i hadaka-**de**_i hon-o yonda.
 Taro-NOM naked-DEP book-ACC read
 ‘Taro read a book naked.’
 b. Korean (Ko 2011: 772)
 Chelswu-ka chamchi-lul_i nal-**lo**_i sey-cokak mekessta.
 Chelswu-NOM tuna-ACC raw-DEP 3-CL ate
 ‘Chelswu ate three pieces of tuna raw.’
 c. Finnish (Fong 2003: (3a))
 Elefantti söi maapähkinä-t suolattom-i-**na**.
 elephant.NOM ate peanut-PL.ACC unsalted-PL-ESS
 ‘A/The elephant ate the peanuts unsalted.’

Besides the theoretical question of how the relation between a depictive and its host is established, a related descriptive question exists – What syntactic positions can a DP occupy in a given language to be able to host a depictive? The literature on depictives, including those in less studied languages, is fairly rich; see, e.g., Schultze-Berndt & Himmelmann (2004, 2005), Rothstein (2017), Schroeder et al. (2008), Potsdam & Haddad (2017), Schultze-Berndt (2017), and references therein. However, the cross-linguistic variation in the types of admissible hosts has received less attention.

In English, only subjects and direct objects can serve as hosts,¹ as first observed by Williams (1980: 203, 207). The same pattern obtains in a number of other better-studied languages, e.g., Spanish (Demonte 1987, 1988: 3), German (Georgala 2011: 102; Müller 2004), and Basque (Odría 2014: 295). Many analyses effectively take this observation as a primitive (e.g., You 2016 for Spanish).

However, it has been long known that there are languages that allow a wider array of syntactic positions to be modified by a depictive. This is the case, for instance, for Finnish (3a), where the indirect object *him* can be modified by the depictive (Nichols 1978: 120–121). This has been also observed for Slovenian, where depictive modification is possible even for a PP complement (3b) (Marušič et al. 2003, 2008). A wider range of depictive hosts is also attested in Romanian and Albanian (Irimia 2005) and Lithuanian (Čižik-Prokaševa 2010: 132).

- (3) a. Finnish (Nichols 1978: 120)
 pro_i lahetimme **hänelle**_j rahaa **lapse-na**_{i/j}.
 1PL we.sent s/he.ADESS² money.PART child-ESS
 ‘We sent him money as a child (when we/he were/was a child)’

¹ This generalization has some apparent exceptions; see Maling (2001) and Demonte (1987) for examples and Pyllkkänen (2008) for a discussion.

² Glosses and abbreviations: ADESS adessive; ABL ablative; ALL allative; Appl applicative; AV agent voice; CL classifier; CVB converb; DAT dative; DEP depictive; DV direction voice; ESS essive; GEN genitive; INS instrumental; LINK

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

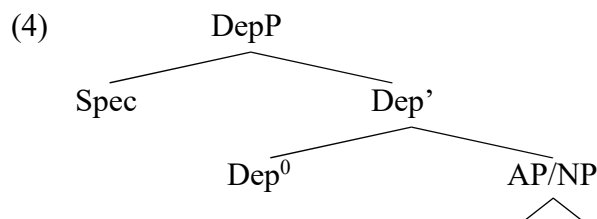
‘Yesterday we ran into Vid_i at Prešeren square, and he_i was still completely drunk_i.’

The first proposal to systematically account for the cross-linguistic variation between depictive hosts is that of Pyllkänen (2008). To the best of my knowledge, it remains the only one to date. On her proposal, the question of what are possible depictive hosts in a given language is reduced to the question about how the relationship is established between a depictive and its host. Specifically, she proposes that this relationship is only established at LF. The semantics she adopts for depictives and arguments is such that semantic composition is only possible between depictives and subjects, direct objects, and high applicatives – i.e., such applicatives that are merged above V⁰. As the Slovenian sentence in (3b) illustrates, this proposal under-generates.³ Later, I show that it significantly overgenerates as well.

Beginning with Rothstein (1983) for English, several binding-based proposals have been advanced. This approach has been worked out in particular detail for Russian and other East Slavic languages by Bailyn (1995, 2012) and Richardson (2007).

In this paper, I provide novel evidence that binding can be implicated in the establishment of the host-deictive relationship. The evidence comes from the behavior of depictives in the Ossetic languages, where the same nontrivial class of syntactic positions allows modification by depictives and anaphor binding. While it is not my goal here to derive the properties of anaphor binding in Ossetic, the fact that these two different requirements define the same class of syntactic positions strongly suggests that the same mechanism underlies binding and modification by depictives in these languages.

I use the notation DepP for the immediate constituent containing a depictive. As a first approximation, there is a large consensus in the literature about the internal structure of DepP (4). The head Dep⁰ is assumed to be responsible for the idiosyncratic morphological marking the depictive receives in a given language (2) and for the depictive semantics. The precise nature of Dep⁰ and of its Spec depends on the specific proposal. This includes even the existence of the specifier; see, e.g., Rothstein (2019: 554) for a proposal that DepP cannot contain “null pronominal elements”. Dep⁰ can be thought of as a relator in the sense of den Dikken (2006: 11); see, e.g., Ko (2011: 738) for this point about Korean.



linker; LOC locative; LV location voice; OV object voice; PART partitive; POSS.1/2/3.PL/SG possessive proclitic; PRFV perfective; PRV preverb; REFL reflexive; SUP superessive.

³ A reviewer raises a possibility that Slovenian agreeing depictives are reduced relative clauses. However, if that were so, depictives had to be always participial. This is not the case – clearly non-deverbal adjectives can appear in depictives, and *pijani* ‘drunk’ in (b) is one such example. The same argument applies to Russian case-agreeing depictives, whose behavior is largely identical to that of Slovenian ones.

In this paper, I argue that the specifier of DepP is occupied by a null anaphor, which is bound by the DP the depictive modifies. Different readings of a sentence with a depictive correspond to different attachment sites of DepP.

While it is possible that the syntax of modification by depictives is not cross-linguistically uniform, I proceed to argue that the proposed binding-based account is generalizable to other languages. Specifically, I show how it can account for the depictive behavior in Russian, Tyvan, Slovenian, and Tagalog.

The paper is organized as follows. In section 2, I provide an overview of the approaches to the depictive-host relationship and show that some of them are clearly unable to account for the cross-linguistic variation in the class of admissible hosts. In section 3, I present the key case study of this paper, depictives in the two Ossetic languages. In section 4, I compare the properties of control and binding in these languages and show that the ability of a DP to bind reflexives and reciprocals patterns together with the ability to be modified by a depictive. In section 5, I lay out my proposal about reducing modification by depictives in Ossetic to anaphor binding. In section 6, I speculate about how the current proposal can be generalized to account for cross-linguistic variation and apply the resulting system to depictives in Russian, Tyvan, and Tagalog. Section 7 concludes.

2. Proposals in the literature. Proposals in the generative literature about how the relationship is established between a host and a depictive include control of a PRO in DepP, binding, merger of DepP (with the host DP as its overt subject) in the position of the host, and purely semantic combination of depictives and hosts at the LF – i.e., essentially not assuming any special syntactic relationship between them.

I have to leave aside the proposals where DepP and the rest of the clause are derived separately, while the relationship between the depictive and its host is established by grafting or creating a multidimensional structure (e.g., You 2016; Irimia & Rapoport 2018). Further research is required to determine how, and whether, restrictions on the syntactic position of a host can be implemented under such approaches.

2.1. CONTROL-BASED APPROACHES. A major strain in the literature on secondary predicates in general, and depictives in particular, assumes the relationship between a depictive and its host to be that of (obligatory) control. Specifically, on this approach SpecDepP in (4) is taken to be occupied by the obligatorily controlled PRO (5).

