

# The Anaphor Agreement Effect

An East Caucasian perspective

---

Pavel Rudnev, HSE University

Supported by grant #18-78-10128 from the Russian Science Foundation.

*Languages, Dialects and Isoglosses of Anatolia, the Caucasus and Iran.* Paris, 11 January 2021.

# The Anaphor Agreement Effect: Definitions

- (1) Anaphors do not occur in syntactic positions construed with agreement. (Rizzi 1990: 26)
- (2) Anaphors do not occur in syntactic positions construed with verbal agreement, unless the agreement does not vary for  $\varphi$ -features. (Tucker 2012: 20)
- (3) Anaphors cannot directly trigger covarying  $\varphi$ -agreement which results in covarying  $\varphi$ -morphology. (Sundaresan 2016: 99)

Two attested outcomes: trivial agreement or unacceptability

Trivial agreement: Georgian

(4) (me) [čem- s tav- s ] v- a- k- eb  
1SG.NOM 1POSS.SG-DAT self-DAT 1A<sub>NOM</sub>-SG-PRV-praise-TS

'I praise myself.'

(Amiridze 2006: 204)

## Trivial agreement: Abaza

(5) p-      qa      b-      a-      pšə  
2SG.F.IO-head 2SG.F.ABS-3SG.N.IO-look(IMP)

(addressing a female) 'Look at yourself!'

(Arkadiev & Durneva 2019: 35)

### Unacceptability: Digor Ossetic

- (6) \*zon- un [mɛ=χe ke ferredud- ten-ej ]  
know-PRS.1SG 1SG=REFL COMP make.mistake-PST.1SG/PST.3SG  
woj  
it.OBL

'I know I was mistaken.'

(David Erschler, p.c.)

## Enter East Caucasian languages i

(7) **Godoberi**

ʕali-di inšo- da ži- w-da w-ūku- da  
Ali- ERG self.ERG-PRT self.ABS-M-PRT M-catch-AUX

‘Ali has caught himself.’ (Testelets & Toldova 1998: 45)

(8) **Mehweb**

rasuj- ni sa<w>i- jal w-it- ib  
Rasul.OBL-ERG <M>self-EMPH M-beat:PFV-AOR

‘Rasul beat himself.’ (Kozhukhar 2019: 274)

(9) **Sanzhi Dargwa**

madina-j ca- r r-ik:- ul ca- r  
Madina-DAT REFL-F F-want.IPF-CVB AUX-F

'Madina loves herself' (adapted from Forker 2020: 558)

(10) **Chirag Dargwa**

aslan-ni ce- j daħmic'al-li j- a<sup>l</sup>- le  
Aslan-DAT REFL:ABS-M mirror- DAT M-see:IPF-PRS

'Aslan sees himself in the mirror.' (Evstigneeva 2017: 610)

(11) **Bagvalal**

ima- šu- r e= w=da w=ešiši  
father-OBL-ERG REFL=M=EMPH M=praised

‘Father praised himself.’ (adapted from Lyutikova 2001: 624)

(12) **Lak**

rasul- l- ul cuwa awt:- un- ni  
Rasul-OBL-ERG REFL.M.ABS M.beat-PST-3

‘Rasul beat himself up.’

(adapted from Gagliardi et al. 2014: 141)



(13) **Akhvakh**

hudu-sw- e ži- we-da boʋoda w-oc- ari  
DEM- OBL-ERG REFL-M- EMPH much M-praise-PFV

‘He praised himself much.’

(adapted from Creissels 2007: (24a))

## AAE and reductionism

---

Reflexive binding does not exist in the grammar and must be reduced to independently required rules and operations:

- either movement/displacement (Hornstein 2001, 2007)
- or Agree (Reuland 2001, Heinat 2006, Kratzer 2009, Hicks 2009, Reuland 2011, Rooryck & Vanden Wyngaerd 2011)

## What's the role of the AAE?

- suggests a causal relation between  $\varphi$ -agreement and reflexive binding
- supports the  $\varphi$ -deficiency approach to reflexives
  - that is, it is a natural conclusion that agreement on the agreement target should be defective/partial/trivial if it has happened prior to the reflexive inheriting its  $\varphi$ -specification from its antecedent

# Comprehensive theory of the AAE (Murugesan 2019) i

Murugesan (2019) develops a reductionist Agree-based theory of the AAE aiming to account for both the AAE itself and its violations.

