On Breton pluralization

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1 Introduction

When marked for plural number, many Breton nouns can have either one or two
plural morphemes (Trépos 1957). These formations are called the simple and double
plural respectively.[1] Consider the following examples: (1) illustrates a singular form[2],
((2) a simple plural, and (3) a double plural.[3]

(1)   merc'h

        girl

        'girl'

(2)   merc'h-ed

        girl-PL_1

        'girls'

(3)   merc'h-ed-où

        girl- PL_1- PL_2

        'girls'

Simple plurals trigger plural agreement on the verb and get a plural interpretation.
This is illustrated in (4).[4,5]

(4) N'   eo   ket   mat   ar   **merc'h-ed**   –se;   re vihan **int**.

     PCL   is   not   good   the   girl-PL_1 DEM   too little are.3PL

     'These girls aren't good, they are too small.'

When a second plural morpheme is added, the agreement facts and the interpretation remain unaltered, as can be seen in (5).

(5)   N'   eo   ket   mat   ar   **merc'h-ed-où** –se;   re vihan **int**.

        PCL   is   not   good   the   girl-PL_1 DEM   too little are.3PL

        'These girls aren't good, they are too small.'

There seems to be a general consensus on the fact that PL_2 is the realization of regular plural number marking (Anderson 1986, Stump 1989, Acquaviva 2008). The first plural morpheme, however, has been subject to more debate, the conundrum being that it precedes derivation (Anderson 1986, Stump 1989, Acquaviva 2008). Example (6) serves to illustrate this point.

(6)   merc'h-et-a

    girl-PL_1-VERBAL SUFFIX

    'to womanize'

Stump (1989) points out that these facts call into question two firmly established beliefs. Firstly, they seem to falsify the universal that derivation precedes inflection (Greenberg 1963:83), as an inflectional head, viz. number marking, seems to occur inside derivation. Secondly, the Elsewhere Principle as it was formulated for inflection by Anderson (1986) should be modified to accommodate for these facts, as the lexically determined first plural morpheme, which results from a more specific rule, should block the addition of the second, regular plural morpheme.[6] Consequently, a lot is at stake when we try to analyze the Breton simple plural. The central question is whether this phenomenon necessitates a radical rethinking of a number of traditional assumptions in morphology.

Acquaviva (2008) answers this question negatively. He claims that the simple plural does not threaten well-established views on morphology, as the PL_1 morpheme is not marked for the feature [plural]. As such, it is not inflection and does not pose a problem for the claim that derivation precedes inflection, nor should it block the inflectional plural morpheme, that is PL_2. More specifically, he puts forward the idea that the PL_1 morpheme is an instance of derivation itself, more precisely a realization of the categorial head n°.[7] In this paper I show that Acquaviva's proposal cannot account for all the facts regarding the Breton simple plural.

The paper is organized as follows. I first discuss Acquaviva's proposal and its problems. I then propose an alternative according to which the simple plural is a stem allomorph. The last section sums up and concludes.

2 Breton cardinals and plural marking

Acquaviva proposes that PL_1 realizes the categorial head n°. His analysis is illustrated in (7).

(7)   merc'h-ed-où

  girl- PL_1- PL_2

  'girls'
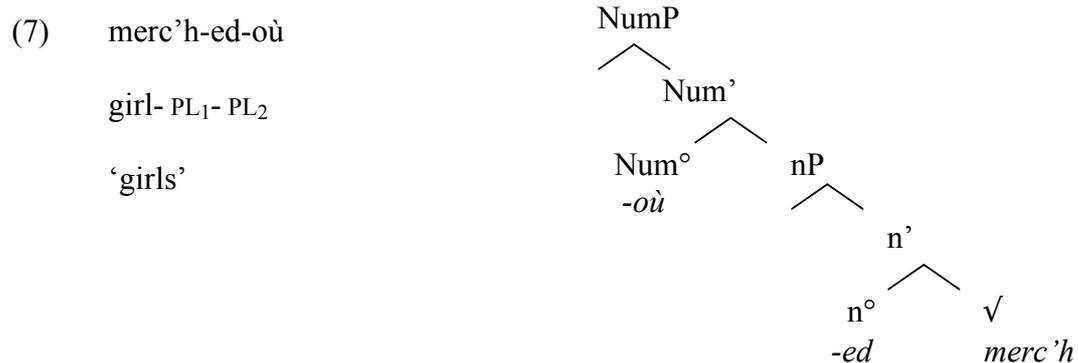
Acquaviva's structure cannot account for the following observation. Cardinals and plural marking are in complementary distribution in Breton. Crucially, this holds for both PL_1 and PL_2. Example (8) shows the licit combination of a cardinal with a