(5) John [met Mary_i] [_{DepP}PRO_i angry]. (Rothstein 2006)

Representatives of this approach include 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), Kishimoto (2021: 54), and den Dikken & Dékány (2023). On this approach, the restriction of potential hosts to subjects and objects must follow from the general properties of obligatory control.

If this analysis is to be taken as cross-linguistically valid, the prediction is that in a given language, the ability to host a depictive and to control PRO should pattern together. It is easy to see that this prediction is not borne out. As the contrast between (6a) and (6b) shows, indirect objects in Russian can control PRO but cannot host an instrumental-marked depictive.⁴

⁴ Russian also has case-agreeing depictives (e.g., Filip 2001; Richardson 2007: 123), which are not subject to any obvious restriction on the type of the host – i.e., they pattern with Slovenian ones.

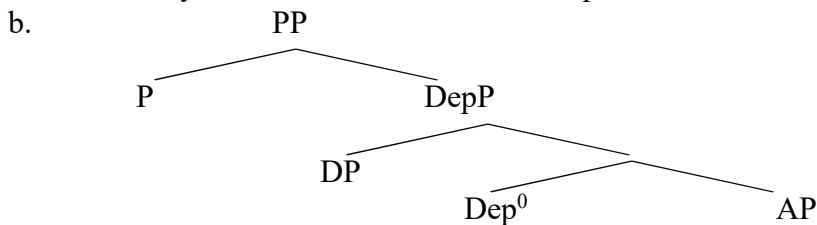
- (6) Russian
- a. Petja_i prinjos Vase_j časy pjanym_{i/*j}.
 Petya.NOM brought Vasya.DAT watch.ACC drunk
 ‘Petya brought Vasya a watch drunk.’
- b. Petja_i prinjos Vase_j časy PRO_j počinit’.
 Petya.NOM brought Vasya.DAT watch.ACC fix.INF
 ‘Petya brought Vasya a watch to fix.’

We will see similar Ossetic facts in section 4.1 below. Accordingly, control-based approaches to depictive modification cannot be cross-linguistically valid.

2.2. BINDING. On this approach, SpecDepP in (4) is occupied in anaphor bound by the depictive host. To repeat, this approach was implemented for Russian and other East Slavic languages by Bailyn (1995, 2012) and Richardson (2007).

2.3. MERGER OF DEPP IN LIEU OF THE HOST DP. In Slovenian, no restrictions obtain on DPs that host depictives (Marušič et al. 2003, 2008). For instance, in (7a), the depictive ‘drunk’ modifies ‘Vid’, the complement of a preposition. Accordingly, the authors propose that 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 (7b).

- (7) 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.’



Whatever the assumptions about how such a structure is interpreted semantically, in the current form, this proposal predicts that depictives are not sensitive to the type of host.⁵ In section 6, I argue that the proposal can be modified to naturally fit into the parametric system I lay out below.

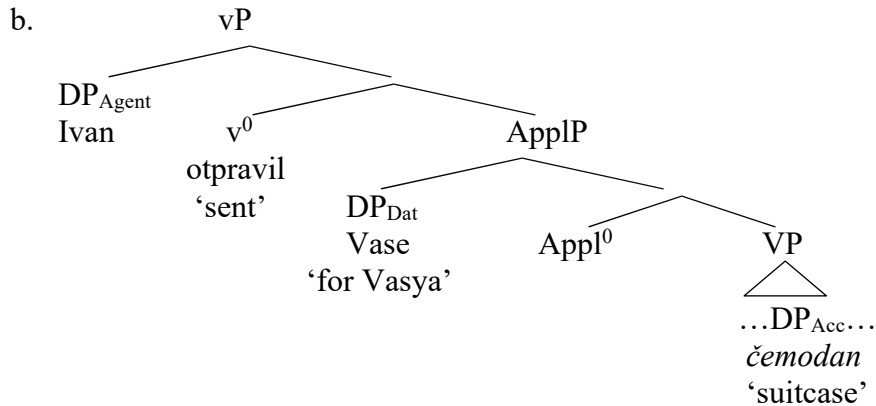
2.4. PYLKKÄNEN’S (2008) PROPOSAL. Pylkkänen (2008) made an explicit proposal about the semantics of applicatives and used the semantics of depictives proposed by Geuder (2000). Applicatives can be “high” and “low”; that is, they can be higher or lower than V⁰. The semantics of high and low applicatives 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. This analysis, however, massively over-generates. This can be illustrated by examples from Russian and Tyvan.

⁵ Irimia & Rapoport’s (2021) proposal, advanced for English, appears to make the same prediction. The crucial difference from Marušič et al.’s (2008) proposal is that it discusses the properties of the Dep⁰ head in detail (σ head in the notation of their paper).

As Boneh & Nash (2017) show, some Russian indirect objects are high applicatives (8a-b). However, they still cannot be modified by depictives (8c).

(8) Russian (Boneh & Nash 2017: 903)

a. Ivan otpravil Vase čemodan.
 I. sent Vasya.DAT.M suitcase
 ‘Ivan sent Vasya a suitcase.’



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.’

Tyvan (Turkic, Southeast Siberia) only has DO-depictives (9a); subject depictives are expressed by converbial clauses (9b) (Nevskaya 2019).

(9) Tyvan (Nevskaya 2019)

a. ol etti čig-ge či:r.
 s/he meat-ACC raw-DAT eats
 ‘S/he eats meat raw.’

b. ol anıyaq tur-γaş čoq.apar-γan.
 s/he young stand.AUX-CVB die-PERF
 ‘S/he died young.’ (lit. ‘being young’)

On the other hand, it is not clear how Pylkkänen’s (2008) proposal would account for the Slovenian pattern laid out in Marušič et al. (2008).

It is worth stressing that these facts do not automatically mean that Pylkkänen’s (2008) approach to depictive semantics is invalid. What they do imply, however, is that additional mechanisms have to be invoked to explain the observed cross-linguistic variation.

3. Case study: depictives in Ossetic. In this section, I provide the relevant background about Ossetic grammar and describe the properties of depictives in these languages.

3.1. BACKGROUND ON OSSETIC. Ossetic is a cover term for two closely related Iranian languages, Iron and Digor, spoken in the Central Caucasus (Erschler 2018; 2021). These languages are predominantly head-final, with a moderately large case system. Case is marked on the right edge of the DP.⁶ The DP is rigidly ordered and unsplittable; it shows no overt agreement, either in case or in number (10). Ossetic lacks morphological gender.

⁶ The issue of whether the Ossetic languages project a DP is orthogonal to our present purposes. See, however, Erschler (2019) for evidence in favor of this.

- (10) Digor
- a. afī ustur wors bəχ
 this big white horse
 ‘this big white horse’
- b. *afī-∅ ustur-∅ wors-∅ bəχ-**t-ən**
 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), Erschler (2012), and Borise & Erschler (2022) for a discussion of restrictions it is subject to.

3.2. DEPICTIVES IN OSSETIC. At the very outset, it should be noted that Ossetic lacks resultatives – i.e., secondary predicates like *dry* in *John wiped the table dry*. On the other hand, Ossetic widely uses depictives. Depictives are obligatorily marked with the ablative (11a), no matter the case of the host DP. They do not agree with the host in number (11b).

- (11) Digor (Ik’ati 2011: 23)
- a. soslan <**tuzmeg-*(ej)**> ratsudej <**tuzmeg-*(ej)**>.
 S. angry-ABL s/he.left
 ‘Soslan left angry.’
- b. inne-tæ=ba **eguppeg-ej** baduntæ.
 other-PL=CTR silent-ABL sit.PRS.3PL
 ‘Others are sitting silent.’

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 nonverbal predication, the ablative marking does not arise (12).

