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ON THE NUMBER OF PLURALS
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Starting point: number-marking in numeral NPs can be:
- ➢ absent (Hungarian, Finnish, Welsh, Lezgian, etc.)
- ➢ chosen in function of the cardinal (e.g., Arabic, Scottish Gaelic)
- ➢ chosen in function of the noun (e.g., Dutch, German, Irish, Scottish Gaelic)
- ➢ optional (Miya inanimate nouns)
- ➢ obligatory (English, French, etc.)

Ionin and Matushansky 2006, [submitted]: number-marking on the lexical NP in numeral NPs results from agreement; the lexical NP itself is not plural

The same options available for number-marking in regular NPs:

- ➢ in agreement only: Gurr-goni (Green 1995), Manam (Cowper and Hall 2014)

- ➢ optional: Western Armenian (Sigler 1992, 1996, Donabédian 1993) in function of specificity; Palauan (Josephs 1997), Southern Ute (Oberly 2004), Vera'a (Schnell 2012) in function of animacy; Vai (Welmers 1976) and Mandarin (Lan 2010) in function of humanity, Wambon (de Vries and Vries-Wiersma 1992) for kinship nouns only, Yoruba in function of definiteness (Rowlands 1969:41-42), etc.

- ➢ obligatory: English, French, etc.

But also for number agreement:

- ➢ none: Japanese, Malay

- ➢ optional: Western Armenian (Sigler 1992, 1996, Donabédian 1993) in function of specificity; Georgian (Harris 1981) in function of animacy

- ➢ obligatory: theory-dependent, there seem to always be gaps

Apparent optionality in number marking and agreement is actually conditioned by the so-called *Animacy Hierarchy* (Smith-Stark 1974, Corbett 2000)

Hypothesis: NP-internal number marking results from agreement a lot more frequently than is generally perceived

1. THE LOCUS OF NUMBER

Disregarded for now: number expressed as **plural words** (Dryer 1989, Klamer, Schapper and Corbett 2014, cf. also Kwon and Zribi-Hertz 2004)

The standard syntactic view: NumP (Ritter 1987, 1991, Bernstein 1991, Valois 1991)

Presuppositional (Sauerland 2003, 2008): above DP

Parametric (Bouchard 2002, Déprez 2005, 2006), a.k.a. **distributed** (Wiltschko 2008): for a number of different motivations:
- ➢ on NP vs. on DP (Bouchard 2002, Déprez 2005, 2006): in French number is only marked on the determiner, in Creole languages likewise, and only if definite
- ➢ √P (Wiltschko 2008 a): the optional Halkomelem plural marking is cross-categorial and internal to derivational affixes and compounds
- ➢ nP (Lowenstamm 2007, Acquaviva 2008, Alexiadou 2011): "lexical plurals": pluralia tantum nouns, plural of abundance on mass nouns

➢ DivP & #P (Borer 2005, Mathieu 2014): singulatives and measure nouns
➢ DP (Butler 2012): the optional Yucatec Maya plural marker on conjunctions of singular NPs

Different semantics for these different plurals, clearly, but nobody bothers to spell it out

Major semantic split among syntacticians: the core denotation of a noun

1.1. Plural semantics

Standard view: the singular is unmarked, the plural is marked, syntactically and semantically

Link 1983: plural is derived by the closure of an atomic set (the noun denotation) under sum and the removal of singulars

(1) a. $[\![*]\!] = \lambda P \,.\, \wp\,(P) \setminus \emptyset$ number-neutral
     b. $[\![\text{-s}]\!] = \lambda P \,.\, {*}P \setminus P$ plural

For Link, either the plural morpheme is the locus of the pluralizing operator, or pluralization is done in the lexicon

Problems: adjectives (can be assumed to be number-neutral); Creoles, French, Gurr-goni and other languages where plural is not marked on the noun; lexical plurals…

1.2. Plural as the unmarked form

Krifka 1989: plural makes no semantic contribution

(2) a. Do you have children?   Krifka 1989
         Yes, I have one child. /*No, I have (only) one child.

     b. Did you eat apples today?
         Yes, I ate half an apple. /*No, I ate (only) half an apple.

