

Men and their Apples: Dividing Plural and Agreement Plural

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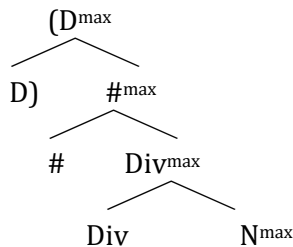
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- Plan**
- Theoretical Assumptions
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 - On the Non-triviality of the Puzzle
 - Plural-marked *-AH* Nominals vs. Other Plurals: Syntactic and Semantic Differences
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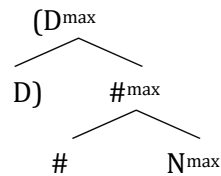
1. Setting the Stage: Theoretical assumptions

Borer (2005) the Exoskeletal Model: The mass-count distinction is purely grammatical and not lexical (universally)

1. Count Structure:



2. Mass Structure:

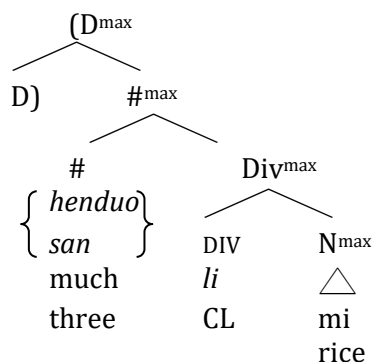


3. Mandarin Chinese: Classifiers instantiate DIV

- a. henduo li mi *li*=classifier associated with elongated units
 a-lot CL rice
 many grains of rice
- b. san li mi
 three CL rice
 three grains of rice

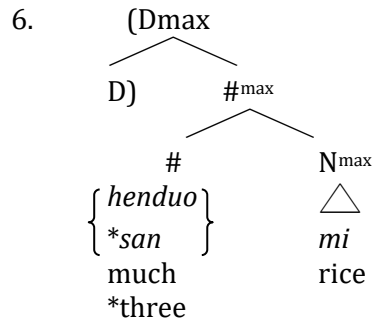
Mandarin Chinese

4.



5. a. henduo mi
 a-lot rice
 'much rice'
 b. *san mi
 three rice
 three rices/three grains of rice

Mandarin Chinese

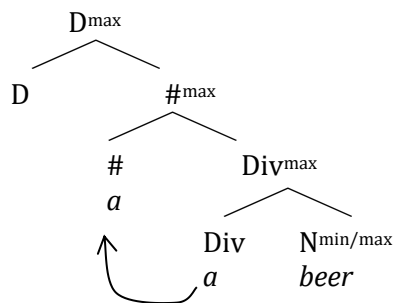


7. English: Plural marking instantiates DIV (+count)
- a. I had wine. b. There is rabbit in my soup.
 I had three wines. There are rabbits in the garden.

The plural interpretation of the plural inflectional marking is an implicature:

8. a. 0.3 apples; 1.0 apples
 b. *0.3 apple; *1.0 apple
9. i. A: Why did you put bananas in the fruit salad? You know I can't stand bananas!
 B: #You shouldn't have a problem. I only put one.
- ii. A: If you have children you are required to send them to school.
 B: #Well, I guess I don't have to, as I only have the one.
10. A. Count Interpretation: [DP D [#P many [DIVP apple-s [Nmax apple]]]]
 B. Mass Interpretation: [DP D [#P much [NP apple]]]
11. Atomic Interpretation (singular) emerges from the strict identity of DIV and #
 (entails the absence of a distinct valuer for #)

12. English:



13. **Prediction:** Complementary distribution of morphological classifiers and plural marking in any given nominal structure. Previously observed (T'sou, 1976; Haspelmath, 2001; Doetjes, 1996).

OUR PUZZLE: An Apparent Counterexample to (13) in Arabic – a Classifier that Co-Occurs with Plural Marking.

2. The Puzzling Facts

2.1. The *DIV* morpheme-*AH*

The (otherwise unmarked) nouns/roots in (14) denote collectives or an indeterminate quantity (henceforth *Batches*). They are always mass. When *-AH*, a feminine morpheme, is added to them, as in (15), a 'unit of' reading emerges. *-AH*, then, is a classifier (c.f. Zabbal, 2002, Fassi Fehri 2003), that is, an instance of *DIV*:

14. *Batch Reading*

- a. ?aSar-t laymuun
squeezed-1ps orange
'I squeezed orange'
- b. sta?mal-t wara'
used-1ps paper
'I used paper'
- c. šhreb-t biirah
drank-1ps beer
'I drank beer'