- (12) Digor
- a. copular clause
 je=dər kədzos adtəj.
 it.NOM=too clean.NOM was
 ‘It (air) was clean too.’ (from a recorded narrative)
- b. ‘become X’
 sə=tsard=dər tsubur issəj.
 their=life.NOM=too short.NOM became
 ‘Even their life became short.’ (from a recorded narrative)
- c. ‘consider to be X’
 [χ^warz ləg]-bəl ke nimmaj-un ənkezuj?
 good man-SUP who.ACC count-INF is.possible
 ‘Who can be considered a good person?’ (from a recorded narrative)
- d. adgin=ime kəs-uj fuf-i fid.
 sweet=ALL.3SG look-PRS.3SG sheep-GEN meat
 ‘He considers mutton tasty.’ (from a literary text)

These data allow us to conclude that 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 Dep⁰. I abstract away from possible semantic restrictions on the finite verb⁷ in a clause that hosts a depictive; see, e.g., Rapoport (1999) for English.

Wh-questions to depictives use the ablative-marked *kud* ‘how’ or *ʃi χuzən* ‘like what’, which are placed immediately preverbally, just like any *wh*-phrase in Ossetic (Erschler 2012).

(13) Digor

- A: soslan kud-əj/ [ʃi χuzən-əj] ɐrba-tʂud-əj?
 Soslan how-ABL/ [what similar-ABL PRV-go.PST-PST.3SG
 ‘In what state did Soslan come?’
 B: rasug-əj
 drunk-ABL

The host and the depictive cannot be separated by a clause boundary, even if the clause is nonfinite (14).

(14) Digor

- soslan_i χetəg-i_j nə=wadz-uj [rasug-əj_i PRO_j ɐrba-tʂəw-un].
 Soslan Kh-OBL NEG=let-PRS.3SG drunk-ABL PRV-go-INF
 ‘Soslan_i doesn’t let Khetag_j to come drunk*_{i/j}.’ (15/15 respondents)

Finally, to be modified by a depictive, a DP does not need to c-command the depictive on the surface (15).

(15) Digor

- rasug-əj_i <soslan-i_i> nekəd fejjidton <soslan-i_i>
 drunk-ABL Soslan-ACC never I.saw Soslan-ACC
 ‘I’ve never seen Soslan drunk.’

3.3. 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.

To elicit judgments about possible depictive hosts, 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.

(16) Digor direct object⁸

- a. accusative marked DO
 ɐzɪnə ɐrvong-əj_{i/j} soslan-i_j pro_i fejjidton.
 yesterday sober-ABL S-ACC I.saw
 ‘Yesterday, I saw Soslan (when I/Soslan was) sober.’ (Subj: 2; Obj: 6; S/O: 7)

⁷ For instance, in Russian, a language that normally allows direct objects to host depictives, the following sentence (based on an English example in Rapoport 1993: 177) 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)

⁸ Ossetic exhibits Differential Object Marking.

b. unmarked DO

soslan_i χ^wergenasə_i χ^weruj tseχgun-əj_i.
 Soslan cucumber eats salted-ABL

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

Digor idiosyncratically marked internal argument

c. Ablative ‘to fear X-ABL’

soslan_i χetəg-əj_j rasug-əj_{i/j} tørsuj.
 Soslan Khetag-ABL drunk-ABL fears

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

d. Superessive ‘to trust X-SUP’

soslan_i χetəg-bəl_j rasug-əj_{i/j} ewwənduj.
 Soslan Khetag-SUP drunk-ABL trusts

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

e. Allative ‘desire X-ALL’

soslan χ^wergenasə-mə_i bəlluj tseχgun-əj_i.
 Soslan cucumber-ALL desires salted-ABL

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

Ditransitives

f. Digor dative-marked host

soslan_i χetəg-ən_j maʃin-i dəkəl-tə rasug-əj_{i/j} ravardta.
 Soslan Khetag-DAT car-GEN key-PL drunk-ABL gave

‘Soslan_i gave Khetag_j the car keys when he_{i/j} was drunk.’ (S: 10; IO: 1; S/IO: 5)

g. Iron Ossetic ablative-marked host

ʃoʃlan χetəg-əj_j maʃin-ə dəkəl-tə rafəg-əj_{i/j} rajfta.
 Soslan Khetag-ABL car-GEN key-PL drunk-ABL took

‘Soslan_i took the car keys from Khetag_j when he_{i/j} was drunk.’ (S⁹: 1; S/IO: 3)

h. Digor ablative- and superessive-marked hosts

soslan-əj_j =məbəl_i rasug-əj_{i/j} rawadəj.
 Soslan-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 (17). The subject wins out even when the resulting interpretation is pragmatically odd, like in (17a).

(17) Digor case-marked adjuncts

a. tikis_i soslan-bəl_j rasug-əj_{i/*j} χussuj.
 cat Soslan-SUP drunk-ABL sleeps

‘The cat sleeps on Soslan (when it/*Soslan is) drunk.’ (S: 12; Adj: 2; S/Adj: 0)

b. soslan_i erbatsudəj alan-mə_j rasug-əj_{i/*j}.
 Soslan came Alan-ALL drunk-ABL

‘Soslan came to Alan drunk.’ (S: 15; Adjunct: 0; S/Adjunct: 0)

⁹ This sentence is in Iron Ossetic. I could consult fewer speakers of Iron than of Digor.

- c. *soslan_i χetəg-bəl_j rasug-əj_{i/*j} dzoruj.*
 Soslan Khetag-SUP drunk-ABL speaks
 ‘Soslan speaks about Khetag drunk.’ (S: 13; Adjunct: 0; S/Adjunct: 0)
- d. PP adjunct
soslan alan-i razi rasug-əj ləwuj.
 Soslan Alan-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 DP in (16d), where it is an argument, and in (17a), where it is 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 host depictives in Ossetic.

To ensure that for *ərbatsəw-* ‘arrive’ in (17b) and *dor-* ‘speak’ in (17c), the goal and the subject matter, respectively, are not syntactic arguments, note that these verbs can freely occur without such DPs (18).

- (18) Digor
- a. *19-ag-i izær-əj nə=direktor ərbatsudəj.*
 19-th-LOC evening-ABL 1PL.POSS=headmaster arrived
 ‘On the 19th at night our headmaster arrived.’ (Æghuzarti 2008: 87)
- b. *ruslan kəwinələs-əj dzoruj.*
 Ruslan crying.voice-ABL speaks
 ‘Ruslan’s speaking in a crying voice.’ (Ik’ati 2011: 137)

Finally, possessors cannot host depictives (19).¹⁰

- (19) Digor
- a. [*soslan-i_i ənsuver_j]* *χetəg-bəl_k rasug-əj_{i/*j/k} isəmbaldəj.*
 Soslan-GEN brother Khetag-SUP drunk-ABL s/he.met
 ‘Soslan’s_i brother_j met Khetag_k drunk_{i/*j/k}.’
- b. [*soslan-i_i χədzarə_j]* *basudəj rasug-əj_{i/*j}.*
 Soslan-GEN house burned drunk-ABL
 ‘Soslan’s house burned drunk.’

To recapitulate, while any argument in Ossetic can host a depictive, no adjunct or possessor can do so.

3.4. APPARENT EXCEPTIONS. The generalization about possessors from the preceding section needs a qualification. While the regular possessor of an argument is unable to host a depictive

¹⁰ An additional way to mark the possessor in Ossetic is to use a possessive proclitic and a coreferential DP in the dative (ia). The dative-marked DP in this construction does not form a constituent with the possessee, which is evidenced by the clitic placement in (ia). The possessor marked this way cannot host depictives (ib), which is in full accordance with the generalizations – the proclitic cannot host depictives as a DP-internal possessor, while the dative DP cannot do so as an adjunct.

- (i) Digor
- a. *all_i tsawəjnon-ən_i=dər-əj_{*i} ə=kuj bazonuj.*
 every hunter-DAT=EMP=ACC.3SG POSS.3SG=dog recognizes
 ‘Every hunter_i’s dog recognizes him/her/it_{*i}.’
- b. *soslan-ən je=nsuver rasug-əj ərbatsudəj.*
 Soslan-DAT POSS.3SG=brother drunk-ABL s/he.arrived
 ‘Soslan’s_i brother_j arrived drunk_{i/*j}.’

