

## CONCORD ASYMMETRIES WITHIN THE DP

In many languages the constituents of a DP agree with the head Noun.

(1) Spanish: gender and number concord

- a. Estas    pequeñas    **casas**    abandonadas  
this.F.PL   small.F.PL   house.F.PL   abandoned.F.PL  
'These small abandoned houses'
- b. Estos    pequeños    **pisos**    abandonados  
this.M.PL   smal.M.PL   flat.M.PL   abandoned.M.PL

However, it is not uncommon to find languages or dialects in which concord seems to fail for some positions within the DP (Rasom 2008 uses the term 'lazy concord').

In most cases it is prenominal elements that show lazy concord, not postnominal ones.

(2) Moroccan Arabic (taken from Shlonsky 2004, from other sources)

a. *Concord with postnominal demonstratives*

l	<b>wəld</b>	had-a	l	<b>bənt</b>	had-i	lə	<b>wlad</b>	had-u
the	boy	this.M.SG	the	girl	this.F.SG	the	children	this.M.PL
	'this boy'			'this girl'			'these boys'	

b. *No concord with prenominal demonstratives*

had l	<b>wəld</b>	had l	<b>bənt</b>	had lə	<b>wlad</b>
this	the boy	this	the girl	this	the boys
	'this boy'		'this girl'		'these boys'

(3) Abkhaz (taken from Samek-Lodovici 2002, from other sources)

a. *Full concord with the order N > A*

**la-k<sup>o</sup>e**    bz'əya-k<sup>o</sup>e  
dog-pl    good-pl  
'good dogs'

b. *No concord with the order A > N*

bz'əya    **la-k<sup>o</sup>e**  
good    dog-pl  
'good dogs'

(4) Dialects of Spanish (from Bonet, Lloret and Mascaró, to appear)

*Feminine concord postnominally, maculine concord prenominally, with specific lexical items*

el        nuevo    **arma**        secreta  
the.M    new.M    weapon.F   secret.F  
'the new secret weapon'

(5) Asturian (from Bonet & Mascaró 2011)

a. *Mass concord with the order  $N > A$*

**fumo**                abondo  
smoke.M.MSS    abundant.MSS  
'abundant smoke'

b. *Gender concord with the order  $A > N$*

abondu            **fumo**  
abundant.M    smoke.M.MSS  
'abundant smoke'

(6) North-Eastern Central (NEC) Catalan (from Bonet, Lloret and Mascaró, to appear)

*Plural s is not realized in prenominal position if it were to surface in the context C\_\_\_C*

a. poc\_\_\_    nens            grassos  
few        kids            fat.PL  
'few fat kids'

b. pocs        amics  
few.PL    friends

c. altres        nens  
other.PL    kids

Similar asymmetries are found at the sentence level between the subject and the verb.

(7) Dialect of Conegliano, Italy (from Samek-Lodovici 2002)

a. *Subject clitic with the order  $S > V$*

**La Maria** la        riva                (\*La Maria riva)  
the Maria    3.F.SG    arrive  
'Maria arrives'

b. *No subject clitic with the order  $S > V$*

Riva **la Maria**                (\*La riva la Maria)  
arrive the Maria

(8) Standard Arabic (from Aoun, Benmamoun and Sportiche 1994: (5))

a. *Gender and number agreement on the verb with the order S > V*

ʔal-ʔawlaad-u    naam-uu  
the-children.NOM    slept.3M.PL  
'the children slept'

b. *Only gender agreement on the verb with the order V > S*

Naam-a    l-ʔawlaad-u    (\*naam-uu ʔawlaad-u)  
slept-3m.sg    the-children-Nom  
'the children slept'

### Some accounts of the source of the asymmetry

Most analyses assume that the asymmetry is syntactic; they resort to the different nature of the relationship that is established between the head and other elements.

In most accounts the Noun is generated lowest within the DP (Picallo 1991, Bernstein 1993, Cinque 1996, 2005, Shlonsky 2004, etc.).

(9) *Basic DP organization for several authors*

[ ... [WP Dem ... [XP Num ... [YP A [NP N]]]]]

Any order with postnominal elements is derived through movement of the N (or the NP) to a higher position (see, among others, Nevins 2010, for an analysis of different possibilities on movement operations within DPs with several adjectives).

Most recent analyses attribute stable agreement/concord to a Spec-Head relation, which is established between the verb and the preverbal subject, at the clause level, and between the N and postnominal elements, at the DP level (see, among others, Guasti & Rizzi 2002, Samek-Lodovici 2002, Shlonsky 2004, Franck et al. 2006, Nevins 2011). Lazy agreement arises when other kinds of relations (like Agree) are established.

