

Non-Agreement in Western Armenian

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► ‘Num Noun’ constructions like (1) (covert plurals) can trigger either singular, (3), or plural, (4), verbal agreement (Sigler 1997):

(3) jerek afagerd inga-v
three student fall-PST.3SG
‘Three students fell’

(4) jerek afagerd inga-n
three student fall-PST-3PL
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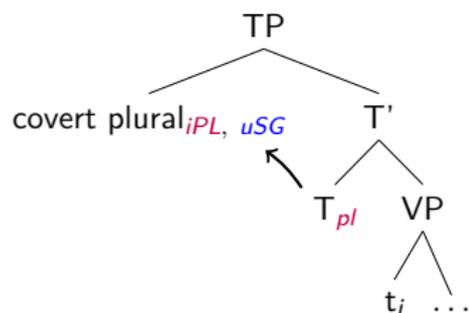
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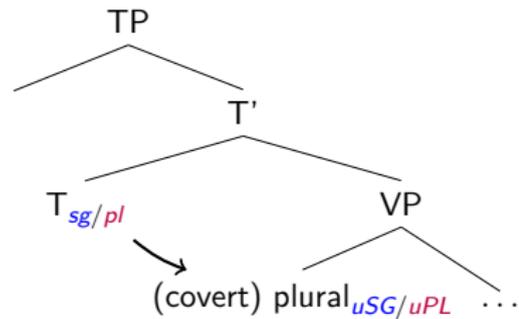
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 - In the **narrow syntax**, Agree can only look **upwards**. At **PF**, it can look in **either direction**
 - The fact that iFs are present in the narrow syntax and not at PF will ensure that plural agreement with a covert plural is restricted to cases where the covert plural is outside the VP.

Preview of analysis

(5)



(6)



Roadmap

Here is how the rest of the talk will proceed:

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- 1 The pattern
- 2 The Position of covert plurals
 - Argument 1: Scope
 - Argument 2: Adverbs
- 3 Agree
- 4 A detour: Pseudo Noun Incorporation in WA
- 5 Refining the pattern: Non-agreement in transitives and unergatives
- 6 Conclusion

The pattern: Passives and Unaccusatives

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(7) hink zinvor əsbann-ve-ts-av/-an
five soldier.SG kill-PASS-PST-3SG/-3PL
'Five soldiers were killed'

(8) jerek afagerd inga-v/-n
three student fall-PST.3SG/-3PL
'Three students fell'

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- (9) hink zinvor ayn kyub-ə kante-ts-in/*-∅
five soldier that village-DET destroy-PST-3PL/*-∅
'Five soldiers destroyed that village'
- (10) jerek fun hatse-ts-in/*-∅
three dog bark-PST-3PL/*-∅
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- We will revise the statement of the pattern later:
Transitives/unergatives will be seen to exhibit non-agreement in limited circumstances (agent Pseudo Incorporation).

Position of covert plurals: Scope

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'Three students did not fall in a hole'

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► To test whether 'three student' can have low scope (below negation), we need a scenario where (14) is true, but (15) is false.

(14) $\checkmark \neg \exists x [3\text{-student}(x) \wedge \text{fall-hole}(x)]$

(15) $\times \exists x [3\text{-student}(x) \wedge \neg \text{fall-hole}(x)]$

(16) **Scenario 1:** There's a class with 3 students and they fell. We are trying to determine what happened. 2 students fell in a hole. 1 student fell off a hill.

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Position of covert plurals: Scope

► To show that non-agreeing cannot have high scope (above negation), we need the reverse of **Scenario 1**.

(18) $\times \neg \exists x [3\text{-student}(x) \wedge \text{fall-hole}(x)]$

(19) $\checkmark \exists x [3\text{-student}(x) \wedge \neg \text{fall-hole}(x)]$

(20) **Scenario 2:** There's a class with 6 students and they fell. We are trying to determine what happened. 3 students fell in a hole. 3 students fell off a hill.

Position of covert plurals: Scope

► To show that non-agreeing cannot have high scope (above negation), we need the reverse of **Scenario 1**.

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(20) **Scenario 2:** There's a class with 6 students and they fell. We are trying to determine what happened. 3 students fell in a hole. 3 students fell off a hill.

► In this scenario, (21) turns out to be **false**.

(21) jerek aʃagerd pos-i-n metʃ tʃ-inga-v
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Observation 1:

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► **Conclusion:** Non-agreeing covert plurals do not move out of the VP (taking negation to mark the left edge of the VP).

Position of covert plurals: Scope

- ▶ Agreeing covert plurals show the exact opposite pattern:

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Agreeing covert plurals **only scope above** negation.

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- ▶ ‘arakoren’ can be TP-adjoined, with a meaning like ‘the arrival event happened quickly after another event had happened’.
- ▶ It can also be VP-adjoined, meaning that the arriving itself was quick.

