Two Numbers for Romance: -a plurals in Italian
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Abstract. This note argues for an articulated representation of number in Romance languages. Specifically, I argue that number is merged in \( n \) in Italian, though it is merged in Num in Western Romance languages with -\( s \) plurals. Evidence comes from Italian -\( a \) plurals, which are associated with idiosyncratic meanings and select their own gender (feminine). Both properties characterize low (here \( n \)) plurals in other language families, notably the Afro-Asiatic one.

Keywords: number, gender, plural, mass, \( n \)

1.  \( n \) and Num plurals in Romance

The work of Borer (2005, 2013) on NP and especially on number has been very influential in the generative field. Recently, in collaboration with Ouwayda, she has dealt with Arabic number (and gender), proposing a representation of morphosyntactic number partitioned between her categories Div and # (Borer and Ouwayda 2021). Works in formal syntax arguing for a layered view of number go back at least to Wiltschko (2008), according to whom English realizes the dedicated Num position, but in Halkomelen Salish, number is represented in a lower position, adjoined to the root. More directly relevant for present purposes, several scholars conclude that in Afro-Asiatic languages, number can distribute between a dedicated position Num and the position otherwise taken by gender, say \( n \), see Lecarme (2002) for number in \( n \) in Somali, Larouchie and Lampitelli (2015) on Arabic and Somali, Kramer (2016) on Amharic, Landau (2015) on Hebrew.

Current treatments of Romance do not recognize a similar complexity in the Romance N. In fact, the same authors already quoted, when writing on Romance, keep to a conventional picture with a gender (\( n \)/Class) node and a higher dedicated Num node (Picallo 2008, Lampitelli 2014, Kramer 2015). Where a double plural is recognized, one of the two is treated as lexical, see Acquaviva (2008) on Italian -\( a \) plurals. In this section, I argue in favour of a double-layered representation of number in Romance. I return to -\( a \) plurals in the next section.

As is well-known, in languages like Spanish, the dedicated -\( s \) morphology externalizing plural is added to the gender/inflectional class vowel, as in (1b). On the other hand, in languages like Italian (1a), vocalic inflections externalize both gender and number.

\[(1)\]
\[
\begin{align*}
\text{Italian} & \\
a. & \text{ragazz-o/a} & \text{a’.} & \text{ragazz-i/e} \\
 & \text{kid-M/F} & & \text{kid-MPL/FPL} \\
\text{Spanish} & \\
b. & \text{niñ-o/a} & \text{‘} & \text{b’.} & \text{niñ-o/a-s} \\
 & \text{child-M/F} & & \text{child-M/F-PL}
\end{align*}
\]

According to Manzini and Savoia (2017, 2018b, 2019), Italian plurals are represented in the \( n \)/Class position together with gender. By contrast, the -\( s \) dedicated plural of Spanish is an exponent of Num. For Spanish, structures of the type in (2) for examples like (1b) are standard (Picallo 2008, Kramer 2015, cf. also Harris 1991). Gender, represented here in an approximate fashion by the thematic vowel (Oltra-massuet and Arregi 2005 for more detailed discussion), is associated with the

\[1\] I spent very formative years in the same places as Hagit, first at MIT and then at UC Irvine, where Ken Wexler and Peter Culicover also worked. I didn’t drive, but I could always count on a ride with Hagit to LA, where I stayed more than once at her place or at the place of Nina Hyams and Osvaldo Jaeggli. This contribution is a small token of appreciation for her more recent work.
nominalizing \( n \) head. Plural is associated with a specialized Num category.

\[
(2) \quad [\text{Num} \ [n \ [N \text{ niño} \ o]s]]
\]

The structure of \( N \) in Italian is less often considered in the generative literature. Nevertheless, the fact that thematic vowels encode both gender and number suggests that the structure of (1a) is as in (2b), with plural realized in \( n \) (see Kučerová 2018 for an independent proposal along the same lines).

\[
(3) \quad [n \ [N \text{ ragazz} i]]
\]