15. *'Unit-of' Reading*

- a. ?aSar-t laymuun-eh
squeezed-1ps orange-*AH*
'I squeezed an orange'
- b. sta?mal-t wara'-ah
used-1ps paper- *AH*
'I used a piece of paper'
- c. šhreb-t biiray-eh
drank-1ps beer-*AH*
'I drank a beer'

*Lebanese Arabic*¹

16. *Batch nouns are grammatically mass:*

- a. ktiir laymoun; ktiir wara'; ktiir biirah
much orange much paper much beer
- b. *ktiir laymoun-eh; *ktiir war'-ah; *ktiir biiray-eh
much orange-*AH* much paper-*AH* much beer-*AH*
- c. ktiir may/Hubb; d. *ktiir annineh/m'aSS; e. ktiir aneeni/m'aSSaat
much water/love much bottle/pair-of-scissors many bottles/pairs-of-scissors

17. *Batch Reading:*

- a. tefeeH weeHed
apple one
one type of apple
*one apple
- b. baTaTa waHdeh
potato one
one type of potato
*one potato

18. *'Unit-of' Reading*

- a. tefeeH-ah waHdeh
apple-*AH* one
one apple
- b. baTaTay-eh waHdeh
potato-*AH* one
one potato

¹ Unless otherwise noted, all effects exemplified in Lebanese hold in an identical fashion for Standard Arabic.

19. **Batch Reading:**
- a. ?and-i bass teffeeH
at-me only apple
I have only apples
(no other food, only apples)
- b. akalt bass xyaar
ate.1s only cucumber
I ate only cucumber
(cucumber-only diet)
20. **'Unit-of' Reading**
- a. ?andi bass teffeeH-ah
at-me only apple-AH
I have only one apple
(may have other food, but only one apple)
- b. akalt bass xyaar-ah
ate.1s only cucumber-AH
I ate only one cucumber
(may have eaten other food, but only one cucumber)
21. *On Batch nouns/roots, -AH is always and productively a divider*
- a. krwasan → krwason-eh (from the French *croissant*)
croissant → croissant-AH
croissant (food type) → a croissant
- b. hamberger → hambergray-eh (from the English *hamburger*)
hamburger → hamburger -AH
hamburger (food type) → a hamburger
- c. skotsh → skotsh-eh (the brand name *Scotch Tape*)
scotch tape → scotch tape-AH
Scotch Tape → a piece of Scotch Tape
- -AH is an instance of DIV

Prediction: Complementary distribution of -AH and plural marking

BUT -AH CO-OCCURS WITH PLURAL MARKINGS!

22. a. štre-t tlat laymoun-eet
bought-1ps three orange-AH-pl
I bought three oranges.
- b. ken fi sett rezz-eet bi S-SaHn
was *exist* six rice-AH-pl in the-plate
There were six grains of rice on the plate.
- c. štar-o sab? djeej-eet
bought-3pp' seven chicken-AH-pl
They bought seven chickens.

2.2. Feminine marking: -AH is not -ah

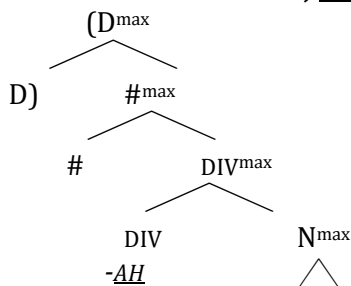
23. -AH is homophonous with the feminine ending -ah² and is feminine in all its occurrences:

- | | | | | | |
|-------------------|----------|--------------------------|-----------|-----------------------------|-----------|
| a. laymoun-eh | Hamr-ah; | b. wara'-ah | zghii-eh; | c. raml-eh | mdawwr-ah |
| orange- <u>AH</u> | red-fem | paper- <u>AH</u> | small-fem | sand- <u>AH</u> | spherical |
| 'a red orange' | | 'a small piece of paper' | | 'a spherical grain of sand' | |