Sauerland 2003, 2008: it is singular that is semantically marked

The choice of singular over plural is governed by Maximize Presupposition (Heim 1991), see Spector 2007 for a more complex Gricean story

1.3. General number

General number, a.k.a. "transnumeral" (Corbett 2000, see also Schroeder 1999, Wiese 2003, Acquaviva 2005): the possibility of using an NP without reference to number, enabling it to denote both singular and plural entities:

(3) a. lúban   foofe   Bayso, Corbett 2000:11
         lion   watch.1SG.PAST
         I lion-watched.

     b. lubán-titi   foofe
         lion-SGT   watch.1SG.PAST
         I watched a lion.

     c. luban-jaa   foofe
         lion-PAUC   watch.1SG.PAST
         I watched a few lions.

     d. luban-jool   foofe
         lion-PL   watch.1SG.PAST
         I watched (a lot of) lions.

The agreement that it triggers on the verb is generally singular, except for pluralia tantum nouns (Corbett and Hayward 1987). The singulative suffix does not change the gender

Semantically, the denotation of the general number is identical to that of the plural (cf. Farkas and de Swart 2010)

So what does plural do in languages with general number? (In Bayso, incidentally, plural NPs with the exception of pronouns trigger the default masculine singular marking on the verb)

Borer 2005: in the absence of a dividing head (a classifier or plural) the noun denotes "stuff" (no proper denotation provided)

Farkas and de Swart 2010: exclusive plural (excluding atoms) vs. inclusive plural (containing atoms); the story for the latter is left unclear, denotationally it looks as if inclusive plural is an **identity function**:

(4)   a. $[\![plural]\!] = \lambda {}^*P\ \lambda x\ [x \in Sum \cup Atom\ \&\ {}^*P(x)]$ inclusive plural
      b. $[\![plural]\!] = \lambda {}^*P\ \lambda x\ [x \in Sum\ \&\ \&\ {}^*P(x)]$ exclusive plural

The focus is on the optionality

1.4. Obligatory plurals

There is frequently (perhaps always) no general number in overtly definite NPs:

(5)   a.   t'ílém   ye   s-í:wí:qe   Halkomelem, Wiltschko 2008
            sing   DET man.PL
            The men are singing.

      b.   t'ílém   te   s-í:wí:qe
            sing   DET.PL man.PL
            The men are singing.

      c.   t'ílém   ye   swíyeqe
            sing   DET man.SG
            The man is singing.

      d.   t'ílém   te   swíyeqe
            sing   DET.PL man.SG
            The men are singing.

(6)   a.   Gen twa liv   ak   yon magazin. Pran liv   yo/*la.   Haitian Creole, Déprez 2006
            exist three book and one magazine take   book the.PL/SG
            There are three books and one magazine. Take the books.

      b.   Gen liv   ak   magazin sou tab   sa.   Pran liv *(yo).
            exist book and   magazine on   table this   take   book the.PL
            There are books and magazines on the table. Take the books.

Empirical generalization: for languages that have some form of inflectional number marking NP-internally there are environments where it is obligatory

2.   NUMBER SEMANTICS/NUMBER MORPHOLOGY

Two ways of obtaining a plurality: cardinals higher than one (vague numerals included) and the star operator

Usual views (Montague 1974, Bennett 1974, Barwise and Cooper 1981, Scha 1981, van der Does 1992, 1993; Partee 1986; Link 1987, Verkuyl 1993, Landman 2003): cardinals combine with plural NPs

My view (also Ionin and Matushansky 2006, [submitted]): **cardinals combine with semantic singulars**

2.1. Evidence for the non-plurality of the lexical NP in numeral NPs

Morphological: no plural marking in **compounds** in any language where I looked (data from Ionin and Matushansky [submitted]):

(7) a. een drie maanden lang voettocht   attributive adjective: Dutch vs. English
           a   three month.PL   long   trek
           a three-month long trek

    b. a three-year/*years-old girl

(8) a. een drie- duim -(*en) -s- plank   compounding: Dutch vs. English
           a   three   inch   PL   LKR   board
           a three-inch board

    b. five-inch/*inches nails

(9) a. a four-legged/*legsed animal   morphological derivation
    b. a five-person/*people vehicle

