#### Illusions in the DP domain

# Syntax-phonology mismatches in Italo-Romance GENDER and NUMBER systems

Edoardo Cavirani

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#### Three unexpected patterns

- PL marker linear ordering Lunigiana varieties
- Partial and optional PL concord Lunigiana varieties
- Expressive NP concord transparency and rigidity Italian

mɛrəl blackbird.M

pegr-a sheep-F

mɛrəl blackbird.M

pegr-a sheep-F mærl-i blackbird-PL

pegər-j-a sheep-PL-F

mɛrəl	merl-i
blackbird.M	blackbird-PL
pegr-a	pegər-j-a
sheep-F	sheep-PL-F

- DP lowest functional structure
  - ▶  $\sqrt{\frac{n}{\text{GEN} + \text{NUM}}}$  (Lowenstamm 2008, Picallo 2008, Kramer 2015, Caha 2022, Baggio sub a.o.)

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blackbird.M	blackbird-PL
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#### Mirror principle

 The linear order of morphological markers mirrors the syntactic structure (Baker 1995)

•  $\sqrt{-\text{GEN-NUM}} \rightarrow \text{Sp. } \sqrt{\text{OVEJ}}-a_{\text{F}}-s_{\text{PL}}$  'sheep.PL'

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- ▶  $*_{\sqrt{-\text{NUM-GEN}}} \rightarrow \text{Col. } \sqrt{\text{PEGR}} j_{\text{PL}} a_{\text{F}}$

# $_{\rm PL}$ partial concord

	NP	Art-NP
Colonnata old	pegər-j-a	l-j-a pegər-j-a
Colonnata	pegər-j-a	l-j-a pegər -a
Bagnone	pegər-j-a	l -a pegər-j-a
Filattiera	pegər -a	j-a pegər -a

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▶ The PL marker does not surface on all DP constituents

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Filattiera	pegər -a	j-a pegər -a

The PL marker does not surface on all DP constituents
 The more complex the DP structure, the higher the microvariation degree

	/
Colonnata old	l-j-a bɛl-j-a pegər-j-a
Caprio	l-j-a bɛl-j-a pegər -a
Colonnata	l-j-a bɛl -a pegər -a
Treschietto	l -a bɛl-j-a pegər-j-a
Bagnone	l -a bɛl-j-a pegər -a

 $Art_AP_NP$ 

(1) l-a bɛl-j-a skarp-a ART-F beautiful-PL-F shoe-F 'The beautiful shoes'

- l-a bεl-j-a skarp-a
   ART-F beautiful-PL-F shoe-F
   'The beautiful shoes'
- (2) l-a skarp-j-a nov-a ART-F shoe-PL-F new-F 'The new shoes'

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- (2) l-a skarp-j-a nov-a ART-F shoe-PL-F new-F 'The new shoes'
  - ► The distribution of the PL marking depends on a constituent's position → conditioned by syntax

(3) st-j-a pegr-a l ɛŋ l-a nɔstr-a this-PL-F sheep-F SCL be.3PL the-F our-F 'these sheep are ours'

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## PL partial concord

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- (4) kl-a pegr-a l εŋ l-a vostr-a that-F sheep-F SCL be.3PL the-F your-F 'those sheep are yours'
  - In some cases, the presence of the PL marker is optional
    In such cases, who controls agreement?

In Romance, concord tends to be complete, but partial concord is not unheard of (cfr. Ampezzano, Mesolcinese, Ladin, Occitan varieties, Walloon, North-Eastern central Catalan, Non-standard Brazilian Portuguese a.o.)

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- Limited set of varieties and DP structures
- Some questions
  - Where exactly is NUM (low, high, both ...) ?
  - What is its formal status (head, adjunct ...)?
  - What is concord domain?
  - How to formalize partial concord/PL unpronunciation?

(5) un-a merd-a di pecoron-e a-F.SG shit-F.SG of ram-M.SG 'a shitty ram'

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  - Why can cazzo-type ExprNPs be bypassed?

# Expressive NP rigidity

- (9) dell-e merd-e di pecor-e
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  - Why can cazzo-type ExprNs never change NUM?

#### Expressive NP fixed ordering

(13) che cazz-o di merd-a di pecor-a what dick-M.SG of shit-F.SG of sheep-F.SG 'what a FUCKING sheep'

(14) \*che merd-a di cazz-o di pecor-a what shit-F.SG of dick-M.SG of sheep-F.SG

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- (15) ?che pecor-a di merd-a del cazz-o what sheep-F.SG of shit-F.SG of.the dick-M.SG 'what a FUCKING sheep'
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  - Where do these stacking restrictions come from?