morphologically singular noun, (9) shows that the cardinal blocks the occurrence of the simple plural and (10) illustrates the same fact for the double plural.

(8)   ugent   merc'h

     twenty girl

     'twenty girls'

(9)   * ugent   merc'h-ed

     twenty girl- PL_1

(10) * ugent   merc'h-ed-où

     twenty girl- PL_1- PL_2

Under Acquaviva's approach, it is not clear how one can account for the complementary distribution between a cardinal and a derivational head, that is PL_1. To see this, I will sketch the lines of an analysis and I will show that it cannot be pursued.

The fact that plural marking and cardinals are in complementary distribution has been noted before for other languages, such as Turkish and Hungarian (Corbett 2000, Ortman 2000, Borer 2005). Consider some examples from Hungarian:

(11)   a kalap-ok-at

     the hat-PL-ACC

     'the hats'

(12)   a két kalap-ot

     the two hat-ACC

     'the two hats'

(13)   * a két kalap-ok-at

   the two hat-PL-ACC

Borer (2005:116-117) provides the following analysis for these data. In the absence of a cardinal, the number feature is realized by plural marking. When present, however, the cardinal can realize both the feature [plural][8] and the [#]-feature, that is the feature regularly expressed by quantifiers and which represents a counting function semantically. This analysis is shown in (14).[9]

(14)
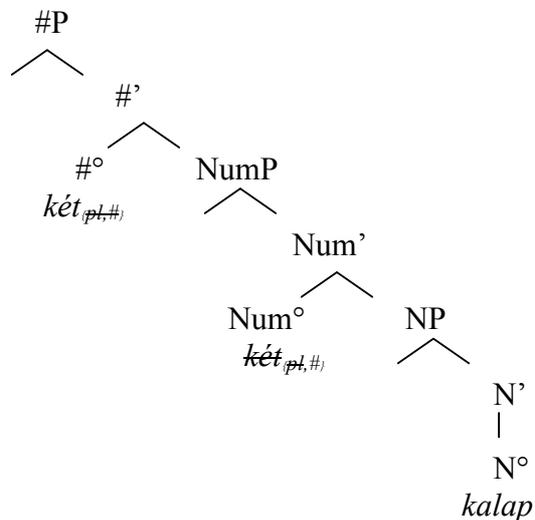
This analysis can be straightforwardly extended to the complementary distribution of PL$_2$ and the cardinal in Breton. Under such a view, the Breton cardinal realizes the feature [plural] before raising to the #° head, thus rendering regular plural marking superfluous in its presence.

What this analysis cannot account for, however, is the fact that PL$_1$ is also in complementary distribution with a cardinal. This does not follow from Acquaviva's proposal. Recall that he suggested that PL$_1$ is an instantation of the nominal categorial head. A cardinal can only be in competition with a nominalizing suffix for insertion under the categorial head under the assumption that it can realize this head. In other

words, we have to assume that Breton cardinals are vocabulary items that can realize both inflectional and derivational heads. Anderson (1992:76) points out that such vocabulary items do not seem to exist. Claiming on an *ad hoc* basis that it does exist for Breton brings us back to the uncomfortable position in which the simple plural cannot be analyzed without giving up otherwise well-established morphological principles. One could of course give up the view that PL_1 realizes a derivational head and analyze it as an inflectional one, thus allowing the cardinal to realize PL_1, PL_2 and #, but that would lead us back to the initial puzzle. Recall that PL_1 occurs below derivational heads (see above, example (6)). Such an analysis would then force us to assume that in Breton inflection can precede derivation, a far from attractive solution.