The analysis in (2)-(3) is supported by the existence of Romance languages where the two plural inflections (namely the vocalic plural of Italian and the -\( s \) plural of Spanish) can combine, for instance Friulian in (4). (4a-b) illustrate the feminine plural, (4d) illustrates the masculine plural. (4c) provides just one piece of comparison data, namely with the feminine singular.\(^2\)

\[
(4) \quad \text{Montereale (Friulian)}
\]

\begin{enumerate}
\item \[l-i \ bjei i \ femin-i-s \]
\quad the-PL nice-PL woman-PL-PL
\quad ‘the nice women’
\item \[l-i \ femin-i-s \ vetf-i-s \]
\quad the-PL woman-PL-PL old-PL-PL
\quad ‘the old women’
\item \[l-a \ altr-a femin-a \]
\quad the-F other-F woman-F
\quad ‘the other woman’
\item \[ke-i bje-i \veta-s \ vetf-u-s \]
\quad that-PL fine-PL man-PL old-M-PL
\quad ‘those fine old men’
\end{enumerate}

Given the availability of both a lower vocalic number slot in (3) and of a higher consonantal number slot in (2), one may expect that both slots may be realized at the same time. Friulian instantiates this prediction, along the lines of (5).

\[
(5) \quad [\text{Num} \ [n \ [N \text{ femen} i] s]]
\]

The conclusions embodied in (3) and (5) are not generally accepted in the formal literature. Rather alternative treatments of languages like Italian or Friulian have often been proposed. Lampitelli (2014) argues that Italian plurals have a structure similar to that of Spanish (2), though in Italian gender (\( n \)) and number (Num) are lexicalized by phonological elements, in the sense of Government Phonology. The surface result is therefore a single vocalic morpheme. For instance, feminine plural -\( e \) in (1b’) results from the phonological combination of gender morphology -/A/ (in \( n \)) with number morphology -/I/ (in Num). In other words, the phonological derivation replays the historical origin of Italian -\( e \) from Latin -ae /ai/.\(^3\)

\(^2\) Extensive discussion of these data is provided by Manzini, Baldi and Savoia (2018, 2020), Savoia, Baldi and Manzini (2018, 2019), who focus on the distribution of the different plural morphemes in (3): -\( i \), -\( s \) and -\( i-s \). It is evident from the examples in (4) that Ds exclude -\( s \), while N and postnominal modifiers require it. They propose that the relevant structural distinction can be formulated in terms of phases. Adapting their ideas slightly, the opposition is between the complement of the \( n \) phase head (N and postnominal modifiers) vs. the \( n \) head and its edge (D e prenominal modifiers).

\(^3\) This matching of formal derivation and external history is not necessarily wrong, but should be viewed with some caution, since there is no principled reason to expect that the internal working of the grammar should recapitulate historical change.
Note however that Lampitelli’s analysis does not cover the Friulian evidence (3). In his analysis, both -i and -s ought to be in Num, when occurring by themselves. Therefore -is must be treated as a third distinct morphology in Num. Alternatively, Bonet (2018: 19) suggests that in Friulian, “the vowel -i that appears in the plural is… an allomorph of [feminine] which surfaces only in the context of [plural]”. However, this approach fails to take into account the fact that -i by itself lexicalizes plural with determiners and prenominal adjectives. Therefore, again, there are two different endings -i, one in Num and one in n, the latter combining with -s in Num. Though the argument is slight, we can conclude the optimal lexicon is that corresponding to the present analysis in (3) and (5).

Before considering -a plurals, it is worth stopping a moment to consider why the literature generally favours the Spanish structure for all Romance languages. The basic reason seems to be an assumption of Uniformity at the SEM interface to the effect that “the same meaning always maps onto the same syntactic structure”, in the formulation of two of its critics (Culicover and Jackendoff 2005: 6). Concretely, since there is no doubt that all of the plurals exemplified so far in Spanish, Italian and Friulian all have the same semantics, on the basis of Uniformity one would expect the same syntactic representation to hold. Here I am assuming a weaker picture of the SEM interface, namely the classical autonomy of syntax one. Under this view, we simply expect “the grammar to be able to support semantic description” (Chomsky 1957). Therefore, syntax may only partially predict semantics, and vice versa – as long as consistence can be shown to hold. Many-to-many mappings are expected, namely same meaning to several structures – and vice versa, same structure to several meanings (i.e. ambiguity). Concretely, there is no reason why the same count plural interpretation could not be realized via different syntactic positions, as indeed in (2)-(3).

2. Italian -a plurals as n plurals

In addition to the plurals illustrated in (1), which I shall refer to as regular plurals, Italian has -a plurals, with quite distinct characters, listed in (6).

