A Split Analysis of Plurality: Number in Amharic

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Plural morphemes are conventionally analyzed as realizations of Num(ber). However, much recent research has investigated idiosyncratic/''lexical'' plural systems where some or all of the plural morphemes are realizations of some other syntactic head. The focus of this article is the intricate plural system of Amharic (Ethiosemitic), where there is considerable evidence that plural morphology is split between two heads: Num and the nominalizing head *n*. The article thus provides further empirical evidence that the morphosyntax of plurality does not involve Num alone; it also develops a novel analysis of a plural system that relies on two different morphosyntactic heads.

Keywords: plural, number, Amharic, Distributed Morphology, *n*, lexical plurality

1 Introduction

The typical syntactic location for plural inflection is Num(ber), the head of a Num(ber)P between DP and NP. However, there is a growing body of research on the idiosyncratic/''lexical''/noninflectional properties of certain plurals crosslinguistically, and idiosyncratic plurality is often analyzed as the realization of a different head, closer to the noun than Num (see, e.g., Lecarme 2002, Acquaviva 2008, Lowenstamm 2008, Wiltschko 2008, Alexiadou 2011, Harbour 2011, Butler 2012, Ghaniabadi 2012). Nevertheless, it remains controversial exactly which heads besides Num are capable of carrying plural features, and how idiosyncratic plurality interacts with Num-based plurality within the same language.

The intricate plural system of Amharic (Ethiosemitic) is a fertile area for investigating these questions. Amharic contains both regular and idiosyncratic plurality, and I present evidence that the two types each correspond to a different syntactic head: Num for regular plurality and the nominalizing head *n* for idiosyncratic plurality (building on Kramer 2009). Plural morphology is thus ''split'' between two syntactic heads. I also develop an analysis whereby *n*[+pl] and Num[+pl] work together to generate the many different types of Amharic plurals, and I show

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how the analysis correctly predicts the distribution of certain plural forms elsewhere in the language. Overall, Amharic provides further evidence for two sources of syntactic plurality, and allows for one of the first in-depth analyses of the relationship between idiosyncratic plurality and regular plurality.

The plan for the article is as follows. Section 2 presents the plural system of Amharic. Section 3 introduces the split analysis of plurality, justifying why plurality is split between Num and *n*. Section 4 contains the technical details of the split-plurality analysis, and section 5 confirms its predictions. Section 6 concludes with discussion of the crosslinguistic ramifications.

2 Basic Data and Main Proposal

2.1 The Amharic Plural System

At first glance, the Amharic plural system appears unremarkable. Singular nominals in Amharic, like those in (1), are unmarked.

(1) a. lɨdʒ ‘child’
b. k’äbäle ‘district’
c. adäga ‘accident’
d. rwatʃ’ ‘runner’
e. anbässa ‘lion’
f. bet ‘house’

Plural nominals are marked: they generally take a suffix, *-(w)otʃtʃ* (see, e.g., Leslau 1995:169–171). The plurals of the nominals in (1) are shown in (2).

(2) a. lɨdʒ-otʃtʃ ‘children’
b. k’äbäle-wotʃtʃ ‘districts’
c. adäga-wotʃtʃ ‘accidents’
d. rwatʃ’-otʃtʃ ‘runners’
e. anbässa-wotʃtʃ ‘lions’
f. bet-otʃtʃ ‘house’

Some nominals are pluralized irregularly, and there are a variety of different irregular pluralization strategies. Irregular plurals can be formed via a different suffix, as in (3) (Leslau 1995:171–172).

(3) a. mämhɨr-**an** ‘teachers’
b. t’äbib-**an** ‘wise people’
c. ityop’p’ɨyawiy-**an** ‘Ethiopians’
d. hɨs’an-**at** ‘babies’
e. amät-**at** ‘years’
f. k’al-**at** ‘words’

Irregular plurals can also be formed via different voweling, different phonotactics, and/or partial reduplication (Leslau 1995:172ff.), with or without a suffix of some kind (e.g., *-t*).

(4) a. känfär → känafɨr ‘lips’
b. wäyzäro → wäyzazɨrt ‘ladies’
c. ganen → aganɨnt ‘demons’
d. nɨgus → nägäst ‘kings’
e. hɨgg → hɨggɨgat ‘laws’
f. mäs’haf → mäs’ahɨft ‘books’

So far, the Amharic plural system seems like other plural systems: the plural Num(ber) head is realized as a regular allomorph for most nouns, but has irregular allomorphs in the context of certain nouns.

To be precise about the mechanics here, I assume the framework of Distributed Morphology (Halle and Marantz 1993), where morphophonological exponents (Vocabulary items) are inserted after syntax. In a typical plural system, the Num(ber) head will be realized as different Vocabulary items depending on the context. A partial list of the Vocabulary items that can be inserted at Num under a ‘‘typical plural system’’ analysis of Amharic is shown in (5).

(5) *Typical plural analysis: Selected Vocabulary items for Num*
a. Num, [+pl] ↔ -otʃtʃ
b. Num, [+pl] ↔ -at/{√HS’AN, √K’AL, . . . }
c. Num, [+pl] ↔ -an/{√MÄMHR, √T’ÄBIB, . . . }

Regular and irregular affixes *compete* for insertion at the plural Num node (see Halle and Marantz 1993, Halle 1997; see also Embick and Noyer 2007 on English plurality). When one of the roots listed in (5b) or (5c) is present, the irregular affix must be inserted per the Pāṇinian Principle. Otherwise, the regular affix is inserted as the default/elsewhere case.

However, there is evidence that plurality in Amharic is more complicated than this orderly picture. Specifically, there is evidence that regular and irregular plural morphology are not in competition for morphophonological insertion at Num.

First, as some grammarians have observed (Armbruster 1908:52, Ayalew 2006:27), every nominal in Amharic has a regular plural. In other words, every nominal that can be irregularly pluralized can alternatively be regularly pluralized, with no change in meaning. Some examples are given in (6).

(6)	*Singular*	*Irregular plural*	*Regular plural*	*Gloss*
a.	mämhɨr	mämhɨr-an	mämhɨr-otʃtʃ	‘teacher’
b.	k’al	k’al-at	k’al-otʃtʃ	‘word’
c.	mäs’haf	mäs’ahɨft	mäs’haf-otʃtʃ	‘book’
d.	wäyzäro	wäyzazɨrt	wäyzär-otʃtʃ	‘lady’

If regular and irregular plural morphology were in competition for insertion, these regular plurals would flagrantly violate the Pāṇinian Principle (cf. English **womans*, **foots*, **childs*, etc.).

Moreover, Amharic has double plurals: both irregular and regular plural morphology can be found on the same nominal (cf. Arabic (Zabbal 2002), Breton (Trépos 1957), and other languages).

(7)	*Singular*	*Irregular plural*	*Double plural*	*Gloss*
a.	mämhɨr	mämhɨr-an	mämhɨr-an-otʃtʃ	'teacher'
b.	k'al	k'al-at	k'al-at-otʃtʃ	'word'
c.	mäs'haf	mäs'ahɨft	mäs'ahɨft-otʃtʃ	'book'
d.	wäyzäro	wäyzazɨrt	wäyzazɨrt-otʃtʃ	'lady'

The double plurals have the same meaning as singleton plurals (similar to double plurals in Yiddish (Lowenstamm 2008) and Maay (Paster 2010); see section 2.3 for further evidence). Double plurals are difficult to deal with under a competition analysis: only one Vocabulary item can be inserted at Num, so it is unclear how two exponents can be present.

It is worth noting that not every speaker is comfortable with every double plural, but all of the forms listed here have been readily accepted and/or produced by at least two speakers. Across speakers, every nominal that has an irregular plural has a double plural; that is, every irregular plural can be doubled by at least some speakers. The same applies to the regular plurals above with respect to the irregular plurals.

For the less-good double and regular plurals, speakers do not deem them ''ungrammatical''; rather, they judge them ''inappropriate'' or ''unacceptable.'' I assume that each speaker's grammar can produce all the plurals, but that the less appropriate plurals are forms that the speaker has encountered more rarely and/or forms that the speaker has been told are incorrect by prescriptivists (see footnote 1 on the sociolinguistics of the plurals). Given the three potential plurals for each irregularly pluralized noun in Amharic, it is perhaps not surprising that some speakers have not been exposed to all the possibilities equally.

Overall, since every nominal has a regular plural and there are double plurals, I conclude that regular and irregular plural morphology do not compete for insertion in Amharic; in other words, they do not occupy the same syntactic head (Num). Instead, I propose a split analysis of number: the ''regular'' plural suffix is the realization of Num[+pl] and irregular plural morphology is the realization of *n*[+pl], a morpheme that nominalizes category-neutral roots (see Acquaviva 2008, Lowenstamm 2008, Kramer 2009, Alexiadou 2011, Harbour 2011; and see section 4.1 for some discussion of these analyses). The relevant Vocabulary items under the split analysis are given in (8) (compare with (5)).

(8) *Split analysis: Selected Vocabulary items for Num and* n

a. Num, [+pl] ↔ -otʃtʃ (Regular)

b. *n*, [+pl] ↔ -at / {√HɨS'AN, √K'AL, √AMÄT, . . . } (Irregular)

c. *n*, [+pl] ↔ -an / {√MÄMHɨR, √T'ÄBIB, . . . } (Irregular)

Why are Num and *n* the chosen loci of plurality? First of all, it is likely that plurality is at least on Num since NumP is the most common locus of plurality crosslinguistically (e.g., Bernstein 1991, Carstens 1991, Picallo 1991), and it has been identified as the locus of plurality in other Semitic languages (Hebrew: Ritter 1991, 1992; Arabic: Zabbal 2002, Acquaviva 2008). There are also some syntactic effects associated with NumP in Amharic (e.g., it hosts possessors; Kramer 2009, Ouhalla 2004). Most importantly, a Num/*n* split explains a number of otherwise elusive

empirical contrasts between regular and irregular plurals in Amharic, and these contrasts are the topic of section 3. Before we move on to section 3, though, two brief digressions are necessary: one on the formation of irregular plurals, and one on the identical interpretation of all the plurals.

2.2 The Formation of Irregular Plurals

As shown in (4), some of the irregular plurals involve different voweling, different phonotactics, and/or partial reduplication, often in addition to an affix. It is worth asking how the complex exponence of these plurals relates to a *n*[+pl], although the account here will be brief since the issues are not part of the main focus of the article.

