N morphology and its interpretation: The neuter in Central Italian varieties and its implications

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Abstract

We characterize Romance inflectional class morphology in Nouns as endowed with a semantic content, providing evidence about its active involvement at the syntax-semantic interface. We argue that the so-called neuter of Central Italian dialects involves coding of the mass/count distinction, which can in turn be interpreted as the reflex of a more primitive property, opposes non-individual content to instances of individual denotation. Indeed the -*o* 'neuter' inflection of Central Italian varieties is compatible not only with mass nouns but also with eventive contents and with the invariable inflections found with perfect participles of unergative/transitive verbs. We show that mass *vs*. count semantic content is available in other Indo-European languages and in genetically unrelated languages through nominal class morphology supporting the idea that nominal class is a classifier.

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1. Background: Romance N inflections

The empirical focus of this work is on a set of phenomena observed in Center-South Italian varieties, namely the presence of an *–o* neuter inflection, and its coupling with a non-count interpretation. We argue that this phenomenon can provide some insight on the nature of the vowel morphology that inflects nominal bases in Romance languages. In this section, we review the general issues raised by such morphology.

In many Romance varieties, number, lexicalized by plural *–s*, forms a separate constituent from vocalic endings fixing inflectional class and gender. Typical examples are Sardinian dialects, for instance the accusative clitic paradigm in (1) from Manzini and Savoia (2005) (cf. Harris 1994 for an analysis of Spanish). The Q categorization for number is fairly transparent; the N categorization will be justified in the discussion to follow.

(1)   a. $[[_D \, \d{d} \quad [_N \, u]]$ 'him'   *Paulilatino* (Sardinia)
      b. $[[_D \, \d{d} \quad [_N \, a]]$ 'her'
      c. $[[_D \, \d{d} \quad [_N \, ɔ]] \, [_Q \, s]]$ 'them(m)'
      d. $[[_D \, \d{d} \quad [_N \, a]] \, [_Q \, s]]$ 'them(f)'

The Italian examples in (2) illustrate the equally well-known fact that inflectional classes and genders are not isomorphic. Nouns with different inflections, i.e. *–a* and *–o*, may belong to the same gender, namely feminine as in (2a-b) or masculine as in (2c-d). Conversely, nouns with the same inflectional ending may belong to different N classes, as in (2b-c), where *–a* corresponds to either feminine or masculine, vs. (2a, d), where the same is true of *–o*. The distinction between inflectional class and gender is made in the descriptive and typological literature; in (2) it is evident that agreement is determined only by gender (Corbett 1991).

(2)   a.   l-a   man-o destr-a   'the hand right'
      b.   l-a   cas-a nuov-a   'the house new'
      c.   il   poet-a famos-o   'the poet famous'
      d.   l   alber-o vecchi-o   'the tree old'

A generative approach to the dissociation of inflectional class and gender is provided by Harris (1991), within a Distributed Morphology framework. In (3), we reproduce a typical set of his lexical entries. In order to read this table, it is

worth keeping in mind that Harris aims at capturing the subregularities of the system, so as to be able to economize on lexical entries – whence their radical underspecification. For instance, masculine is taken to be the default for gender and *]o* the default for masculine, so that neither *m(asculin)* nor *]o* are stated as properties of *libro* (first column). Gender also has the property of being introduced on adjectives under 'concord', i.e. agreement; in other words adjectives lack gender specifications, because these are predicted by the syntax.

(3)

		libro(m)	*libra*(f)	*libre*	*dia*(m)
	Meaning	'book'	'pound'	'free'	'day'
	Stem	/libr/	/libr/	/libr/	/di/
	Category	N	N	A	N
	Gender		f		
	Class			]∅	]a

The type of lexical entries proposed by Thornton (2003) within a lexical morphology framework, as in (4), is directly comparable to the DM entries in (3).

(4)

	CASA	ALBERO
Phonology	/kas/	/alber/
Morphology	Class 2(-a)	Class 1(-o)
Syntax	feminine	masculine
Semantics	'house'	'tree'

Here we follow Distributed Morphology (Halle and Marantz 1993) in assuming that the same structural, categorial and interpretive organization underlies both syntax and morphology. This commits us to assume that units listed in the lexicon are morphemes and that words are best definited as derived concepts (for instance phases, cf. Marantz 2007). In keeping with the Minimalist Program (Chomsky 1995), we assume that morphosyntactic structures are projected from the lexicon, where we understand lexical items as pairs of Conceptual Intentional (CI) and Sensory Motor (SM) properties. In other words, we exclude Late Lexicalization and the morphological readjustment component that this allows for in DM.

The treatments in (3)-(4) adopt the traditional construal of Romance vocalic inflections as meaningless pieces in the morphophonological construction of the noun. More recently, however, Fábregas (2012) argues that a Class Marker (CM) functional projection, represented by the inflectional class vowels –*o*, -*a*, -*e* in Spanish, turns the set of properties denoted by NP (a predicate) into a kind, hence an argument. Gender receives a separate representation, namely on the N head that provide the categorial content for the root, as in (5). An obvious problem (noted by Fábregas himself) is that Class on adjectives cannot be construed the same way, since adjectives do not express kinds. In any event CM has a LF interpretive import and cannot be understood simply in terms of its contribution to PF structure.

(5)

```
              CMP
           /        \
        CM            NP
                    /    \
                  N        √
              [Gender]
```
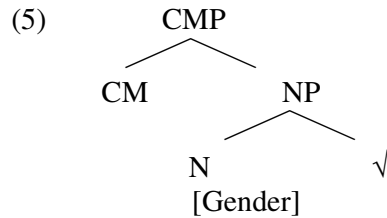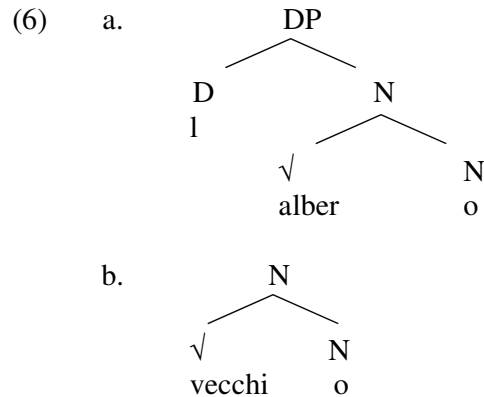
An analysis of the interpretive contribution of inflectional class vowels is independently proposed by Manzini and Savoia (2005, 2007, 2011). Their idea is that class inflections do not so much turn a root (a predicate) into a referential term as they are themselves elementary Ns, which concur to saturating the R-role of the predicative root.[1] The assumption that even non-eventive nouns are predicates and that they have an argument slot, called the R-role, is fairly standard in the generative literature (Higginbotham 1985, Williams 1994). Binding of the R-role by higher Q/D operators yields what is ordinarily known as a referring DP.