(19), possessors are able to do so if they are “indirect arguments” of the verb – i.e., when they occur in idiomatic predicates such as ‘to take X’s picture’ ‘to go to X’s heart = to please X’, etc. (20).

(20) Digor

- a. *soslan_i [alan-i χuzə_j] iʃista rasug-ə_j i_j.*
 Soslan Alan-GEN picture took drunk-ABL
 ‘Soslan took Alan’s picture when (he was) drunk.’ (Soslan: 9; Alan: 1; S/A: 5)
- b. *mədinə_i [soslan-i_j zərde-mə] tšəwuj rasug-ə_j i_j.*
 Madina Soslan-GEN heart-ALL goes drunk-ABL
 ‘Soslan likes Madina (*lit.* Madina goes to Soslan’s heart) when drunk.’
 (S: 0; M: 1; S/M: 2)¹¹
- c. *mədin-i_i zərde ba-ɸar=ə_j səjg-ə_j.*
 M-OBL heart PRV-warm=be.PRS.3SG ill-ABL
 ‘Madina lost consciousness (*lit.* Madina’s heart got warm) when sick.’ (M: 3)

Thus, possessors in idiomatized constructions seem to violate the generalization that only arguments may host depictives. I submit, however, that this violation is merely spurious. Similarly to the analysis of inalienable possession in Guéron (1985), Vergnaud & Zubizarreta (1992), and Nash (2021: 1245), I propose that the possessum in such phrases is an anaphoric expression (or contains an unsaturated variable) that receives reference from, or is bound by, the possessor. Accordingly, the depictive in such a construction is actually hosted by the entire DP, e.g., ‘Alan’s picture’ in (20a) and ‘Soslan’s heart’ in (20b). The DP then gets idiomatically interpreted as referring to its possessor, e.g., ‘Soslan’s heart’ is interpreted as ‘Soslan’.

4. Depictive hosting vs. control and binding. In this section, I compare the patterns of depictive hosting with those of control and binding in Ossetic. I show that, similarly to the Russian data discussed in section 2.1, control patterns differently from depictive hosting. On the other hand, the behavior of anaphor binding is fully parallel to depictive hosting.

4.1. CONTROL VS. DEPICTIVE HOSTING. The behavior of control clauses is very different from that of depictives. We are primarily interested in adjunct control, because depictives are adjuncts. Complement control behaves in the same manner, however.

Adjuncts that participate in control in Ossetic are converb clauses. PRO in such clauses can be controlled by the subject or direct object (21); see also Belyaev & Vydrin (2011: 123–124) for Iron Ossetic.

(21) Digor

- a. Subject control
*soslan_i je=nsuvər-ə_j [PRO_{i/*j} χod-gə-j] raledzuj.*
 Soslan POSS.3SG=brother-ABL laugh-CVB-ABL runs.away
 ‘Soslan is running away from his brother laughing.’
- b. Object control
soslan mədin-i_j fejjidta [PRO_j zar-gə-(j)].
 Soslan Madina-ACC see.PST.3SG sing-CVB-ABL
 ‘Soslan saw Madina sing.’

¹¹ Unfortunately, I realized the importance of examples of this type fairly late in the course of my fieldtrip and was only able to collect very few judgments.

Other arguments cannot control converb clauses, although we have seen that they can serve as depictive hosts. This is illustrated for a dative-marked IO in (22a) and for a superessive-marked IO in (22c). The sentence with a depictive in (22b) serves as a minimal pair to (22a).

- (22) Digor
- a. *fidə_i ɐ=furt-ən_j dəkəltə*
 father.NOM POSS.3SG=son-DAT keys
 [kust-mə PRO_{i/*j} ratsəwu-gə-j] ravardta.
 work-ALL go.away-CVB-ABL give.PST.3SG
 ‘The father_i left the keys to his son_j while PRO_{i/*j} leaving for the work.’
- b. *soslan_i χetəg-ən_j maʃin-i dəkəl-tə rasug-əj_{i/j} ravardta.*
 Soslan Khetag-DAT car-GEN key-PL drunk-ABL gave
 ‘Soslan_i gave Khetag_j the car keys when he_{i/j} was drunk.’
- c. *soslan-i_i ɛnsuvər_j=məbəl_k [PRO_{*i/j/*k} zar-gə-j] isəmbaldəj.*
 Soslan-OBL brother=SUP.1SG sing-CVB-ABL met
 ‘Soslan’s brother met me while PRO_{*i/j/*k} singing.’

Likewise, possessors in idiomatic predicates cannot control converbs.

- (23) Digor
- soslan_i alan-i_j χuzə iʃista [jɐ=bil-t-i PRO_{i/*j} baχod-gə-j].*
 Soslan Alan-OBL picture took POSS.3SG=lip-PL-OBL smile-CVB-ABL
 ‘Soslan took Alan’s picture smiling.’

Accordingly, we can rule out control as a possible relation between the host DP and the depictive in Ossetic.

4.2. ANAPHOR BINDING IN OSSETIC. In this section, I show that the class of DPs that can bind anaphors in Ossetic fully coincides with the class of those that can host depictives. Specifically, anaphors can be bound by subjects, objects, indirect objects, lexically case-marked internal arguments, and possessors in idiomatic predicates. On the other hand, adjuncts, PP complements, and regular possessors cannot bind anaphors.

The Ossetic languages exhibit dedicated reflexives and reciprocals. Reflexives are formed from the dedicated stem *χe-* (Digor)/*χi-* (Iron) with a possessive proclitic bearing the phi-features of the binder (24a). Reciprocals are formed from the dedicated stem *kərdʒe-* (D)/*kərdzi-* (I), to which a possessive proclitic optionally attaches (24b).

- (24) Digor
- a. Reflexive
ɛz_i mə=χe_i ɛnamond nə=χon-un.
 I POSS.1SG=REFL unlucky NEG=call-PRS.1SG
 ‘I do not call myself unlucky.’ (Aghuzarti 2008: 7)
- b. Reciprocal
alan_i əma mædinæ_j (sə)=kərdʒe-bəl_{i+j} əwwænduntsə.
 Alan and Madina 3PL.POSS=REC-SUP trust.PRS.3PL
 ‘Alan and Madina trust each other.’

The sentences in (24) illustrate that subjects can bind anaphors in Ossetic. The sentences in (25) show the same for direct objects (25a), indirect objects (25b), and internal arguments marked by a lexical case (25c-d).

(25) Digor

- a. soslan-i_i v=χe_i χətstə ba-zongə kodton.
 Soslan-ACC POSS.3SG=REFL with PRV-known do.PST.1SG
 ‘I introduced Soslan to himself.’
- b. soslan-mə_i v=χe_{i/*j} bavdiston.
 Soslan-ALL POSS.3SG=REFL I.showed
 ‘I showed Soslan himself’

Iron Ossetic

c. ‘to praise X-ABL’

- foʃlan-əj_i jə=mad əppələ jə=χi_i razə.
 Soslan-ABL POSS.3SG=mother praises POSS.3SG=REFL in.front.of
 ‘Soslan’s mother praises him in front of himself.’

d. ‘to believe (in) X-SUP’

- foʃlan-əl_i jə=mad əwwəndə jə=χi_i fərsə.
 Soslan-SUP POSS.3SG=mother believes POSS.3SG=REFL for.the.sake
 ‘Soslan’s mother believes in him for his own (lit. himself’s) sake.’

As I mentioned in section 3.4, Ossetic has a large number of idiomatic predicates with the experiencer encoded as the possessor. We have seen that these can be modified by a depictive. The sentences in (26) show that such possessors can bind anaphors.