(10) a. twee- maand -(*en) -ig   ⇐ *twee maanden* 'two months'   Dutch
           two   month   PL   ADJ
           of two months

    b. drie- arm -(*en) -ig   ⇐ *drie armen* 'three arms'
           three arm   PL   ADJ
           three-armed

    c. de een/zes- daag -s -e oorlog   ⇐ *een dag* 'one day'/*zes dagen* 'six days'
           the one/six day   ADJ ɸ war
           the one/six-day war

(11) a. trëx- sekund-n-yj   ⇐ *tri sekundy* 'three seconds'   Russian
           three second-ADJ-ɸ
           three-second

    b. trëx-   čas-ov-oj   ⇐ *tri časa* 'three hours'
           three.GEN hour-ADJ-ɸ
           three-hour

    c. soroka- nog- ij   ⇐ *sorok nog* 'forty legs'
           forty.GEN leg   -ɸ
           forty-legged

Ruys [to appear]: no real plural for **measure nouns**; plural of abundance only:

(12) a. Jan dronk liters wine.   Dutch, Ruys [to appear]
           Jan   drank   liter.PL wine
           Jan drank excessively many liters of wine.

    b. The kids ate pounds of cake during the birthday party!

Morphological plural obviously fine with numeral NPs

Singular marking in plural numeral NPs (obligatory or optional) in the absence of general number (e.g., Finnish, Welsh, etc.):
NB: Contrary to Haspelmath 2005, Itzaj Maya has general number – see Hofling 2000:408, exx)

(13) a.   nük'-er   Lezgian, Haspelmath 2011:232
            bird-PL
            birds

      b.   c'ud nük'-(*er)
            ten   bird-PL
            ten birds

Plural marking conditioned by specificity in numeral NPs and apparently unconditioned elsewhere:

(14) a.   lumma   lumma-gh-āk   Brahui, Andronov 1980:36
            mother   mother-AUG-PL
            mother   *mothers*

      b.   irā bandagh(*-āk)
            two person-PL
            two people

      c.   'amē   bīstangā bandagh-āk
            those twenty   person-PL
            those twenty people

Theories assuming that cardinals combine with plurals cannot explain these data

2.2. Against a semantic theory for the lack of plural marking with higher cardinals

Three types of approaches:

> cardinals combine with semantic plurals which fail to be marked as such (Farkas and de Swart 2010, Scontras 2013)

> cardinals combine with morphologically unmarked number-neutral NPs (Bale, Gagnon and Khanjian 2011)

> cardinals combine with semantic atoms (Ionin and Matushansky 2006, [submitted]), number marking is a result of agreement

2.2.1. The failure of plural marking

Farkas and de Swart 2010: plural marking is ambiguous, singular marking is number-neutral, including both sums and atoms (i.e., as if the star operator has applied to it):

(15) a. $[\![\text{plural}]\!] = \lambda{*}P \, \lambda x \, [x \in \text{Sum} \cup \text{Atom \& } {*}P(x)]$ inclusive plural
      b. $[\![\text{plural}]\!] = \lambda{*}P \, \lambda x \, [x \in \text{Sum \& \& } {*}P(x)]$ exclusive plural

The choice of the meaning and/or the form is determined optimal-theoretically: re: cardinals, in essence, some languages require plural marking on the noun in all plural NPs while others don't

Scontras 2013: number-marking with cardinals may reflect "relative atomicity"

Both proposals: cardinals always combine with plurals

Empirical problem: **varying number-marking in function of individual cardinals**

Standard Arabic: the paucal cardinals (3-10, plural) vs. the higher cardinals (singular):

(16) a.   ʔarbaʕ-at-u   rijaal-in   Standard Arabic, Zabbal 2005
            four-FSG-NOM man.PL-GEN
            four men

    b.   ʔarbaʕ-u   banaat-in
          four-NOM   girl.PL-GEN
          four girls

(17) a.   xamsuuna   rajul-a   Standard Arabic, Zabbal 2005
          fifty   man-ACC
          fifty men

    b.   miʔat-u   rajul-in
          hundred-NOM   man-GEN
          a hundred men

Scottish Gaelic: the paucal cardinals (3-10, plural) vs. all others (singular):

(18) a.   fichead cù   Scottish Gaelic, Greene 1992:532
          twenty   dog
          twenty dogs

    b.   an   dà   leabhar/*leabhraichean   Scottish Gaelic, Adger 2010:341-342
          the   two book/book.PL
          the two books