Most of these analyses account for the reason of the existence of asymmetries and predict where lazy concord will occur (if it occurs), but they do not get into the crosslinguistic variation found<sup>1</sup>.

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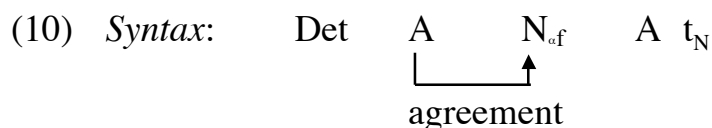
<sup>1</sup> An exception is Samek-Lodovici (2002) who argues that the variation found in subject-verb concord can be accounted for, within Optimality Theory, through a universal set of agreement-related constraints and the different hierarchical relations they can have.

Some observations:

- (a) some languages have systematic concord, others don't have it, others have lazy concord;
- (b) lazy concord can affect different agreement features: number, gender, mass, (person);
- (c) it can have a phonological conditioning.
- (d) the triggers can be specific lexical items.

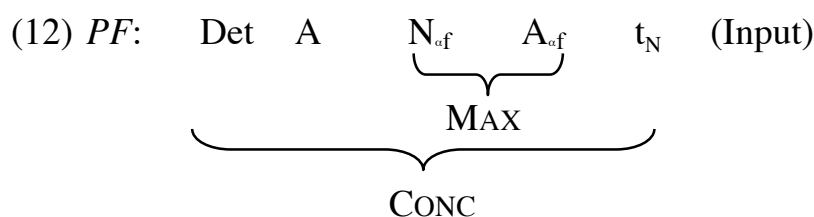
**A possible analysis** (Bonet-Lloret & Mascaró to appear)

Postnominal agreement is established (possibly via Spec-Head) in the syntax.



At PF general concord within the DP is favored by a set of markedness constraints of the family CONC(ORD). The N and postnominal elements are subject also to a MAX (faithfulness) constraint.

- (11) a. CONC(ORD): If a N has an inflectional feature F, all other modifiers within the DP must have the inflectional feature F.
- b. MAX: Every inflectional feature of the input has a correspondent in the output.



At PF a very high ranked CONC results in full concord. Other rankings can give rise to lazy concord.

**Number in North-Eastern Central (NEC) Catalan**

In NEC Catalan *s* deletes when all the following conditions are met:

- (13) a. *s* is preceded and followed by a consonant (C s C)
- b. *s* occurs in prenominal position within the DP
- c. *s* is the plural morph.

(14) molt\_ poc\_ **professionals** bons presents  
much few professional-pl good-pl present-pl  
'very few present good professionals'

(15) a. *Condition (13a) is not fulfilled; 's' surfaces*

quines males **carreteres**  
what-f.pl bad-f.pl road-f.pl  
'what bad roads'

no gaires bons **aficionats**  
not much-pl good-pl amateur-pl  
'not many good amateurs'

b. *Condition (13b) is not fulfilled; 's' surfaces*

**cabells** llargs tenyits  
hair-pl long-pl dyed-pl  
'dyed long hairs'

**vins** blancs tan cars  
wine-pl white-pl so expensive-pl  
'so expensive white wines'

c. *Condition (13c) is not fulfilled; 's' surfaces*

un fals **conseller**  
'a false counselor'

un dolç **cant**  
'a sweet singing'

The fact that the realization of the plural morpheme is sensitive to phonological conditions gives evidence for a PF account of lazy concord. But the analysis cannot rely solely on phonological factors; phonological phrasing seems irrelevant for lazy concord (see Dehé & Samek-Lodovici 2009 for experimental work on this issue for Italian).

(16) CsC: shorthand for the set of phonological constraints that penalize interconsonantal *s*.

(17) *un\_ taps vells cars* 'some expensive old corks'

Input: un <b>tap</b> vell    car	MAX	*CsC	CONC
PL    PL    PL	(num)		(num)
a.    un-s    tap-s    vell-s    car-s		***!	
PL    PL    PL    PL			
b.    ☞ un    tap-s    vell-s    car-s		**	*
PL    PL    PL			
c.    un    tap    vell    car-s	**!		
PL			

### Gender in dialects of Spanish

(4) Dialects of Spanish (from Bonet, Lloret and Mascaró, to appear)  
*Feminine concord postnominally, masculine concord prenominally, with specific lexical items*

el        nuevo    **arma**        secreta  
 the.M    new.M    weapon.F    secret.F  
 'the new secret weapon'

When the noun is plural, full concord is found across the board.