Useful reference can be made here to Kratzer (2009: 221), who analyses pronouns as follows: "the alleged ''3rd person'' features are in fact gender features, a variety of descriptive feature ... If [a descriptive feature] is to grow into a pronoun, it has to combine with a feature [def] that turns it into a definite description. If [def] is the familiar feature that can also be pronounced as a definite determiner in certain configurations, it should head its own functional projection, hence be a D. It would then not originate in the same feature set as descriptive features, which are nominal, hence Ns". This structuring of pronouns, including clitics, is supported by morphological analysis in Romance as illustrated in (1). In the words of Manzini and Savoia (2011), "clitic pronouns ... are not elementary lexical entries, but correspond to the merger of two separate morphemes, namely an *l/d/ʃ* allomorph, introducing definite reference, and inflectional endings introducing the properties traditionally described in terms of number, gender and case".

Applying this to nouns, the inflectional morphology *-o, -a* provides N descriptive content to the predicative base, which must further be bound by Q/D operator material in order to refer. Take Italian example (2d). In structure (6a) for *l'albero* 'the tree', the addition of D/Q material provides a referential closure for the N descriptive content and hence a saturation of the R-role. In the absence of a D/Q closure, a predicate is still obtained, i.e. what is conventionally known as an adjective, as in structure (6b) for *vecchio* 'old'. In structures like (6a), the nominal character of *albero* depends on the presence of the N inflectional head *-o*. Other authors, working with the *n* functional category of Marantz (1997) suggest similar ideas, for instance that "the /-a/ morpheme of Spanish *gata* 'she-cat' … represents … the n° head taking the √gat root as its complement" (Kihm 2005: 462). Similarly for Ferrari Bridgers (2008: 253) "with regard to feminine nouns … the feature [n] is morphologically realized as ⟨a⟩".

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[1] An anonymous reviewer raises the issue of inflectional class vowels on Romance verbs. Manzini and Savoia (2005: §7.2.2) in fact suggest that class vowels on verbs are also N and act as an elementary saturation of the internal argument of the predicative base.

(6)   a.

```
                DP
              /    \
            D        N
            l      /   \
                  √      N
                alber    o

      b.        N
              /   \
            √       N
          vecchi    o
```

One may begin clarifying the status of N in (6) by beginning by the fundamental distinctions between lexical and functional categories, and between derivational and inflectional morphology.[2] In fact, the lexical/functional distinction or the derivational/inflectional one, are traditional descriptive notions, which are themselves in need of clarification. Borer (2005: 30-32) has this to say on the lexical vs. functional divide: "the conceptual array consists of listemes. The general reservoir of such listemes constitutes the *encyclopedia,* a list of all arbitrary pairings of sound and meaning … Alongside the encyclopedia and distinct from it, the grammar has a functional lexicon, including, in essence, grammatical formatives… two major strategies [are] universally available in conjunction with the licensing of functional structure. One involves the projection of an abstract head feature…the input to the phonology, which will (or will not) dispense a phonological representation of it. The other strategy involves the licensing of functional structure through an independent f-morph". In other words, the conceptual lexicon and the functional lexicons are entirely separate storage devices – and not even the form of their storage is similar, since lexical categories have a 'phonological index', but not functional categories. This is similar to what Embick (2000: 187) assumes within the DM framework, namely a 'distinction between the functional and lexical vocabularies of a language … functional categories merely instantiate sets of abstract syntacticosemantic features', while the actual phonological terminals corresponding to these abstract categories are inserted postsyntactically (Late Insertion).
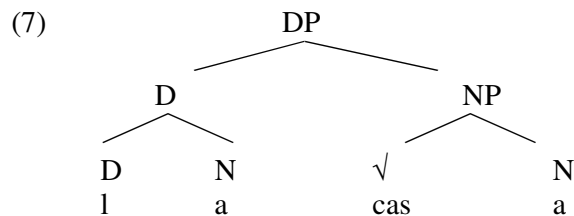
By contrast, Manzini and Savoia (2007: 4) "pursue a model under which … there is a unified conception of lexical variation … of the type traditionally associated with the substantive lexicon: there is a conceptual and grammatical space to be lexicalized and variation results from the distinct partitioning of that space … so-called functional space is just like all other conceptual space … the distinction between functional (i.e. grammatical) contents and conceptual ones is an external one; as such it may very well be useless, and at worst it may obscure the real underlying linguistic generalizations". Nobody denies that natural languages have both predicates (the core lexical category) and operators (the core functional category) – however it seems to us that it is premature to project this and partially correlated distinctions into overarching notions of separate lexicons or different derivations as normally implied by the functional/lexical divide.

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[2] Asked by one of our anonymous reviewers.

Another distinction which is often made is that between inflectional and derivational morphology. Again Borer (2005: 51) has clear-cut views on the matter, namely that "(much of) inflectional marking is non-syntactic and non-hierarchical, while (much of) derivation is hierarchical, and at least at times, syntactic". In other words, something like DM is appropriate for derivational morphology, while for inflectional morphology a word and paradigm based model is more suitable. However many theorists would resist such a distinction, including DM ones. As before, overarching classifications such as derivation vs. inflection involve real issues, regarding in particular categorization and labelling of constituents (Chomsky 2013). But then it is more useful and revealing to refer directly to the latter – as we will do in the rest of this section.

1.1   Agreement in gender

Before we can proceed, the question arises how agreement, say between the two – *o* inflections in (6a) and (6b) (or the major categories carrying them), is to be derived. Even more basically, one may consider a D-N structure like (7), where both N and D are analysable into a lexical base and an –*a* inflection.

(7)
```
                    DP
           _____
          |                |
          D                NP
        _____            _____
       |     |          |     |
       D     N          √     N
       l     a         cas    a
```

As is fairly well understood, the multiple agreement seen in Romance DPs poses special problem to minimalist probe-goal Agree (Carstens 2000 and subsequent literature). Even in the elementary example in (7), D (*la*) would be expected to be a probe on c-command grounds. However D can be interpreted in isolation, namely as a (clitic) pronouns – which means that its phi-features must be interpretable. If we therefore associate the N head with uninterpretable features, we are faced with a probe that looks upwards rather than downwards – namely to an interpretable D head that eventually checks it. This type of difficulty has recently given rise to a stream of literature about multidirectional probing/agreement. Baker (2008) argues that Agree can be upward as well as downward. Béjar and Rezac (2009) argue that upward agreement kicks in when 'standard' downward Agree is insufficient for feature checking, i.e. on Economy grounds. Zeijlstra (2012) proposes that Agree is always upward.

Probing both upwards and downwards may achieve empirical adequacy. Theoretically however it not only weakens the minimalist conception of agreement but more importantly, it defies its purpose. As pointed out by Brody (2006), minimalist Agree differs from other treatments of agreement (including generative ones) in introducing a probe-goal asymmetry, so that agreement becomes more like movement than like agreement in the classical, symmetric sense of the term. If transferred to the domain of movement, the option of probing upward or downward would mean that movement can go down as well as up, an option not normally entertained. Everything that weakens the asymmetry of agreement, weakens the case for the minimalist account of it in terms of

uninterpretable goal – probe relation. In other words, it is not at all clear how multidirectional probe-goal Agree would be more restrictive than symmetric Agree, not triggered by a probe-goal mechanism at all.