Possibility: different structures (and semantics?) for different cardinals (cf. Danon 2012)

Won't work for Scottish Gaelic: when the paucal cardinals combine with the cardinals *fichead* 'twenty', *ceud* 'hundred' and *mile* 'thousand', as well as certain nouns, these remain singular (Greene 1992: *dusan* 'dozen', *duine* 'person', *latha* 'day' and *bliadha* 'year'; for a more precise dialectal survey see Ó Maolalaigh 2013)

2.2.2. Semantic solution: general number

Language-internal variability in number marking with cardinals poses a problem also for Bale et al. 2011, posing two different lexical entries for each cardinal to account for the optionality of plural marking with cardinals in Western Armenian:

(19) For general number NPs (singular marking):
      $[\![two]\!] = \lambda P . \{x : x \in P \ \& \ \exists Y(Y \in \text{PART}(x) \ \& |Y|=2 \ \& \ \forall z(z \in Y \rightarrow \text{ATOM}(z)))\}$
      where PART (x) is a partition of x and ATOM (x) is true if x is an atom

(20) For plural NPs (plural marking):
      $[\![two]\!] = \lambda P_{pl}.\{x : x \in P_{pl} \ \& \ \exists Y(Y \in \text{PART}(x) \& |Y|=2 \ \& \ \forall z \ (z \in Y \rightarrow z \in \text{MIN}(P_{pl})))\}$
      where MIN (P) returns a set of *atomic minimal parts* of P, i.e., of the smallest possible aggregates that do not share any parts with other members of P

Plural marking in Western Armenian is **conditioned by specificity**, which is not compatible with a semantic approach:
Bale and Khanjian 2014 discuss the fact that in definite plural numeral NPs singular marking is not possible, yet are strangely silent on the topic of the semantics of cardinals, tinkering instead with the semantics of the definite article

(21) a.   kəsan   usanoʁ   kənutenəmə   caxoʁe-c-av   WA, Sigler 1996:167-168
          twenty   student   exam.ABL.A   fail-AOR-3SG
          There failed an exam twenty students.

    b.   kəsan   usanoʁ-ner   kənutenəmə   caxoʁe-c-an/*caxoʁe-c-av
          twenty   student-PL   exam.ABL.A   fail-AOR-3PL/3SG
          Twenty students failed an exam.

     c.   kəsan   usanoʁ-*(ner)-ə   kənutenəmə   caxoʁe-c-an
           twenty   student-PL-DEF   exam.ABL.A   fail-AOR-3PL
           The twenty students failed an exam.

The **role of specificity** is not discussed by Farkas and de Swart 2010 either, and cannot be accounted for without additional assumptions

Furthermore, number-marking can be influenced by **animacy** (in Palauan (Josephs 1997)); in Miya: in numeral NPs only (Schuh 1989, 1998)), by **humanity** (in Vai: except in numeral NPs (Welmers 1976:45)), by **gender** (in Estonian Swedish (Rendahl 2001:156, Koptjevskaja-Tamm and Wälchli 2001:701): only feminine nouns are overtly marked plural in numeral NPs), and by **measure** in Dutch (Klooster 1972): most measure nouns are not marked plural in numeral NPs:

(22) a.   kangkodang 'tourist' – rękangkodang 'tourists'   Palauan, Josephs 1997:43
       b.   babier 'letter' – *rębabier

       c.   a   (rę)tęlolęm ęl   chad
           ART PL six   LNK   person
           six people

(23) a.   ná tìɛ̀   fɛ̀'ɛ̀.   Vai, Welmers 1976:45
           I   chicken saw
           I saw a chicken/chickens.

       b.   ná tìɛ̀   nú   fɛ̀'ɛ̀.
           I   chicken PL   saw
           I saw some/various chickens.

       c.   ná mùsú   fɛ̀'ɛ̀.
           I   woman saw
           I saw a woman.

       d.   ná mùsú   nú   fɛ̀'ɛ̀.
           I   woman PL   saw
           I saw women.