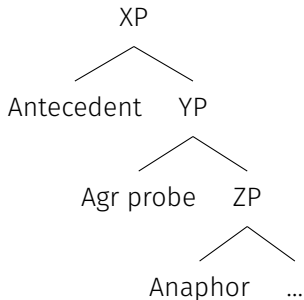
## Key assumptions

- reflexives are bare variables with no  $\varphi$ -features of their own
- reflexives inherit their  $\varphi$ -features from their antecedents in narrow syntax under Agree
- the AAE arises from the interaction of two variables:
  - position of  $\varphi$ -probe(s) wrt reflexive
  - position of reflexive wrt to its antecedent

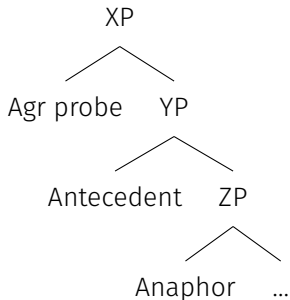
In particular, Murugesan (2019: 104) claims that

- AAE-adhering languages have  $v^\circ$  as their  $\varphi$ -probe, and
- AAE-violating languages have  $T^\circ$  as their  $\varphi$ -probe

(14) **Pattern A:**



(15) **Pattern B:**



## $\varphi$ -probes in East Caucasian

---

# Avar: Background

- East Caucasian (Republic of Daghestan)
- ca. 700K speakers
- morphologically ergative in both **agreement** and **case marking**
- head-final
- free word order
- some vP-level adpositions and oblique objects agree with ABS-argument



## Case and agreement in Avar

Avar agreement tracks unmarked case on S- and O-arguments:

(16) a. wasas xer b-ec- ana  
boy.ERG hay.ABS N-mow-PST  
'The boy has mowed (the) hay.'

b. timal r- ač'- ana  
kids.ABS PL-come-PST  
'The kids have come.'

Agreement is in **number** and **gender/noun class**; no person agreement.

Both case assignment and agreement licensing obtain low:

- all cases are preserved in non-finite clauses (Rudnev 2015a)
  - unexpected if a high head is responsible for assigning ABS case
- event nominalisations and infinitival clauses are incompatible with clausal negation (Rudnev 2015b)
  - characteristic of T-less complementation (Wurmbrand 2001)
- morphological containment of infinitives within causatives and of event nominalisations within infinitivals (Rudnev 2020a,b)
  - Caus<sup>o</sup> is a low head inside the event zone
- agreement in causatives

## Avar reflexives

---

# Provisos

For a language to qualify as a true exception to the AAE, three things are required.

**Requirement I** the anaphoric element involved in a  $\varphi$ -agreement relation with the verb is an anaphor;

**Requirement II** the  $\varphi$ -agreement relation between the anaphor and the verb is covarying/non-trivial (Preminger 2019);

**Requirement III** the  $\varphi$ -morphology is transferred to the  $\varphi$ -probe directly from the anaphor and is not attributable to a mediating element (cf. Sundaresan 2016).

Avar reflexives tick all the right boxes, though today I only illustrate the first two (see Rudnev 2020b for details).

## Avar reflexives are anaphors

In addition to the 3-person reflexive *ži<w>go* (Testelets & Toldova 1998, Rudnev 2017), Avar has reflexive pronouns for 1 and 2 person. Those are formed on the basis of personal pronouns by appending an emphatic particle, *-go*, to them.

Table 1: Personal pronouns

	Singular	Plural
1	<i>dun</i>	<i>niž</i>
2	<i>mun</i>	<i>nuž</i>

Table 2: Personal reflexive pronouns

	Singular	Plural
1	<i>dungo</i>	<i>nižgo</i>
2	<i>mungo</i>	<i>nužgo</i>

All these reflexive pronouns are subject to Condition A.