Manzini and Savoia (2005, 2007, 2011) notice that if agreement morphology is an inflectional-level saturation of argument places, as in the discussion surrounding (6), then the Agree rule matches n-tuples of elements that are all interpretable and as such concur to the saturation of the same argument slot(s). Following their insight and departing from current minimalist practice, we assume that there are only positive properties in language – and we crucially understand that this restriction applies to the meta-feature of interpretability. Therefore, there are no uninterpretable properties; all lexical material is interpreted at LF. Despite the perceived monolithic nature of the current minimalist model, the existence of uninterpretable features (i.e. the probe-goal mechanism) and the operation of Agree are logically independent. Suppose we renounce the distinction between probes (uninterpretable) and goals (interpretable). Still we can say that two elements agree, in the sense that the Identity relation (Match) holds of them. If there are locality effects on Agree (Minimal Search) these can further be incorporated as properties of the identity relation.

In short, Agree, *qua* Minimal Search and Match (Chomsky 2001), does not depend on uninterpretability, since the identity relation only and Minimality are defined independently of unintepretability. Uninterpretability in Chomsky's (1995, 2001) conception, is simply the trigger for Agree – since nothing forces Agree to apply, but the need to eradicate uninterpretable features before the LF interface, when Full Interpretation applies. Feature checking results in the deletion (or the valuation etc.) of the uninterpretable features by the interpretable ones – so that only interpretable material reaches LF. In the Manzini and Savoia model, therefore, an alternative trigger is needed. We propose that Agree is triggered directly by Full Interpretation at the LF interface, specifically by the Theta Criterion requiring a one-to-one mapping between argument slots and referential items.[3]

Consider (7) again in the light of this proposal. There is one predicative head in (7), namely *cas-* 'house', with one open slot (the R-role). We have seen that the N inflection –*a* contributes basic descriptive content towards the satisfaction of the R-role, while the D definiteness base *l-* binds this descriptive content. However while in (6a) we find a pure D exponent *l*, in (7) *l-* is itself endowed with descriptive content N, lexicalized again by –*a*. In order for a single referent to be individuated by the inflectional material of the DP, the two N inflections must be identified (by Match), i.e. they must be identical (or non-distinct) – in a word, they must Agree. In short, the treatment of N morphology suggested here is compatible with the minimalist model, except that attributing interpreted status to all occurrences of N, requires a different trigger for Agree, at least within DPs. We have proposed that since this trigger cannot be the disposal
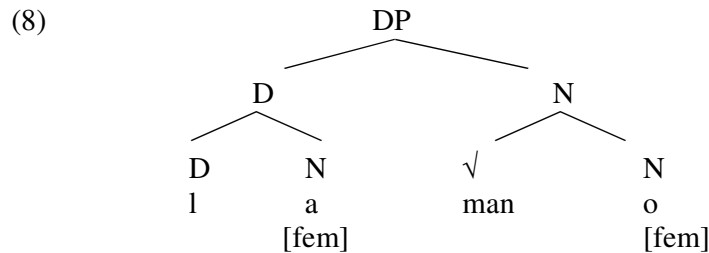
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[3] In answer to an anonymous reviewer, the concrete implementation of the model proposed can be checked in the works quoted – as well as in a number of works both more recent and not necessarily involving Romance, for instance Franco et al. (2015) on linkers (analyzed as agreement) or Manzini et al. (2014) on agreement patterns in Punjabi ergativity splits.

of uninterpretable features before LF, it must be the need to individuate a single referent where multiple lexicalizations of the same referential material are present.

1.2   N and gender (nominal class)
So far, following Manzini and Savoia (2005, 2007, 2011) we have provided a conception of N morphology which makes it into interpretable material, and a model of Agree that accounts for the matching under locality of pairs (or n-tuples) of equally interpretable material. Now, in our example (7), the pair of N inflections *–a, -a* that stand in the Agree (identity) relation happen to be identical. We know however that this is coincidental because of examples like (2). Thus in *l-a man-o* 'the hand', Agree holds of the pair (*-a, -o*). In order to understand the data in (2) we therefore need a better characterization of the interpretive content carried by N.

In Harris's (1991) schema in (3), gender is a listed property of a root as is its class. In Fàbregas (2012), as schematized in (5), Gender first combines with the root and then the constituent combines with the Class marker vowel. If, following Manzini and Savoia (2005), it is N morphemes that enter into Agree, then gender must be a property of N. If we then assume that N comes associated with gender specifications, we obtain representations of the type in (8). The matching of genders in (8) means that (*-a, -o*) can individuate the same descriptive content (and ultimately argument) satisfying the theta algorithm at the LF interface.

(8)

```
                              DP
                   _____
                  |                        |
                  D                        N
              _____                  _____
             |        |                |        |
             D        N                √        N
             l        a                man      o
                    [fem]                      [fem]
```

Kihm (2005: 486), compares Romance languages with the Bantu language Manjaku – and specifically the nominal class morphology of Bantu with the gender/inflectional class morphology of Romance. He concludes that "the basic difference ... appears thus to be at the same time limited and profound: limited because both language (UG) varieties share the category I term Class … profound because the lexical expressions of the said category are meaningful roots in Manjaku, but semantically empty functional items in Romance." However Déchaine et al. (2014: 18) endorse a characterization what we call N morphology in Romance as endowed with a semantic content on a par with nominal class morphology in Bantu, in the following terms: "French class partition is based on biological gender, distinguishing FEMININE and MASCULINE ... class partition is subset formation, with each class/subset defined by a particular semantic feature (Corbett, 1991: 30–32). And since the set of semantic features is not fixed, languages vary with respect to which features, and how many, they recruit for N-classes", leading to the much richer N/class system of Bantu languages.

Siding essentially with Déchaine et al. we take that feminine and masculine are the CI content of the N endings in structures like (8). Let us

reiterate this point, by reference to the discussion in section 1. There we saw that *man-* 'hand' has just a predicative content, implying an argument slot. The N categorization is contributed by morphology, whose descriptive content is now revealed to be gender, i.e. a nominal class system which provides for just two classes of individuals, masculine and feminine – indeed as indicated in structures like (8). What this says is that a predicate is nominalized by a mechanism that classifies it into one of the two nominal classes of the language.[4] We shall comment more in detail on the gender/nominal class/classifier connection in section 3.

At this point we need an explicit system for matching the appropriate endings and gender content with the different nominal bases. An important preliminary observation is that the range of theories into which the present one falls are powerful enough to stipulate the required information. For instance, in their account of Latin, Halle and Vaux (1998) assign class diacritics (I-V) to lexical bases; the contexts of insertion for thematic vowels are in turn defined in terms of such diacritics. We could of course do the same for the Italian nouns in (2), following for instance Thornton's (2003) classes, as sketched in (4). At the same time Halle and Vaux also treat gender as a property of lexical bases – which is not possible in present terms since we suggest that of gender is the content of the N morphology.