(24) a.   tri   mann   Estonian Swedish, Koptjevskaja-Tamm and Wälchli 2001:701
           three man.M.SG
           three men

       b.   fem   bärkiar
           five   birch.F.PL
           five birches

(25) a.   drie/vijf/dertig   kilo/*kilo's   Dutch, Matushansky and Ruys 2014
           three/five/thirty kilo.G/PL
           three/five/thirty kilos

       b.   drie/vijf/dertig   dozen/*doos
           three/five/thirty box.PL/SG
           three/five/thirty boxes

Irish (Acquaviva 2008): the reverse pattern: while singular is the default for cardinals 3-10, apparent plural is allowed for some measure nouns:

(26) a.   trí/ceithre/cúig/sé chat   Irish, Acquaviva 2008
           three/four/five/six cat.SG

       b.   seacht/ocht/naoi/deich gcat
           seven/eight/nine/ten   cat.SG

For some nouns the adnumerative (distinct from the plural) is used (Acquaviva 2008, Stenson 2008).

(27) a.   ceithre   seachtainí/*seachtain   Irish, Stenson 2008:79
            four   week.PL/*SG
            four weeks

      b.   trí   bliana/*bliain/*blianta
            three   year.ADN/*SG/*PL
            three years

The apparent plural may simply be the adnumerative (cf. Nurmio and Willis 2015 for Welsh)

2.2.3. Summary

Plural-marking can fail in numeral NPs. Several approaches:

- ➢ cardinals combine with semantic plurals which fail to be marked as such (Farkas and de Swart 2010). Problems: measure nouns have no plural; marking failure in function of the chosen cardinal and the chosen noun
- ➢ singular number marking reflects not atomicity, but minimality (Scontras 2013). Problems: same
- ➢ cardinals combine with morphologically unmarked number-neutral NPs (Bale et al. 2011). Problems: the conditioning effect of definiteness, specificity, humanity, animacy, gender and measure; marking failure in function of the chosen cardinal and the chosen noun
- ➢ cardinals combine with semantic singulars/atoms (Ionin and Matushansky 2006, [submitted]), number marking is a result of agreement. Problem: conditioned agreement

Answer: plural marking is conditioned by the same factors in regular NPs **and in agreement with plural NPs** (Smith-Stark 1974, Corbett 2000, Haspelmath 2005)

3.   THE SYNTAX OF NP-INTERNAL NUMBER AGREEMENT

Starting with languages that unquestionably have plural and do not have general number

3.1. Dutch (after Matushansky and Ruys 2014)

Measure nouns are the only nouns that fail to bear plural marking with cardinals higher than one:
N.B.: the classifier *stuk* requires plural marking; like *man*, not a measure noun, since it can combine with mass NPs only

(28) a.   Jan   heeft twee **kilo(*'s)** pruimen gekocht.   Dutch, Doetjes 1997
            Jan   has   two   kilo (PL)   plums   bought
            Jan bought two kilos of plums.

      b.   Jan   heeft twee **zak*(ken)** pruimen gekocht.
            Jan   has   two   bag (PL)   plums   bought
            Jan bought two bags of plums.

...despite being plural, as shown by adjectival agreement and the choice of the determiner:
Dutch attributive agreement surfaces on definite, plural or common NPs, indicating that (29), which is indefinite and has a neuter lexical head, is plural

(29) a.   een **dikke/*dik**   vijf   pond
            a   fat.PL/fat   five   pound.NSG
            a good five pounds

      b.   **deze/*dit**   vijf   pond   sterling/ brood/   bonen
            this-PL/SG   five   pound.NSG sterling/ bread.NSG/ beans
            these five pounds sterling/pounds of bread/pounds of beans

The morphological plural exists (but cannot be used with cardinals as a measure noun):

(30) a.   kilo's   en kilo's   zand
            kilo.PL   and kilo.PL   sand
            kilos and kilos of sand

      b.   Die   kilo's   die ik ben aangekomen zitten voornamelijk op   mijn   heupen.
            the   kilo.PL   that I am gained   sit.PL mostly   on   my   hips
            The kilos that I have gained are mostly on my hips.

      c.   Kilo's   zijn zwaarder dan   ponden.
            kilo.PL   are   heavier   than pound.PL
            Kilos are heavier than pounds.