Amharic, as a root-and-pattern language, is conventionally analyzed as forming nouns from a consonantal root plus one of a large number of nominal vocalic patterns (see, e.g., Hartmann 1980, Leslau 1995). For clarity, I will leave the vowels in the roots for the remainder of this article, but understanding how the vocalic pattern combines with the root is key to understanding how the more complex irregular plurals are formed.

Following Arad (2005), I assume that nominal vocalic patterns for Semitic consonantal roots are inserted at PF. I also assume that they are inserted at a node adjoined to *n*, building on Arad's analysis of verbal patterns (inserted at *v*) and Distributed Morphology approaches to declension class (adjoined to category-defining heads; see, e.g., Oltra-Massuet 1999). Under these assumptions, a noun like *ḫɨs'an* 'baby' consists of the root √HS'N and a null *n* to which is adjoined the vocalic pattern [ɨ a]. I assume that prosodic constraints result in the interleaving of the vowels within the consonants such that the syllabic template is emergent/epiphenomenal (see Tucker 2011 for a Distributed Morphology–based analysis in this vein, and many references therein).

When the *n* associated with √HS'N is [+pl], *n* is exponed as the suffix *-at* and the adjoined pattern remains the same, resulting in *ḫɨs'an-at* 'babies'. Some nouns, however, take a different pattern in the plural, like (4) *känfär* ~ *känafɨr* 'lips'. I assume this is allomorphy of the pattern itself, conditioned by plurality, and that *n*[+pl] is null. It is then predicted that some nouns will take both a different allomorph for the pattern and an overt *n*[+pl], and this occurs in (4): for example, *nigus* ~ *nägäs-t* 'kings'. Finally, some nouns show partial reduplication, always along with an affix (see (4b,e)). I assume these are formed via an allomorph of the pattern plus an overt affixal *n*[+pl], where this particular allomorph of the pattern has an extra mora that ultimately results in reduplication. Many of the morphophonological details are left open here, but it is clear that an analysis of the nouns in (4) as being formed via *n*[+pl] is plausible, despite their complex exponence.

2.3 No Difference in Meaning between Types of Plurals

It is relatively unexpected to have plurality realized in three different ways with no change in meaning. One plausible alternative hypothesis would be that one of the plurals (regular, irregular, double) conveys a different type/interpretation/species of plurality (i.e., different from the typical sum-plural that maps a set of atoms denoted by the noun into a join semilattice; Link 1983). I consider three types of plural meanings and conclude that none of the Amharic plurals are inter-

preted in these ways: (a) Semitic ''collectives''; (b) group or distributive plurals; and (c) dual, trial, paucal, multal, and abundance plurals.[1]

Arabic and several other Semitic languages contain a set of nominals traditionally called ''collectives'' that designate either ''a substance or material in the mass'' or ''a collection of objects viewed as a totality without reference to the individual members'' (Erwin 1963:166 on Iraqi Arabic; see Ojeda 1992, Zabbal 2002, Acquaviva 2008). For example, in Iraqi Arabic, *dijaaj*, the collective of 'chicken', means 'chicken' (viewed as a kind of food) or 'chickens' (as a species) (Ojeda 1992:306). Could any of the plurals in Amharic be the Amharic instantiation of Semitic collectives?

The evidence says no. First of all, Amharic plurals do not necessarily trigger collective interpretations: the plural forms for 'book' (regular plural *mäs'haf-otʃtʃ*, irregular plural *mäs'ahift*, double plural *mäs'ahift-otʃtʃ* 'books') can all be used to refer to a specific pile of books (not necessarily books in general). There is also distributional evidence that Amharic irregulars and doubles are not collectives. Collectives are not used with cardinal numerals (Corbett 2000:13), but Amharic irregular plurals (9a–b), double plurals (9c–d), and regular plurals (9e–f) can freely combine with numerals.

(9) a. hulätt mäs'ahift 'two book.PL'
b. ammist mäto k'al-at 'five hundred word-PL'
c. hulätt mäs'ahift-otʃtʃ 'two book-PL-PL'
d. ammist mäto k'al-at-otʃtʃ 'five hundred word-PL-PL'
e. hulätt mäs'haf-otʃtʃ 'two book-PL'
f. ammist mäto mäs'haf-otʃtʃ 'five hundred book-PL'

I conclude that none of the Amharic plurals are collectives.

Another option is for one or more of the plurals to denote group readings (confusingly, also known as collective readings; Link 1983, Landman 1989) or distributive readings. In English, plural nominals are ambiguous between the two readings. In a sentence like *The teachers said the prayer*, either the teachers said the prayer together (group reading) or they each said the prayer

[1] Another alternative interpretation is that the irregular plurals are formal/high register allomorphs of Num, similar to regular and irregular plurals in English like *schemas* ~ *schemata* and *formulas* ~ *formulae.* In this approach, Num[+pl] would be realized as the regular plural by default, but it would also have an additional allomorph (corresponding to the irregular plural) that would be inserted in formal contexts.

A full sociolinguistic investigation is necessary to demonstrate convincingly whether and how irregular plurality is a dialectal variable (and what it indexes). Nevertheless, initial informal interviewing shows that some speakers (including native-speaker linguists) do not classify all of the regular/irregular/double plural triplets as differing in formality (unlike English speakers with *schemas* ~ *schemata*). Most speakers classify a subset of the irregulars as more formal than the regulars (e.g., *k'al-at* (lit. word-PL) is more formal than *k'al-otʃtʃ*), but formality preferences vary significantly across speakers.

Regardless, a formality-centered morphosyntactic approach would not go very far in explaining the facts that are the empirical focus of this article. It would provide little insight into the formation of double plurals (especially their productivity), and it would not explain the divergent morphosyntactic behavior of irregulars and regular plurals detailed in section 3. I therefore do not pursue a formality-centered morphosyntactic analysis, but I leave open for future work the possibility that some of the plurals are sociolinguistic variables (in particular, whether they are indicators; Labov 1971) and how variable status should be connected to morphosyntax.

in turn (distributive reading). Recreating the same example in Amharic, plurals in Amharic turn out to be like plurals in English: ambiguous between the two readings.

(10) Mämhɨr-otʃtʃ-u/Mämhɨr-an-u/Mämhɨr-an-otʃtʃ-u s'älot adärräg-u.
teacher-PL-DEF/teacher-PL-DEF/teacher-PL-PL-DEF prayer do.PF-3PL[2]
'The teachers said the prayer.'
✓The teachers said the prayer together. (Group reading)
✓The teachers each said the prayer in turn. (Distributive reading)

In (10), all the plurals are compatible with group and distributive readings (see also section 5.2 for rare group interpretations of certain irregular plurals that have consequences for agreement, and how the consequences are predicted by the analysis).

Finally, some languages have plural forms that denote only a certain cardinal number of entities (Corbett 2000:19–38): two (dual), three (trial), ~3–10 (paucal), or only more than ~10 (multal) individuals. Additionally, Gillon (2010) argues that there is a type of plural in Innuaimun that denotes abundance ('lots of X'). However, there are no restrictions on the cardinal number of individuals involved in regular, irregular, and double plurals in Amharic (11), and the fact that the cardinal number 'two' is compatible with all the plurals is evidence against their being plurals of abundance.

(11) a. hulätt mäs'haf-otʃtʃ/mäs'ahɨft(-otʃtʃ) 'two books'
b. sost mäs'haf-otʃtʃ/mäs'ahɨft(-otʃtʃ) 'three books'
c. sɨmmɨnt mäs'haf-otʃtʃ/mäs'ahɨft(-otʃtʃ) 'eight books'
d. hamsa mäs'haf-otʃtʃ/mäs'ahɨft(-otʃtʃ) 'fifty books'
e. hamsa ʃi ammɨst mäto mäs'haf-otʃtʃ/mäs'ahɨft(-otʃtʃ) '50,500 books'

Overall, there is no evidence that any of the plurals have a special type of plural meaning, and in fact speakers often directly insist that the plurals all have the same meaning. Therefore, I conclude that the irregular, regular, and double plurals are three different morphological instantiations of the same ''typical semantics'' plural.[3] In the next section, I start to lay out how these morphological options are derived, focusing on the syntactic position of regular plurality and irregular plurality.

3 Evidence for a Split Analysis of Number

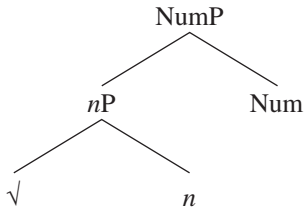
I assume that lexical categories are made up of a category-neutral root (√) and a category-determining head (*n*, *v*, or *a*; see Marantz 1997, 2001 and Arad 2003, 2005 for Distributed Morphology

[2] Gloss abbreviations: 1 – first person, 3 – third person, ADJ – adjectivalizer, DEF – definite marker, DEM – demonstrative, F – feminine, FEM – female suffix, M – masculine, NOM – nominalizer, PF – perfective verb form, PL – plural, SG – singular.

[3] For completeness, there are a few more types of plurals worth eliminating. None of the plurals are conditioned by animacy; all are licit with both animate and inanimate nouns (compare (2), (3), and (7)). None of the plurals are associative plurals; there is in fact a distinct associative plural suffix in Amharic (licit only with proper names; Leslau 1995:177–178). Finally, none of the plurals are necessarily affective plurals (Corbett 2000); they do not necessarily convey modesty, exaggeration, or hyperbole.

perspectives on this idea). I proposed above that regular plurals are the realization of Num, whereas irregular plurals are the realization of *n*; this results in the structure in (12). (NB: Amharic is a head-final language.)

(12) Regular plural =



Irregular plural =

In this section, I lay out several basic differences in the distribution of regular and irregular plurals in Amharic, including their order with respect to the root (section 3.1), productivity and selectional restrictions (section 3.2), the availability of idiosyncratic interpretations (section 3.3), their interaction with gender (section 3.4), and their ability to impose a category shift (section 3.5). I show how each of these empirical distinctions is accounted for under (12).

3.1 Ordering in Double Plurals

To start out with the simplest argument, the Num/*n* split analysis correctly predicts the ordering of plural affixes in double plurals. Double plurals must be of the form [root–irregular plural–regular plural]. All other orderings are ungrammatical, as shown for *mämhɨr* 'teacher' in (13).