Within the same range of theories there are alternative means by which, in the words of Acquaviva (2009: 5) "morphological and semantic information can be dependent on the choice of a root without being encoded on the root itself". His idea is that "root Vocabulary items are *licensed* in certain syntactic environments. To say "a noun has gender X", for instance, means in this perspective "a root Vocabulary item is licensed in the context of [n] with gender X"… Licensing statements that apply to lists of roots, by themselves, are not more (nor less) arbitrary than explicit specifications on each root … The crucial difference from earlier approaches is that meaning arises in a construction, not in a root". Simplifying even further Kayne (2010: 73-74) suggests that gender is a functional category selecting for nominal bases. In other words the standard syntactic notion of a selectional restriction is powerful enough to encode the fact that a certain morphological form or content is associated with a certain lexical base and not with others (or vice versa).

Rather than saying that the predicates *cas-* in (7) or *man-* in (8) are

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[4] It is beyond the scope of the present work to comment on the relation between nominal class inflections and more conventional nominalizers like the derivational suffixes *–tion*, *-er* in English, or their Italian counterparts *–zione*, *-tore*. It is not irrelevant that in Latin the same suffixes *–(t)ion-* and *–(t)or* are transparently related to the perfect participle (see the classical discussion of Matthews 1972). In Italian *–(t)a* nominals are still transparently related to perfect participles. This suggests to us that so-called derivational morphology may be akin to aspectual specifications, which do not categorize roots. The suggestion is consistent with the observation that the *–tion* suffix in itself (and equivalently *–zione* in Italian) is compatible with verbal inflections. In any event the prediction of the line of research pursued here is that categorization is a phenomenon connected to inflection and syntactic context – lower layers of structure do not categorize, though their content (for instance aspectual content) may contribute to restrict the set of possible categorizations.

feminine, we will say that they are selected by feminine gender. Furthermore we may assume that the N morphology *–a, -o* each select for (large classes of) nominal bases, including *cas-* in (7) or *man-* in (8). Since in the particular proposal that we put forth there are not separate gender and inflectional class slots, but gender is the (interpreted) content of the N inflection, the two will somehow have to be put together. In (9) we schematize a possible formalization, which says for instance that the nominalizing morphology *-o* with content feminine is inserted in the context defined by the root *man-*.[5]

(9)   *-o*:   N, feminine /*man-* _____
       -a: N, feminine/*cas-, etc.* _____

       The aim of the present paper is to provide a preliminary argument in favour of the semantically contentful nature of N morphology, based on the so-called 'neuter gender' of Central Italian varieties and specifically, on the observation that mass vs. count content is made available through nominal class morphology (cf. Rohlfs 1968 [1949]: §419, Manzini and Savoia 2005: §5.1.2 among others).

2. The Center Italian neuter

In several Central Italian varieties N morphology appears to encode the count/mass distinction. In some of these varieties, the opposition between count and mass is only available on determiners and quantifiers of the noun, as illustrated below for *Mascioni* (Abruzzi) with data from Manzini and Savoia (2005). The examples in (10a'-d') illustrate the *–a* inflection, associated with feminine N class. The data in (10a-f) illustrate the *–u* inflection, associated with the masculine N class for determiners, adjectives, pronouns and nouns for the whole set of lexical and functional categories within the DP. Note that in (10e-f) – *u* shows up as the invariable inflection of unergative and transitive perfect participles, which do not enter agreement with either the internal or the external argument DP.

(10)   a.   l-u/kwiʃt-u   jatt-u   *Mascioni* (L'Aquila)
                the/this   cat
         b.   kwill-u bell-u jatt-u
                that   nice   cat
         c.   ɛ   kkwill-u/kkwiʃt-u   vvecc-u
                he.is   that   /this   old
         d.   l-u   viju

_____

[5] In Romance languages like Italian, lacking a specialized *–s* morphology for plural, plurals in Italian are also not predictable from singulars, complicating the empirical picture further. Manzini and Savoia's (2005) propose that Italian has a dedicated plural morphology *–i*, while other plurals correspond (as in Bantu) to a switch in nominal class morphology, e.g. *-a* to *–e*. It is possible that plural morphology occupies the Q slot, rather than the N slot in the template suggested in (1), cf. Déchaine et al. (2014) for a similar structural proposal on Bantu.

	him	I.see	
e.	a	ormit-u	
	s/he.has	slept	
f.	a	maɲɲat-u	trɔppu
	s/he.has	eaten	too.much
a'.	ll-a	bbɛll-a	femmon-a
	the	nice	woman
b'.	kwell-a/kweʃt-a		femmon-a
	that/this		woman
c'.	ɛ	kkwell-a/ vvɛcc-a	
	she.is	that/old	
d'.	l-a	viju	
	her	I.see	

The data set that directly interests us here is (11), where the mass noun *vin-u* 'wine' is exemplified. The noun itself is associated with –*u* inflection, as is the adjective modifying it in (11b). However all of the determiners of the noun have a different –*o* inflection, which in *Mascioni* is uniquely associated with determiners of mass nouns. Similarly in (11c) the pronoun can only refer to a mass referent (not to an individual).

(11) a.   l-o/kweʃt-o/kwell-o vin-u   *Mascioni* (L'Aquila)
             the/this/that   wine
      b.   kwell-o   vin-u   vecc-u
             that   wine   old
      c.   l-o   viju
             it   I.see

In traditional terms, a language like *Mascioni* has three genders, including a neuter in –*o*. At the same time, the neuter and the masculine are neutralized (syncretic) in all nominal/adjectival inflections, with the sole exception of determiners. This treatment can easily be replicated within theoretical frameworks of the Distributed Morphology type that includes Late Insertion. Thus three genders can be present in the abstract syntax, though the vocabulary of *Mascioni* will include a single exponent, namely –*u*, for both masculine and neuter, unless merged with D/Q. In section 1 however we assumed a different framework, where morphosyntactic trees are projected from lexical terminals. It remains therefore to be worked out whether a three gender analysis can be upheld in such a framework and how.

Before considering this matter, let us complete our review of Central Italian data by making reference to varieties like *Amandola* (Marche), where the three N classes ('genders') are distinguished not only on Ds but also on lexical categories (nouns, adjectives, participles as well) (data from Manzini and Savoia 2005). In (12a) the unaccusative predicate 'come' agrees with the subject, understood to be human/animate, in the masculine or feminine, displaying –*u* and –*a* morphology respectively. (12b-c) show that neuter –*o* is found as the invariable inflection on meteorological verbs – as well as on unergative and transitive verbs. In keeping with the well-known generalization about perfect

participle agreement in Italian the transitive participle agrees with the clitic internal arguments in (12d-e). Importantly (12e) points to the fact that underlying ontology expressed by the *–o, -u* nominal class distinction does not exhausts itself in the mass/count distinction since what matters here is the eventive/propositional denotation of the argument *lo* 'it'.