BUT -AH IS NOT THE FEMININE ENDING AS SUCH

24. a. *Biologically masculine, masculine*
 i. Sabi; ii. bsein;
 youth cat
 boy; cat_{masc}
- b. *Biologically feminine, feminine*
 i. Sabiy-eh; ii. bsein-eh;
 youth-fem cat-fem
 young woman cat_{fem}
25. a. *Biologically masculine, masculine*
 i. rejjeel; ii. tays;
 man goat
 man goat_{masc}
- b. *Biologically feminine, feminine, stem suppletion*
 i. mar-ah; ii. ?anz-eh;
 woman goat
 (*mar) (*?anz)
26. *Ontologically genderless:*
 a. *Grammatically masculine, no feminine counterpart*
 i. kersi ii. beeb; iii. ma'lab
 chair; door; prank
 (*kersi-ah) (*beeb-ah) (*ma'lab-ah)
- b. *Feminine, -ah ending, no independent stem*
 i. Taawl-ah; ii. maHabb-eh
 table affection
 (*Taawl) (*maHabb)
- c. *Feminine, -ah ending, non-compositional*
 i. lawH-ah; ii. saHH-ah
 painting health
 (lawH = board) (saHH=correct)
27. *In all of these cases -ah is not a divider:*
 A. The stem is not mass (24).
 B. The stem does not exist independently (25b)-(26b) or exists with a possibly related but clearly non-compositional meaning (26c).
 C. The -ah form is altogether mass and not count (26b-ii) and (26c-ii).
 D. With the exception of biologically gendered nouns, the -ah suffixation is not productive.

28. *Arabic count structure, -AH:*



²Or as *-eh* in some instances in Lebanese Arabic. The morpheme, in both Standard and Lebanese Arabic, is consistently pronounced as *-t* final (*-at* or *-et*) in some phonological environments.

Puzzle Recap:

- A. -AH is an instance of DIV
 B. Plural marking is an instance of DIV
 → Complementary distribution of -AH and plural marking.

But alas, -AH and plural marking do co-occur...

29. a. štre-t tlat laymoun-eet
 bought-1ps three orange-AH-pl
 I bought three oranges.
 b. ken fi sett rezz-eet bi S-SaHn
 was exist six rice-AH-pl in the-plate
 There were six grains of rice on the plate.
 c. štar-o sab? djeej-eet
 bought-3pp' seven chicken-AH-pl
 They bought seven chickens.

Possible Solutions:

- -AH is not DIV
- *plural marking* (in general) is not DIV
- **the plural marking that co-occurs with -AH is not an instance of DIV**

3. Plural Marking and -AH-Divided Nouns: Why the Problem is not Trivial

Query: Can we distinguish between the parse in (30a) and the parse in (30b)? Phonologically, both are equally plausible. But if the parse in (30b) is the correct one, and the plural marking *eet* is attached directly to the stem, our puzzle vanishes (unfortunately, no such luck...):

- | | | | | |
|---------------|---|-----------------|-------------|-------------------------|
| 30. a. (tlat) | Tabšuur- <u>-AH</u> -at | b. (tlat) | Tabšuur-aat | 'three pieces of chalk' |
| | 'batch' <u>-AH</u> -PL | | 'batch' -PL | |
| | (sab?) Hajr <u>-AH</u> -at _F | (sab?) Hajr-aat | | 'seven stones' |
| | 'batch' <u>-AH</u> -PL | 'batch'-PL | | |

31. A. *-eet/-aat* is the regular feminine plural associated with most occurrences of the feminine *-ah* morpheme (but it is at times associated with masculine stems...)
 B. However, *Batches* are masculine, and the plural forms in (30) are feminine.³
 C. And most crucially, *Batches* (also) occur with an autosegmental plural marking ("Broken Plural"). The resulting plural form is masculine and is interpreted systematically differently:⁴

³ Establishing the gender of these plural forms is not in actuality a trivial matter. Ask us about it, if interested. We note, for completeness sake, that evidence is available that plural marking as such does not change gender for the noun as a whole.

⁴ See Fassi Fehri (2003) for a similar observation on Moroccan Arabic plurals of Batch Nouns (fn 19).

32. A. <i>Batches</i>	B. <i>Batch-AH</i>	C. <i>With Broken plural</i>	D. <i>Batch+-aat/-eet</i>
a. [Tabšuur] _M chalk	[Tabšuur-ah] _F chalk- <u>AH</u> piece of chalk	[Tbašiiir] _M chalk-pl _{BROKEN} bunches of chalk (different) types of chalk *piece of chalk	[Tabšuur-aat] _F chalk-pl- <i>aat</i> pieces of chalk *bunches of chalk *(different) types of chalk
b. [Hajr] _M stone	[Hajr-ah] _F stone- <u>AH</u> a stone	[Hjaar] _M stone-pl _{BROKEN} heaps/types of stone *stones	[Hajr-aat] _F stone-pl- <i>aat</i> stones *heaps/types of stone

33. *AND -eet/-aat in itself does not encode a plural of units reading:*

- a. ktiir metʔah; ktiir musii'a; ktiir maʔrifeḥ;
much pleasure much music much knowledge
- b. ktiir metʔ-aat; ktiir musii'-aat; ktiir maʔrif-eet
many pleasures many musics many knowledges
'many types of pleasure' 'many types of music' 'many types of knowledge'
*'many instances of pleasure' *'many pieces of music' *'many known items'