(6) Properties of Italian -a plurals
   a. Partial productivity
   b. Semantic idiosyncrasies
   c. Selection of gender

To begin with, regular plurals attach to all count singulars, with predictable morphological results (-o → -i etc.). The semantic is also stable in the sense that an atomic count singular yields a count plural denoting a set. Plurals in -a are different in both respects. They are possible only with a small subclass of Ns, which very often also have a regular plural, cf. (7a-b). Furthermore, the resulting meaning is effectively unpredictable, since it may be a mass plural as (7a), or a collective plural (e.g. walls, of a city), but it may also be a regular count plural, as in (7b-c). The closest one may get to a consistent semantics for -a plurals is that they denote “a plurality of weakly differentiated parts” (Acquaviva 2008), assuming this to apply notably to body parts (7b), to food stuffs (7c), to measures (e.g. miles, hundreds etc.).

(7) Italian
   a. il cervell-o/ i cervell-i
      the.MSG brain-MSG/ the.MPL brain-MPL
      ‘the brain’/‘the brains’ (e.g. ‘I dissected one brain/three brains’)
   a’. l-e cervell-a

A strong Uniformity assumption is at the basis of cartography, predicated on the “syntacticization of semantics” according to Cinque and Rizzi (2009) – a framework often adopted for analyses of Italian and Romance.
The other notable characteristics of -a plural, which is immediately evident upon inspection of the examples in (7), and which differentiates them from regular plurals, is that they trigger a change of grammatical gender. Thus the lexical base is masculine in the singular in (7) but feminine in the -a plural, as indicated by the unambiguously feminine plural morphology of determiners agreeing with N.

The semantic and syntactic idiosyncrasies associated with -a plurals have received some attention in the formal literature, notably by Acquaviva (2008: 157-158), who argues that -a plurals are a piece of derivational morphology (a “lexical plural” in his terms). Acquaviva justifies his conclusions empirically, testing for instance agreement of an -a plural with floating each. The judgements of Acquaviva and his informants is that the masculine gender of the lexical base is not licenced in this context. According to Loporcaro and Paciaroni (2011), however, for many speakers both feminine and masculine agreement are possible; Manzini and Savoia (2018b, 2019) agree with the less restrictive judgement. Importantly, these latter authors widen their discussion from standard Italian to Center-South Italo-Romance varieties where -a plurals are more productive, i.e. they involve a larger class of lexical bases. As the evidence has been discussed more than once, I do not reproduce it here, but accept the conclusion both of Loporcaro and Paciaroni and of Manzini and Savoia. Therefore I assume that -a plurals correspond to an inflectional process.

On the other hand, I reject purely morphological conceptions of -a plural in terms of an additional inflectional class (Thornton 2010-11, Loporcaro and Paciaroni 2011). For example, Loporcaro and Paciaroni propose that languages like Italian have not only the traditional genders (masculine, feminine), but also an additional gender, defined by the alternation of masculine in the singular and feminine in the plural, namely what they call a genus alternans (alternating gender). Manzini and Savoia (2017, 2018b) show that gender switch is not a necessary correlate of -a plurals, since -a plurals are found in Calabrian varieties where masculine and feminine gender are distinct only in the singular (not illustrated here). In short, -a plurals do not depend on gender. Rather, they are a number phenomenon, with gender switch (to the feminine) as a possible byproduct, not a necessary one.

Furthermore, Manzini (2020) points out that idiosyncratic meaning (e.g. mass, collective) and triggering of (feminine) gender are properties also associated with some classes of plurals in Afro-Asiatic languages. 5 In the relevant literature (Larouchie and Lampitelli 2015, Kramer 2016),

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5 Another notable property of low plurals in Afro-Asiatic languages is that they may trigger plural agreement within the DP but singular agreement with the predicate. To respond to this kind of data in Slavic languages Wechsler and Zlatic (2000) introduce a distinction between Concord features (relevant for DP-internal Agree) and Index features (relevant for sentential Agree). Interestingly, Landau (2015) proposes to reconstruct this contrast in terms of a configurationally lower Concord number (in n) and a configurationally higher Index number (in Num). Agreement data of the relevant kind are considered by Manzini and Savoia (2018a), Manzini (2020) in relation to Albanian, not discussed here.
these properties have been related to plural being merged in the same position as gender (n, Class, etc), as opposed to the specialized Num position – i.e. to the existence of low as opposed to high plurals. But recall that in section 1, we independently concluded that Italian plurals are generally represented in n. Therefore, we may view the fact that Italian has n plurals as a necessary precondition for the existence of the class of -a plurals displaying the properties in (6) and provisionally associate -a plurals simply with the structure in (8), similar to that of regular plurals in (3).