(12) a. ε   vvinut-u/-a   *Amandola* (Fermo)
          s/he.is come-m/-f
      b. a   pjot-o
          it.has rained-n
      c. a   parlat-o/camat-o   tutti
          s/he.has   spoken-n/called-n   everybody
      d. lu   so   viʃtu
          him/it I.am   seen
      e. lo   so   ssaputo
          it   I.am   known
          'I have been told it'

In traditional terms, in a language like *Amandola* there are again three genders/N classes, namely masculine, feminine and neuter – and the neuter corresponds to the Elsewhere N class, so that it will show up in environments where invariable inflections are selected, such as those in (12). Apart from this, it characterizes not only mass nouns (cf. the data on Marche varieties in Loporcaro and Paciaroni 2011),[6] but also eventive/propositional contents.

Kucerova and Moro (2011) adopt Borer's (2005) model of the functional projections of N, where count status is represented in a DivP head (cf. Section 3). The data they seek to predict are of the *Mascioni* type. According to Kucerova and Moro, "a mass noun is structurally an NP and as such has no number projection"; furthermore, "since gender is dependent on number, mass nouns are necessarily genderless". In their words, "if a mass noun can be interpreted as <e,t> … the overt agreement is realized as the morphological default. In our case we obtain M.SG. on predicative adjectives. In contrast, if the structure requires type <e>, for instance when the φ feature values are morphologically realized on a referential pronoun, an additional structure must be introduced. The marked morphological realization we see in these cases – our "third" gender – is a direct reflex of the last-resort semantic process implemented as a structural adjustment". The authors acknowledge that there is an implementation problem concerning 'structural adjustment'; in any event a realizational (Late Insertion) view of inflectional morphology is implied, of a type explicitly rejected here. Apart from this, Kucerova and Moro do not make clear what the relation between languages

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[6] The literature quotes such minimal pairs as *ferr-u* 'iron (count)' (i.e. iron instrument) vs. *fɛrr-o* 'iron (mass)' (i.e. the material) in *Borgorose* (Lazio), cf. Kucerova and Moro (2011); or *pel-o* 'hair (mass)' vs. *pel-u* 'hair (count)' (i.e. a single strand of hair) in Asturian, cf. Hall (1968).

A similar pattern was attested in Latin, where there were nouns whose semantic classification was determined by the means of gender alternation, as in the pairs *caseus* (cheese, masculine, 'one single (piece of) cheese') vs. *caseum* (cheese, neuter, 'cheese as a substance') or *olea* ('olive', feminine) vs. *oleum* (neuter, 'oil') (cf. Stark 2005).

of the *Mascioni* type, that they consider, and other types of Romance varieties may be, including for instance *Amandola*.

2.2   Analysis

For Kucerova and Moro (2011) the *-o* ending is a more morphophonological reflex of an interpretive operation, itself bearing no interpretive properties. In this they agree with Loporcaro and Paciaroni (2011), according to whom *–o* corresponds to neuter gender in the traditional sense of the terms, deprived of any interpretive significance. However in section 1, N endings have been argued to represent elementary arguments of the predicative base. In particular, they contribute descriptive content towards the satisfaction of the R-role of the predicate, normally N class content (masculine/feminine). It seems therefore particularly natural, within the framework defined in section 1, to state that N class *–o* morphology is associated with mass denotation while *–u* is associated with count denotation.

At the same time, it should not be forgotten that *–o* also shows up in contexts where the argument denoted is propositional (a situation), not only with mass nouns – or when an invariable/impersonal inflection is needed. In this connection, Western Ibero-Romance varieties are also relevant. The *–o neutro de materia* (mass neuter) is found on predicative adjectives (including post-nominal ones) as well as on pronominal elements, though not pre-nominally, i.e. on determiners, quantifiers, and (non-predicative) adjectives, as shown in (13). What is noteworthy is that Cantabrian *–o* is found on predicates referring back to mass nouns, both masculine, as in (13a), and feminine, as in (13b).

(13)   a.   El/*l-o   buen/*buen-o vin-u blanc-o   se toma fri-o.
            the   good   wine   white   is drunk cold.
            Pruéba l-o
            taste   it
            'Good white wine is drunk cold. Taste it.'
        b.   L-a/*l-o   buen-a/*buen-o   lech-e fresc-o se   toma
            the   good   milk   fresh   is   drunk
            templad-o.   Pruéba l-o
            warmed.   taste   it
            'Good fresh milk is drunk warm. Taste it.'
                                                Cantabrian (Fernández-Ordóñez 2009: 58-59)

In Central Italian varieties, we know that *-o* is compatible with mass nouns (cf. the *Mascioni* data) but also with propositional contents and with the invariable inflections found with perfect participles of meteorological verbs as well as of unergative/transitive verbs (cf. the *Amandola* data). Following Manzini and Savoia (2005, 2007) we assume that invariable participial agreements are the inflectional counterpart of expletive pronouns – as are 3rd person singular inflections on finite verbs. This presupposes that perfect participles in perfect tenses have a sentential-like structure (Kayne 1993) and expletive-like subject (Egerland 1995 on the development of modern Romance perfects from Latin). Manzini and Savoia further suggest that expletives are not non-interpretable material to be deleted by LF (Chomsky 1995). More simply, they correspond to

open variables; for instance in the typical expletive sentences of the French type *Il arrive des hommes* 'lit: It arrives some men', the value of the open variable is set by predicate identification, creating a focus structure (x arrives and x= men, cf. also Frascarelli 2007).

What is relevant for present purposes is that what sets apart all of these occurrences is not mass status as opposed to count status – but a more primitive property opposing instances of individual and non-individual denotation. In Pomino and Stark's (2009) terms, the traditional neuter corresponds to a non-individuated property; feminine and masculine are subclasses of [+individuated]. They discuss standard Spanish, which is essentially of the *Mascioni* type, in that only Ds have the special, 'neuter' inflection.[7] However, as pointed out by Loporcaro and Paciaroni (2011), in dialects where *–o* and *–u* are differentiated on Ns, not all *–u* inflected Ns are count nouns; this means that *–u* is not associated with a count/individuated characterization.

Let us consider first *Amandola* and other dialects of the Marche, where all of the evidence points to a genuine 'neuter' gender, partitioning the N class logical space on a par with masculine and feminine. All evidence is compatible with the conclusion that the N class morpheme *–o* is associated with non-individual content, as in (14), – though *–a* and *–u* are presumably gender classes of the standard Romance type, involving no necessary reference to individual content.
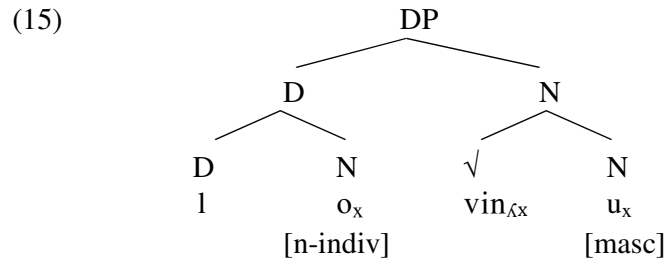
(14)   [$_N$ o$_{non-individual}$]   *Amandola*

The fact that in *Mascioni* the distribution of *–o* is restricted to D categories (definite and demonstrative Ds) can be expressed simply by a selectional restriction. Agreement patterns reveal that *–o* carries the non-individual property; indeed only mass nouns admit of the *–o* series of Ds or are picked up by *–o* pronouns. Therefore we effectively propose the same lexical entry as in *Amandola* – except with the added constraint that it selects for D.