Indefinite measure phrases must trigger singular agreement on the verb:

(31) a.   Er   werd/*werden vijf pond   uitgegeven   aan kleren.
            there AUX.SG/PL   five pound.NSG   spend.PPP   on clothes
            £5 were spent on clothes.

      b.   Er   liggen/*ligt drie   boeken   op   tafel.
            there lie.PL/SG   three books   on   table
            There are three books on the table.

Possibility: agreement failure or expletive in the subject position

Problem 1: does not predict **optionality in NP-external plural marking** for measure NP:

(32) % Deze   vijf   pond bonen **ligt/liggen**   me zwaar op   de   maag.
        this.PL five   pound beans lie.SG/PL   me heavy on   the   stomach
        These five pounds of beans are hard for me to stomach.

Major (though not the only) facilitating factor: plural complement

Problem 2: does not predict NP-internal singular marking
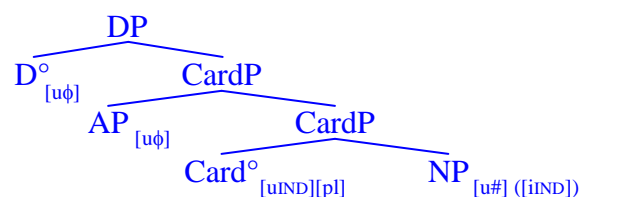
Doetjes 1997: measure nouns are classifiers

Mathieu and Zareikar 2015: two positions for plurality -- the dividing plural and the counting plural, the latter is responsible for number marking on measure nouns

3.2.   Number marking on the noun as agreement

Core assumption: nouns are specified for an uninterpretable number feature ([u#])

Dutch: measure nouns are non-individuated (do not bear the lexical [α individuation] feature, with the exception of a couple of nouns (*maand* 'month', *jaar* 'year', etc., see Klooster 1972)

(33)   DP   Dutch

        D°_{[uφ]}   CardP

              AP_{[uφ]}   CardP

                    Card°_{[uIND][pl]}   NP_{[u#] ([iIND])}

Cardinals probe for the uninterpretable counterpart of the individuation feature, establishing, in the case of success, an agreement relation that is exploited to value the number feature on the noun

Further evidence for uninterpretable number on nouns: nominal predicate agreement:

(34) a.   Jan en Karel spraken als dominee.   Dutch, de Swart, Winter and Zwarts 2007
        Jan and Karel spoke as vicar
        Jan and Karel spoke in their capacity of vicar.

     b.   Jan en Sofie zijn leraar.
        Jan and Sofie are teacher
        Jan and Sofie are teachers.

The contrast between the English and Dutch is inexplicable if the number feature on nouns is interpretable

For Miya the triggering feature is animacy

Technical possibility: measure nouns specified as [-individuated], inanimate nouns specified as [-animate]

3.3. Persian, Western Armenian and classifier languages

Starting point: the basic denotation of the noun is special
- ➢   Chierchia 1998: kind denotation
- ➢   Borer 2005: mass denotation
- ➢   Rullmann and You 2006, Wiltschko 2008, Bale et al. 2011, Bale and Khanjian 2014: number-neutral denotation (atoms and sums)

Classifiers are necessary to distinguish atoms

In a principled way, only in Ionin and Matushansky 2006, [submitted]

Borer 2005: general number as the basic nominal denotation for **classifier languages**:

(35)   DP   Borer/Mathieu
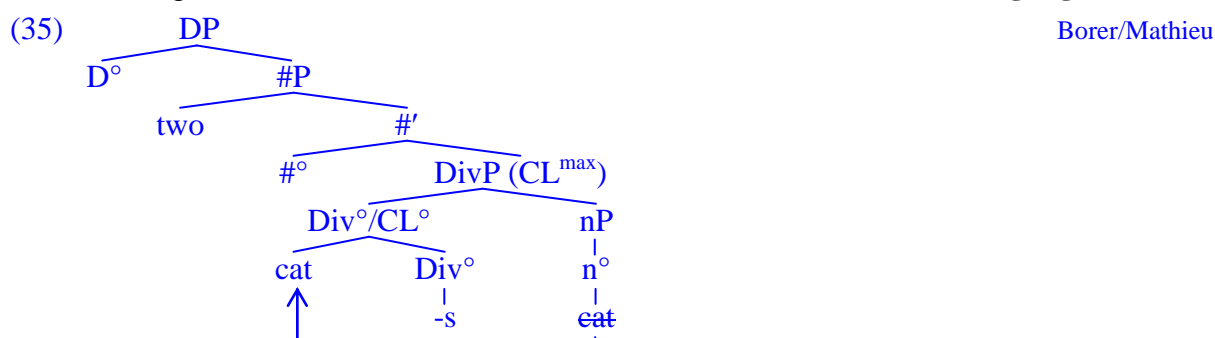
Classifiers and the plural marker compete for the same position, hence their complementary distribution (alternative: Bale and Khanjian 2008):