(13) a. mämhɨr-an-otʃtʃ [√-Irreg-Reg]
b. *mämhɨr-otʃtʃ-an [*√-Reg-Irreg]
c. *mämhɨr-otʃtʃ-otʃtʃ [*√-Reg-Reg]
d. *mämhɨr-an-an [*√-Irreg-Irreg]

A split analysis rules out double plurals with identical plural marking like (13c) and (13d): there are not two Num's or two *n*'s, just one of each. A split analysis also predicts (13b): *n* (irregular plural morphology) is closer to the root than Num (regular plural morphology) in the hierarchical structure (see (12)). Thus, no matter how the root, *n*, and Num combine, *n*[+ pl] will always be closer to the root than Num[+ pl].

3.2 Productivity and Selectional Restrictions

The next set of differences concerns productivity. All nouns in Amharic have a regular plural; that is, all nouns in Amharic can take the suffix *-otʃtʃ* (see section 2.1, (6)). The regular plural is thus highly productive. However, only a subset of nouns have an irregular plural—the irregular plural is not productive across nouns.

Plural inflection across languages is highly productive in that all nouns in a given language are typically capable of being pluralized (with certain principled exceptions, like mass nouns), by either irregular or regular means. Amharic is organized in a slightly different way: all nouns are capable of being pluralized (again with certain principled exceptions like mass nouns), but only with one type of morphological plural: the ''regular'' plural. Thus, the ''regular'' plural in Amharic corresponds to typical plurality in that it is highly productive, and much previous research

(see section 2.1) has concluded that the syntactic locus of typical plurality is NumP. In contrast, the ''irregular'' plural is only attested with certain roots, and paradigmatic gaps are typical of category-determining head (e.g., *n*) and root combinations (Arad 2003, 2005).

The difference in productivity extends to nominalized categories. To the best of my knowledge, all nominalizations can be pluralized via *-otʃtʃ* (with the exception of certain deverbal nominalizations like the verbal noun; see Leslau 1995:394). Some examples are given in (14) ((14a–b) are from Leslau 1995:392, 415).

(14)	*Base*	*Singular*	*Regular plural*	*Gloss*
a.	säffa 'to sew'	säf-i	säfi-wotʃtʃ	'tailor'
b.	mätʃ'tʃ'awät 'to play'	mätʃ'tʃ'awä-tʃa	mätʃ'tʃ'awätʃa-wotʃtʃ	'plaything'
c.	särra 'to work'	särra-täññа	särratäññа-wotʃtʃ	'worker'
d.	ityop'p'ɨya 'Ethiopia'	ityop'p'ɨy-awi	ityop'p'ɨyawi-yotʃtʃ	'Ethiopian'

Certain nominalizations (e.g., *ityop'p'ɨyawi* 'Ethiopian') can also be pluralized via an irregular plural (e.g., the suffix *-an*), but others (e.g., *särra-täññа* 'worker') cannot.

(15)	*Base*	*Regular plural*	*Irregular plural*	*Gloss*
a.	särra 'to work'	särratäññа-wotʃtʃ	*särratänn-an	'worker'
b.	ityop'p'ɨya 'Ethiopia'	ityop'p'ɨyawi-yotʃtʃ	ityop'p'ɨyawi-yan	'Ethiopian'

Thus, irregular plurals are ''choosy'' about not only which roots they combine with, but also which derived stems they combine with. In other words, irregular plurals have selectional restrictions on stems. This is highly reminiscent of (traditionally defined) derivational morphology, which also has strict selectional restrictions (see, e.g., Fabb 1988 on English derivational morphology). Although the derivational/inflectional distinction has no theoretical status in Distributed Morphology, it often corresponds to the distinction between non-category-defining heads like Num (inflectional) and category-defining heads like *n* (derivational) (see, e.g., Harley 2009a). Thus, the fact that the irregular plural has selectional restrictions on stems and the regular plural does not is evidence for treating these plurals as derived via *n* and Num, respectively.

3.3 Idiosyncratic Interpretations

In Distributed Morphology, the interpretation of the root in the context of the first/lowest categorizing head is necessarily idiosyncratic because the root is incapable of being interpreted alone. However, there has been much controversy over how far up the structure idiosyncratic interpretations of the root are allowed (see, e.g., Marantz 1997, 2001, 2013, Arad 2003, 2005, Borer 2008, 2009, 2010, 2013, Alexiadou 2009, Harley 2009b, 2014, Anagnostopoulou and Samioti 2014). From an empirical perspective, it is clear that even Num-derived plurals can trigger idiosyncratic interpretations. For example, in English, *depth* means 'a measurement from top to bottom', but its regular plural *depths* can mean 'deepness(es), abyss(es)' and not necessarily a set of measurements from top to bottom (Acquaviva 2008:13–15). Therefore, any theory of contextual allosemy should state that Num is ''close enough'' to the root to trigger idiosyncratic interpretations.

However, there is still a difference between Num and *n* in this regard. Num is capable of triggering idiosyncratic interpretations, whereas *n must* trigger an idiosyncratic interpretation. We

thus predict that idiosyncratic interpretations of the root will be more likely with irregular plurals in Amharic (since *n* combined with the root necessarily results in a special interpretation), and less likely with regular plurals (since Num combined with *n*P *may* result in a special interpretation).

I tentatively claim that this prediction is borne out in Amharic, although unequivocal confirmation will have to wait for a lexicostatistical study. Leslau (1995:171–172) reports, and consultants confirm, multiple cases where a noun has an idiosyncratic interpretation when it is irregularly pluralized. For example, the root √NÄFS means 'soul' when nominalized, but when it is irregularly pluralized, it can mean 'small insects' (as well as 'souls').[4]

(16)	*Singular*	*Gloss*	*Irregular plural*	*Gloss*
a.	näfs	'soul'	näfs-at	'souls, small insects'
b.	lɨbs	'piece of clothing'	albasat	'clothes, sacerdotal garments'
c.	hɨzb	'nation'	ahzab	'nations, barbarians'

Moreover, the regular plurals (and the singulars) of the nominals in (16) cannot be associated with the idiosyncratic interpretations. The regular plural of *näfs*, for example, cannot mean 'small insects'.

(17)	*Singular*	*Regular plural*	*Gloss*
a.	näfs	näfs-otʃtʃ	'souls, *small insects'
b.	lɨbs	lɨbs-otʃtʃ	'clothes, *sacerdotal garments'
c.	hɨzb	hɨzb-otʃtʃ	'nations, *barbarians'

The lack of an idiosyncratic reading for the regular plural shows that it is truly the plural *n* that triggers the idiosyncratic interpretations. Moreover, if *n* is responsible, then double plurals should also have idiosyncratic interpretations since they contain a plural *n*, and this is borne out. The double plural *näfs-at-otʃtʃ* means 'souls' or 'small insects'.

In contrast, in Amharic, regular plurals do not generally trigger idiosyncratic interpretations. I have found only one confirmed case: *gabtʃa* 'marriage', which can mean 'in-laws' when regularly pluralized. This result is even more exceptional in that some speakers accept that *gabtʃa* means 'in-law' in the singular, thus rendering the plural meaning of 'in-laws' nonidiosyncratic.

Overall, a Num/*n* split analysis of plurality correctly predicts that idiosyncratic interpretations are more available for the irregular plural (*n*) than for the regular plural (Num) and that the idiosyncratic interpretations associated with *n* are no longer available in the regular plural.

3.4 Gender

The split analysis additionally accounts for some unusual interactions between gender and number in Amharic. In previous work (Kramer 2014), I have argued that *n* is where the gender feature associated with a nominal is located in Amharic (see, e.g., Ferrari 2005, Lowenstamm 2008,

[4] Not all speakers accept all of the idiosyncratic meanings. Generally speaking, older speakers (40+) tend to have the idiosyncratic readings readily available, whereas younger speakers have a subset or none.

Acquaviva 2009). Roughly speaking, a feminine nominal is formed by combining a root with *n*[+fem], whereas a masculine nominal is formed by combining a root with *n*[−fem].

If *n* has a gender feature and a plural feature, it is predicted that (ceteris paribus) (i) irregular plurals will be capable of varying with gender (cf. Somali plurals; Lecarme 2002), and (ii) regular plurals will not be (since they do not have gender). Both predictions are borne out in Amharic. Certain irregular plurals are gendered: they take separate masculine and feminine suffixes. One example, *k'ɨddus* 'saint', is given in (18).

(18) a. k'ɨddus-an 'saints' (masc. pl. or mixed group)
b. k'ɨddus-at 'saints' (fem. pl.)

However, no regular plurals vary with respect to gender; both masculine and feminine nominals take *-otʃtʃ*, as the plurals in (19) demonstrate.

(19)	*Masculine*	*Gloss*	*Feminine*	*Gloss*
	bet-otʃtʃ	'houses'	mäkina-wotʃtʃ	'cars'
	nägär-otʃtʃ	'things'	agär-otʃtʃ	'countries'
	abbat-otʃtʃ	'fathers'	ɨnnat-otʃtʃ	'mothers'
	tämari-wotʃtʃ	'(male) students'	tämari-wotʃtʃ	'(female) students'

The restriction of gendered plurals to irregular plurals is puzzling unless gender is a feature on *n*, thus creating a feature bundle that has both gender and number.[5]

There is also a curious asymmetry in the behavior of the feminine suffix *-it* with respect to plurals. Nominals ending in *-it* are freely regularly pluralized (recall that every nominal has a regular plural; see (6)).

(20) a. mänäk^{w}s-it-otʃtʃ
monk-FEM-PL
'nuns'
b. arog-it-otʃtʃ
old.person-FEM-PL
'old women'
c. muʃɨrr-it-otʃtʃ
wedding.participant-FEM-PL
'brides'
d. t'ot'-it-otʃtʃ
ape-FEM-PL
'female apes'

[5] It is possible to decompose the gendered plural suffixes *-at* and *-an*: *-a* would be the plural exponent, *-t* feminine, and *-n* masculine. However, it is unclear whether this kind of decomposition is desirable since it is only possible for the *-at* and *-an* that nominalize adjectives (*k'ɨddus* is the adjective meaning 'holy'). The *-at* and *-an* suffixes that nominalize roots are each compatible with either gender (see discussion below (21)).

However, nominals ending in *-it* cannot be irregularly pluralized.