(8) \[n \ [\text{[N uov]} \ a]\]

I return to the discussion of structure (8) in the next section. In the meantime, an obvious possible objection needs to be taken care of. By hypothesis, all Italian plurals are low plurals, cf. (3) above. But of course only -a plurals display the properties in (6). Now, even in Afro-Asiatic languages, many low plurals have perfectly regular meanings and gender selection (Kramer 2016). In other words, the properties in (6) are possible, not necessary properties of low plurals. Therefore the fact that most Italian plurals are perfectly regular meaning-wise and gender-wise is compatible with their low treatment.

Vice versa, the objection can be turned into an argument in favour of the present line of analysis. While (6) are possible properties of low plurals, languages with high plurals certainly exclude them. A clear prediction follows for Romance, namely that Western Romance languages with -s plurals (cf. Spanish (2)) could not have the equivalent of the Italian -a plural class. This is not to say that there couldn’t be some morphological means to effect similar interpretive results as that achieved with Italian -a plurals. We just predict that these means do not involve number – correctly.

Relevant evidence is provided by Sursilvan (Romansh) varieties, as reported by Manzini and Savoia (2017). Sursilvan has regular plurals formed with -s. Thus, the masculine singular N ma ili ‘apple’ in (9a) has the regular -s count plural mail-t-s ‘apples’ in (9b). At the same time, the collective interpretation that is sometimes associated with -a plurals in Italian is also available in Sursilvan, and it is again available with an -a inflection. The latter however yields a feminine singular N mail-a ‘apple set’, as in (10). Like -a plurals in Italian, the alternation in (9)-(10) is partially productive in Sursilvan and it involves a compatible lexical class, including notably body parts (e.g. bratf-a ‘arm set’, det-a ‘finger set’) and food items (e.g. per-a ‘pear set’ etc.).

(9) Vattiz (Lumnezia Valley, Sursilvan)
   a. in ma ili a.MSG apple
   b. kwel-s mail-ts ai-n marf-s
      that-PL apple-PL be-3PL rotten-PL
      ‘Those apples are rotten’

(10) a-a mail-a ai marf-a
      the-FSG apple-FSG be.3SG rotten-FSG
      ‘The apples are rotten’

The crucial point here is that Sursilvan provides some sort of minimal pair with Italian. Both languages have a partially productive class of mass-like/collective nouns (body parts, food items etc.) obtained by an -a inflection in n.\(^6\) In both languages, the relevant lexical bases have a regular atomic singular and a regular count plural which are masculine – while the mass-like/collective meaning involves feminine gender. The difference between the two languages is that in Italian the massifier/collectivizer -a is a plural, determining plural agreement in the DP and with the predicate.

\(^6\) From an external point of view, both the Italian and the Sursilvan phenomenon are historically connected to the Latin -a neuter plural (e.g. Latin brachi-a ‘arms’ etc.).
On the contrary, in Sursilvan, massification/collectivization is obtained via -a morphology, again involving gender switch, which is not plural. It is safe to conclude that it is not the lack of suitable morphological means that blocks the surfacing of something similar to Italian -a plurals in languages like Sursilvan. It is a structural constraint, namely the fact that Sursilvan activates plural only in Num. No such structural explanation is possible under accounts of Romance where plural is always realized in Num. We therefore have a second argument, independent of that in section 1, in favour of a layered morphosyntax of number in Romance and specifically of the presence of n plurals in languages like Italian.

Let me summarize so far. In general, the layered picture of number may correspond to the fact that number interfaces with at least two different sets of syntactico-semantic properties. On the one hand, number is part of the classification system of natural languages via the count/mass distinction, just like gender. On the other hand, number affects the interfacing of the DP with the event – for instance, multiple participants may also imply a multiplicity of events. Most Romance languages manage with a single number category and those that lexicalize both do so redundantly at SEM (Friulian). Nevertheless, the effects of low number are visible in the -a plurals of languages like Italian, and in the absence of similar plurals in Western Romance with number in Num.

3. Structuring -a plurals

The gender selection property of -a plurals provides possible pointers to a refinement of their structure, provisionally given in (8). I follow Higginbotham (1985) in assuming that the lexical base is a predicate (a property) with an open argument that is ultimately satisfied by D. I take genders to be predicates in turn, further restricting the argument open at the root (Percus 2011). For instance, the Italian root for ‘kid’ is compatible with both masculine and feminine specifications, yielding the paradigm in (1a), where gender (interpreted as natural gender) and the animate root intersectively define the referent. At the same time, the assumption is generally made that so-called arbitrary gender is not interpreted – or, as suggested by Manzini and Savoia (2019), Manzini (2020), not compositionally interpreted. In other words, arbitrary gender is an idiom of sorts. Following Acquaviva (2009: 5), I further assume that saying that “a noun has gender X” means that “a root Vocabulary item is licensed in the context of [n] with gender X”. Therefore the n categorizer (and phase head) bears gender, each gender associated with a large class of Roots by selection. In other words, the standard notion of selectional restriction is powerful enough to encode the fact that a certain gender is associated with a certain lexical base and not with others.