## The c-command requirement holds

(17) a.  $\zeta$ ali-ca **ži** $\langle$ w $\rangle$ go w-ecc- ana.  
Ali- ERG  $\langle$ M $\rangle$ REFL.ABS M-praise-PST

‘Ali has praised himself.’

b.  $\zeta$ ali-l insuca **ži** $\langle$ w $\rangle$ go w-ecc- ana.  
Ali- GEN father.ERG  $\langle$ M $\rangle$ REFL.ABS M-praise-PST

‘Ali<sub>1</sub>’s father<sub>2</sub> has praised himself<sub>\*1/2</sub>.’

(18) \*Žincago  $\zeta$ ali w-ecc- ana.  
REFL.ERG Ali.ABS M-praise-PST

(‘Ali has praised himself.’)

## Identity under ellipsis

A strong preference for sloppy readings in elliptical continuations:

- (19) Insuda      ži<w>go      mat'ujatu<w>    w-ix-    ana,    hedingo  
father.LOC    <M>REFL.ABS    <M>mirror.INE    M-see-PST    also  
wasasda-gi.  
son.LOC-    CNJ

'Father saw himself in the mirror, and his son did too.'

= the son saw himself in the mirror

≠ the son saw father in the mirror                      (Rudnev 2017: 158)

## Reflexives trigger covarying agreement i

Changing the  $\varphi$ -specifications of the reflexives obligatorily brings about the appearance of identical  $\varphi$ -specifications on the agreeing verb:

- (20) a. Jasał **ži<j>go** j- ecc- ana.  
girl.ERG <F>**REFL.ABS** F-praise-PST  
'The girl has praised herself.'
- b. Łimalaz **ža<l>go** r- ecc- ana.  
kids.ERG <PL>**REFL.ABS** PL-praise-PST  
'The kids have praised themselves.'

Ditto for other noun classes.



## Reflexives trigger covarying agreement ii

Default agreement is attested in Avar in those environments where an agreeing verb does not have an absolutive internal argument:

- (21) Die      **b-oł'-**    ana [γo<j>e      t'ad-e    j-ax-    ine].  
1SG.DAT **N-want-PST**    <F>DEM.LAT up-    LAT F-move-INF

'I wanted to go up there.'      (modelled on Forker 2021: (35a))

In the above example, the agreeing matrix verb takes an infinitival clause rather than an absolutive NP as its argument and shows default neuter agreement.

In the context of reflexivisation, however, default agreement on the verb is unacceptable:

- (22) \*Wasas/jasał      zi<w/j>go      b-ecc-      ana.  
boy.ERG/girl.ERG <M/F>REFL.ABS N-praise-PST  
(‘The boy/girl praised himself/herself.’)

## **Consequences for Agree-based analyses of the AAE**

- East-Caucasian reflexives falsify Murugesan's (2019) theory as well as other Agree-based approaches to the AAE

## **Consequences for Agree-based analyses of reflexive binding**

- the AAE as well as its violations in fact present an argument against reductionism

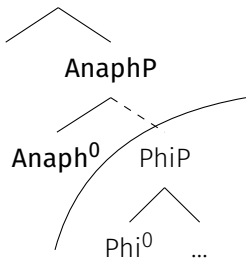
# Towards an alternative

---

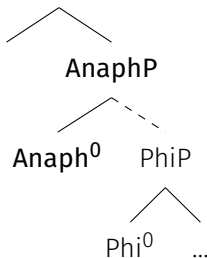
# The Encapsulation Hypothesis (Preminger 2019)

Anaphors are structurally complex expressions

(23) a.

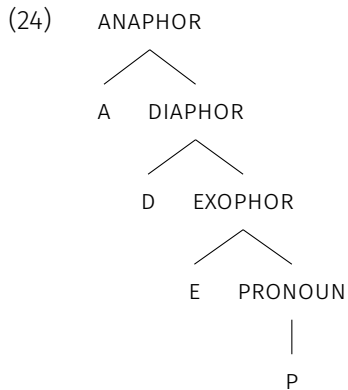


b.