Phonology can impose unexpected linear orderings

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- Silence can be representationally rich
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- Phonetic substance can be representationally poor
  - What sounds like a morpheme is possibly not a morpheme
  - cazz-o<sub>M</sub> as cazzo

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#### PL marker linear ordering

Lunigiana Morphosyntax-based accounts A phonological account

#### PL partial concord

Previous accounts Fieldwork Discussion

#### Expressive NP concord transparency and rigidity

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#### Conclusions

# Lunigiana



- Western endpoint of La Spezia -Rimini bundle of isoglossses
- High degree of microvariation
  - Phonological
  - Morphosyntactic

# Mirror principle violation

 The linear order of morphological markers mirrors the syntactic structure (Baker 1995)

Predicted



Sp. lob-a-s 'wolves'  $\sqrt{\text{LOB}}$ -a<sub>F</sub>-s<sub>PL</sub>  $\sqrt{\text{-GEN-NUM}}$
## Mirror principle violation

 The linear order of morphological markers mirrors the syntactic structure (Baker 1995)

- Predicted
- ▶ \*lup-a-j
   ▶ \*√LUP-a<sub>F</sub>-i<sub>PL</sub>
   ▶ \*√-GEN-NUM
   ▶ Observed

Sp. lob-a-s 'wolves'  $\sqrt{\text{LOB}}$ -a<sub>F</sub>-s<sub>PL</sub>  $\sqrt{-\text{GEN-NUM}}$ 

- lup-j-a 'wolves'
   \sqrt{LUP-i\_{PL}}-a\_F
- ► \*√-NUM-GEN

#### NUM position

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- Or maybe not
  - Several NUM heads/categories (#, Cl; e.g. Borer 2005)
  - Several adjoining position of NUM (Wiltschko 2021)
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- ► If ...
  - Phi-markers on NP realise functional projections
  - The same markers occur on modifiers
- ... then
  - The same functional projections of NP should be found on modifiers too

Constraints on concord variation (Bayırlı 2017, Norris 2019)

- If concord in K, then concord in NUM and GEN
- If concord in NUM, then concord in GEN

#### $\operatorname{NUM}$ is higher than $\operatorname{GEN}$

Constraints on concord variation (Bayırlı 2017, Norris 2019)
If concord in K, then concord in NUM and GEN
If concord in NUM, then concord in GEN
K is higher than NUM, which is higher than GEN
Both if GEN = n or GEN = independent head



- Reduced concord targets the highest head
  - "different types of concord as [...] different structures that are trimmed top down"
  - "categories can be missing from the top of that hierarchy, but not in the middle" (Caha 2022)



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Lunigiana partial concord works the same way

#### Bagnonese

- (17) *l-a lup-j-a ner-a* the-F wolf-PL-F black-F
- (18) l-a  $b\varepsilon l$ -j-a lup-a the-F beautiful-PL-F wolf-F

Linear ordering = hierarchical structure

Low NUM and/or high GEN



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Removal of an intermediate head, contra Bayırlı (2017)

• Linear ordering  $\neq$  hierarchical structure



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Removal of the highest head

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  - No semantic/morphophonological support
  - Incompatible with partial concord typology tendencies

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- Linear ordering  $\neq$  hierarchical structure
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- Why linear order  $\neq$  hierarchical structure?

## Morphosyntax-based accounts

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- NP movement with whose picture-type pied-piping
- Morphological merger
- nanosyntax (Taraldsen 2009; Kloudová 2020)
  - Cyclic NP movement without pied-piping
  - No post-syntactic operations

- ► Sp. lob-a<sub>F</sub>-s<sub>PL</sub> 'wolves'
  - GEN/F as a feature on n (Ferrari-Bridgers 2008, Lowenstamm 2008, Acquaviva 2009, Kučerova 2019, Baggio 2022 a.o.)
- NP movement with whose picture-type pied-piping



- ► lup-j<sub>PL</sub>-a<sub>F</sub> 'wolves'
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- lup-j<sub>PL</sub>-a<sub>F</sub> 'wolves'
- NP movement with whose picture-type pied-piping
- ▶ Morphological merger:  $[F] [PL] \rightarrow [PL]$ -[F]



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 These varieties have unstressed vowel reduction
 No unstressed mid vowels

 \*/o/, \*/e/

 No falling diphthongs

 \*Vi

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Morphological merger as a repair for \*a<sub>F</sub>-i<sub>PL</sub>?