(18) las        nuevas    **armas**        secretas  
           the.F.PL    new.F.PL    weapon.F.PL    secret.F.PL  
 'the new secret weapons'

Standard Spanish has the well-known alternation *el ~ la* for the definite article (see, among many others, Harris 1987, 1989, 1991, Álvarez de Miranda 1993). The feminine singular definite article is *la*, but some feminine nouns starting with /a/ surface with (what looks like) the masculine article *el*. The conditions for its appearance are given in (19b-f) (adapted from Bonet, Lloret & Mascaró to appear):

(19) a. *Article disagreement*

el <b>árma</b> nueva	el <b>hámbr</b> e        aquella
the.M    weapon.F    new.F	the.M    hunger.F    that.F
el <b>águila</b> pequeña	el <b>área</b> fija
the.M    eagle.F    small.F	the.M    area.F    fixed.F

b. *Only stressed initial á*

la **alméndra**  
the.F almond.F

la **actríz**  
the.F actress.F

c. *Only if adjacent*

la nueva **árma**  
the.F new.F weapon.F

d. *Only nouns*

la hábil maniobra  
the.F skillful.F move.F

la<sub>pr</sub> árma<sub>v</sub>  
her.F arms 's/he arms her'

la ántes<sub>Adv</sub> mencionada  
the.F before mentioned.F

e. *Only in the singular*

las **ármas**  
the.F.PL weapon-.F.PL

f. *Exceptions*

la **Ágata**  
the.F 'proper name.F'

la **árabe**<sub>N</sub>  
the.F arab.F (woman)

la **háche**  
the.F letter h.F

la **ástro**  
the.F (movie-)star.F

In many varieties of colloquial Spanish the choice of prenominal masculine extends to other, adjacent, determiners (*un* 'a', *algún* 'some', *ningún* 'no', *este* 'this', *aquel* 'that', ...).

Different analyses can be found in the literature on the Standard Spanish data (e.g. Plank 1984, Zwicky 1985, Harris 1987, 1989, Halle et al. 1991, among others). More recent ones are couched in Optimality Theory.

Cutillas (2003), for instance, proposes that there are two feminine allomorphs (*el*, *la*) and that a phonological constraint \*V<sub>i</sub>V<sub>i</sub> (banning identical vowel sequences) forces the selection of the allomorph *el* when the following word starts with a stressed vowel.

Most accounts try to find an explanation for the change of gender (or choice of a different allomorph, depending on the analysis) for Standard Spanish; that is, when the determiner is adjacent to an [á]-initial noun (but see Eddington &

Hualde 2008). None of these analyses is valid for the variety of Spanish illustrated in (4), because masculine concord is found with all prenominal elements, not just the one adjacent to the noun.

(20) *Some other varieties of Spanish*

todo el **agua** perdida  
 all.M the.M water.F lost.F  
 'all the lost water'

el mismo **agua** parecerá fría  
 the.M same.M water.F will-seem cold.F  
 'the same water will seem cold'

todo su **área** delantera  
 all.M her.M/F area.F front.F  
 'all its/his/her front area'

Specific proposal:

- The nouns that cause the concord asymmetry are lexically feminine (like other feminine nouns).
- Postsyntactically the feminine feature is deleted for the set of approximately 25 lexical items with the relevant behavior (an impoverishment rule in Distributed Morphology terms):

(21) [F] → ∅ / \_\_\_[SG] for *agua, arma, ave, ...*

- Elements that are not assigned a gender value surface as default masculine.

(22) *Este agua fría* 'this cold water'

a. Input to Syntax	b. Syntax	c. Input to PF	d. Output
<i>est- fri- <b>agua</b></i>	<i>est- <b>agua</b> frí</i>	<i>est- <b>agua</b> frí</i>	<i>este <b>agua</b> fría</i>
[ ] [ ] [F SG]	[ ] [F SG] [F SG]	[ ] [ _ SG] [F SG]	[M SG] [ _ SG] [F SG]

(23) *Additional constraints needed*

- CONC(f, pl): cover constraint for CONC(f)eminine and CONC(pl)ural.
- \*FEM: no morphological expression of the feminine; belongs to the NOFEATS family (Samek-Lodovici 2002).
- MAX: cover constraint for MAX(gender) and MAX(number).