(21)	*Singular*	*Irregular plural*	**Feminine irregular plural*
a.	mänäk^{w}se(-it)	mänäkos-at	*mänäkos-it-at, *mänäkos-at-it
	monk(-FEM)	monk-PL	
b.	mämhɨr(-t)	mämhɨr-an	*mämhɨr-t-an, *mämhɨr-an-t
	teacher(-FEM)	teacher-PL	

In (21a), the root √MÄNÄK^{w}SE 'monk' can be nominalized and feminized with the addition of *-it* to mean 'nun'. The root can also be irregularly pluralized with the *-at* suffix, but the plural *-at* suffix and the feminine *-it* suffix cannot cooccur (the preferred plural for 'nun' is (20a) *mänäk^{w}s-itotʃtʃ*). The same is true for the root √MÄMHɨR 'teacher' in (21b): it can be feminized via a suffix, but that suffix cannot cooccur with the irregular plural suffix. Crucially, the irregular plurals here are not gendered: *mänäkosat* can refer to monks or nuns, and *mämhɨran* can refer to male or female teachers. Thus, it is not the case that *-it* competes with, say, the *-t* in *-at.*

This asymmetry is predicted if gender features are located on *n.* In this approach, the feminine suffix and the regular plural suffix are independent heads in the syntax (*n* and Num, respectively) and do not compete for morphophonological insertion at the same slot. However, the feminine suffix and any irregular plural affixes *compete for insertion* at the *n* node. Only one Vocabulary item may be inserted at a time in that slot, so the two suffixes cannot cooccur.[6]

It is natural to ask why the irregular plural ''wins'' the competition (i.e., why the plural suffix is inserted, and not the feminine suffix). One solution is to appeal to a feature hierarchy (see, e.g., Harley 1994, Noyer 1997:lxxv, Harley and Noyer 1999). In cases where there is a ''tie'' regarding which Vocabulary item to insert at a morpheme, the individual features of the Vocabulary items are inspected with respect to an independently motivated feature hierarchy, and the Vocabulary item that uniquely has the feature highest on the hierarchy (or has the fewest nodes in the hierarchy) ''wins'' and is inserted. In all the feature hierarchy approaches, plural features are ranked above gender features, and thus the irregular plural would be inserted rather than the feminine suffix.

In sum, a split analysis predicts both that gendered plurals are restricted to irregular plurals and that the feminine suffix and the irregular plural suffix cannot cooccur.

3.5 Category-Changing Ability

In section 3.2, I observed that the irregular plural has selectional restrictions like a derivational affix, whereas the regular plural does not. Another classic derivational/inflectional diagnostic is

[6] There is an alternative explanation for this asymmetry. Under a nonsplit analysis, the irregular and regular plurals would both be realizations of Num. The irregular plurals would be root-conditioned allomorphs of Num, and the regular plural would be the default/elsewhere allomorph. If it is assumed that Num must be adjacent to the root in order to have its allomorphy conditioned by the root (as in, e.g., Embick 2010), then an overt gender exponent (e.g., *-it*) between the root and Num will force the insertion of the non-root-conditioned allomorph (*-otʃtʃ*). I leave the evaluation of this alternative explanation to future work on the conditions on allomorphy. Regardless, the facts are certainly compatible with a split analysis of plurality, and even if it turns out that they do not unilaterally support a split analysis, sufficient evidence remains in favor of a split approach to be convincing.

the ability of an affix to change the category of the stem it attaches to. Inflectional affixes do not change the category, whereas derivational affixes may do so.

Like typical plurals across languages, the regular plural in Amharic attaches only to nouns and they remain nouns. However, the irregular plural in Amharic is capable of converting certain adjectives to nouns. Consider the adjective *ityop'p'ɨy-awi* (lit. Ethiopia-ADJ) 'Ethiopian' in (22a). It is derived from the root √ITYOP'P'ƗYA (or perhaps from the *n*P 'Ethiopia (the country)'—the choice is immaterial here) and means 'something of or pertaining to Ethiopia'. As shown in (22b–c), a gentilic singular noun can be derived from this adjective with the meaning 'an Ethiopian man/person' or 'an Ethiopian woman'.

(22) a. ityop'p'ɨy-awi
Ethiopia-ADJ
'Ethiopian (adj.)'
b. ityop'p'ɨy-awi-Ø
Ethiopia-ADJ-NOM
'Ethiopian (man/person)'
c. ityop'p'ɨy-awi-t
Ethiopia-ADJ-NOM.F
'Ethiopian (woman)'
d. ityop'p'ɨy-awi-yan
Ethiopia-ADJ-PL
'Ethiopians'

The gentilic plural noun is derived by adding the irregular plural suffix *-an*, as shown in (22d). Thus, the irregular plural suffix converts the adjective 'Ethiopian' to the plural nominal 'Ethiopians'. The structure of (22d) is thus as shown in (23).

(23) $[[[\text{ityop'p'ɨy}]_{\sqrt{}}\ \text{awi}]_{a\text{P}}\ \text{yan}]_{n\text{P}}$

An alternative analysis could posit a null *n* that nominalizes the adjective, to which the plural *n -an* is then added. The resulting (double-nominalized) form is shown in (24).

(24) $[[[[\text{ityop'p'ɨy}]_{\sqrt{}}\ \text{awi}]_{a\text{P}}\ \text{Ø}]_{n\text{P}}\ \text{yan}]_{n\text{P}}$

However, this alternative analysis makes a false prediction. It is clear from the singular that the *n* that nominalizes 'Ethiopian (adj.)' is null for masculine forms, but is *-it* for feminine forms (with the initial *-i* deleted to avoid hiatus). Thus, if 'Ethiopian (adj.)' is nominalized before it is pluralized, the following form should be possible for 'female Ethiopians': *[ityop'p'ɨy-awi-t-an]. However, this form is ungrammatical; instead, the plural ending itself expresses feminine gender: *ityop'p'ɨy-awi-yat* 'female Ethiopians' (the irregular plural agreeing in gender as predicted under a *n* analysis; see section 3.4).

In sum, then, the irregular plural is capable of changing the category of a *x*P, just like any other *n*. To the best of my knowledge, the regular plural cannot do so; in all such cases (e.g., adding a regular plural to an adjective; Leslau 1995:202–203), there are no convincing arguments against an analysis where *n* combines with the relevant *x*P first, which then allows for the addition of NumP.

3.6 Interim Summary

I have proposed a split analysis of plurality whereby regular plurals are formed via a Num[+pl] combining with a *n*P whereas irregular plurals are formed by combining a *n*[+pl] with the root. The evidence for a Num/*n* split is summarized in (25).

(25) *Evidence for a Num/*n *Split*
- a. Ordering of plural morphemes in the double plural
- b. Lack of productivity of the irregular plural, uniform productivity of the regular plural
- c. Selectional restrictions on the irregular plural, lack of restrictions for the regular plural
- d. Semantic idiosyncrasies more common for the irregular plural
- e. Gender distinctions displayed only by irregular plurals
- f. Ban on realizing a gender suffix and an irregular plural suffix at the same time
- g. Category changes accomplished only by irregular plurals

Some questions remain open, though. How are the different types of plurals generated? What is the relationship between Num and *n*? These questions are addressed in section 4, but first I briefly present and argue against two alternative analyses.

3.7 Alternative Analyses

In this section, I review two alternative approaches to the data laid out above—multiple exponence and adjoined plurality—and I conclude that neither is viable.[7]

Multiple exponence is the (relatively rare) phenomenon of two exponents expressing the same semantic feature (see, e.g., Müller 2006, Caballero 2011). At first glance, Amharic double plurals seem like a case of multiple exponence: two plural exponents, but only one interpretation of plurality.

Several analyses have been developed to account for multiple exponence, including at least one within Distributed Morphology. Specifically, in Müller 2006, a new postsyntactic operation is proposed called Enrichment; it can add a copy of a feature (e.g., [+pl]) to the postsyntactic representation under certain conditions. However, simply copying a [+pl] feature does not help with the Amharic data because it does not explain why all nouns can also regularly pluralize. It is also unclear how to ensure that of the two [+pl] features that would result, one must be spelled out as irregular (and that one is closer to the nominal) and one must be spelled out as regular. Finally, since it would only generate double plurals postsyntactically from a single Num node,

[7] Pesetsky (2013) presents an analysis of Russian plurals that is superficially similar to a split analysis: singular/plural number is low on the noun itself, but paucals are higher on a Number head. However, the main justification for the split is that singular/plural are added to a noun in the lexicon whereas paucals are not (they are freestanding morphemes). In a nonlexicalist framework, it seems possible that singular, plural, and paucal could all be located in a Number head since there is no evidence from Russian (to the best of my knowledge) for split plurality as in Amharic (no double plurals, etc.).

a multiple exponence account would have trouble explaining the morphosyntactic differences between the plurals sketched above (the derivational-like properties of the irregular plurals, the interaction with gender, etc.). For all these reasons, I do not pursue a multiple exponence analysis.[8]

A major strand within the idiosyncratic-plurals literature is the analysis of idiosyncratic plural morphology as being adjoined somewhere within the DP: at the root (Wiltschko 2008), at *n* (Ghaniabadi 2012), or at DP (Butler 2012). It may be that Amharic irregular plurals are unusual because they are adjoined, whereas regular plurals are nonadjoined. However, there is some indication that an adjunction analysis of Amharic irregular plurals would be on the wrong track.

Wiltschko (2008) introduces a set of diagnostics for adjoined plurality, and going by the results of these diagnostics, irregular plurals are not adjoined in Amharic. Wiltschko claims that adjoined plurals do not trigger agreement obligatorily, but irregular plurals in Amharic do trigger obligatory agreement in number, as shown on demonstratives in (26) and on verbs in (27).

(26) a. ɨnnäzzih mäs'ahɨft
DEM.PL book.PL
'these books'
b. *yɨh mäs'ahɨft
DEM.SG book.PL
'*this books'

(27) Mäs'ahɨft-u sämayawi natʃtʃäw/*näw.
book.PL-DEF blue be.3PL/*be.3M.SG
'The books are/*is blue.'

Additionally, Wiltschko assumes that some functional structure is necessary to license a noun as an argument and that adjoined plurals lack NumP. This predicts that adjoined plurals should not be capable of being arguments unless they have a determiner to project a DP, and this is borne out in Halkomelem (Wiltschko 2008:668, (75)). However, irregular plurals without determiners are acceptable in Amharic, as in (28).

(28) Mäs'ahɨft t'äräp'p'eza-w lay natʃtʃäw.
book.PL table-DEF on be.3PL
'Books are on the table.'