Summarizing, the complementary distribution between PL_1 and the cardinal remained unexplained under Acquaviva's analysis. More generally, it is not clear how one could derive the fact that the cardinal seems to be in competition with material both below and above the derivational domain.

3 Stem allomorphy

In the previous section I have pointed out that any approach that treats PL_1 as a realization of either an inflectional or a derivational head leads to a dead end. The observation that the cardinal is in complementary distribution with material both below and above derivational heads is problematic for both views. Ideally, the cardinal should only be in competition with material above the derivational domain. This is exactly what I propose in this section. I would like to put forward the idea that the cardinal and the simple plural itself are not in complementary distribution. It is rather the *trigger* of the simple plural which occupies the same position as the

cardinal. More specifically, I propose that Breton has two vocabulary items that can realize PL₂, viz. the regular one *-où* and a zero morpheme.[10,11] Both trigger a stem allomorph, which was previously – and, as I will argue, erroneously – identified as a simple plural.

This mechanism of vocabulary insertion is in line with Noyer (1997) and Embick & Marantz's (2006) proposal, according to which morphemes are in competition for insertion. In Breton two vocabulary items, viz. the zero morpheme and *–où*, are in competition for insertion under the node that realizes plural number marking. Both vocabulary items trigger a morphophonological Readjustment Rule of the stem, which provides the correct stem allomorph. Crucially, the cardinal does not trigger such a stem allomorph, possibly because it does not form a phonological word with the noun. The morphological representations are given in (15)-(17).

(15)   merc'hed-∅

       girl_ALLOMORPH- PL

       'girls'

(16)   merc'hed-où

       girl_ALLOMORPH- PL

       'girls'

(17)   ugent   merc'h

       twenty girl

       'twenty girls'

The derivation of the form with plural marking is given in (18a), the one with a cardinal in (18b).

(18) a.

NumP
  Num'
    Num°   nP
    -où$_{(pl)}$/-Ø$_{(pl)}$ n'
                      n°   √
                           merc'hed

b.

#P
  #'
    #°   NumP
    ugent$_{(pl,\#)}$ Num'
                   Num°   nP
                   ~~*ugent*$_{(pl,\#)}$~~   n'
                              n°   √
                                   merc'h
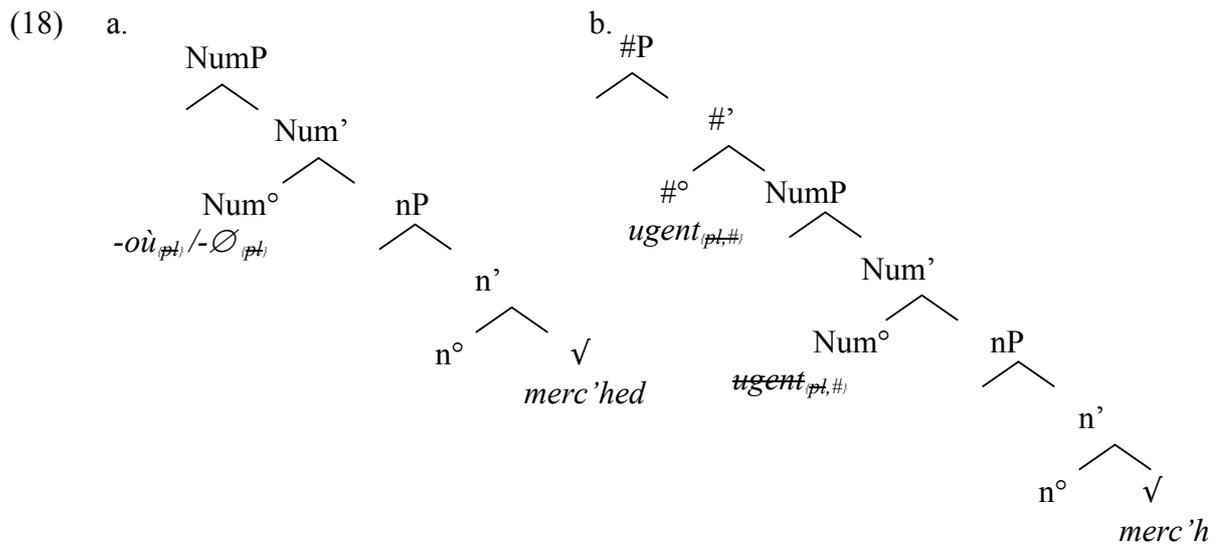
The claim that the simple plural is nothing but a stem allomorph is supported by the following three observations. Firstly, recall that the stem allomorph is not only present under a plural morpheme, but also in derivations in which it can get a non-plural interpretation This property is characteristic of stem allomorphs (Booij 2002). (19) is an example of an alleged simple plural in a derivation[12] which has clearly singular reference. This supports the view that the stem allomorph is not a realization of plural.