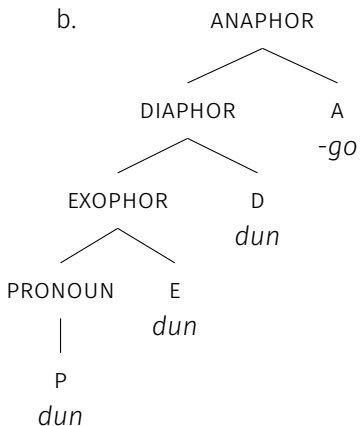
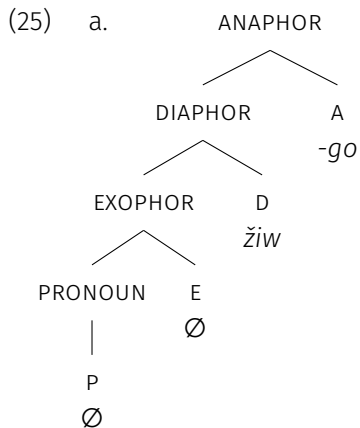


The additional structure “hides” the anaphors’  $\varphi$ -features from the agreement probes.

# Internal complexity of pronouns (Middleton 2018)



# Application to Avar (Rudnev 2020b)



## An even simpler account? i

We could in fact pursue an account that would preserve Preminger's (2019) insight as to encapsulation whilst at the same time paying heed to the actual internal structure of reflexives.



### Endocentric approach to the noun phrase

- i.e. nominals are in fact projections of N or n (rather than Num, Poss or D)
  - $\varphi$ -feature bearing elements inside reflexive NPs are often possessors, as we have just seen for Abaza, Digor Ossetic and Georgian
  - hence, their  $\varphi$ -features are never visible at the root of the reflexive NP
  - East-Caucasian reflexives mostly do not include possessors
- no encapsulation, which is why their  $\varphi$ -features are always accessible for agreement
- although Khwarshi with its impressive inventory of reflexivisation strategies (Testelefs 2019) could present a few counterexamples — this remains to be investigated

- what's the connection between encapsulation, (un)availability of default agreement and ungrammaticality?
  - in particular, it is unclear why failed agreement should lead to unacceptability in those languages where default/trivial agreement is clearly a possibility at least in some corners of the grammar
- and the examples from Georgian (courtesy of Léa Nash) involving plural features on both the head and the possessor of the reflexive NP and obligatory singular agreement on the verb present an additional challenge for the present approach
  - however, it is also not entirely clear that they support any of the reductionist analyses of the AAE








# Conclusions

- Agree-based approaches to the AAE (and binding!) make incorrect predictions
- encapsulation-based theories make the right predictions
  - without making claims about Agree that would be inconsistent with how  $\varphi$ -agreement actually works in East-Caucasian languages (and beyond)









# References i

-  Amiridze, Nino. 2006. *Reflexivization strategies in Georgian*. Utrecht University dissertation.
-  Arkadiev, Peter & Sonia Durneva. 2019. Reflexivization strategies in Abaza. *Typology of Morphosyntactic Parameters* 2(1). 28–48.
-  Creissels, Denis. 2007. Intensifiers, reflexivity and logophoricity in Axaxdərə Akhvakh. Conference on the Languages of the Caucasus, Leipzig, 07–09 December 2007.
-  Evstigneeva, Anastasiia. 2017. Soglasovanie v chiragskom darginskom [Agreement in Chirag Dargwa]. *Acta Linguistica Petropolitana* 13(1). 605–626.
-  Forker, Diana. 2020. *A grammar of Sanzhi Dargwa*. (Languages of the Caucasus 2). Berlin: Language Science Press.
-  Forker, Diana. 2021. Avar grammar sketch. In Maria Polinsky (ed.), *Handbook of the languages of the Caucasus*. Oxford: Oxford University Press.
-  Gagliardi, Annie et al. 2014. The biabsolute construction in Lak and Tsez. *Lingua* 150. 137–170. <https://doi.org/10.1016/j.lingua.2014.07.003>.
-  Heinat, Fredrik. 2006. *Probes, pronouns, and binding in the minimalist program*. Lund University dissertation.
-  Hicks, Glyn. 2009. *The derivation of anaphoric relations*. Amsterdam/Philadelphia: John Benjamins.