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- (ii)** If agreeing covert plurals are outside the VP, then we expect them to only allow the TP-modifying interpretation in (23) (since the adverb is forced to be above the covert plural)

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- ▶ Non-agreeing covert plurals are VP-internal.
- ▶ Agreeing covert plurals move outside the VP. We assume they move to [Spec, TP].

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 - It can be sensitive to iFs
 - It's sensitivity to iFs emerges only when the iFs are above the probe (i.e above T)

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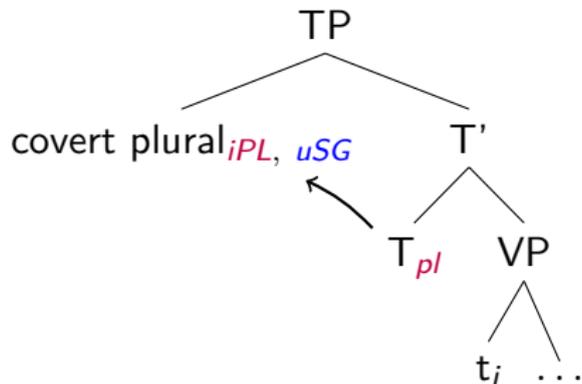
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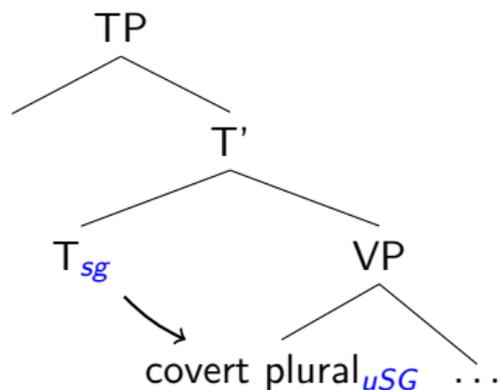
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- ▶ The **narrow syntax** Agree can only look **upwards** (bounded by maximal projections, i.e. restricted to Spec-Head configurations). The **PF** Agree can look either **upwards or downwards**.
- ▶ iFs are only available in the narrow syntax, and Agree in the narrow syntax is defined on Spec-Head configurations, T will only find the [iPL] feature of a covert plural when that feature is in [Spec, TP].

(26)



- ▶ When the covert plural stays low, then T probes in its specifier in the syntax and finds nothing. At PF, it can probe downwards and in that case it finds the covert plural. But only the uFs are available, since iFs delete at PF.

(27)



Agree: The structure of covert plurals

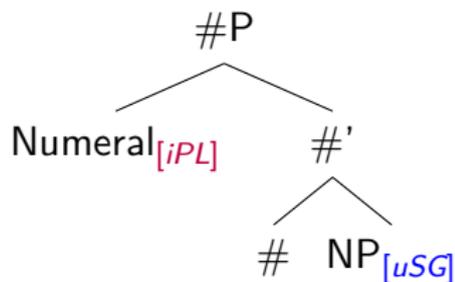
- ▶ **Desideratum:** When the covert plural is in [Spec, TP], Agree will find the [iPL] feature first and agree with it.

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► **Desideratum:** When the covert plural is in [Spec, TP], Agree will find the [iPL] feature first and agree with it.

► **Solution:** A structure that ensures that [iPL] will be high while [uSG] will be low:

(28)



Agree: The structure of covert plurals

- ▶ **Evidence for our structure:** A classifier can optionally appear between the numeral and the NP (Sigler 1997, Khanjian 2013).

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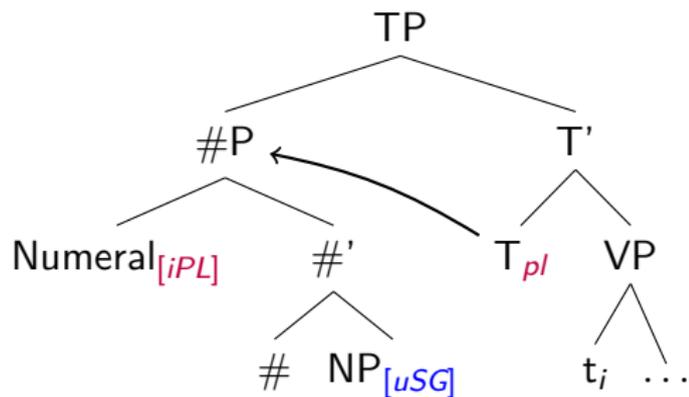
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- ▶ # head as the locus of the optional realisation of the classifier