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	- Plural-marked - <u>AH</u> Nominals vs. Other Plurals: Syntactic and Semantic Differences
	Bare Plurals
	Quantifiers
	Partitive vs. Quantitative Reading
	- Structural and Semantic Differences between Cardinals and Quantifiers
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4. Plurals of -AH-Divided Nominals vs. Other Plurals

4.1. Bare Plurals

34. *Arabic allows bare plurals (only) in weak contexts:*

- a. šeft mhands-iin bi l-lab
saw.1s engineer-pl in the-lab
I saw male engineers in the phonetics lab.
- b. šeft mhands-eet bi l-lab
saw.1s engineer-pl in the-lab
I saw female engineers in the phonetics lab.
- c. šeft Sabaaya bi l-salon
saw.1s youth-pl in the-lounge
I saw young ladies in the lounge.

35. *Directly pluralized batches of the same stems are licit as bare plurals:*

- a. šeft Sxuur ?a l-šaTT base: Saxr
 saw.1s rock-pl_{BR} on the-beach
 I saw rocks by the beach.
- b. šeft asmeek bi l-baHer base: samak
 saw.1s fish-pl_{BR} in the-sea
 I saw fishes (many kinds) in the sea.
- c. šeft Hjaar honik base: Hajar
 saw.1s stone-pl_{BR} there
 I saw stones there.

36. *-aat marked (sound feminine) nominals occur bare (cf. 34b)*

 BUT PLURAL MARKED BATCH-AH NEVER OCCUR BARE:

37. a. *šeft Saxraat ?a l-šaTT base: Saxr-AH
 saw.1s rock-AH-pl on the-beach
 I saw rocks by the beach.
- b. *šeft samk-eet bi l-baHr base: samak -AH
 saw.1s fish-AH-pl in the-sea
 I saw fish in the sea.
- c. *šeft Hajr-aat ?a l-Tarii' base: Hajr-AH
 saw.1s stone-AH-pl_{SF} on the-road
 I saw stones on the road.

4.2. *Quantifiers*

 PLURAL MARKED BATCH-AH NEVER OCCUR WITH QUANTIFIERS:

38. *Pre-nominal quantifiers, Batch-AHs:* Lebanese⁵
- a. *fi šwayt/ktiir samk-eet bi l-baHr base: samak -AH
 exist few/many fish-AH-pl in the-sea
 There are few/many fish in the sea.
- b. *fi šwayt/ktiir Hajr-aat ?a l-Tarii' base: Hajr-AH
 exist few/many stone-AH-pl on the-road
 There are few/many stones on the road.
- c. *fi šwayt/ktiir Tabšuur-aatbi d-derej base: Tabšuur-AH
 exist few/many chalk-AH-pl in the-drawer
 There are few/many pieces of chalk in the drawer.
39. *Pre-nominal quantifiers, other plurals*
- a. fi šwayt/ktiir rjeel bi ha-S-Saff
 exist few/many man-pl in this-the-class
 There are few/many men in this classroom.
- b. fi šwayt/ktiir m?allm-eet bi ha-S-Saff
 exist few/many teacher-pl in this-the-class
 There are few/many female teachers in this classroom.

⁵ Standard Arabic only allows pre-nominal quantifiers in partitive-like contexts, see (47) below.

40. *Pre-nominal quantifiers, directly pluralized Batches of same stem*

- a. fi šwayt/ktiir asmeeek bi l-baHer
exist few/many fish-pl in the-sea base: samak
 There are many fishes (many kinds) in the sea.
- b. fi šwayt/ktiir Hjaar honik
exist few/many stone-pl there base: Hajar
 There are few stones there.

41. *Post-nominal quantifiers, Batch-AHs:*

Lebanese

- a. *fi samk-eet ktiir bi l-baHr base: samak -AH
exist fish-AH-pl many in the-sea
 There are many fish in the sea.
- b. *fi Hajr-aat ktiir ?a l-Tarii' base: Hajr-AH
exist stone-AH-pl many on the-road
 There are many stones on the road.
- c. *fi Tabšuur-aat ktiir bi d-derej base: Tabšuur-AH
exist chalk-AH-pl many in the-drawer
 There are many pieces of chalk in the drawer.

42. *Post-nominal quantifiers, other plurals*

- a. fi rjeel ktiir bi ha-S-Saff
exist man-pl many in this-the-class
 There are many men in this classroom.
- b. fi m?allm-eet ktiir bi ha-S-Saff
exist teacher-pl many in this-the-class
 There are many female teachers in this classroom.