(26) *X’s heart laughs at Y* ‘X feels offended by Y’

Digor

- a. soslan-i zərdə v=χe-bəl χoduj.
 Soslan-GEN heart POSS.3SG=REFL-SUP laugh.PRS.3SG
 ‘Soslan feels offended by himself.’
- b. soslan əma mədin-i zərđi-tə kərəđze-bəl χoduntə.
 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 zərdə-mə tsəwuntə v=χe-bəl χabərttə.
 Soslan-GEN heart-ALL go POSS.3SG=REFL-SUP stories
 ‘Soslan likes stories about himself.’

On the other hand, adjuncts cannot bind anaphors (27a). The same holds for adposition complements (27b) and possessors outside of idiomatic expressions (27c).

(27) Digor

- a. χətəg_i radzoruj soslan-bəl_j v=χets-ən_{i/*j}.
 I Kh.NOM tells Soslan-SUP POSS.3SG=REFL-DAT
 *‘Khetag is telling himself_j about Soslan_j.’
- b. *v=χe_i soslan-i_i χətstə ba-zongə kodton.
 POSS.3SG=REFL.ACC Soslan-GEN with PRV-known do.PST.1SG
 lit. ‘I made myself_i acquainted with Soslan_i.’ (intended)

- c. batradz_i warzuj [v=χe-bəl_{i/*j} soslan-i_j radzur-tə-mə PRO_i
 Batraz loves POSS.3SG=REFL-SUP Soslan-GEN story-PL-ALL
 iχos-un].
 listen-INF
 ‘Batraz_i loves to listen to Soslan_j’s stories about himself_{i/*j}.’

To recapitulate, a full parallelism exists between the ability to host a depictive and to bind an overt anaphor, as summarized in Table 1.

Type of DP	Ability to host depictives	Ability to bind anaphors
Subjects	✓ (16)	✓ (24)
Direct objects	✓ (16a)	✓ (25a)
Indirect objects	✓ (16f-g)	✓ (25b-d)
Possessors in idiomatic predicates	✓ (20)	✓ (26)
Adjuncts	× (17a-c)	× (27a)
Adposition complements	× (17d)	× (27b)
Regular possessors	× (19)	× (27c)

Table 1. Comparing the ability to host depictives and to bind anaphors across DP types

Furthermore, overt anaphors do not have to be c-commanded on the surface by a binder (28), similarly to depictives (15).

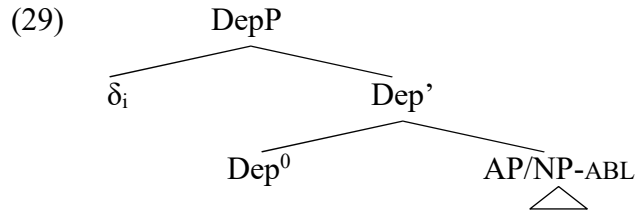
(28) Digor

- a. v=χe-bəl ewwənduj erməst mədinə.
 3SG.POSS=REFL-SUP believe.PRS.3SG only Madina
 ‘Only Madina believes in herself.’
- b. kərədžeməj tərsuntə nə=kuj əma nə=tikis.
 REC.ABL fear.PRS.3PL 1PL.POSS=dog and 1PL.POSS=cat
 ‘Our cat and our dog are scared of each other.’

5. Proposal. It is not my goal here to provide an analysis of binding in Ossetic. In particular, I remain agnostic as to why adjuncts are unable to bind anaphors, while any arguments can do so. However, the strong parallelism between the depictive hosting and anaphor binding suggests that the depictive-host relationship in Ossetic can be reduced to that between an anaphor and its antecedent.

Specifically, I propose that SpecDepP is occupied by a dedicated null anaphor δ^{12} (29). The anaphor is bound by the DP the depictive modifies. Ossetic-internal facts only warrant the conclusion that the binding domain of δ must not exceed the minimal clause that contains DepP. Cross-linguistic data in section 6 will allow us to sharpen this condition – we will see that the binding domain of δ must be the phrase DepP adjoins to.

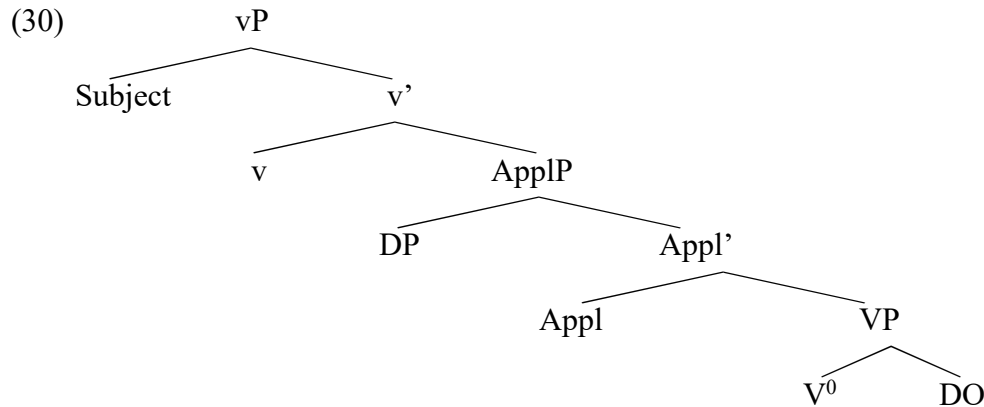
¹² A reviewer suggests that the notation δ might be an allusion to Safir’s (2014) notion of D-bound. As a matter of fact, δ stands for “depictive”.



The head Dep^0 is assumed to be responsible for the depictive semantics and for the ablative marking that the depictive AP/NP receives.¹³ Interpretation ambiguities are taken to reflect the position where DepP is merged, similarly to the proposals in Koizumi (1994) for Japanese, Richardson (2007) for East Slavic languages, Ko (2011) for Korean, and others.

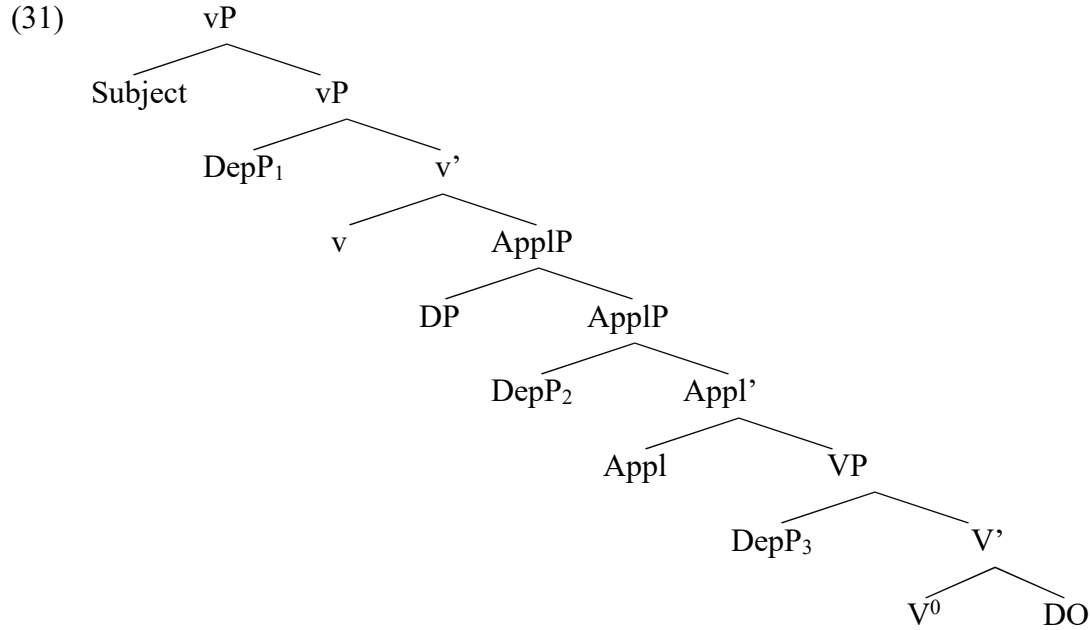
Specifically, I propose that internal argument-oriented depictives are base-generated as an adjunct to the VP, indirect-object oriented depictives are base-generated as an adjunct to ApplP , and subject-oriented depictives are base-generated as an adjunct to the vP .