Now, in *Mascioni*'s (15) Agree (Minimal search and Match, i.e. identity, as in Chomsky 2001) applies to *–o* and *–u,* which are both read as saturations of the predicative base 'wine' within the scope of the *l-* (D) operator. In keeping with the discussion that precedes, the *–o* inflection on the determiner contributes to the DP to the definite quantifier a non-individuated property. The *–u* inflection on the predicate 'wine' in (15), on the other hand, contributes a masculine property.

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[7] There are other Romance varieties in which only a sub-set of D elements may encode the count-mass distinction. An example is Portuguese, in which the distinction appears only in the paradigm of demonstratives (e.g. *isto/isso/aquilo* [mass - singular] vs. *êste/êsse/aquêle* [count – singular]) (Ledgeway 2012).

(15)

```
                            DP
                  ┌──────────┴──────────┐
                  D                     N
              ┌───┴───┐             ┌───┴───┐
              D       N             √       N
              l       o_x          vin_ʎx    u_x
                   [n-indiv]              [masc]
```

It is evident that in order for the content of –*o* and –*u* to be non-contradictory, masculine, feminine and non-individuated cannot partition the N classes space. However it is not possible to consider masculine and feminine as subclasses of the individuated class – as discussed in connection with Pomino and Stark's proposal. Rather it seems reasonable to assume that though in principle [individuated] defines an N-class divide independent of the [gender] one – in the Central Italian varieties under study the non-individuated property is defined only for a subset of the masculine N-class. Something similar is proposed for Neapolitan by Ledgeway (2009), who however does not consider the wider Romance picture. If therefore non-individuated is a subclass of masculine, the entry for *Mascioni*'s –*o* is as in (16).[8]

(16)   [$_N$ o$_{n\text{-ind, masc}}$], selects for D   *Mascioni*

One may venture to suggest that the lexical base *vin-* in (15) selects for both masculine and non-individual N-class. Because of the restriction to Ds in (16), this subcategorization requirement can be fully satisfied only at the phrasal DP level, namely by D. The data of Cantabrian point to a different system yet, where the [non-individual] class freely cross-cuts the masculine and feminine classes. Thus both (-*u*, -*o*) in (13a) and (-*u*, -*a*) in (13b) define referentially compatible sets. It is naturally possible to assume that in Cantabrian only pronouns and adjectives may associated with the non-individual inflection –*o*. This however does not quite explain why the same adjectives can take on the –*o* inflection DP-externally, but not DP-internally. We surmise that embedding a predicate in a noun phrase as in *el/*l-o buen/*buen-o vin-u* in (13) puts it in the

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[8] An anonymous reviewer suggests that another possible approach would be to assume that neuter acts as a 'grinder' feature, compatible both with feminine and masculine, that turns individuals into non individuated entities. As noted by the reviewer himself, this approach is weakened by the data in section 3.1 showing that masculine/feminine properties can act as classifiers, without the need of postulating an abstract/further node responsible for (non)individuation.

Another suggestion of the same reviewer is that mass/neuters can be interpreted as 'defaults' in the absence of other structure. In other words, one could assume that neuter acts as an expletive when languages need to satisfy the N positions of their roots and nothing else is copied there. However the notion of an underspecified lexical entry, or at the limit of an empty one (a default), is extraneous to the present framework of assumptions. In fact, the whole point of the present research is to show that even declension class morphology can be made compatible with the very restrictive assumption that the lexicon is fully specified by positive properties only (Manzini and Savoia 2005, 2007, 2011).

scope of the D closure provided by the determiners of the DP – making it incompatible with non-individual morphology. In predicative contexts, however, such a closure is provided, allowing for the expression of the property via predication.

3. N class beyond Romance

As seen in section 1, N class features often appear to be semantically unmotivated, but historical and typological data – especially the ones coming from the literature on Bantu languages – point to a semantically based assignment of N class features (Kihm 2005, Denny and Creider 1976, Déchaine et al. 2014). Hence, in section 2 we have offered a perspective on the mass/count issue, grounded in the idea that the locus in which the relevant features are computed is actually N class (assuming it to be represented at LF). Thus the Romance data evoke the issue of the relation between the N head and the Div head deemed responsible for the mass/count distinction in the framework of Borer (2005). As we have seen in section 2, in Central Italian and Ibero-Romance varieties a (reflex of) count/mass distinction can be encoded by the inflectional N class as illustrated in (14) and (16).

The crosslinguistic interest of the Romance connection between the count/mass distinction and N class lies precisely in this direction. Under present assumptions, the mass/count distinction may be available directly in the N slot – rather than encoded in the dedicated functional projections for Number (Div). Therefore it is possible to associate mass semantic (non-individuated) content with –*o*, as in the structure in (15), whose relevant portion is repeated in (17) for ease of reference.

(17)   D
              ╱＼
           D   N
           l   o
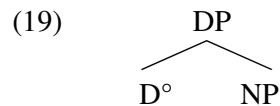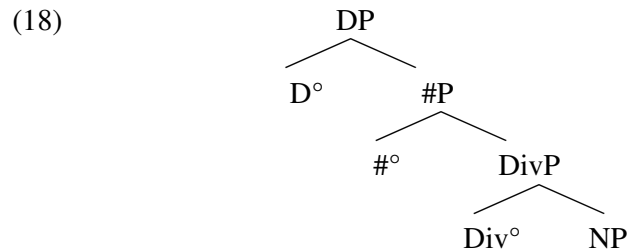   [n-indiv]
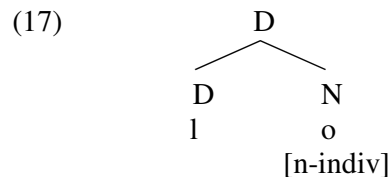
3.1 The locus of the count/mass distinction
Since Quine (1960), many linguists and philosophers have developed proposals regarding the semantic status of the mass (vs. count) distinction. Despite different approaches and solutions, most of these proposals agree with Quine's original idea that countable items possess built-in modes of *dividing* their reference, and consequently entail reference to individuals.

Borer proposes that the mass-count distinction does not stem from the lexicon, but is derived in syntax. She argues that nouns universally need to be portioned out - *via* a DivP device - before they can interact with the count system. The plural is generated under Div$^{\circ}$, the head responsible for individuation. In addition, a head she labels # projects a "Quantity Phrase", providing a specifier position for items that quantify over units. A rough representation of her model for count nouns is given below in (18), for mass noun in (19); count nouns differ

from mass nouns in that the former but not the latter include Div and # projections. In a non-classifier languages, for instance any Romance language, a count noun (18) raises to Div° via head-movement picking up an eventual plural affix, while an eventual numeral/item quantifying over units is added in Spec#P. Mass nouns, instead, are structurally defective in that they do not project a Div/# layer.