Mass nouns also cannot be regularly pluralized without a 'type' reading (e.g., *wɨha-wotʃtʃ* (lit. water-PL) 'waters = bottles of water'), unlike adjoined pluralized mass nouns, which have an 'abundance' reading (Wiltschko 2008:669).

There are two final diagnostics for adjoined plurality that are relevant to Amharic: selectional restrictions and pluralia tantum. The presence of selectional restrictions between quantifiers and

[8] Another morphologically focused analysis would be to treat all the irregular plurals as stem (i.e., root) allomorphs (see Perlmutter 1988 on Yiddish double plurals). However, this is unlikely given that suffixation is a major strategy for forming irregular plurals. This analysis would also struggle with the morphosyntactic contrasts (e.g., in gender) between regular and irregular plurals since root allomorphs are determined postsyntactically.

nouns with respect to plurality (e.g., *three dogs*, **three dog*) indicates nonadjoined plurality, as does the presence of pluralia tantum nouns. For Amharic, Leslau (1995:180) reports that at least some quantifiers (including numerals) can appear with either plural-marked or non-plural-marked nouns (i.e., no selectional restrictions), but initial elicitation results indicate that *only* plural-marked nouns are acceptable with, for example, numerals and certain universal quantifiers. As for pluralia tantum, there do not seem to be pluralia tantum nouns in Amharic, or at best they are difficult to discover. This might suggest adjoined plurality, but see section 6 for a potential explanation in terms of the present analysis.

Most importantly, the adjunction diagnostics do not make a distinction between regular and irregular plurals in Amharic. Regular plurals also trigger obligatory agreement, are acceptable as indefinites, and behave the same as irregular plurals with respect to quantifiers and pluralia tantum. So, since the diagnostics do not separate out irregular from regular plurals, and both seem to be nonadjoined, it is not fruitful to analyze the contrast between irregular and regular plurality as adjoined vs. nonadjoined plurals.[9]

4 Analysis

I have shown that there are three different types of plural nominals in Amharic: regular, irregular, and double. All the plurals are synonymous, but they differ in whether Num[+pl], *n*[+pl], or both are realized morphologically. How can this array of facts best be captured? Many other split-plurality analyses based on Num/*n* are not helpful in answering this specific question. They either do not discuss the relationship between Num and *n* (Alexiadou 2011) or do not address the interpretation of multiple plural features in the same DP (Acquaviva 2008, Lowenstamm 2008). The most direct precedent is Harbour 2011, a detailed treatment of noun class and number in Kiowa; I will return to how the results detailed there compare with the analysis proposed below.

As a place to start, I assume that only one of the plural features is interpretable. It is commonly assumed that features vary in interpretability (see, e.g., Chomsky 2000, 2001), so this is not a

[9] Even though irregular plurals are not adjoined, plurality as a whole in Amharic can seem adjunct-like because Amharic has number-neutral nouns, that is, nouns that have no plural marking (either regular or irregular) but are interpreted as either plural or singular.

(i) Lɨdʒ-u mäs'haf wässäd-ä.
child-DEF book take.PF-3M.SG
'The child took a book.' [or] 'The child took some books.'
(Leslau 1995:179)

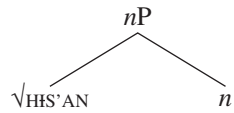
These nouns must be interpreted as indefinite/nonspecific, and they trigger singular agreement (Leslau 1995:179–180; see also Kapeliuk 1994).

The presence of number-neutral nouns renders plural marking not obligatory in Amharic (and may be why there are no selectional restrictions; see above), which is characteristic of adjoined plurality. However, given that regular and irregular plurals in Amharic do not act like nonadjoined plurals otherwise, I will assume that they are derived via Num/*n*. As for the number-neutral nouns, one common approach to number neutrality that is compatible with the proposals made here is that number-neutral nouns simply lack NumP entirely (see, e.g., Ghomeshi 2003, Déprez 2005, Wiltschko 2008). However, number neutrality is a highly diverse phenomenon across languages (see, e.g., Paul 2012 and references therein), and a proper analysis would require further investigation of certain key properties of these nouns in Amharic (their distribution, whether they can take possessors, their scopal properties, etc.).

radical move. Moreover, if there is only ever one interpretable plural feature per DP, it is correctly predicted that all the plurals will be synonymous. If this interpretable plural feature is on Num, the interpretation of plurality in Amharic will be on a par with that in other languages, and this seems appropriate. Amharic varies from other plural systems morphosyntactically, not semantically (see section 2.3).

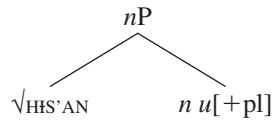
In section 3, I showed that Amharic *n* can have a plural feature. Since plural Num and plural *n* can cooccur without any change in meaning, the plural feature on *n* must be uninterpretable. (Crucially, I adopt a framework where unvalued features, not uninterpretable ones, cause a crash; see Legate 2002, Epstein, Kitahara, and Seely 2010, Carstens 2011. The plural features on Num and *n* are both valued.) I assume that the nominalization of roots in Amharic is on a par with that in other languages. That is, *n* selects for any category-neutral root and nominalizes that root: for example, √HꝊS'AN, which means 'baby' when nominalized.

(29)



The difference is that Amharic also has a *n* with an uninterpretable plural feature that selects for and nominalizes certain roots.

(30)



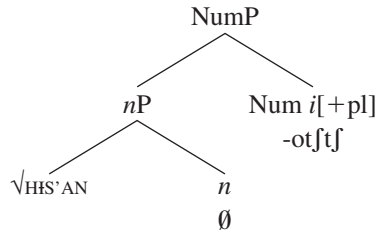
This characterization of noun formation in Amharic seems intuitively correct: the irregular plurals are *n*Ps that are ''inherently'' morphologically plural, but *n* is not involved in the interpretation of plurality.[10]

The question now remaining is how these two types of plural features interact to form all the different plurals. I first assume that plural Num has no selectional restrictions: it combines with ''plain'' *n*P or *n*[+pl]P.[11] If a plural Num combines with a plain *n*P, the result is a regular plural, as in (31). Every root can be nominalized by plain *n*, so this is why every nominal has a regular plural.

[10] This is an improvement on Kramer 2009, where all roots had to combine with a *n*[+pl] or a *n*[−pl], thus equating the formation of lexical categories with the expression of number in Amharic. In Kramer 2009, I adopted an Agree approach to the relationship between *n* and Num such that *n* provided the value for the number feature on Num, and at PF the plural feature on *n*, on Num, or on both was realized. However, besides equating nominalization with pluralization, this analysis requires an unconventional set of assumptions about feature realization under agreement, and I do not pursue it here.

[11] To be clear, I am assuming that number is a binary feature on Num: [+pl] for plural, [−pl] for singular. However, *n* only ever has the positive feature [+pl]; that is, there are no ''singular'' *n*'s—just a plural *n* or a *n* lacking in number features. The reason for this arrangement is to keep *n*'s from participating in the number system as much as possible; *n* is fundamentally a nominalizer, and plurality is not typically inherent in nominalization.

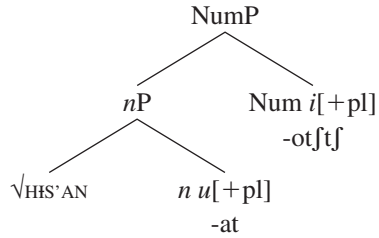
(31)



= hɨs'an-otʃtʃ 'babies' (Regular plural)

When a plural Num combines with a plural *n*P, a double plural is generated, as in (32).

(32)



= hɨs'an-at-otʃtʃ 'babies' (Double plural)

The challenge then becomes generating an irregular plural, that is, a plural where *n*[+pl] is morphologically realized and Num is exponed as a null allomorph.[12]

This challenge can be met via at least two independently proposed Distributed Morphology operations. The first is Impoverishment (Bonet 1991, Halle 1997): remove a feature from a terminal node to cause the default Vocabulary item to be inserted at that node. This would optionally remove [+pl] from Num so that it surfaces in its default form. The second operation potentially at play here is Fusion (Halle and Marantz 1993, Halle 1997): combine two sister terminal nodes into one single node, which contains the union of the sets of features of the two terminal nodes. In this approach, Num and *n* would optionally undergo Fusion so that only one plural Vocabulary item is inserted.

Across both approaches, the broad motivation is the same: morphological economy (cf. Acquaviva 2008, Lowenstamm 2008:128). Num and *n* end up as part of the same complex head and both have a [+pl] feature. It has been previously discovered that if a feature is replicated between two terminal nodes that are part of the same complex head, the feature only needs to be realized once (Kinyalolo 1991, Carstens 2005, Řezáč 2008).

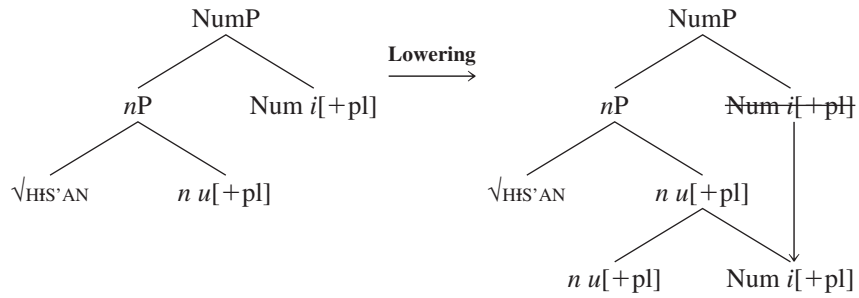
I will pursue a Fusion approach here, for two main reasons. First, Impoverishment faces certain implementational difficulties, including why it is Num (and not *n*) that undergoes it. Moreover, the fusion of Num with various DP-internal nodes is well-attested crosslinguistically.

[12] An alternative solution is that no NumP is projected in irregular plural DPs (see Lowenstamm 2008 on Yiddish). However, NumP is most likely involved in Amharic plurality, for the reasons discussed at the end of section 2.1. Moreover, I have shown that irregular plurals are also licensed as bare plurals (see (28)), which requires at least some functional structure (i.e., NumP) in some approaches (e.g., Déchaine and Wiltschko 2002). Finally, if irregular plurals lacked NumP, they might be expected to behave similarly to number-neutral nouns in Amharic (see above), and there seem to be few parallels.

A single exponent can express number and case (Latin, Latvian, Russian; Halle and Marantz 1993), number and gender (Italian; Acquaviva 2009), or even number and definiteness (Persian; Ghaniabadi 2009).