Modularity offender

► lup-j<sub>PL</sub>-a<sub>F</sub> 'wolves'

► lup-j<sub>PL</sub>-a<sub>F</sub> 'wolves'

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- Can we independently show that this is the case?
- In all Romance varieties where GEN and NUM are realized by two independent markers, they linearize as \_/-GEN-NUM
- Null hypothesis: they have the same syntax, i.e. pied-piping

What we know independently about these varieties
 PL ⇔ i (cfr. lup 'wolf' vs lup-i)
 F ⇔ a (cfr. lup 'wolf' vs lup-a)

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- ▶  $PL \Leftrightarrow i$  (cfr. lup 'wolf' *vs* lup-i)
- F  $\Leftrightarrow$  a (cfr. lup 'wolf' vs lup-a)
- No unstressed mid vowels

No falling diphthongs

- ► \*Vi
- Typologically, falling diphthongs are more marked than rising diphthongs/onset clusters

What we 'know independently' about phonology

Vowels as (combination of) elements (Backley 2012 a.o.)

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Phonological strings = CV strings (a.; Lowenstamm 1996)

- Phonological exponents can have different shapes
  - Full segments (C<sub>1</sub>, V<sub>u</sub>, C<sub>p</sub> in a.)
  - Empty positions (C, V in b.)
  - Floating elements (i in c.)

 $lup-j_{PL}-a_{F}$ 'wolves'

- $\blacktriangleright [[[\sqrt{LUP}]F]PL]$
- ►  $F \Leftrightarrow {\sf CV_A}^*$
- ► PL ⇔ I
- ► \*V<sub>X.Y</sub>, \*Vị
- \* Contra Lowenstamm (2008)'s  $CV_a \Leftrightarrow [n_F]$

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a.	C   	V   u	C   p	V	-	C	V - A	
b.	C   	V   u	C   p	V	-	C	V - A	I
C.	C   	V   u	C   p	V	-	C	V - A	 I
d.	C   	V   u	C   p	V	C   	V - A		
# Phonology

- Compatible with PC typology tendencies
  - ▶ [NUM[GEN[√]]]
- Unmarked morphosyntactic derivation
  - NP movement with whose picture-type pied-piping
- No postsyntactic morphological operation
- Independently motivated
  - ► \*V<sub>X.Y</sub>, \*Vj
  - Available C landing site for I
  - ▶ Cf. St. Italian: no  $V_{X,Y} \rightarrow I + CV_A = /e/$  (Passino 2009, Lampitelli 2010)

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- ▶ The PL marker does not surface on all DP constituents
- The more complex the DP structure, the higher the microvariation degree
- ► The distribution of the PL marking depends on a constituent's position → conditioned by syntax

Partial concord in Villafranca (from the literature)

(19) l-a bɛl-j-a skarp-a ART-F beautiful-PL-F shoe-F 'The beautiful shoes'

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- (21) tant-j-a kɔz-a bɛl-a
  Q<sub>IND</sub>-PL-F thing-F beautiful-F
  'Many beautiful things'

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- (21) tant-j-a kɔz-a bɛl-a Q<sub>IND</sub>-PL-F thing-F beautiful-F 'Many beautiful things'
- (22) l-a nostr-j-a kɔz-j-a l εn ART-F POSS.1PL-PL-F thing-PL-F SCL.F be.3PL.PRS tut-j-a ki Q<sub>UNIV</sub>-PL-F here 'All we have is here'

## Problems with previous accounts

- Bottiglioni (1911), Bonin (1952), Rohlfs (1966), Luciani (1974), Giannelli (1976), Loporcaro (1994), Cuneo (2001)
- Manzini (1997), Manzini and Savoia (2005), Cavirani (2018), Cyrino and Espinal (2020), Pescarini (2021)
- Limited set of DP structures and varieties
  - Incomplete set of comparable subsystems

## Fieldwork

#### Questionnaire

- Exhaustive set of possible DP structures (cartography)
  - Q<sub>univ</sub>-D-Poss-Q<sub>card</sub>-A<sub>bell</sub>-N-A<sub>nuov</sub>
  - D = Dem, Art, Q<sub>ind</sub>
  - Pre- and post-VP
- 42 total sentences (plus 21 fillers)
- ▶ 1-to-5 speakers per variety (F and M)
- 22 varieties

# $\operatorname{PL}$ partial concord - fieldwork



- Via Ponticello
- 💡 Tresana
- Mulazzo



### PL partial concord - analysis

Collaboration with Laurence Madonna

- Analysed varieties: Arcola, Bedizzano, Bergiola, Bolano, Colonnata, Filattiera, Groppo, Iera, Nezzana, Pieve, Treschietto (11/22) + literature review
- Acoustic (PRAAT)
  - Presence of *i* formants
- Distributional
  - Distribution of *i* across DP-types