# References ii

-  Hornstein, Norbert. 2001. *Move! A minimalist theory of construal*. Hoboken, NJ: Wiley-Blackwell.
-  Hornstein, Norbert. 2007. Pronouns in a minimalist setting. In Norbert Corver & Jairo Nunes (eds.), *The copy theory of movement*. John Benjamins.
-  Kozhukhar, Aleksandra. 2019. The self-pronoun in Mehweb. In Michael Daniel, Nina Dobrushina & Dmitry Ganenkov (eds.), *The Mehweb language: Essays on phonology, morphology and syntax* (Languages of the Caucasus 1), 271–293. Berlin: Language Science Press.
-  Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40(2). 187–237.  
<https://doi.org/10.1162/ling.2009.40.2.187>.
-  Lyutikova, Ekaterina A. 2001. Анафорические средства [Anaphoric means]. In Aleksandr E. Kibrik (ed.), *Багвалинский язык: грамматика. тексты. словари [Bagwalal: Grammar, texts, dictionaries]*, 615–681. Moscow: «Наследие» [Nasledie].
-  Middleton, Jane. 2018. \*ABA syncretism patterns in pronominal morphology. Unpublished ms., University College London.
-  Murugesan, Gurujegan. 2019. *Predicting the Anaphor Agreement Effect and its violations*. Leipzig University dissertation.

## References iii

-  Preminger, Omer. 2019. The Anaphor Agreement Effect: further evidence against binding-as-agreement. Unpublished ms., University of Maryland at College Park. Version v7, accessed 4th August 2019.
-  Reuland, Eric. 2001. Primitives of binding. *Linguistic Inquiry* 32(3). 439–492. <https://doi.org/10.1162/002438901750372522>.
-  Reuland, Eric. 2011. *Anaphora and language design*. Cambridge, Massachusetts: The MIT Press.
-  Rizzi, Luigi. 1990. On the anaphor agreement effect. *Rivista di Grammatica Generativa* 2. 27–42.
-  Rooryck, Johan & Guido Vanden Wyngaerd. 2011. *Dissolving binding theory*. Oxford: Oxford University Press.
-  Rudnev, Pavel. 2015a. *Dependency and discourse-configurationality: A study of Avar*. University of Groningen dissertation.
-  Rudnev, Pavel. 2015b. Events, locations and situations: On the interaction of negation and finiteness in Avar. *Linguistics in the Netherlands* 32. 142–154. <https://doi.org/10.1075/avt.32.11rud>.
-  Rudnev, Pavel. 2017. Minimal pronouns, logophoricity and long-distance reflexivisation in Avar. *Studia Linguistica* 71(1–2). 154–177. <https://doi.org/10.1111/stul.12066>.
-  Rudnev, Pavel. 2020a. Agreeing adpositions in Avar and the directionality-of-valuation debate. *Linguistic Inquiry* 51(4). 829–844. [https://doi.org/10.1162/ling\\_a\\_00360](https://doi.org/10.1162/ling_a_00360).

# References iv



Rudnev, Pavel. 2020b. The Anaphor Agreement Effect is not about featural deficiency: Evidence from Avar. *Glossa: a journal of general linguistics* 5(1). Art. 79, 1–19.  
<https://doi.org/10.5334/gjgl.907>.



Sundaresan, Sandhya. 2016. Anaphora vs. agreement: A new kind of Anaphor Agreement Effect in Tamil. In Patrick Grosz & Pritty Patel-Grosz (eds.), *The impact of pronominal form on interpretation*. Berlin/Munich/Boston: De Gruyter.  
<https://doi.org/10.1515/9781614517016>.



Testelefs, Yakov G. 2019. A language for Guinness World Records: Fifteen (or more?) reflexive pronouns in Khwarshi. *Rhema* 2. 77–99.  
<https://doi.org/10.31862/2500-2953-2019-2-77-99>.



Testelefs, Yakov G. & Svetlana Yu. Toldova. 1998. Refleksivŷ v dagestanskikh yazŷkakh i tipologiya refleksiva [*Reflexives in the Dagestani languages and the typology of reflexives*]. *Voprosŷ yazŷkoznanija* 4. 35–57.



Tucker, Matthew. 2012. On the derivation of the Anaphor Agreement Effect. Unpublished ms., UC Santa Cruz.



Wurmbbrand, Susanne. 2001. *Infinitives: Restructuring and clause structure*. (Studies in Generative Grammar 55). Berlin: Mouton de Gruyter.