43. *Post-nominal quantifiers, directly pluralized Batches of same stem*

- a. fi asmeeek ktiir bi l-baHer
exist fish-pl many in the-sea base: samak
 There are many fishes (many kinds) in the sea.
- b. fi Hjaar ktiir honik
exist stone-pl many there base: Hajar
 There are many stones there.

4.3. A Note on Agreeing Post-nominal 'Quantifiers' (see section 5.3 for more)44. *Agreeing post-nominal 'quantifiers', Batch-AHs*

- a. *šeft samk-eet 'leel/ktaar bi-j-jaaT base: samk-AH
 saw.1s fish-AH-pl few/many in-the-bowl
 There are a few/many fishes in the bowl.
- b. *šeft Hajr-aat 'leel/ktaar ?a l-Tarii' base: Hajr-AH
 saw.1s stone-AH-pl few/many on the-road
 I saw few/many stones on the road.

45. *Agreeing post-nominal 'quantifiers', other plurals*

- a. šeft rjeel 'leel/ktaar bi labl-fonetik
 saw.1s man-pl few/many in labthe-phonetics
 I saw a few/many men in the phonetics lab
- b. šeft m?allm-eet 'leel/ktaar bi l-madraseh
 saw.1s teacher-pl few/many in the-school
 I saw few/many teachers in the school.

46. *Agreeing post-nominal quantifiers, directly pluralized Batches of the same stem*

- a. fi asmeek 'leel/ktaar bi l-baHer
 exist fish-pl few/many in the-sea base: samak
 There are many fishes (many kinds) in the sea.
- b. fi Hjaar 'leel/ktaar honik
 exist stone-pl few/many there base: Hajar
 There are few stones there.

4.4. Partitive vs. Standard Quantificational Reading:47. *[Quantifier + Definite Article + NP] expressions are ambiguous:*

- a. kell/ba?D/aghlab T-Taawleet
 all/some/most the-table-pl
 i. all/some/most of the tables - SPECIFIC PARTITIVE READING
 ii. all/some/most tables - STANDARD QUANTIFICATION WITH A NON-DEFINITE RESTRICTION
- b. kell/ba?D/aghlab l-mhandsiin
 all/some/most the-engineer-pl
 i. all/some/most of the engineers - SPECIFIC PARTITIVE READING
 ii. all/some/most engineers - STANDARD QUANTIFICATION WITH A NON-DEFINITE RESTRICTION
- c. kell/ba?D/aghlab l-mudun
 all/some/most the-citie-pl
 i. all/some/most of the cities - SPECIFIC PARTITIVE READING
 ii. all/some/most cities - STANDARD QUANTIFICATION WITH A NON-DEFINITE RESTRICTION

ONLY THE PARTITIVE READING IS AVAILABLE FOR BATCH-AH NOUNS:

48. kell/ba?D/aghlab l-teffeeHaat
 all/some/most the-apple-AH-pl
 i. all/some/most of the apples - SPECIFIC PARTITIVE READING
 ii. * all/some/most apples - NO STANDARD QUANTIFICATIONAL READING

4.5. So where ARE Plural-marked Batch-AH Nouns Licit?49. *Plural-marked Batch-AH nouns are licit in the context of cardinals:*

- a. šeft tes? samk-eet bi l-jaaT
 saw.1s nine fish-AH-pl in the-bowl
 I saw nine fish in the bowl.
- b. šeft arba? Hajr-aat ?a l-Tarii'
 saw.1s four stone-AH-pl on the-road
 I saw four stones on the road.
- c. šeft xams Tabšuur-aat bi d-derej
 saw.1s five chalk-AH-pl in the-drawer
 I saw five pieces of chalk in the drawer.

50. *Plural-marked Batch-AH nouns licit without a cardinal when definite:*
- s-samk-eet mush hon
the-fish-AH-pl not here
The fishes are not here.
 - l-Hajr-aat nramo
the-stone-AH-pl thrown
The stones were thrown.
 - T-Tabšuur-aat xtafo
the-chalk-AH-pl disappeared
The chalks disappeared.