I make fairly standard assumptions about the clause structure (30). Nothing hinges on whether idiosyncratically case-marked internal arguments (16c-e) are introduced by Appl heads or are the complements of the respective V^0 's.



Accordingly, DepP may occupy the positions shown in (31), where DepP_1 is a subject-oriented depictive, DepP_2 is an applicative-oriented depictive, and DepP_3 is an object-oriented depictive.

¹³ The idea that a bare, that is D-less, NP or AP receives case is potentially theoretically problematic (Danon 2006). It is conceivable that the AP/NP of a depictive is actually embedded in a DP with a null D^0 .



As the tree in (31) suggests, multiple depictives can indeed occur in a single clause ().

- (32) Digor
 soslan_i rasug-əj_i fənnadta alan-i_j bəknag-əj_j.
 Soslan drunk-ABL beat.up.PST.3SG Alan-ACC naked-ABL
 ‘Soslan_i drunk_i beat up Alan_j (when he_j was) naked.’

The properties of depictives in Ossetic then follow automatically from the properties of anaphor binding in these languages. If the respective arguments are able to bind anaphors, they will be able to bind the anaphor in SpecDepP. In *wh*-questions (13), the entire DepP undergoes movement to the landing site of *wh*-phrases; see Borise & Erschler (2022) for a discussion of the syntax of *wh*-questions in Ossetic.

6. Cross-linguistic parameterization. In this section, I sketch a way to incorporate the cross-linguistic variation into the account laid out in section 5. The account posits two functional items, the head Dep⁰ and the anaphor δ in its specifier. I submit that allowing the properties of these items to vary in a principled manner, we can capture some extent of the cross-linguistic variation in the properties of depictives.

My proposal relies on two assumptions, each of which is independently motivated cross-linguistically. First, I assume that adjuncts select their host (Pollard & Sag 1994; Bruening 2010; Zeijlstra 2020; Rudnev 2024). Second, I assume that the binding domain needs to be specified for any given anaphor in any given language; see, e.g., Buring (2005) and the references there for a discussion.

On these assumptions, I propose that the possible adjunction sites of the DepP are language-specific – i.e., the adjunction site selection is a lexical property of Dep⁰. Second, the locality domain of the anaphor δ in SpecDepP is the XP to which the DepP adjoins.¹⁴ In the following case studies, I show how this system works.

¹⁴ As a reviewer observes, this assumption is essentially independent of what the actual nature of SpecDepP is.

6.1. INSTRUMENTAL-MARKED DEPICTIVES IN RUSSIAN. This case study will provide a motivation for the need to specify the anaphor δ 's binding domain.

Instrumental-marked depictives in Russian can modify subjects and direct objects, but not indirect objects (33). I take the instrumental to be assigned to the depictive by Dep⁰.

- (33) Russian (Boneh & Nash 2017: 926)¹⁵
 ja_j zakoldoval malyša_j ego dedu_k p'jan-ym_{i/j/*k}
 I jinxed kid.ACC his grandfather.DAT drunk-INS.M
 'I jinxed the kid for his grandfather drunk.'

Indirect objects are able to bind direct objects in Russian;¹⁶ see, e.g., Boneh & Nash (2017). Accordingly, if the binding domain of depictives were the same as for regular anaphors, we would have counterfactually predicted that applicative arguments would be able to bind depictives adjoined to VP.

To rule out extra binders, I use the assumption that the binding domain of the anaphor δ is the category DepP adjoins to. Given that in Russian, depictives can adjoin to vP and VP (Boneh & Nash 2017), if a depictive adjoins to the VP, δ can be only bound by the direct object, because the applicatives or the subject are outside of the binding domain. On the other hand, if DepP adjoins to the vP, δ can be only bound by the subject for the c-command reasons.

A reviewer suggests that given that PRO needs to be bound, conceptually, the analysis proposed here appeals to the taxonomy of empty categories. However, the difference between control-based and binding analyses is more substantial. No matter whether one adopts Landau's approach or Movement Control Theory, control involves additional syntactic mechanisms: licensing of PRO by a dedicated complementizer or movement of the controller.

6.2. DEPICTIVES IN TYVAN. To repeat, Tyvan only has DO-depictives; subject depictives are expressed by converbial clauses (9) (Nevskaya 2019). I propose that DepP can only adjoin to VP in Tyvan, and, accordingly, VP serves as the binding domain of δ .¹⁷ If the binding domain were larger, we would predict that Tyvan has subject-oriented depictives.

6.3. DEPICTIVES IN SLOVENIAN. According to Marušič et al. (2003, 2008), in Slovenian, any DP may be modified by a depictive. These authors proposed that DepP is merged in Slovenian in the position of the respective DP, with the DP occupying SpecDepP.

This proposal can be minimally modified to fit the approach developed in this paper. Namely, we can assume that DepPs in Slovenian adjoin to DPs, with the DP being the binding domain of the anaphor. This immediately derives the desired properties.

¹⁵ The judgment that the depictive in this sentence can be DO-oriented is mine.

¹⁶ This possibility, however, is somewhat marginal. For the sentence in (i), only two speakers out of the 20 consulted judged the binding by the indirect object grammatical. Recall that reflexives in Russian do not match the binder in ϕ -features, so the sentence is potentially ambiguous.

(i) Klara napominala Karlu_j sebj_a_j.
 Klara.NOM reminded Karl-DAT REFL
 'Clara reminded Karl of him-/herself.'

¹⁷ To account for the fact that the subjects of unaccusatives cannot host depictives I propose that A-movement cannot reconstruct in Tyvan. The matter admittedly requires further study. I thank Arzhaana Syuryun for a discussion of Tyvan facts.

6.4. DEPICTIVES IN TAGALOG. The data are from Nagaya (2004: 133–134). In Tagalog, the agent (irrespective of the voice) and the subject in the respective voice can be modified by a depictive (34).

(34) Agent-oriented depictives

- a. Lasing_i na tumakbo ang lalaki_i papunta sa dagat.
 drunk LINK run.AV.PRFV NOM man toward OBL beach
 ‘The man ran to the beach drunk.’
- b. Lasing_i na inilagay niya_i anga sin sa
 drunk LINK put.OV.PRFV 3.SG.GEN NOM salt OBL
 kanya-ng tsaa.
 3.SG.OBL-LINK tea
 ‘S/he put salt to his/her tea drunk.’
- c. Lasing_i na binilhan ni Zaena_i si Pedro ng tinapay.
 drunk LINK buy.DV.PRFV GEN Zaena NOM Pedro GEN bread
 ‘Zaena_i bought bread from Pedro drunk_i.’

Subject-oriented depictives

- d. Directive version
 Sira-sira_i-ng binalikan ni Fe ang kuwarto_i.
 broken-LINK return.DV.PRFV GEN Fe NOM room
 ‘Fe returned to the room_i; broken_i.’
- e. Locative version
 Basa-ng_i tinulugan ng bata ang sofa.
 wet-LINK sleep.LV.PRFV GEN child NOM sofa
 ‘A/The child_i slept in the sofa_i; wet.’

These facts can be accounted for by my proposal. I make the following assumptions about the clause architecture in Tagalog (Rackowski & Richards 2005: 367–369): the agent is base-generated in SpecvP, while the subject moves into SpecvP. Now, I propose that DepP can only adjoin to the vP, while DPs in the specifiers of vP are able to bind the anaphor in SpecDepP. I abstract away from certain apparently semantic effects reported by Nagaya (2004) (e.g., the inability of animate subjects in some voices to be modified by depictives).