(19) ster-ed-enn

  star-PL$_1$-SINGULATIVE

  'individual star'

Secondly, the simple plural always *precedes* derivational suffixes (Stump 1989: 272). This is exactly what we expect; a stem allomorph cannot be broken apart by derivation.

Thirdly, some stem allomorphs do not originate from affixation historically, but from a vowel modification in the stem, that is an ablaut. An example is given below.

(20)   louarn   [singular]

         fox

         'fox'

(21)   lern   [simple plural]

         foxes

         'foxes'

(22)   lern-ed   [double plural]

         foxes-PL

         'foxes'

Needless to say, Indo-European ablaut phenomena are often found in cases of stem allomorphy (Halle & Marantz 1993).

The desirable effects of the analysis under discussion are clear. First of all, all Breton plurals receive the same morphosyntactic structure. Secondly, the simple plural morpheme does not actually realize the feature [plural]. Hence, inflection does not precede derivation in Breton. Thirdly, the Elsewhere Principle is also no longer threatened by these data. As the stem allomorph is but a reflex of the higher plural, it cannot block it. Fourthly, the absence of the simple plural in the presence of a cardinal is accounted for. Finally, it is worth noting that this analysis does not rely on any new or unconventional assumptions. Optionality between an overt plural morpheme and a zero morpheme doing the same job is well attested. A familiar example is given in (23)-(24).

(23)   three fish-$\varnothing$

(24)   three fishes

The fact that phonologically different plural morphemes can trigger the same allomorph is not new either. Consider the following examples from Dutch:

(25)   kinder-en   [Standard Dutch]

        child$_{\text{ALLOMORPH}}$-PL

        'children''

(26)   kinder-s   [Blankenberge Dutch]

        child$_{\text{ALLOMORPH}}$-PL

        'children'

(27)   kinder-∅   [Spalbeek Dutch]

        child$_{\text{ALLOMORPH}}$-PL

        'children''

Booij (2002:22-23) argues that *kinder* 'child' is a stem allomorph of the stem *kind* 'child' in Dutch. As can be seen from the above examples, this form can be triggered by various plural morphemes. The Standard Dutch plural marking for this noun is –*en*, as in (25), but many dialects (including that of Blankenberge) allow for an –*s*, as in (26), and some (like that of Spalbeek) for a zero morpheme, as in (27).[13] In other words, various vocabulary items that express plurality – and one of which happens to be a zero morpheme – can trigger the same stem allomorph in Dutch.

    The Dutch data resemble the Breton data in more respects. *Kinder* 'child' equally serves as input for derivational processes, as in (28) (see also note 13). This example is reminiscent of the Breton data in (6) and (19).