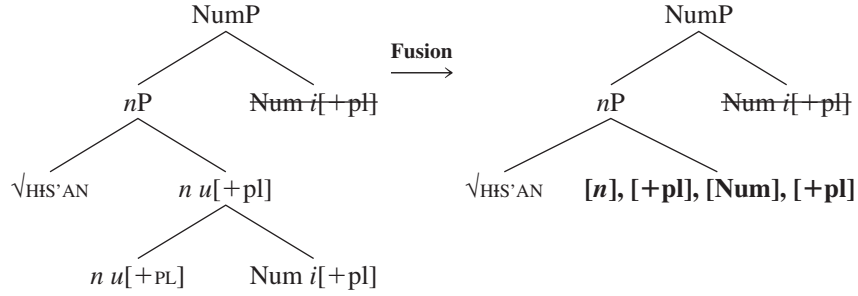
As for the technical details, I assume that first Num lowers to *n*. Num and *n* must end up in the same complex head since they are both suffixes on the root, and I have argued in previous work (Kramer 2009, 2010) against head raising of N (= root and *n*) in the Amharic DP. That leaves only lowering as an option to put together the pieces before Vocabulary Insertion. The lowering of Num to *n* is shown in (33); I assume it is motivated by a well-formedness constraint that plural Num must have a host to its left (cf. Embick and Noyer 2001).

(33)



Since Num and *n* are now sisters, they can fuse to make one terminal node instead of two. I assume that Fusion is optionally triggered when both *n* and Num have a plural feature. Fusion is shown in (34), with the result that *n* and Num's features are combined into one terminal node, sister to the root.

(34)



At PF, the fused terminal node must be morphophonologically realized. To see how this works, consider again some Vocabulary items for plural Num and *n* (repeated from (8)).

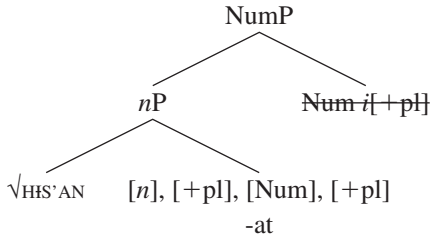
(35) *Selected Vocabulary items for Num and* n

a. Num, [+pl] ↔ -otʃtʃ (Regular)
b. *n*, [+pl] ↔ -at/{√HḪS'AN, √K'AL, √AMÄT, . . . } (Irregular)
c. *n*, [+pl] ↔ -an/{√MÄMHḪR, √T'ÄBIB, . . . } (Irregular)

The regular plural (35a) matches the same number of features of the fused Num/*n* node as the irregular plurals (35b–c). However, (35b–c) have specific contexts and thus will be inserted per

the Pāṇinian Principle. Therefore, when plural Num and *n* fuse, general principles of competition ensure that the irregular plural Vocabulary item will be inserted for the resulting single node. This was the final desideratum: the fusion of plural Num and plural *n* results in an irregular plural.

(36)



= h~~is~~'an-at 'babies' (Irregular plural)

Thus, the analysis generates all the plurals. In a regular plural, Num *i*[+pl] combines with *n.* In a double plural, Num *i*[+pl] combines with *n u*[+pl] and both are realized. In an irregular plural, Num *i*[+pl] combines with *n u*[+pl], they undergo Fusion for purposes of morphological economy, and an irregular plural allomorph is inserted at the fused terminal node per the Pāṇinian Principle. The end result is that all the plurals have one interpretable plural feature on Num, but have differing morphological realizations, in accord with the facts. The system as it stands, though, predicts that *n*[+pl] can combine with a Num[−PL], and this possibility is confirmed in section 5.[13]

Before continuing on, though, it is worth quickly comparing the present analysis to that of Harbour (2011): a treatment of noun class and number in Kiowa that proposes two locations for number. Harbour proposes that number features in Kiowa are found both on Num and on N; number features on Num are interpretable, whereas those on N are not (model-theoretically) interpretable and serve to delineate noun classes. D agrees with both Num and N, and different collections of (possibly conflicting) number features are morphologically realized on D in different ways.

Insofar as Num has interpretable number features and N (=*n*P) has uninterpretable number features, the analysis in Harbour 2011 and the present analysis are similar. However, the morphology of Num and N is very different in Kiowa and Amharic. Number is always exponed as null on Num in Kiowa, and it is only sometimes realized on N. The main evidence for the split approach to number is thus the unusual patterns of agreement on D. Moreover, all nouns have number on N in Kiowa, whereas only some nouns have number on *n* in Amharic. Finally, we

[13] A reviewer asks if a Fusion approach would remove the need to appeal to a feature hierarchy in order to explain why the irregular plural ''wins'' the competition for insertion with a feminine gender marker (see section 3.4). The idea would be that either the feminine gender marker or the irregular plural could be inserted at *n*, but the feminine gender marker would prevent fusion of *n* with Num, thus forcing a regular plural to surface. The success of this analysis will depend on how Fusion is formalized. It is clear that Fusion between *n* and Num still occurs when *n* has a feminine *feature*: this results in irregular plurals like *k'iddus-at* 'saints' where *-at* expresses feminine gender and plural. So, it must be the case that *n* has an overt feminine *exponent* (*-it*) that blocks Fusion in the instances at hand. However, Fusion is conventionally assumed to occur before Vocabulary Insertion, so the exponence of a particular node is not predicted to bleed Fusion. I leave the hierarchy explanation as sufficient for now, with a Fusion approach as an open possibility.

will see in section 5 that when an Amharic DP contains multiple number features, the highest number feature is the one used for agreement purposes, not a combination of the number features.

These differences may stem from the fact that number on *n* is a listed, exceptional property licensed only by certain roots in Amharic, whereas it is a requirement to even be a noun in Kiowa. The pervasiveness of low number in Kiowa means there is no contrast across nouns in the presence vs. absence of low plurality (unlike the fundamental contrast between regular and irregular plurals in Amharic), and it may explain why the low number features on nouns are taken into account in agreement. It is necessary to leave the detailed explication of Kiowa-Amharic connections to future research, but even though the Kiowa and Amharic number systems are quite distinct when looked at closely, the fact that split plurality can cover both is a testament to the generality of the approach.

5 The Distribution of *n*[+pl]

The analysis generates the data, but it also makes some interesting testable predictions about the distribution of *n*[+pl]. In this section, I investigate those predictions and conclude that they are borne out in Amharic.

A relatively straightforward initial prediction is that all the plurals will most likely have the same syntactic distribution; they all contain plural Num and differ only in whether *n* has a plural feature (double plural, irregular plural) or not (regular plural). This prediction is borne out. All the plurals may be used as subjects, objects, indirect objects, and objects of prepositions and postpositions. They can all trigger subject and object agreement, take the definite marker and the accusative case marker, have possessors, be modified by adjectives and/or relative clauses, and so on.

A more complex set of predictions comes from the fact that, in the analysis, there is no formal relationship between *n*[+pl] and Num[+pl]. This predicts that Num[+pl] can appear in structures that do not contain *n*[+pl] and that *n*[+pl] can appear in structures that do not contain Num[+pl]. The former has already been analyzed: a regular plural contains Num[+pl] (realized as *-otʃtʃ*) but no plural *n.* But so far, no data have been presented in which *n*[+pl] appears on its own, resulting in a noun that is morphologically plural but acts like a singular otherwise. Below I provide two types of evidence that this type of noun occurs in Amharic, the first from derivational morphology (section 5.1) and the second from some unusual ''irregular plural'' nouns (section 5.2).

5.1 n*[+pl] inside Derivational Morphology*

The first way in which *n*[+pl] can appear in a singular noun (or not in a noun at all) involves derivational morphology. Amharic has a robust system of derivational suffixes for adjectivalizing and renominalizing *n*Ps (Leslau 1995:230–245). If a root is licensed under *n*[+pl], then the root and the *n*[+pl] will form a *n*P that should then (in principle) be able to be adjectivalized or renominalized. The resulting *a*P or *n*P would either not be able to (for the adjectives), or not be required to, combine with Num[+pl].

This prediction is borne out. ''Irregular plural'' morphology can surface inside a denominal adjective or a denominal noun, closer to the root than the derivational suffix as expected (cf. Yiddish (e.g., Lowenstamm 2008) and Breton (e.g., Acquaviva 2008:239); (37d) is from Kane 1990:2007).

(37)

	Base	*Irregular plural*	*Derived form*	*Gloss*
a.	täkl 'plant'	at(a)kɨlt	at(a)kɨlt-äññа	'gardener'
b.	hɨwas 'sense (such as sight, touch)'	hɨwas-at	hɨwas-at-awi	'sensory, perceptual'
c.	ganen 'demon'	aganɨnt	aganɨnt-am	'demon-ridden'
d.	k'al 'word'	k'al-at	k'al-at-äññа	'chatterbox, sorcerer'

Note that the regular plural *-otʃtʃ* cannot occur in the same position, closer to the root than the derivational suffix. This is further evidence that irregular plurals are formed via *n*, whereas regular plurals are not.

(38) a. *täkl-otʃtʃ-äññа 'gardener'
b. *hɨwas-otʃtʃ-awi 'sensory, perceptual'
c. *k'al-otʃtʃ-äññа 'chatterbox, sorcerer'

As for the adjectives (e.g., *aganɨnt-am* 'demon-ridden'), they easily support the claim that *n*[+pl] can occur without Num[+pl]. Adjectives do not contain a NumP projection since they are not interpreted for grammatical number, so this is a clear-cut case of *n*[+pl] appearing without Num. (Adjectives can of course agree in number with a noun, but I assume this is because they have unvalued ϕ-features on some functional head, similar to the way T agrees with a DP.)[14]

As for the nouns (e.g., *atakɨlt-äññа* 'gardener'), there is morphological evidence that they contain a *n*[+pl]. However, *atakɨltäññа* 'gardener' is interpreted as singular. For example, it can appear with the singular indefinite article/cardinal numeral *and* as in (39).

(39) And atakɨlt-äññа ayyä-hu.
a/one plant.PL-NOM see.PF-1SG
'I saw a gardener.'