6.5. CROSS-LINGUISTIC PREDICTIONS. On the basis of the case studies discussed above, we can hypothesize that the binding domain of the anaphor involved in depictives is always the category to which DepP adjoins. Table 2 summarizes the predictions depending on what adjunction sites are available to depictives in a given language.

Adjunction site of DepP	Predictions for depictive hosts	Languages
DP	No restrictions on the host	Slovenian
vP	Subject and agent	Tagalog
VP	Only object	Tyvan
vP, VP	Subject and object	Standard Average European
vP, VP, ApplP	Any argument	Ossetic
AppIP	Only applicatives	Unattested so far

Table 2. Cross-linguistic predictions

The predicted systems all appear to be attested, except the one where only applicatives can be modified by depictives. It requires further cross-linguistic research to see whether this gap is an artifact of the small language sample or if it reflects some deeper property of grammar left unaccounted for by the present proposal.

7. Conclusion. In this paper, I argued that a syntactic mechanism is necessary to establish the relationship between a depictive and the nominal it modifies. I showed that a purely semantic account of this relationship, such as proposed by Pykkänen (2008), does not account for the cross-linguistic data.

I provided novel evidence, coming from Digor and Iron Ossetic, showing that binding is one such mechanism. Specifically, I made the following observation. The ability to bind anaphors and the ability to be modified by depictives define the same class of syntactic positions in these languages. This class is nontrivial insofar as it includes lexical case marked arguments and possessors in certain idiomatic predicates, such as *take DP's picture* or *go to DP's heart* 'to love'. This strongly suggests that the same mechanism underlies anaphoric binding and host-depictive relationship in these languages. I must leave for further research a more thorough study of the null anaphor present in depictives.

It is entirely possible that no single mechanism is responsible for the depictive-host relationship across languages. Indeed, as the work of Himmelmann and Schultze-Berndt shows, the very task to provide a cross-linguistically valid definition of the depictive is far from obvious. Nonetheless, I proposed a way to parameterize the binding-based analysis so that it can account for a variety of attested systems. It is a matter of further typological research to assess how much ground a binding-based account of this type can cover.

References

- Æghuzarti, Agube. 2008. *Zin cardi k'æpxæn*. Dzæugighæw: Gassiti Viktori nombæl rauaghadadon-pligrafon kombinat.
- Bailyn, John Frederick. 1995. *A configurational approach to Russian "free" word order*. Ithaca, NY: Cornell University dissertation.
- Bailyn, John Frederick. 2012. *The syntax of Russian*. Cambridge: Cambridge University Press.
- Belyaev, Oleg & Arseniy Vydrin. 2011. Participle-converbs in Iron Ossetic: Syntactic and semantic properties. In Agnes Korn et al. (eds.), *Topics in Iranian linguistics*, 117–134. Wiesbaden: Reichert.
- Bobaljik, Jonathan D. & Idan Landau. 2009. Icelandic Control is not A-movement: The case from Case. *Linguistic Inquiry* 40 (1). 113–132.
- Boneh, Nora & Léa Nash. 2017. The syntax and semantics of dative DPs in Russian ditransitives. *Natural Language and Linguistic Theory* 35(4). 899–953.
- Borise, Lena & David Erschler. 2022. Verb height indeed determines prosodic phrasing: Evidence from Iron Ossetic. *Phonology* 39(2). 171–212.
- 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.
- Büring, Daniel. 2005. *Binding theory*. Cambridge: Cambridge University Press.
- Charnavel, Isabelle. 2019. *Locality and logophoricity: A theory of exempt anaphora*. New York; Oxford: Oxford University Press.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.

- Čižik-Prokaševa, Veslava. 2010. Depiktyvų žymėjimas lietuvių kalboje. *Acta Linguistica Lithuanica* LXII–LXIII. 128–157.
- Danon, Gabi. 2006. Caseless nominals and the projection of DP. *Natural Language & Linguistic Theory* 24. 977–1008.
- Demonte, Violeta. 1987. C-command, prepositions and predication. *Linguistic Inquiry* 18. 147–157.
- Demonte, Violeta. 1988. Remarks on secondary predicates: C-command, extraction, and reanalysis. *The Linguistic Review* 6. 1–39.
- den Dikken, Marcel. 2006. *Relators and linkers*. Cambridge, MA: MIT Press.
- den Dikken, Marcel & Éva Dékány. 2023. The morphosyntax of the Hungarian sociative and dissociative suffixes. *Journal of Uralic Linguistics* 2.1. 74–95.
- 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 Geoffrey Haig & Geoffrey Khan (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. 2021. Iron Ossetic. In: Maria Polinsky, (ed.) *The Oxford handbook of the languages of the Caucasus*, 641–685. Oxford: Oxford University Press.
- Filip, Hana. 2001. The Semantics of case in Russian secondary predication. *SALT* 11. 192–211.
- Fong, Vivienne. 2003. Resultatives and depictives in Finnish. In Diane Nelson & Satu Manninen (eds.), *Generative approaches to Finnic and Saami Linguistics*, 201–233. Stanford: CSLI.
- Franks, Steven & Norbert Hornstein. 1992. Secondary predication in Russian and proper government of PRO. In Richard K. Larson et al. (eds), *Control and grammar*, 1–50. Dordrecht: Springer. https://doi.org/10.1007/978-94-015-7959-9_1.
- Georgala, Effi. 2011. Why German is not an exception to the universal <IO, DO> base order of Double Object Constructions. In Mary Byram Washburn et al. (eds.), *Proceedings of the 28th West Coast Conference on Formal Linguistics*, 96–105. Somerville, MA: Cascadilla Proceedings Project.
- Geuder, Wilhelm. 2000. Oriented adverbs: Issues in the lexical semantics of event adverbs. Tübingen: University of Tübingen Doctoral Dissertation.
- Guéron, Jacqueline. 1985. Inalienable possession, PRO-inclusion and lexical chains. In Jacqueline Guéron, Hans G. Obenauer, and Jean-Yves Pollock (eds.), *Grammatical representation*, 43–86. Dordrecht: Foris.
- Himmelman, Nikolaus P. & Eva Schultze-Berndt. 2005. *Secondary predication and adverbial modification: The typology of depictives*. Oxford: Oxford University Press.
- Hornstein, Norbert. 1999. Movement and Control. *Linguistic Inquiry* 30. 69–96.
- Hornstein, Norbert. 2001. *Move! A minimalist theory of construal*. Malden: Blackwell.
- Hornstein, Norbert & David Lightfoot. 1987. Predication and PRO. *Language* 63(1). 23–52.
- Hornstein, Norbert & Maria Polinsky. 2010. Control as movement: Across languages and constructions. In Norbert Hornstein & Maria Polinsky (eds.), *Movement theory of control*, 1–41. Amsterdam: Benjamins.
- Ik’ati, Avdul. 2011. *Cardi ajdænæ [The mirror of life]*. Dzæugighæw: CINÆI RPX.
- 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.
- Irimia, Monica Alexandrina & Tova Rapoport. 2021. The nature of a predicate: The case of depictives. *Actes du congrès annuel de l'Association canadienne de linguistique 2021/ Proceedings of the 2021 annual conference of the Canadian Linguistic Association*. https://cla-acl.ca/pdfs/actes-2021/Irimia_and_Rapoport-The_nature_of_a_predicate.pdf.
- Kishimoto, Hideki. 2021. On secondary predication in Japanese. *Nanzan Linguistics* 16. 33–66.
- Ko, Heejeong. 2011. Predication and edge effects. *Natural Language and Linguistics Theory* 29. 725–778.
- Koizumi, Masatoshi. 1994. Secondary predicates. *Journal of East Asian Linguistics* 3. 25–79.
- Kudzoeva, Anđžela. 2003. *Porjadok slov i aktual'noe členenie v osetinskom jazyke*. Vladikavkaz: SOGU.
- Landau, Idan. 2003. Movement out of Control. *Linguistic Inquiry* 34 (3). 471–498.
- Landau, Idan. 2007. Movement-resistant aspects of Control. In William D. Davies & Stanley Dubinsky (eds.) *New horizons in the analysis of Control and Raising*, 293–325. Dordrecht: Springer.
- Legendre, Géraldine. 1997. Secondary predication and functional projections in French. *Natural Language & Linguistic Theory* 15(1). 43–87.
- Maling, Joan. 2001. Dative: The heterogeneity of the mapping among morphological case, grammatical functions, and thematic roles. *Lingua* 111. 419–464.
- Martins, Ana Maria & Jairo Nuñez. 2017. Identity avoidance with reflexive clitics in European Portuguese and Minimalist approaches to Control. *Linguistic Inquiry* 48. 627–649.
- Marušič, Franc, Tatjana Marvin & Rok Žaucer. 2003. Secondary predication in Slovenian. In Wayles Browne et al. (eds.), *FASL 11 (The Amherst Meeting, 2002)*, 373–392. Ann Arbor, MI: Michigan Slavic Publications.
- 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*, 423–434. Frankfurt am Main: Peter Lang.
- Matushansky, Ora. 2019. Against the PredP theory of Small Clauses. *Linguistic Inquiry* 50(1). 63–104.
- Müller, Stefan. 2004. An analysis of depictive secondary predicates in German without discontinuous constituents. In Stefan Müller (ed.), *Proceedings of the 11th International Conference on Head-Driven Phrase Structure Grammar*. Stanford: CLSI. <http://csli-publications.stanford.edu/HPSG/2004>.
- Murphy, Andrew & Savio Meyase. 2022. Licensing and anaphora in Tenyidie. *Glossa: a journal of general linguistics* 7(1). 1–59. <https://doi.org/10.16995/glossa.5740>.
- Nagaya, Naonori. 2004. Depictive construction and grammatical relations in Tagalog. *Tokyo University Linguistic Papers (TULIP)* 23. 119–150.
- Nash, Léa. 2021. Nonunitary structure of unergative verbs in Georgian. *Natural Language & Linguistic Theory* 40. 1201–1267. <https://doi.org/10.1007/s11049-021-09529-8>.
- Ndayiragije, Juvénal. 2012. On Raising out of Control. *Linguistic Inquiry* 43. 275–299.
- Nevskaia, 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. *Berkeley Linguistics Society (BLS)* 4. 114–127.