- …there is less microvariation
- …Q<sub>ind</sub>, Dem, Poss and A tend to show the PL marker
- ...Q<sub>univ</sub> tend to show the PL marker

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  - Intra- and inter-speaker variation

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- D constituents don't behave homogeneously
- In each variety, there are constituents that never get the PL marker, and others that can get it
  - Intra- and inter-speaker variation
- ▶ Concord can skip constituents → distributional 'holes'

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- Brown: presence of the PL marker literature
- Orange: marginal presence of the PL marker
- Violet: absence of data

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 $Q_{univ}$ -Art, Dem,  $Q_{ind}$ -Poss- $A_{bell}$ -N- $A_{nuov}$  (N, I, T, G, P)

Q<sub>univ</sub>-Art, Dem, Q<sub>ind</sub>-Poss-A<sub>bell</sub>-N-A<sub>nuov</sub> (C) Q<sub>univ</sub>-Art, Dem, Q<sub>ind</sub>-Poss-A<sub>bell</sub>-N-A<sub>nuov</sub> (Br, Bd)

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Q<sub>univ</sub>-Art, Dem, Q<sub>ind</sub>-Poss-A<sub>bell</sub>-N-A<sub>nuov</sub> (F) Q<sub>univ</sub>-Art, Dem, Q<sub>ind</sub>-Poss-A<sub>bell</sub>-N-A<sub>nuov</sub> (A)

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Q<sub>univ</sub>-Art, Dem, Q<sub>ind</sub>-Poss-A<sub>bell</sub>-N-A<sub>nuov</sub> (N, I, T, G, P)

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Q<sub>univ</sub>-Art, Dem, Q<sub>ind</sub>-Poss-A<sub>bell</sub>-N-A<sub>nuov</sub> (BI)

- In some cases, the presence of the PL marker is optional
- When absent, the VP agrees with PL anyway
- (23) st-j-a pegr-a l ɛŋ l-a nɔstr-a this-PL-F sheep-F SCL be.3PL the-F our-F 'these sheep are ours'
- (24) kl-a pegr-a l ɛŋ l-a vəstr-a that-F sheep-F SCL be.3PL the-F your-F 'those sheep are yours'

► The same questions, again

Where exactly is NUM (low, high, both ...) ?

What is its formal status (head, adjunct ...)?

What is concord domain?

The same questions, again

- Where exactly is NUM (low, high, both ...) ?
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- ... and a few more
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  - Who controls agreement when the PL marker is not realized?
- No clear answers, just some vague ideas and remarks

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 $\begin{array}{l} Q_{univ} - Art, \ Dem, \ Q_{ind} - Poss - A_{bell} - N - A_{nuov} \ (N, \ I, \ T, \ G, \ P) \\ Q_{univ} - Art, \ Dem, \ Q_{ind} - Poss - A_{bell} - N - A_{nuov} \ (C) \\ Q_{univ} - Art, \ Dem, \ Q_{ind} - Poss - A_{bell} - N - A_{nuov} \ (Br, \ Bd) \\ Q_{univ} - Art, \ Dem, \ Q_{ind} - Poss - A_{bell} - N - A_{nuov} \ (F) \\ Q_{univ} - Art, \ Dem, \ Q_{ind} - Poss - A_{bell} - N - A_{nuov} \ (A) \\ Q_{univ} - Art, \ Dem, \ Q_{ind} - Poss - A_{bell} - N - A_{nuov} \ (Bl) \end{array}$ 

However, see data from Bolano

- (25) kl-j-a bɛl-j-a albikok-a this-PL-F beautiful-PL-F apricot-F 'these beautiful apricots'
- (26) l-a bεl-j-a don-j-a the-F beautiful-PL-F woman-PL-F 'the beautiful women'

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  - Plural-marking-on-D constraint (Cyrino and Espinal 2020): If X (that is, a pluralized D) c-commands Y (that is, N or A), which in its turn c-commands Z (N or A), plural marking may be overt on X alone, on X-Y, on X-Y-Z, but not on X-Z.

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- (27) tut-j-a l-a bɛl-j-a stɔrj-a ... all-PL-F the-F beautiful-PL-F tale-F 'All the beautiful tales'
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▶ No (space for) PL marking on specific categories?

▶ Why is partial concord limited to F constituents?