(18)

```
                        DP
                      /    \
                    D°      #P
                          /    \
                        #°      DivP
                              /    \
                            Div°     NP
```

(19)

```
            DP
          /    \
        D°      NP
```

In Borer's view, the plural functions as a classifier and plurals and classifiers are in complementary distribution. However, as shown by recent investigation (Nomoto 2013) it does not seem that plural values and classifiers are in complementary distribution, universally. Just consider the case of Persian, as reported in (20). Numerals can co-occur with a singular noun in (20a), with a classifier and a singular noun in (20b) and with a classifier and a plural noun in (20c). However there is a ban against numerals associating with plural nouns without an intervening classifier, as in (20d) (Gebhardt 2009).[9] In other words not only plural and the classifier are not in complementary distribution but they must obligatorily co-occur.

(20)   a.   se   sag   *Persian*
                three   dog
        b.   se   tâ   sag
                three   Clf   dog
        c.   se   tâ   sag-hâ
                three   Clf   dog-pl
        d.   *se   sag-hâ

---

[9] According to Mahootian (1997: 195) the *-ta* classifier element can co-occur with the plural item *–ha* only on a [+specific] noun. In particular (20c) cannot be interpreted as a non-specific set of three dogs (a reading which on the contrary is available for (20b)). In a partitive construction expressed by means of the preposition *æz* (encoding location/source in Persian), both the classifier and the plural marker are again obligatorily present, as shown in (i).

(i)   do   ta   *æz*   sag-ha
        two   Clf   of   dog-pl
        'two of the dogs'

three   dog-pl
'three   dogs'

In recent work, Cowper and Currie Hall (2012: 45ff) try to reconcile the Persian facts with Borer's hypothesis, but with the costly (and somewhat counterintuitive) assumptions that in sentences like those in (20) neither the item –*ta* is a real classifier nor the item – *hâ* is a real plural morpheme. In other words, the classifier and the plural morphemes would be respectively a # and a D head (cf. Ghaniabadi 2012).[10] Vice versa, it is interesting to note that according to typological investigation (Corbett 2014), what appears to be truly in complementary distribution are classifiers and the traditional gender (here nominal class) with the exception of a few not uncontroversial cases, e.g. Mian (Papuan) or Tariana (Arawakan) (Fedden 2013).

This suggests an alternative (or complementary) line of research to Borer's (2005), where classifiers are considered in relation not to plural but to nominal class. Indeed affixal nominal class functions syntactically and semantically essentially like classifier heads – defined as a self-standing or bound morphemes which reflect some kind of conceptual classification of nouns. In what follows we will concentrate on some crosslinguistic evidence concerning the lexicalization of the mass/count distinction.

Count/mass distinctions encoded via noun class shifts, albeit not productive, are widely attested in Romance (Crisma et al. 2011) (e.g. Italian *frutt-o* m.sg 'fruit (count)', *frutt-a* f.sg 'fruit (mass)'; Portuguese *ram-o* m.sg 'branch (count)', *ram-a* f.sg 'branch (mass)'). Suggestive evidence comes from other partially correlated Romance facts. For instance Mascaró (1985: 101) provides a set of Catalan and Spanish cases where gender has semantic import as in the pair *cistell/cistella* 'basket.m/big basket.f' (Catalan), or *saco/saca* 'sack.m/big sack.f' (Spanish). In these cases, gender alternation is semantically related to size (Picallo 2008). An analogous pattern is also found in standard Italian, cf. the pairs *fosso/fossa* 'ditch.m'/'pit.m', *buco/buca*, 'hole.m/'pothole.f'.

Mass vs. count semantic content associated to and encoded through N class is available in other Indo-European languages (cf. fn. 2). In Iranian varieties, nouns which can denote either a single/countable representative of their class and a collection or mass have female gender when they are count and masculine gender when they are mass. Sometimes gender shows up only in D items, as we have already seen in the discussion surrounding the *Mascioni* data. A case in point are the examples in (21) from Rushani, an Eastern Iranian language spoken in the Pamir Mountains, where different N features on the demonstrative are responsible for triggering the count vs. mass distinction.

(21)   a.   dum   māwn bāx   ki
                this.f(count) apple share do.imp
                'Share this apple!'

---

[10] There are many other classifiers in Persian, which share the same distribution of –*ta* (i.e. they are optionally follow the number item and precede the modified noun): -*tæn* 'body (for people)', -*jeld* 'volume (for books)', -*dune* 'grain/seed' (-*dune* is used with any singular count noun), -*ræ's* 'head' (for some animals), etc. (Mahootian 1997: 197).

b.   day   māwn tar zastāv   yōs
        this.m(mass) apple   to gate   carry.imp
        'Carry this (mass of) apples to the gate!'

Rushani (Payne 1989:428)

As for Germanic languages, in English dialects of the Southwest of England, Canada or Tasmania, the 3rd person singular pronouns *he*/*she* refers not only to human/animate individuals of masculine/feminine sex but to inanimate countable items. On the contrary *it* invariantly refers to mass items, as shown in (22). The 19th century English variety of West Somerset distinguishes between *theäse*/*thik* (count) vs. *this*/*that* (mass) demonstratives, as in (23).

(22)   a.   Pass the loaf (count). He's over there
        b.   I like this bread (mass). It's very tasty

Southwest English (Kortmann et al. 2005: vii)

(23)   a.   Come under theäse tree under this water
        b.   Goo under thik tree, an' zit on that grass

West Somerset (Fernandez-Ordonez 2009: 57-58)

Looking outside the Indo-European family, things become even more interesting. Danny and Creider (1976: 219) detect a semantic system where the opposition mass/count leads to the assignment of different noun classes in Proto Bantu (cf. Dechaine et al. 2014 for a recent discussion of semantic (ir)regularity of Swahili noun classes). In some languages, the assignment to different classes seems particularly clear. For example, in the Kwa language Logba (Ikpana), spoken in the South-eastern Ghana (Dorvlo 2008: 249-250), mass nouns are regularly expressed by the class prefixes *i-* (abstract substances, e.g. *i-nɔ'* 'meat') and *n-* (liquids, pourable substances, e.g. *n-da* 'liquor').

Burushaski, an isolate language spoken in northern Gilgit–Baltistan (Pakistan), has four genders/N classes. N classes are semantically determined, as shown in (24). Two of them are assigned to male *vs.* female humans, as in (24a-b). The other two N classes are assigned to non-humans: one is commonly attributed to countable objects (24c), the other generally takes in mass nouns, as illustrated in (24d) (Anderson 2005, cf. Loporcaro and Paciaroni 2011).

(24)   a.   ne hir   'the.m.abs man(m).abs'   *Burushaski*
        b.   mo gus   'the.f.abs woman(f).abs'
        c.   han/se haɣór   'a.count/the.count.abs horse(count).abs'
        d.   te ɣéndeṣ   'the.mass.abs gold(mass).abs'.