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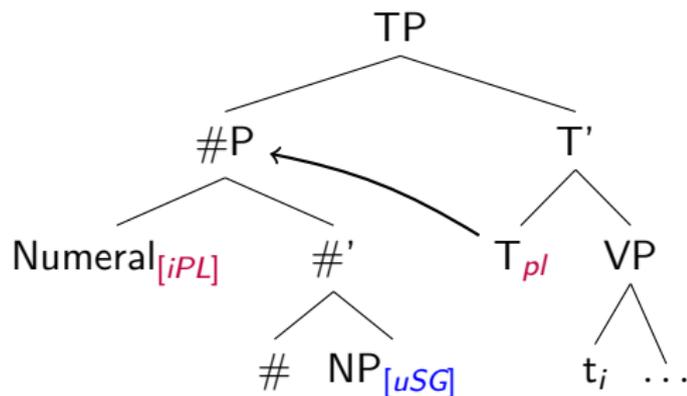
(30)



Agree: Mechanism

- ▶ Covert plurals are in [Spec, TP]:

(30)



- ▶ As T probes into its specifier, the first feature it will find is [iPL]. Economy considerations suggest that T will agree with the first feature that matches its specification. Thus, we expect plural agreement to manifest.

A sanity check

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► This is borne out:

(31) jerek aʃagerd-ner inga-n/*-v
three student-PL fall-PST.3PL/*-PST.3SG
‘Three students fell’

A sanity check

► A morphologically plural ‘Num N_{pl} ’ allows both VP- and TP-adjoined interpretations of adverbs like ‘quickly’:

✓VP-modifying, ✓TP-modifying:

- (32) jereg gajan-i-n mech arakoren jergu
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afagerd-**ner** jega-**n**
student-**PL** arrive-PST-**3PL**
‘Yesterday in the train station, two students arrived quickly (after)’

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- ▶ Here 'students' is VP-internal. Hence, the PF part of Agree looks downwards and finds this feature at PF.

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five soldier that village-DET destroy-PST-3PL/-*3SG
'Five soldiers destroyed that village'

Towards an account of Transitives and Unergatives

- ▶ **Argument:** Non-agreement is in fact possible for transitive/unergatives.
- ▶ To see this, we first need to take a detour through Pseudo Noun Incorporation (PNI) in WA.

Pseudo-Incorporation in WA: Scope and Number neutrality

- ▶ Bare nominals in WA can undergo Pseudo Noun Incorporation, which we take to mean that they can be left low (following Massam 2001).

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- ▶ First, bare singulars are number neutral, (34). They also take narrow scope with respect to operators like negation, (35) (Bale & Khanjian 2014).

(34) Dəgha vaze-ts.
boy-SG run-PST
'One or more boys ran'

(35) Dəgha tʃi vaze-ts.
boy-SG not run-PST
'No boys ran' ($\neg > \exists$, $*\exists > \neg$)

Pseudo-Incorporation in WA: Case

- ▶ Another test for Pseudo Incorporation is case¹. If we think of case as a property of full arguments, we expect that Pseudo Incorporated nominals will not be able to bear case.

¹For similar, although not exactly the same, facts in Hindi, see Dayal 2011 ▶

Pseudo-Incorporation in WA: Case

- ▶ Another test for Pseudo Incorporation is case¹. If we think of case as a property of full arguments, we expect that Pseudo Incorporated nominals will not be able to bear case.
- ▶ In WA, the dative marks animate nominals that are full arguments (DPs) in object position:

(36) John-ə manug-i-n gə-sire
John-DEF child-DAT-DEF IND-love.3SG
John loves the child

(37) ??John-ə manug-ə gə-sire
John-DEF child-DEF IND-love.3SG
John loves the child

¹For similar, although not exactly the same, facts in Hindi, see Dayal 2011

- This contrasts with bare animate nouns, which cannot be marked dative:

(38) ?*John-ə manug-i gə-sire
John-DEF child-DAT IND-love.3SG
John loves a child

(39) John-ə manug gə-sire
John-DEF child IND-love.3SG
John loves children

Covert plurals Pseudo Incorporate

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- ▶ Covert plurals pattern with bare nominals as far as their scope taking possibilities are concerned.
- ▶ They also pattern in the same way in terms of case. They cannot be marked Dative:

(40) John-ə harujr had zinvor mert-uts
John-DEF 100 CLF soldier killed.PST
John killed 100 soldiers

(41) *John-ə harujr had zinvor-i mert-uts
John-DEF 100 CLF soldier-DAT killed.PST
John killed 100 soldiers

Covert plurals Pseudo Incorporate

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John killed 100 soldiers

- ▶ Based on this evidence, we claim that non-agreeing covert plural in WA undergo Pseudo Incorporation.