Next, we may assume that n number is contained under the same node as gender. Alternatively, low number may be built immediately on top of the Root-gender complex, as shown in (11) for the ordinary plural cervelli ‘brains’ in (7a). The iteration of the n node in (11) is not new. For instance, Déchaine et al (2014) deal with the fact that nominal class morphology in Bantu (specifically Shona) can be stacked, by iterating what they call nominal Asp. In (11) I provisionally note the property introduced by nNum as plural [pl].

(11) N  
    N  
    N cervell-  nClass  [-i]  N  
    nNum  [pl]

A further formal possibility is implied by (11), which we may exploit in order to explain the

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7 The evidence mentioned in fn. 5, and not considered here, seems especially relevant in this respect.
properties of -a plurals in (6). Suppose that number is merged lower than gender, as indicated in (12) for cervella ‘brains (foodstuff)’ or uova ‘eggs’. We may assume that complexes Root-Num force the selection of feminine gender. In other words, the Root does not directly determine gender; rather the pluralized base does so.8

The structure in (12) can also be used as a basis for understanding the other properties of -a plurals in (6), namely selection of a small set of lexical bases and meaning idiosyncrasies. The fact that the meaning of -a plurals is not necessarily predictable from the meaning of the lexical base and the meaning of [pl], i.e. it is not compositional, can be tentatively understood by assuming that the immediate merger of a lexical base with [pl] is a possible idiom. On the other hand, some of theNs chosen for the examples in (6), including uova ‘eggs’ have a perfectly predictable count meaning. This is entirely parallel to gender, where the same morphosyntax covers both natural gender (compositional) and arbitrary gender (idiomatic). Furthermore the alternation in (11)-(12) provides a way to represent the compresence of both regular -i plurals and idiomatic -a plurals with the same lexical bases structurally – without having recourse two different components of morphology, namely derivation and inflection, as in Acquaviva (2008).9

Lastly, we may want to consider briefly what semantic characterization of number, or plural, emerges from the facts and the proposals discussed so far. In Borer’s (2005) widely adopted syntactico-semantic representation of number, plurals and atomic singualrs as represented by the Div category. Mass terms are the default of the system. However, it has been pointed out more than once that plurals may be deployed to denote any divisible entity, whether count or mass (cf. Tsoulas on Greek mass plurals, Fassi Fehri 2018 on Arabic). As an instance of this, -a plurals may turn a count singular like ‘brain’ into a mass plural ‘brains’ or into a collective plural, e.g. mura ‘set of walls (of a city)’. This seems to evoke a different systematization of number, argued for for instance by Arsenjievic (2006, 2016), who introduces a category Part[itive] characterizing both count plurals and mass terms. In these terms [pl] in the representation in (11)-(12) could and should be substituted by [part], as indeed proposed by Manzini (2020).

4. Conclusion

Italian -a plurals provide evidence supporting the conclusion that number in Romance languages can be merged in n (low number), though the -s plurals of Western Romance languages are undoubtedly merged in Num (high number). In other words, the phenomenon of -a plurals is neither purely morphological (Thornton 2010-11, Loporcaro and Paciaroni 2011) nor a matter of lexical derivation (Acquaviva 2008). Rather it is structural – and its basic properties, such as idiosyncratic

8 The Italian examples in (7), may lead to the wrong inference that -a plurals imply masculine bases. This is not so. They can also attach to feminine bases, as can be seen in other Italo-Romance varieties, including Mediaeval Italian, e.g. l’unghia smorte ‘the nails pale’ (Dante, Inferno, 17), cf. feminine singular unghia ‘nail’. Therefore, the only gender present in -a plurals is the feminine above nNum, as in (12).
9 Alternatively, we may call into question the whole derivation/inflection opposition, as Savoia et al (2017) do for evaluative morphology in Italian.
meanings and interaction with gender, reflect the those of low \((n)\) number crosslinguistically, for instance in Afro-Asiatic languages.

References

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