PLURAL BATCH-AHS ARE INSTANCES OF AGREEMENT WITH A CARDINAL IN A CARDINAL PHRASE (#P)

51. *In definite descriptions, the definite article is a discourse anaphor that inherits reference as well as cardinality from its antecedent:*
- Three cats came into the room.
 - The cats were hungry (*but not one of them)
52. *Tentative structures:*
- [_{DP} the ... [_{#P} the [_{DivP} [_{NP}]]]]
- [_{DP} ... [_{#P} 3 [_{DivP} [_{NP}]]]]

-
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-

5. Cardinals are not Quantifiers: Some Illustrations and some Consequences

5.1. Low-scoping Cardinals

53. *Cardinals may scope both over and under adjectives*
- šeft tlat jnuud bixawfo
saw three soldiers scary
 - I saw three scary soldiers.
 - I saw a scary three soldiers.
 - Hmelt tes? ?elab T'aal
carried nine box-pl_{BR} heavy-pl
 - I carried nine heavy boxes.
 - I carried (a) heavy nine boxes. (heavy as a set)

- c. Tabbabuu-ni arba? doctor-aat šaaTriin
treated-me four doctor-pl_{SF} skillful-pl
i. I was treated by four skillful doctors.
ii. I was treated by a team of four skillful doctors.
54. *Quantifiers must scope over adjectives:*
- a. šeft šwayt/ktiir jnuud bixawfo
saw few/many soldiers scary
i. I saw few/many scary soldiers.
ii. *I saw scary few/many soldiers.
- b. Hmelt šwayt/ktiir ?elab t'aal
carried few/many box-pl_{BR} heavy
i. I carried a few/many heavy boxes.
ii. *I carried a heavy bunch of few/many boxes (specifically heavy as a set)
- c. katabt šwayt/ktiir amsileh beeyx-een
wrote.1ps few/many example-pl_{BR} uninteresting
i. I wrote few/many uninteresting examples.
ii. *I wrote uninteresting few/many examples

5.2. Null Pronominals: Cardinals Only

55. *Null pronominal restriction is always acceptable with cardinals:*
- a. jebt t-tleeteħ lli 'eblou yejou
brought.1s the-three that accepted.3p come.3p
I brought the three that would come along
- b. jebt tleeteħ eblou yejou
brought.1s three accepted.2p come.3p
I brought three that would come along
56. *Null pronominal restriction is always acceptable with cardinals:*
- a. tleeteħ fallou (pre-nominal)
three left.3p
Three left.
- b. t-tleeteħ fallou (post-nominal; def. agreement)
the-three left.3p
The three left.
57. *Null pronominal restriction is ungrammatical to extremely marginal with pre-nominal quantifiers (always non-definite)*
- a. ??shway fallou
few left3p
'a few left'
- b. *ktiir fallou
many left.3p
58. *Null pronominal restriction is ungrammatical to extremely marginal with post-nominal quantifiers (always non-definite)*
- a. ??shway fallou
few left3p
'a few left'
- b. *ktiir fallou
many left.3p

5.3. Consequences: Post-nominal Quantifiers are Adjectives, not Quantifiers:

Comparing post-nominal quantifiers, post-nominal cardinals, and adjectives

59.

<i>Lebanese Arabic</i>	<i>Standard Arabic</i>
A. <i>Agreeing post-nominal 'quantifiers' agree in number, (gender,) and definiteness:</i> ⁶	
i. l-wleed l-ktaar the-kids the-many-pl	iii. al-fatayaatu l-kathiiraat the-girls the-many-pl-fem
ii. wleed ktaar kids many-pl	iv. Fatayaatun kathiiraat girls many-pl-fem
B. <i>Adjectives agree in number, (gender,) and definiteness:</i>	
i. l-wleed l-mahdoumiin the-kids the-cute-pl	iii. al-fatayaatu j-jamiilaat the-girls the-pretty-pl-fem
ii. wleed mahdoumiin kids cute-pl	iv. fatayaatun jamiilaat girls pretty-pl-fem
C. <i>Post-nominal cardinals only agree in DEF (and gender) only – but NOT in number</i>	
i. l-wleed t-tleeteh the-kids the-three	ii. al-fatayaatu th-thalaath the-girls the-three-fem
60. A. *Agreeing post-nominal 'quantifiers' occur in definite or indefinite DPs:*
- i. wleed ktaar
kids many
- ii. l-wleed l-ktaar
the-kids the-many
- B. *Adjectives (always post-nominal) occur in definite or indefinite DPs:*
- i. wleed mahdoumin
kids cute
- ii. l-wleed l-mahdoumin
the-kids the-cute
- C. *Post-nominal cardinals can only occur in definite DPs*
- i. *wleed tleeteh
kids three
- ii. l-wleed t-tleeteh
the-kids the-three
61. A. *Agreeing post-nominal 'quantifiers' allow null pronominals only when definite:*
- i. l-ktaar ghalabou l-'leel
the-many defeated the-few
- ii. *ktaar ghalabou 'leel
many defeated few
- B. *Adjectives (always post-nominal) allow null pronominals only when definite:*
- i. z-zghaar bye'daro yfouto
the-young can enter.3p
- ii. *zghaar bye'daro yfouto
young can enter.3p
- C. *Cardinals allow null pronominals regardless of definiteness or position (cf. (55))*

⁶ Lebanese Arabic does not mark gender agreement on nominal modifiers; Standard Arabic does.