(28)   kinder-lijk

        child$_{\text{ALLOMORPH}}$-like

        'childlike'

Moreover, the morpheme *–er* is etymologically a plural affix, which is also the case for the PL$_1$ form *–ed* in Breton (Trépos 1957).[14] A last property which is shared by the Breton and Dutch data is the fact that the stem allomorph can occur below the diminutive in the presence of regular plural marking. Example (29) illustrates this for Breton, (30) for Dutch.[15,16]

(29)   merc'hed-ig-où

       girl$_{ALLOMORPH}$-DIM-PL

       'little girls'

(30)   kinder-tje-s

       child$_{ALLOMORPH}$-DIM-PL

       'little children'

Despite the fact that the phenomenon is marginal in Dutch and widespread in Breton, the data from the two languages are clearly highly parallel. There does not seem to be any reason then why the analysis of Breton should should diverge so dramatically from that of Dutch.

4 Conclusion

In this paper I have shown that the most recent attempt to bring the alleged double plural marking in Breton in line with standard assumptions about morphology, that is the one by Acquaviva (2008), fails to account for the observation that the simple plural is in complementary distribution with cardinals. Moreover, I have discussed the fact that any account that assigns a fully derivational or inflectional status to the first plural morpheme will face the same fate.

Alternatively, I have suggested that the stem and the first plural morpheme together form one single morpheme, more specifically a stem allomorph, triggered by a zero morpheme that realizes regular plural marking. I thereby conform to the basic insight of Acquaviva (2008) that the lower plural suffix does not realize the feature [plural]. As such, my proposal is in line with Greenberg's universal that derivation proceeds inflection and with the Elsewhere Principle. Additionally, I capture the complementary distribution between the cardinal and the simple plural. Doing so, I did not rely on any new assumptions; I have shown that an analysis for Breton pluralization does not need to diverge drammatically from well-established views on morphology.

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[1]I will refer to the first plural morpheme as PL$_1$ and to the second one as PL$_2$. A simple plural only has a PL$_1$ morpheme, a double plural has both.

[2]Anderson (1986) reports that *marc'h* is the singular form for 'girl'. A native speaker who I consulted, however, reports *merc'h*.

[3]The Breton data presented in this paper are taken from Stump (1989), Acquaviva (2008) or from interviews with a native speaker (Iona Gauchet).

[4]*eo* is the default form, as Breton only shows agreement with preverbal subjects, not with postverbal ones, regardless of plural marking (Stump 1989:264).

[5]PCL = preverbal particle, DEM = demonstrative, 3PL = third person plural (see Stump 1989:264).

[6]See Anderson (1986) and Stump (1989) for discussion.

[7]Stump (1989), on the other hand, proposes to reformulate the Elsewhere Principle and questions the strict division between inflectional and derivational morphology. Anderson proposes to reanalyze simple plurals as collectives, that is as nouns which refer to groups rather than to plurals. His view appears to be flawed; its problems are spelled out in detail in Stump (1989). I therefore set it aside without further discussion.

[8]Borer (2005) calls this the dividing feature.

[9]For ease of exposition, I have conventionalized Borer's tree slightly. In the same vein, I have left out details that are irrelevant for the discussion at hand, such as the case marking and the determiner.

[10]For animates it is often *–ed* which is in competition with the zero morpheme.

[11] My informant prefers the zero morpheme.

[12]The singulative morpheme stresses the individual nature of the object referred to. See Acquaviva (2008) for a detailed discussion on the derivational status and see Trépos (1958) for details on the semantic nature of this morpheme.

[13]Note, crucially, that the form *kinder* also serves as input for derivation and compounding with non-singular reference in these dialects, for example *kinderachtig* 'childish' and *kinderkoets* 'pram' (Dany Jaspers p.c.). Such forms show that *kinder* is a stem allomorph in these dialects as well, triggered by a zero morpheme. In other words, it is not the case that *–er* is ever a regular plural morpheme in Dutch dialects.

[14]In some cases, the morpheme *–ed –* unlike its Dutch counterpart, see note 10 – is still a plural morpheme in Breton: it realizes the number feature of certain animate nouns (Trépos 1958).

[15]The same phenomenon is found in Yiddish (see Lowenstamm 2007).

[16]The plural diminutive with the basic form of the stem exists as well, viz. *kindjes*.