[14] There is, however, a relevant puzzle concerning adjectival number agreement that deserves mention (thanks to a reviewer for highlighting these facts). Typically, adjectives that agree in plural number with a noun take the suffix *-otʃtʃ* (Leslau 1995:210). However, at least some adjectives can be partially reduplicated to express plural agreement: *tillik'* 'big', *tilillik' dingay-otʃtʃ* 'big stones' (Leslau 1995:175–176). At first glance, the reduplicated adjectival plural seems like it is not in competition with the *-otʃtʃ* adjectival plural: there are double plurals (*tilillik'-otʃtʃ dingay-otʃtʃ* 'big stones'), and the same adjective often has two agreement forms: reduplicated or with *-otʃtʃ*. However, there is only one reduplication template for adjectives (compared with many different templates/suffixes for nominal irregular plurals), and it is unclear whether the process is root-specific (the only adjectives that Leslau identifies as nonreduplicating would become morphophonologically ill-formed strings if they reduplicated). Moreover, the distribution patterns of regular, reduplicated, and double adjectival plurals all differ depending on the definiteness of the noun and the presence vs. absence of plural marking on the noun (Leslau 1995:175–176, 213–214). Overall, then, irregular adjectival plurality is a tantalizing but difficult parallel to irregular nominal plurality, and I leave the elucidation of the similarities and differences to research that focuses on adjectival agreement.

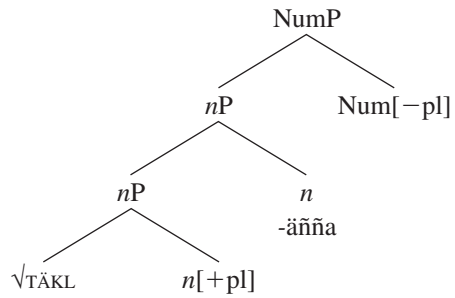
It also triggers singular agreement (40a), unless it has the plural suffix *-otʃtʃ*, in which case it triggers plural agreement (40b).

(40) a. Atakɨlt-äññä-w k'ondʒo näw.
plant.PL-NOM-DEF handsome be.3M.SG
'The gardener is handsome.'
b. Atakɨlt-äññä-wotʃtʃ-u k'ondʒo natʃtʃäw.
plant.PL-NOM-PL-DEF handsome be.3PL
'The gardeners are handsome.'

So, it is clear that no Num[+pl] is necessary to form *atakɨltäññä* 'gardener', and thus, *n*[+pl] can appear without Num[+pl], as the analysis predicts.

A few questions remain to be addressed. First, the data in (40) raise the question of what determines a noun's number feature for the purposes of agreement. I assume that the structure of *atakɨltäññä* 'gardener' is (partially) as in (41).

(41)



Thus, it contains two number features ([−pl] on Num and [+pl] on *n*) but triggers singular ([−pl]) agreement on the verb in (40). This pattern is predicted by the principle that the ''highest'' feature among those of the same type in a DP wins; this principle has been independently proposed in some of my previous work (Kramer 2009, 2014), Steriopolo and Wiltschko 2010, and De Belder 2011. I assume that this principle, which is needed independently in Amharic for gender purposes (Kramer 2009, 2014), is what determines that the agreement is singular in (40).

Second, one might wonder whether Fusion (see section 4) can apply in cases like (40b) since there is a *n*[+pl] and a Num[+pl]. However, even when this is the case, Num[+pl] and *n*[+pl] are correctly predicted to not undergo Fusion since they will not be sisters: the nominalizing suffix *-äññä* intervenes.

In sum, the analysis predicts the existence of forms where there is a *n*[+pl] closer to the root than a derivational suffix, and that the resulting derived form can be either nonnominal (e.g., an adjective) or a singular nominal. This section has shown that these predictions are borne out.

5.2 Morphologically Plural, Grammatically Singular

So far, we have seen *n*[+pl]P being the complement of *n* or *a*, but what if it were the complement of Num[−pl]? For example, could *atakɨlt* be used on its own as a singular noun? Nothing in the

analysis so far prevents this, and the result would be a singular noun with irregular plural morphology (and with no derivational morphology necessarily present). This phenomenon is rare but attested in Amharic, in an interestingly limited way. A few examples of such nouns are shown in (42), including *atakɨlt* ((42c) is partially based on a form in Kane 1990:483).

(42)

	Base	*Irregular plural*	*Singular gloss*
a.	täkl 'plant'	at(a)kɨlt	'produce, garden'
b.	wär 'month'	wär-at	'season'
c.	sɨr 'vein'	sɨrasɨr	'root system, circulatory system'

Each of the nouns in (42) has irregular plural morphology and is capable of serving as a typical irregular plural. However, each has an additional interpretation as a singular noun that is related to, but not equivalent to, its meaning as a plural. When these nouns have the singular interpretation, they also trigger singular verbal agreement.

(43) a. Wär-at-u krämt näw.
month-PL-DEF winter be.3M.SG
'The season is winter (now).'
b. Atakɨlt-u k'ondʒo näw.
plant.PL-DEF beautiful be.3M.SG
'The garden is beautiful.'

In (43a), *wärat* 'season' triggers singular agreement on the verb, as does *atakɨlt* in (43b).

The nouns in question all have a group-like interpretation: produce is a group of plants (loosely defined), a season is a group of months, a circulatory system consists (partially) of a group of veins. Even the idiosyncratic interpretations 'garden' and 'root system' (see section 3.3) for 'plant' and 'vein' still have a group interpretation. These forms are thus highly reminiscent of broken plurals in Arabic, which either trigger plural agreement and are interpreted as sum plurals, or trigger singular agreement and are interpreted as group plurals (Zabbal 2002, *pace* Acquaviva 2008). A minimal pair showing the sum plural vs. group plural contrast in Amharic is shown in (44), with the sum plural in (44a) (plural agreement) and the group reading in (44b) (singular agreement).[15]

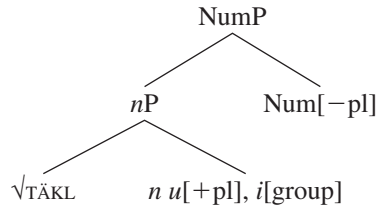
(44) a. Atakɨlt-u därräs-u.
plant.PL-DEF arrive.PF-3PL
'The plants/vegetables have arrived.'
b. Atakɨlt-u därräs-ä.
plant.PL-DEF arrive.PF-3M.SG
'The produce has arrived.'

[15] It is worth stressing that (unlike in Arabic) very few nouns have a group singular reading in Amharic; the majority of irregular plurals have both group and distributive readings (see (10)).

Zabbal (2002) proposes for Arabic that the group interpretation is triggered by a group operator that is lower in the structure than Num and probably derivational. The group operator also affects gender in Arabic, since all of the group-interpreted broken plurals trigger feminine singular agreement. I therefore propose that the group operator is a feature on *n* (assuming that features can compose with the root one at a time); this immediately explains why it is lower than Num, why it is derivational, and why it affects gender in Arabic, since gender features are generally located on *n* (see section 3.4).

Taking the group feature to be located on *n*, then, in Amharic, the structure of *atakɨlt* in its group interpretation is as shown in (45).

(45)



The uninterpretable plural feature on *n* results in the irregular plural morphology, but the group feature semantically composes with the (nominalized) root (see Zabbal 2002 for the formal details), resulting in the group interpretation. Num is [−pl] and thus interpreted as the identity function according to Zabbal (2002:47, 73), but since Num has the highest plural feature, it triggers singular agreement (see section 5.1). If this approach is on the right track, then another prediction of the analysis is borne out: *n*[+pl] can appear in a singular DP even when there is no derivational morphology.[16]

Further support for this analysis comes from the derived forms discussed in section 5.1. Recall in particular *atakɨlt-äññä* 'gardener'. The group operator analysis predicts that if the nonplural form were used as the *n*, the interpretation 'gardener' would not be possible because the group operator that results in the 'garden' interpretation would be absent. This is borne out: the derived form

[16] An anonymous reviewer suggests drawing a comparison with the singulative, which leads to an interesting crosslinguistic claim. It is clear that the Amharic group plurals are not singulatives; Mathieu (2012:653) defines the singulative as ''a process by which a collective or a mass noun . . . is turned into a unit.'' The Amharic group plurals pick out groups, not individual units of a collective/mass noun. For example, the noun *wär* 'month' is not a collective/mass noun, and the group interpretation associated with *wär-at* picks out a group of months (a season) and not an individual unit of month-ness. For comparison, Arabic has both group interpretations and the singulative, and Zabbal (2002) explicitly argues that they are distinct operators, each with its own denotation.

However, Zabbal also draws a parallel between the singulative operator and the group operator in Arabic, suggesting that they are both located on the same syntactic head. He suggests this partially because both operators are associated with feminine gender in Arabic, and it is in fact common for singulatives to affect gender in many languages (Mathieu 2012). Since the group operator is located on *n* in the present analysis, and *n* is also the locus of gender generally (see above), it may be that *n* is the locus of all three elements: the group operator, the singulative operator, and gender.

tɨkl-äññä (based on the nonplural form of *n*) is interpreted as 'settler' and not 'gardener' (Kane 1990:988).[17]

Many major issues remain open in the description and analysis of these nouns, and I will touch on two of them before concluding. First, why does *n*[+pl] combine with Num[−pl] only when *n* has a group feature? It is easiest to see why this is the case by considering the alternative: if any *n*[+pl] could combine with Num[−pl], the result would be homophonous singular and plural forms for every noun with an irregular plural. For example, *hɨs'an-at*, the irregular plural meaning 'babies', would also have the interpretation 'baby'. Moreover, there would be two nearly identical ways of expressing 'baby': *hɨs'an-at* and the (morphologically) singular *hɨs'an.* It seems reasonable to assume that languages prefer to avoid homophony across a key distinction like plurality (*hɨs'an-at* interpreted as both 'baby' and 'babies') when there is already a nonhomophonous singular form (*hɨs'an*). However, how to best instantiate this restriction in the grammar is quite complex. One approach would be to appeal to blocking, along the lines proposed by Embick and Marantz (2008). From this perspective, different Vocabulary items would compete for realization at *n* under particular structural configurations. For example, *-at* could only be inserted in the context of a plural Num (see Embick and Marantz 2008:16–17).