62. A. *Adjectives may occur with Batch-AH plurals, in definites, but cannot license them:*
- | | |
|---|---|
| i. *ma l'eit teffeeHaat xeDer | ii. ma l'eit t-teffeeHaat l-xeDer |
| not found.1s apple- <u>AH</u> -pl green | not found.1s the-apple- <u>AH</u> -pl the-green |
- B. *Agreeing post-nominal 'quantifiers' may occur with Batch-AH plurals, in definite DPs, but cannot license them:*
- | | |
|-----------------------------------|--|
| i. *samk-eet 'leel/ktaar (cf. 44) | ii. s-samk-eet l-'leel/l-ktaar |
| fish- <u>AH</u> -pl few/many | the-fish- <u>AH</u> -pl the-few/the-many |
- C. *Cardinals can always license Batch -AH plurals by themselves!!*

CONSEQUENCES: ARABIC POST-NOMINAL 'QUANTIFIERS' ARE ADJECTIVES, NOT REAL QUANTIFIERS.⁷

63. (44a-b) are ungrammatical on a par with the bare plurals in (37), and not on a par with the real quantifier cases in (38).

-
- Plan**
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 - Plural-marked -AH Nominals vs. Other Plurals: Syntactic and Semantic Differences
 - Structural and Semantic Differences between Cardinals and Quantifiers
 - Toward a Solution: Structures
 - Dividing vs. Agreeing
 - Cardinals and Agreement: Bulgarian Plurals
-

6. Toward a solution:

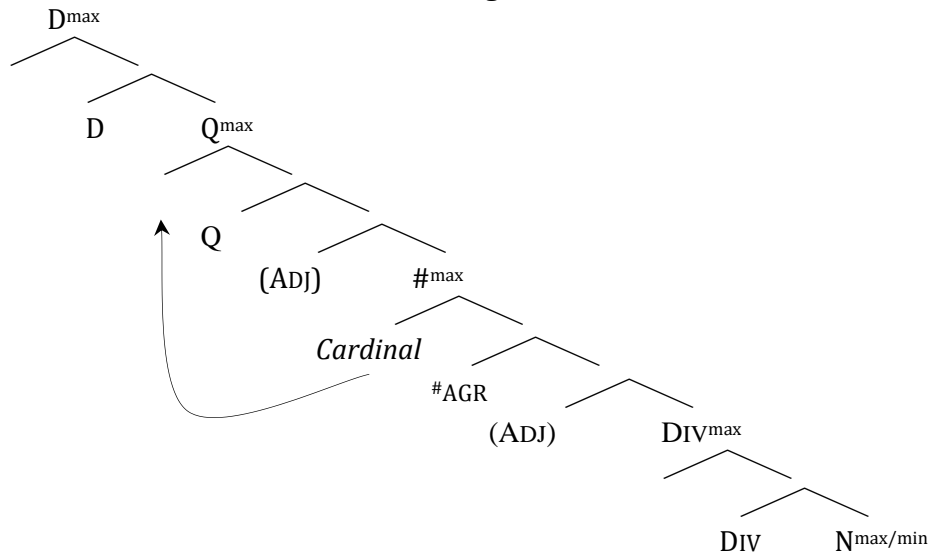
6.1. Structures:

-
64. **Assumptions:**
- A. Both cardinals and quantifiers are specifiers.
 - B. A cardinal must move to Spec,QP. Low scope reading is obtained through reconstruction.
 - C. Cardinals may license null N; quantifiers may not.
 - D. Adjectives may never merge above QP.

Copies in shaded gray

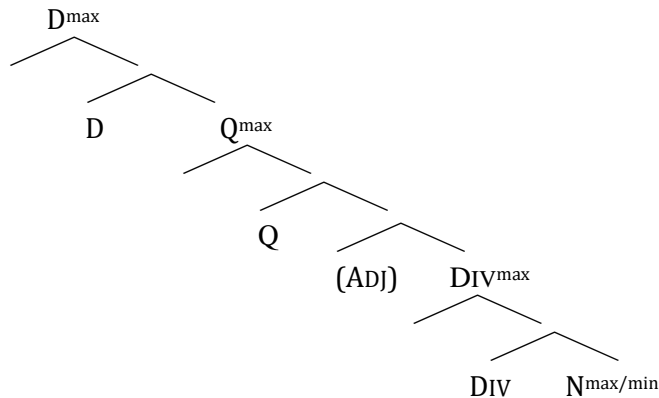
⁷ We assume post nominal 'quantifiers' are incompatible with cardinals semantically, not syntactically)