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  - A links to a CV that represents some (optional) domain-boundary marker, rather than n (Lowenstamm 2008)
- PC as (optional) absence of this 'extra' CV
  - $\blacktriangleright~_{\rm FA}$  links to the  $\sqrt{-}{\rm final~empty~V} \rightarrow {\rm PL}_{\rm I}$  has no place to link to
  - $\blacktriangleright$  M has no (audible) exponence  $\rightarrow$   $\mathrm{PL}_I$  links to the  $\sqrt{-}$ final empty V
- ► FC novi 'new.(M.)PL'
- a. C V C V C V  $\stackrel{\scriptscriptstyle i}{n}$  o v

▶ PC - nova 'new.F'

b. C V C V  $\stackrel{\scriptstyle |}{}_{\scriptstyle \mid}$   $\stackrel{\scriptstyle |}{}_{\scriptstyle \mid}$   $\stackrel{\scriptstyle |}{}_{\scriptstyle \mid}$   $\stackrel{\scriptstyle |}{}_{\scriptstyle \mid}$  I

- PC nova 'new.F'
- a. C V C V  $_{\kappa_{n}}$  n o v A
- b. C V C V  $\stackrel{\scriptstyle |}{}$   $\stackrel{\scriptstyle |}{}$   $\stackrel{\scriptstyle |}{}$   $\stackrel{\scriptstyle |}{}$   $\stackrel{\scriptstyle |}{}$   $\stackrel{\scriptstyle |}{}$  I
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## $\operatorname{PL}$ partial concord

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- No semantic agreement (Krifka 2008)
  - ▶ No reason to interpret *dona* as intrinsically PL/COLLECTIVE
- ▶ No general/common number
  - ▶ No morphological difference between PL and other NUM values
  - No interaction with definiteness/specificity
  - Why only with F nouns?

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- Competition between VIs with different structure (nanosyntax)
  - ▶  $[F] \Leftrightarrow \mathsf{CV}_A, [PL] \Leftrightarrow I \text{ (old generation Colonnatese)}$
  - ▶  $[PL[F]] \Leftrightarrow CV_A$  (new generation Colonnatese)

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Who controls agreement when the PL marker is not realized?

The silent PL head

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#### Expressive NP concord transparency and rigidity

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### Expressive NP concord transparency

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- Ongoing work with Guido Vanden Wyngaerd
- Cazzo-type ExprNPs can be transparent for concord
- (31) un-a merd-a di pecoron-e a-F.SG shit-F.SG of ram-M.SG 'a shitty ram'
- (32) \*un-∅ merd-a di pecoron-e a-M.SG shit-F.SG of ram-M.SG
- (33) un-Ø cazz-o di pecor-a a-M.SG dick-M.SG of sheep-F.SG 'a fucking sheep'
- (34) un-a cazz-o di pecor-a a-F.SG dick-M.SG of sheep-F.SG 'a fucking sheep'

## Expressive NP rigidity

Cazzo-type Expr-NPs never changes NUM value

- (35) dell-e merd-e di pecor-e a-F.PL shit-F.PL of sheep-F.PL 'some shitty sheep'
- (36) \*dell-e/a merd-a di pecor-e a-F.PL/SG shit-F.SG of sheep-F.PL
- (37) \*de-i cazz-i di pecoron-i a-M.PL dick-M.PL of sheep-M.PL
- (38) de-i cazz-o di pecoron-i a-M.PL dick-M.SG of sheep-M.PL 'some fucking sheep'

Previous accounts - concord transparency

#### Doliana (2016)

- Cazzo is structurally deficient (Cardinaletti and Starke 1999) and get incorporated before D probing
- Cazzo merges with an Expr head (Potts 2007), and get too deeply embedded to be seen by D

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- Giorgi and Poletto (2021)
  - Cazzo-type ExprNPs in Spec, EvalP  $\rightarrow$  no concord
  - Merda-type ExprNPs in Eval<sup>0</sup>  $\rightarrow$  concord

Saab (2022)

ExprNPs are expletives sitting in Spec,NumP

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- Phi-features are there, but cannot be seen by D
  - Not a lot on rigidity

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- No *phi*-feature to be seen  $\rightarrow$  transparency
- No *phi*-feature to be changed  $\rightarrow$  rigidity
- Cazzo as either (i) semilexical or (ii) functional (Klochmann 2017; Cavirani-Pots 2020)
  - caspita as functional, merda as semilexical
  - cazzo cannot occur in predicative position
    \*X è un cazzo 'X is a fucking'

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- ▶ We still know too little about partial (NUM) concord
- Phonetic substance can be representationally poor
  - What sounds like a morpheme is possibly not a morpheme
  - cazz-o<sub>M</sub> as cazzo
  - cazzo-type ExpNP behavior can be explained away by referring to grammaticalization degreees

to be continued