(36) a.   Yergu hovanoc uni-m.   Western Armenian, Borer 2005:95
        two   umbrella have-1SG
        I have two umbrellas.

     b.   Yergu had hovanoc uni-m.
        two   CL umbrella have-1SG
        I have two umbrellas.

c.   Yergu hovanoc-ner   uni-m.
     two   umbrella-PL   have-1SG
     I have two umbrellas.

d.   *Yergu had hovanoc-ner   uni-m
     two   CL   umbrella-PL   have-1SG

Problem: no complementary distribution in, e.g., Persian:

(37) a.   do ta xahær-ha   Mathieu and Zareikar 2015
          two CL sister-PL
          the two sisters

     b.   do-ta   doxtær-a tu-ye   hæyat-ænd.   Mahootian 1997:193
          two-CL   girl-PL   in-EZ   courtyard-are
          The two girls are in the courtyard.

Mathieu and Zareikar 2015: two positions for plurality -- the dividing plural and the counting plural

My intuition: these are measuring classifiers, not counting ones (cf. the Russian *štuka* 'item', Sussex 1976, Yadroff 1999)

4.   CONDITIONED AGREEMENT

Feature bundling as the key to conditioned agreement: in the absence of the conditioning feature on the target the conditioned feature also does not get a value

Problem with using regular features: For the proposal to work the interpretable feature on the noun (animacy for Miya, individuation for Dutch, etc.) has to be privative, but its counterpart on the probe (the cardinal in Miya or Dutch) should be binary, as privative features cannot be unvalued

Solution: differentiation (Δ-feature), which is formal and derived from interpretable features on the goal

(38)   FP
              F°   NP
               [uΔ][u#]   [i#] ([$\alpha\Delta$])

For Dutch: [individuation] $\rightarrow$ [+Δ]

Support:
  ➢   different differentiation features for different bundles (Vera'a, Schnell 2012)
  ➢   difference feature clusters giving rise to the Δ-feature (Palauan (Woolford 1995), Ruwund (Woolford 2001)).

Alternative: a more structured approach to features à la Harley and Ritter 2002, with number as a dependent of individuation, animacy, etc. -- essentially, a notational variant

5.   SUMMARY AND QUESTIONS

For languages with optional plural marking on nouns the general number/number neutrality hypothesis cannot explain why plural marking can become obligatory in the presence of some formal feature

The relevant features are the same as those that condition agreement elsewhere and give rise to Differential Subject/Object Marking (Aissen 1999, 2003, Bossong 1983-1984, 1991)

Assuming that in genuine classifier languages (Japanese, Chinese, Korean) bare nouns have to be number-neutral, the plural marker has to be DP-external

If it is presuppositional, how is it conditioned, e.g., by animacy?

Plural words definitely can be

Assuming a contrast between inflectional and lexical plurality (Kwon and Zribi-Hertz 2004) requires an explanation for why the conditioning factors are the same

6.   APPENDIX: MIYA

Number-marking in numeral NPs and number agreement both conditioned by animacy:

(39)   a.   níykin   dzáfə   Miya; animate: number agreement
            this.PL   man.PL
            these men

       b.   níykin   təmakwìy
            this.PL   sheep.PL
            these sheep

(40)   a.   nákən   víyayúw-awàw   Miya; inanimate: gender agreement only
            this.MSG   fireplace.MPL
            these fireplaces

       b.   tákən   tlərkáy-ayàw
            this.FSG   calabash.FPL
            these calabashes

(41)   a.   tə̀vam   tsə́r   Miya, animate: obligatory number marking
            woman.PL   two
            two women

       b.   zə̀kij (-áyàw)   vaatlə   Miya, inanimate: optional number marking
            stone -PL   five
            five stones

7.   BIBLIOGRAPHY

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