(24) *Todo el agua fría* 'all the cold water'

Input:	tod	l	agua	frí	MAX	CONC	*FEM
			–	F		(f,pl)	
a.	tod-a	l-a	agua	frí-a			***!
	F	F	–	F			
b.	tod-a	el	agua	frí-a			**!
	F	M	–	F			
☞ c.	tod-o	el	agua	frí-a			*
	M	M	–	F			
d.	tod-o	el	agua	frí-o	*!		
	M	M	–	M			

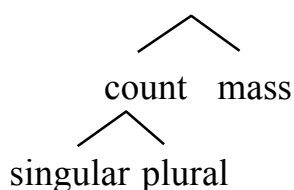
(25) *Todas las aguas frías* 'all the cold waters'

Input:	tod	l	agua	frí	MAX	CONC	*FEM
			F.PL	F.PL		(f,pl)	
☞ a.	tod-a-s	l-a-s	agua-s	frí-a-s			*****
	F PL	F PL	F PL	F PL			
b.	tod-o-s	l-o-s <sub>p</sub>	agua-s	frí-a-s		**!	**
	M PL	M PL	F pl	F pl			

**Mass in Central Asturian** (data: Fernández-Ordóñez 2007, Neira 1976, 1978, 1991)

Asturian has a mass/count distinction that is realized morphologically in nominal inflection. Mass is incompatible with number.

(26)



*Count nouns*: gender and number prenominally and postnominally.

*Mass nouns*: only mass postnominally, only gender prenominally.

(27) *Postnominal position: masculine and feminine singular, mass*

a.	<b>filu</b>	blancu	<b>filo</b>	blanco
	thread.M.SG	white.M.SG	thread.M.MSS	white.MSS
	'white thread (count int.)'		'white thread (mass int.)'	

- b. **cebolla** blanca                      **cebolla** blanco  
 onion.F.SG white.F.SG                  onion.F.MSS white.MSS  
 'white onion (count int.)'              'white onion (mass int.)'

(28) *Prenominal position: masculine and feminine singular, mass*

- a. duru            **fierru**                  duru            **fierro**                  \*duro **fierro**  
 hard.M.SG iron.M.SG                  hard.M.SG iron.M.MSS  
 'hard iron (count int.)'              'hard iron (mass int.)'
- b. guapa            **manzana**                  guapa            **manzana**                  \*guapo **manzana**  
 nice.F.SG apple.F.SG                  nice.F.SG apple.F.MSS  
 'nice apple (count int.)'              'nice apple (mass int.)'

(29) *Examples showing the prenominal-postnominal asymmetry*

- a. duru            **fierro**                  ferruñoso  
 hard.M.SG iron.M.MSS rusty.MSS  
 'hard rusty iron (mass int.)'
- b. guapa            **manzana**                  maduro  
 good.F.SG apple.F.MSS ripe.MSS  
 'good ripe apple (mass int.)'

(30) *Inflectional endings (leaving number and special cases aside)*

a. *Nouns*

- u → masculine count nouns      *fierru*  
 -o → masculine mass nouns        *fierro*  
 -a → feminine count nouns        *manzana*  
 " → feminine mass nouns         *manzana*

b. *Adjectives*

- u → masculine                        *guapu*  
 -o → mass                                *guapo*  
 -a → feminine                         *guapa*

(31) Postnominal adjective: *fierro duro* 'hard iron (mass int.)'

Input: <b>fierro</b> M.MSS	dur- M.MSS	MAX(mss)	CONC(gen)	CONC(mss)	MAX(gen)
☞ a. <b>fierro</b> M.MSS	dur -o MSS		*		*
b. <b>fierro</b> M.MSS	dur -u M	*!		*	

(32) Prenominal adjective: *duru fierro* 'hard iron (mass int.)'

Input: dur- <b>fierro</b> M.MSS	MAX(mss)	CONC(gen)	CONC(mss)	MAX(gen)
☞ a. dur -u <b>fierro</b> M M.MSS			*	
b. dur -o <b>fierro</b> MSS M.MSS		*!		

(33) Prenominal and postnominal adjectives: *guapa manzana maduro* 'good ripe apple (mass int.)'

Input: guap- <b>manzana</b> madur- F.MSS F.MSS	MAX (mss)	CONC (gen)	CONC (mss)	MAX (gen)
☞ a. guap -a <b>manzana</b> madur -o F F.MSS MSS		*	*	*
b. guap -a <b>manzana</b> madur -a F F.MSS F	*!		**	
c. guap -o <b>manzana</b> madur -o MSS F.MSS MSS		**!		*
d. guap -o <b>manzana</b> madur -a MSS F.MSS F	*!	*	*	

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