Agreement and Pseudo-Incorporation in WA: Agent PNI

- ▶ Interestingly, WA allows agent Pseudo Incorporation, (42) (notice how the agent is below the object, like Turkish, (43) (Öztürk 2007):

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(42) mariam-i-n kəsan meyu xajte-ts
mariam-DAT-DEF twenty bee sting-PST.3SG
'Twenty bees stung Mary'

(43) Ali-yi ari soku
Ali-ACC bee stung
'Ali got bee stung'

- ▶ Interestingly, WA allows agent Pseudo Incorporation, (42) (notice how the agent is below the object, like Turkish, (43) (Öztürk 2007):

(42) mariam-i-n kəsan meyu xajte-ts
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'Twenty bees stung Mary'

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Ali-ACC bee stung
'Ali got bee stung'

- ▶ Notice that the agreement in (42) is singular. Thus, we have a case of a transitive verb where the covert plural agent is left low (due to Pseudo Incorporation), which exhibits singular agreement. This confirms our predictions.

The correct statement of the pattern

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- ▶ Thus, we have shown that **transitives/unergatives can exhibit non-agreement**.
- ▶ But because this is **only visible in an agent Pseudo Incorporation configuration** (which, although productive, is rare), it does not usually surface.

The pattern (revised):

- ▶ Covert plurals show non-agreement, when they are VP-internal.

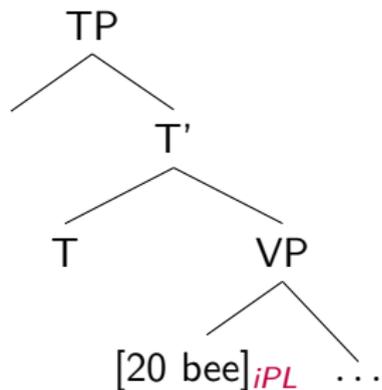
Downwards Agree and the WA pattern

- ▶ The data in (44) make the pattern particularly recalcitrant from the perspective of a narrowly syntactic downwards Agree.

(44) mariam-i-n kəsan meyu xajte-ts
 mariam-DAT-DEF twenty bee sting-PST.3SG
 ‘Twenty bees stung Mary’

- ▶ The probe on T will look downwards and will always find the iPL feature on ‘20 bee’ (the agent).

(45)



- ▶ Even if we say that the VP is a phase and hence Agree cannot look into it, the agent is at the edge and hence should be accessible.
- ▶ We take this as further evidence that the correct approach to the WA requires Agree to look upwards in the narrow syntax.

- ▶ Covert plurals in WA show non-agreement, when they are VP-internal.

Conclusion

- ▶ Covert plurals in WA show non-agreement, when they are VP-internal.
- ▶ Covert plurals in WA show full agreement, when they are in [Spec, TP].

Conclusion

- ▶ Covert plurals in WA show non-agreement, when they are VP-internal.
- ▶ Covert plurals in WA show full agreement, when they are in [Spec, TP].
- ▶ We argued for a bipartite Agree mechanism, where Agree in the narrow syntax can only look **upwards** (although bounded by the maximal projection) and is sensitive to iFs.

Conclusion

- ▶ The iPL features in covert plurals are structurally higher than the uSG features of the NP and hence visible to (**upwards**) Agree when the covert plural is in [Spec, TP] (i.e. outside the VP).

Conclusion

- ▶ The iPL features in covert plurals are structurally higher than the uSG features of the NP and hence visible to (**upwards**) Agree when the covert plural is in [Spec, TP] (i.e. outside the VP).
- ▶ Finally, evidence from Pseudo Incorporated agents in transitives and unergatives offers support for our analysis, as these covert plural agents do not agree.

Thank you!

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► **Scenario 1:** There are 5 soldiers in total. 3 destroyed that village, while the other 2 stayed in the camp and did nothing.

(46) ✓ $\neg\exists x[5\text{-soldier}(x) \wedge \text{destroy}(x)]$

(47) ✗ $\exists x[5\text{-soldier}(x) \wedge \neg\text{destroy}(x)]$

(48) hink zinvor ayn kyub-ə tʃə-kante-ts-in/*-∅
five soldier that village-DET NEG-destroy-PST-3PL/*-3SG
'Five soldiers did not destroyed that village'

► (48) is **false** in **Scenario 1**

Appendix: Scope in Transitives

- **Scenario 2:** There are 10 soldiers in total. 5 destroyed that village, while the other 5 stayed in camp and did nothing.

(49) ✗ $\neg\exists x[5\text{-soldier}(x) \wedge \text{destroy}(x)]$

(50) ✓ $\exists x[5\text{-soldier}(x) \wedge \neg\text{destroy}(x)]$

(51) hink zinvor ayn kyub-ə tʃə-kante-ts-in/*-∅
five soldier that village-DET NEG-destroy-PST-3PL/*-3SG
'Five soldiers did not destroy that village'

- (51) is **true** in **Scenario 2**
- Hence agreeing transitives take **only high scope** with respect to negation.

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