- Odria, Ane. 2014. Differential object marking and the nature of dative case in Basque dialects. *Linguistic Variation* 14(2). 289–317. <https://doi.org/10.1075/lv.14.2.03odr>.
- Paparounas, Lefteris & Faruk Akkuş. 2023. Anaphora and agreement in the Turkish DP. *Natural Language and Linguistic Theory* 42. 633–700. <https://doi.org/10.1007/s11049-023-09583-4>.
- Pires, Acrisio. 2007. The derivation of clausal gerunds. *Syntax* 10. 165–203.
- Pollard, Carl & Ivan A. Sag. 1994. *Head-driven Phrase Structure Grammar*. Chicago: Chicago University Press.
- Potsdam, Eric, & Youssef A. Haddad. 2017. Control phenomena. In Martin Everaert & Henk van Riemsdijk (eds.), *The Wiley Blackwell companion to syntax*, 2nd ed. <https://doi.org/10.1002/9781118358733.wbsyncom057>.
- Preminger, Omer. 2019. The anaphor agreement effect: Further evidence against binding-as-agreement. Manuscript. University of Maryland at College Park. <https://ling.auf.net/lingbuzz/004401>.
- Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, MA: MIT Press.
- Rackowski, Andrea & Norvin Richards. 2005. Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry* 36(4). 565–599.
- Rapoport, Tova R. 1993. Adjunct predicate licensing and D-structure. In James Pustejovsky (ed.), *Semantics and the lexicon*, 163–184. Dordrecht: Springer.
- Rapoport, Tova R. 1999. Structure, aspect, and the predicate. *Language* 75(4). 653–677.
- Richardson, Kylie. 2007. *Case and aspect in Slavic*. Oxford: Oxford University Press.
- Rodrigues, Cilene. 2007. Agreement and flotation in partial and inverse partial control configurations. In William D. Davies and Stanley Dubinsky (eds.), *New horizons in the analysis of Control and Raising*, 213–229. Dordrecht: Springer.
- Rooryck, Johan & Guido J. van den Wyngaerd. 2011. *Dissolving Binding Theory*. Oxford: Oxford University Press.
- Rothstein, Susan. 1983. *The syntactic forms of predication*. Cambridge, MA: MIT dissertation.
- Rothstein, Susan. 2006. Secondary predication. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell companion to syntax*, vol. 4. Oxford: Blackwell. <https://doi.org/10.1002/9781118358733.wbsyncom025>.
- Rothstein, Susan. 2017. Secondary predication. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell companion to syntax*, 2nd ed., 209–233. Malden, MA: Blackwell.
- Rothstein, Susan. 2019. Secondary predicates. In Claudia Maienborn, Klaus von Stechow, & Paul Portner (eds.) *Semantics. Lexical structures and adjectives*, 543–568. Berlin: de Gruyter.
- Rudnev, Pavel. 2020. The Anaphor Agreement Effect is not about featural deficiency: Evidence from Avar. *Glossa: a journal of general linguistics* 5(1). 1–19. <https://doi.org/10.5334/gjgl.907>.
- Rudnev, Pavel. 2024. Categorical selection and functional structure in the noun phrase: Revisiting Russian Small Nominals. *Russian Linguistics* 48(1). <https://doi.org/10.1007/s11185-023-09285-w>.
- Safir, Kenneth. 1983. On small clauses as constituents. *Linguistic Inquiry* 14. 730–735.
- Safir, Kenneth. 2014. One true anaphor. *Linguistic Inquiry* 45. 91–124.
- Schroeder, Christoph, Gerd Hentschel & Winfried Boeder (eds.) 2008. *Secondary predicates in Eastern European languages and beyond*. Oldenburg: BIS-Verlag der Carl von Ossietzky Universität Oldenburg.

- Schultze-Berndt, Eva. 2017. Depictive secondary predicates in typological perspective. In Martin Everaert & Henk van Riemsdijk (eds) *The Blackwell companion to syntax*. 2nd ed. Malden MA: Blackwell.
- Schultze-Berndt, Eva & Nikolaus P. Himmelmann. 2004. Depictive secondary predicates in cross-linguistic perspective. *Linguistic Typology* 8. 59–131.
- Stowell, Tim. 1983. Subjects across categories. *The Linguistic Review* 2(3). 285–313.
- Szajbel-Keck, Malgorzata. 2015. *Secondary predication in Polish*. Berkeley, CA: University of California Berkeley dissertation.
- Vergnaud, Jean-Roger & Maria Luisa Zubizarreta. 1992. The definite determiner and the inalienable constructions in French and in English. *Linguistic Inquiry* 23. 595–652.
- Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11. 203–238.
- Wood, Jim. 2012. Against the Movement Theory of Control: Another argument from Icelandic. *Linguistic Inquiry* 43. 322–330.
- Wurmbrand, Susi. 2017. Feature sharing or how I value my son. In Claire Halpert, Hadas Kotek & Coppe van Urk (eds.), *A Pesky set: Papers for David Pesetsky*, 173–182. Cambridge: MIT Press.
- You, Eunjung. 2016. Parallel derivation of Spanish depictive secondary predicates. *Linguistic Inquiry* 47(4). 723–739.
- Zeijlstra, Hedde. 2020. Labeling, selection, and feature checking. In Peter W. Smith, Johannes Mursell & Katharina Hartmann (eds.), *Agree to agree: Agreement in the minimalist programme*, 137–174. Berlin: Language Science Press.