Another approach to preventing Num[−pl] from combining with nongroup *n*[+pl] would be to give the group feature its own projection GP between *n*P and NumP. Num[−pl] would then be limited to selecting either for GP or for nonplural *n*P. Although using selectional requirements is somewhat stipulative, there is some empirical support for this approach. Preliminary data indicate that irregular plural group nouns like *wär-at* 'season' and *atakɨlt* 'garden' can themselves be pluralized only via *-otʃtʃ* (e.g., *wär-at-otʃtʃ* 'seasons', *atakɨlt-otʃtʃ* 'gardens'). I conclude from this that Fusion is impossible between *n* and Num in these structures, and that this may be because a GP intervenes between *n* and Num.[18]

The second open issue concerns interspeaker variation: not all speakers accept (44a) where *atakɨlt* 'group of vegetables, garden' triggers plural agreement. I propose that this is because *atakɨlt* is undergoing a process of relexicalization into a singular noun, that is, a nominal formed by combining a root and a ''plain'' *n.* Speakers who do not accept (44a) do not treat *atakɨlt* as an irregular plural of 'plant', but instead treat it either as an idiosyncratic singular interpretation of the root √TÄKL or as a new root altogether. Potential evidence for this is that one speaker who does not accept (44a) was able to use *atakɨlt* to refer to a rock garden; the root √TÄKL, which

[17] I thank an anonymous reviewer for raising this issue. Interestingly, some of the other derived forms in section 5.1 have alternative derivations with a nonplural *n*P: *ganen-am* 'demon-ridden' (Kane 1990:2007), *k'al-äññä* 'being capable of speech' (Kane 1990:673). For *ganen-am*, the interpretation is the same as that of the irregular-plural-derived form, which is expected since the irregular plural of *ganen* 'demon' does not have a group interpretation (to the best of my knowledge). The interpretation for *k'al-äññä* 'being capable of speech', though, is different from the interpretation of *k'al-at-äññä* 'sorcerer, chatterbox'. I submit that *k'al-at* may have a group interpretation as 'set of words', and this supported by the common phrase *asärt-u k'al-at* (lit. 10-DEF word-PL) 'the Ten Commandments' (Kane 1990:673); each commandment is of course not an individual word, but a set of words. The group interpretation of 'set of words' then would form part of the meaning of *k'al-at-äññä*; sorcerers say groups of words as spells, and chatterboxes use groups of words. This analysis is preliminary, though, and awaits further confirmation from a detailed study of *k'al.*

[18] Thanks to an anonymous reviewer for suggesting this analysis.

usually corresponds to plant or vegetable life, seems to not be present at all. Further support for the analysis is that this same process has happened elsewhere in the language (e.g., *ahgur* 'continent' was an irregular plural of *(h)agär* 'country' but now is treated as a separate root with irregular plural *ahgur-at* 'continents'; Leslau 1995:172) as well as in Arabic (Zabbal 2002).

In sum, I have shown in this section that a few nouns that lack derivational morphology in Amharic are irregular plurals in form, but trigger singular agreement (combine with Num[−pl]), as the analysis predicts. These nouns are almost definitely group plurals, and can be analyzed via a group operator on *n* along the lines of Zabbal's (2002) analysis of Arabic broken plurals.[19]

5.3 Summary and a Final Alternative Analysis

In section 4, I developed a Num/*n* split analysis of plurality that generates the many types of plurals in Amharic. The analysis assumes that Amharic contains a *n*[+pl] that some roots may (but need not) combine with, and in section 5, I presented additional evidence for the independent existence of *n*[+pl] from its appearance inside derivational morphology and in group nouns.

The evidence for the independent existence of *n*[+pl] has one additional benefit: it serves to remove an alternative analysis of the facts based on agreement/concord. At first glance, the plurals in Amharic seem similar to negative concord: in both cases, there are multiple morphological instantiations of the same feature (plurality, negation), but only one interpretation of that feature. Zeijlstra (2008) develops a Multiple Agree approach to negative concord, whereby an often-null negative operator with an interpretable [neg] checks the uninterpretable [neg] features on negative items below it. This results in multiple formal expressions of negation but only one interpretable negation feature.

The analysis at first seems transferable to Amharic plurals in the following relatively straightforward way. There is a null plural operator in Num with an interpretable [pl] that enters into an Agree relation with any uninterpretable [pl] features below. One of these [pl] features is on *n* (irregular plural), and the other is on a functional projection (FP) between Num and *n* (regular plural). A regular plural is derived when *n* lacks [pl] features and the plural operator only agrees with F, and an irregular plural is derived when FP is absent and the plural operator only agrees with *n.* The uninterpretable plural features on F and *n* (when they are present) enter into an Agree relation with the interpretable plural feature on Num—this is upward Agree.

The analysis, however, makes an incorrect prediction about the words above that contain *n*[+pl] but are not interpreted as plural, like *atakɨlt* 'garden' and *atakɨltäññä* 'gardener'. From the perspective of Zeijlstra 2008, a *n*[+pl] must enter into an Agree relation with the null plural operator since it has uninterpretable features that must be checked. This in turn predicts that

[19] An anonymous reviewer asks if the group feature can occur on a bare, nonplural *n.* I submit that it does in group nouns that do not have irregular plural morphology, like *komite* 'committee', *mahbär* 'association', and *budin* 'team'. I define group nouns as in Barker 1992: these nouns have regular plural morphology (take *-otʃtʃ*) and can have a plural DP complement (e.g., *yä-tämari-wotʃtʃ-u komite* (lit. of-student-PL-DEF committee) 'the student committee'). Since none of these nouns have irregular plurals, it seems as if a root combines either with the nonplural group *n*, or with the plural group *n.* I leave the distribution of group features across Amharic *n*Ps for future work.

atakɨlt 'garden' and *atakɨltäññä* 'gardener' must be interpreted as plural, but this is incorrect; *atakɨlt* may be, and *atakɨltäññä* must be, interpreted as singular.[20]

In essence, a Multiple Agree account ties together plural *n* and plural interpretation, which is appropriate for negative concord, where a negative item does not appear without a negative meaning. However, in Amharic, plural *n* can appear divorced from plural interpretation, which indicates that a nonagreement account like the one sketched in section 4 is on the right track.

6 Conclusion

I have argued that Amharic has regular and irregular pluralization strategies, but they are not in competition for insertion. A variety of evidence supports the idea that the regular plural suffix is the realization of Num[+pl] and the various irregular pluralization strategies are the realization of *n*[+pl]. All the types of Amharic plurals can be generated from these assumptions, as well as the assumption that plural *n* and plural Num optionally undergo Fusion. These assumptions are additionally supported by the existence of *n*[+pl] in singular derived and nonderived words.

This article adds to the growing literature on multiple syntactic locations for plurality, and it provides an explicit analysis of how Num and non-Num plurality work together within the same language. It also makes one additional promising prediction, which I mention only briefly for reasons of space. Pluralia tantum nouns like *scissors* and *goggles* in English are classic examples of a type of ''lexical'' plurality, and Amharic (at first glance) seems to lack any pluralia tantum nouns. It may be that the configuration of the Amharic plural system, where some roots use a *n*[+pl] to express plurality *in addition to* a *n*, is unlikely to admit nouns that are ''lexically'' specified to *only* be plural. However, this must remain speculative until a thorough search of Amharic for pluralia tantum nouns can be completed and until a clear analysis of pluralia tantum nouns in languages like English emerges (see Acquaviva 2008 on the challenges therein).

To conclude, I would like to show how the analysis points toward a typology of the morpho-syntax of plurality that provides a plausible starting point for future research on crosslinguistic variation in plurality. Most languages with a contrast between regular and irregular plurals (e.g., English) do not show evidence for a split analysis; instead, regular and irregular plurals are in competition for the realization of Num. These languages do not have double plurals (**feets*, **childrens*), and the noun stock is relatively cleanly divided into nouns that have regular plurals and nouns that have irregular plurals.[21]

[20] Since the issue with an Agree account centers on the requirement that uninterpretable features must be checked, it might seem promising to switch to a framework where un*valued* features, and not un*interpretable* features, cause a crash (which I generally assume in this article; see above). However, this change raises a separate problem. In this approach, the null operator would have an interpretable unvalued plural feature that acts as a probe. It would agree with either or both of F and *n*, which would each have uninterpretable valued plural features. Since plural *n* is valued, it could appear in a structure that lacks the plural null operator without causing a crash (e.g., *atakɨlt* 'garden'). However, this opens the door to plural F also appearing without a plural null operator (i.e., the suffix *-otʃtʃ* appearing without plural meaning), and that is unattested.

[21] There are a smattering of interesting exceptions, though (Acquaviva 2008); see, for example, double plural *cherubims* and *brothers* vs. *brethren* in English. See also Alexiadou 2011 on the fact that Greek plural mass nouns are *n*-plurals.

On the other hand, some languages have been argued to have only idiosyncratic plurals—for example, Somali (Lecarme 2002), Halkomelem Salish (Wiltschko 2008), and Korean (Kwon and Zribi-Hertz 2004). This type of plural is almost always analyzed as involving some kind of head that is closer to the root than Num (*n*: Lecarme 2002, Acquaviva 2008; a compound noun: Kwon and Zribi-Hertz 2004; a root modifier: Wiltschko 2008).

Amharic then appears to have a hybrid plural system involving both Num and a lower source of plurality. I speculate that Amharic has this type of system because of historical accident. Other Semitic languages (e.g., Hebrew) have been analyzed as having Num-based plural systems (e.g., Ritter 1991), whereas the Cushitic language Somali has been analyzed as having a purely *n*-based plural system (Lecarme 2002). There has been extensive contact between Amharic and the Cushitic languages of Ethiopia, which may have led to an earlier Semitic Num-based plural system changing into a plural system that still includes Num but also has some *n* plurality.

Overall, this approach leads to a typology of the morphosyntax of plurality. Languages can have wholly Num-based plurals (e.g., English), *n*-based plurals (or possibly closer-to-root plurals, where all plurals act idiosyncratically), or split plurality (a regular/irregular contrast in plurality expressed through two different heads).

(46) *Morphosyntactic typology of plurality*
  a. Num-based plurality (English, Hebrew, etc.)
  b. *n*-based plurality (Somali, Halkomelem Salish, etc.)
  c. Split plurality (Amharic)[22]

Identifying further predictions of this typology (and investigating whether they are correct) is a central goal for future research on crosslinguistic variation in plurality.

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[22] Other potential split-plural languages include Maay (Cushitic; Paster 2010), Yiddish (Lowenstamm 2008), and possibly Breton (Trépos 1957); all these languages have double plurals and a regular/irregular contrast. See also Harbour 2011 on Kiowa for an alternative way in which split plurality can be configured.

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