65. a. **Schematic DP structure containing a Cardinal:**



b. [DP [QP *tlat maraaya* [T'aal [#P *tlat maraaya* [DivP *mreeyeh-'pl'* [NP *mreeyeh*]]]]]
three mirrors heavy (maraaya)

66. a. **Schematic DP structure containing a Quantifier**



b. [DP [QP *ktiir maraaya* [T'aal [DivP *mreeyeh-DIV ('pl')* [NP *mreeyeh*]]]]]
many mirrors heavy (maraaya)

6.2. Null pronominal restriction

67. **Assumptions:**

- Only agreeing *pro* is interpretable
- *pro*, merging as N, moves to # where it agrees with the cardinal

→ If #P projects, *pro* agrees, it is interpretable → Null pronominal possible
 If #P does not project, *pro* cannot agree, it is uninterpretable → Null pronominal impossible

68. a. [DP [QP *tleeteh* *pro*+#AGR[#P *tleeteh* *pro*+#AGR [DivP *pro* [NP *pro*]]]]] fallou
three left

'Three left'

→ **Interpretable pro**

b. [DP *pro*+#AGR[QP *t-tleeteh* *pro*+#AGR [#P *t-tleeteh* *pro*+#AGR[DivP *pro* [NP *pro*]]]]] fallou
the-three left

'The three left'

→ **Interpretable pro**

74. a. bun syu Cantonese
 Cl book 'a book'
 b. saam bun syu
 three Cl book 'three books'

75. **Only Specific Partitive reading acceptable for definite Batch-AH plurals**

- A. - Specific Partitives contain true definite descriptions with true definite determiners.
 - A definite determiners has anaphoric cardinality.
 → It licenses #P as well as #AGR.
 The reading is admissible for plural-marked Batch-AH nominals.
- B. - In the standard quantificational reading, *kell/aghlab* 'all'/'most' are not followed by a definite description, and the article is an expletive required by the quantifier.
 - Expletive articles do not have anaphoric properties and hence the article has no antecedents and no inherited cardinality.
 → It cannot license #P, let alone #AGR.
 The reading is inadmissible for plural-marked Batch-AH nominals.

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8. Cardinals and Agreement - Bulgarian plurals:

Two masculine plural markers in Bulgarian (when non-human):

76. Noun	Plural I	Plural II	Gloss
kon	kon-e	konj-a	horse
tsar	tsar-e	tsarj-a	king
pop	pop-ove	pop-a	priest
faks	faks-ove	faks-a	fax
samolet	samolet-i	samolet-a	airplane
telefon	telefon-i	telefon-a	phone
imeil	imeil-i	imeil-a	e-mail

77. *Quantifiers and plural, I:*
- | | | |
|----------------|-------|----------|
| mnogo /poveche | /malo | kon-e |
| many /more | /few | horses |
| mnogo /poveche | /malo | faks-ove |
| many /more | /few | faxes' |
| mnogo /poveche | /malo | imeil-i |
| many /more | /few | emails' |

78. *Quantifiers and plural, II*
- | | | |
|-----------------|-------|---------|
| *mnogo/poveche | /malo | konj-a |
| *many /more | /few | horses |
| *mnogo /poveche | /malo | faks-a |
| *many /more | /few | faxes |
| *mnogo /poveche | /malo | imeil-a |
| *many /more | /few | emails |

88. a. *pet student-i
five students
b. *pet student-a
five students
89. i. The /a/ marker cannot occur with +human masculine nouns.⁸
ii. Plural marker I (masculine) is incompatible with cardinal agreement (cf. 83).

So how do you say three students in Bulgarian???

→ Pl I stays in DIV; #AGR is satisfied by expletive agreement (note direct evidence for #AGR):

90. a. tri-ma student-i
three-MA students
b. (vsički) tezi tri-ma student-i
(all) these three-MA students
91. a. *ma-student-i
MA-students
b. *mnogo/malo ma student-i
many/few MA students
92. *tri-ma-student-a
*tri-ma-stol-a 'three chairs'
*tri-ma-stol-ove
93. [_{DP} [_{QP} CARD [_{#P} CARDEXpletive-#AGR [_{DIV} student+Pl I [student]]]]]
/ma/ /stuenti/

⁸ The -a marker does occur with human masculine nouns for the numbers 7 and 8, for phonological reasons, and for numbers above 10.