According to Janhunen (2000: 698) in (Proto)Tungusic, two different N class suffixes attach to "unspecified masses or uncountable materials on the one hand, and single members of groups of countable objects, on the other". This state of affairs is illustrated with the Manchu (Tungusic) examples in (25), opposing count nouns in (25a) to mass nouns in (25b). In Tungusic, N class suffixes on countable objects cannot be mistaken for plural morphemes, since in addition to the mass/count distinction at the N level, there are separate means to express

plurality, specifically the suffix *-l* occurring alone or in combinations with other suffixes (Gorelova 2002: 136).

(25) a.   usi-ha   'star'   *Manchu* (Janhunen 2000: 700)
            wei-he   'tooth'
      b.   nima-nggi   'snow'
            se-nggi   'blood'

In short, we have provided evidence from a set of typological diverse languages for mass/count distinctions performed at the N class level, rather than by Number projections (Div/Q). Empirical evidence for such an approach may also come from psycholinguistic research. For instance, Vigliocco et al. (1999) have shown that mass/count features and grammatical gender can both be accessed in the absence of complete access to the word's phonological form/root in anomic as well as in healthy subjects (in a tip-of-the-tongue state).[11]

3.2 The singulative: interactions of N class and number
The present construal of N class morphology has advantageous consequences when applied to the so-called singulative – i.e. the phenomenon whereby a noun is specially marked to indicate a singular item. In Breton, for instance, nouns that refer to collections or masses can be portioned out with the help of a singulative suffix, *-enn*, and subsequently pluralized, as shown in (26). Mathieu (2012) associates the singulative with the Div functional node, in the spirit of Borer (2005), but then argues that the plural must be associated with a further Number node.

(26) a.   kraon   'walnuts'   *Breton*
      b.   kraon-enn$_{sing}$ 'walnut'
      c.   kraon-enn-ou   'walnuts'

Under present assumptions, Breton singulatives may again be instantiated in the N slot – and plural morphology in the superordinate plural node Q, as in (27). Evidence in favour of this treatment is provided by the fact that the *–enn* suffix characterizes countable feminine nouns quite independently of its singulative use (cf. Irslinger 2014). Indeed in many languages singulativization is performed by means of gender shift, including Arabic, Norwegian or Ojibwe (Armoskaite and Wiltschko 2012, Mathieu 2012). This suggests N as the singulative position.

(27)   [kraon [$_N$ enn]] [$_Q$ ou]   cf. (26c)

Cross-linguistically, individuating classifiers of the singulative type are connected to the informal idea that the noun refers to some kind of mass and the classifier provides a unit of this mass (Aikhenvald 2000: 318).[12] Consider for

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[11] Franco et al. (2013) provide psycholinguistic evidence against the presence of a Div head with respect to the merge of evaluative inflections (e.g. diminutives, augmentatives) on nouns (contra De Belder 2011).
[12] In recent work on Mandarin Chinese, Zhang (2012: 220) labels individuating classifiers

instance Eton, spoken in Central Cameroon. In Eton there are many (groups of) nouns that have the same stem, but that belong to different morphological classes/genders; a case in point is the 'derivation' of a countable interpretation of mass nouns via class shift from nominal class VI (mass, *mè*) to nominal class V (count, *ɛ̀*-), as in (28). Crucially the same class shift (Gender VI > Gender V) may yield a singulative 'derivation' from collectives, as illustrated in (29), where (29a) is the collective and (29b) the singulative.

(28)   a.   mè-ndím   'water'   *Eton* (van de Velde 2008:97)
            ɛ̀-ndím   'drop of water'
       b.   mè-cǐ   'blood'
            ɛ̀-cǐ   'drop of blood'
       c.   mè-té   'saliva'
            ɛ̀-té   'drop of saliva'

(29)   a.   mè-njáŋ   'marimba'   *Eton* (van de Velde 2008:98)
       b.   ɛ̀-njáŋ   'bar, wooden piece of a marimba'

In present terms, both the mass vs. count encoding and the singulative vs. collective one can be obtained by the means of a choice at the level of N class, as shown in (30). We do not need to resort to the Div node to accommodate the data; in other words, it is not by resort to the plural node that we obtain an individuating effect.

(30) $[[_N \, mè \,] \, \sqrt{} \,]$ non-individual
       $[[_N \, ɛ̀ \quad] \, \sqrt{} \,]$ individual

In short, the evidence provided in the present section support the idea that N class (and not plural) functions as a classifier, and there is no clear proof that Div° necessarily is the head responsible for individuation.[13]

4. Conclusion

In this work we have characterized Romance N class morphology as endowed

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those items which turn a non-individuated mass term into a countable one. A case in point is the classifier *di*, as in (i).

(i)   Yaoyao kanjian-le   san   *di*   you.
       Yaoyao see-perf   three cl   oil
       'Yaoyao saw three drops of oil.'

[13] An anonymous reviewer asks about languages like Hungarian, which do not distinguish gender even in pronouns. If a gender/nominal class system is a type of classifier system in all respects, as suggested here, it is tempting to conclude that genderless languages should employ other devices (i.e. proper classifiers) as 'nominalizers'. In other word, gender would be in complementary distribution with proper classifiers (Corbett 2014). Hungarian precisely employs a set of (sortal/mensural) classifiers in its system (Csirmaz and Dékány 2010).

with a semantic content, providing evidence about the active involvement of N class at the syntax-semantic interface. In particular, we have argued that the so-called neuter of Central Italian dialects involves coding of the mass/count distinction by N class morphology. To be more precise, the mass vs. count contrast can be interpreted as the reflex of a more primitive property, which opposes non-individual content to instances of individual denotation, since the *-o* 'neuter' inflection of Central Italian varieties is compatible not only with mass nouns but also with eventive contents and with the invariable inflections found with perfect participles of unergative/transitive verbs. To account in particular for those languages in which only Ds have the special neuter inflection (e.g. *Mascioni*) we have resorted to an Agree operation which does not match interpretable and uninterpretable features under identity. Rather it matches multiple occurrences of interpretable material that concur to the satisfaction of the same argument slots. Thus agreement morphology is always interpretable (and interpreted). Extending our discussion to cross-linguistic data, we have supported the idea that N class functions as a classifier, rather than the node associated with plural morphology. We have provided evidence from a set of typological diverse languages that mass/count distinction is performed at the N class level, and that in the case of singulative morphology, N class is the head responsible for individuation.

References

Acquaviva, Paolo. 2009. "Roots and Lexicality in Distributed Morphology". In Alexandra Galani, Daniel Redinger, and Norman Yeo (eds.), *York Working Papers - Special Issue York-Essex Morphology Meeting May 2009*, 1-21.

Aikhenvald, Alexandra Y. 2000. *Classifiers. A Typology of Noun Categorization Devices.* Oxford: Oxford University Press.
DOI: 10.1093/obo/9780199772810-0007.

Anderson, Gregory D. S. 2007. "Burushaski morphology". In Alan S. Kaye (ed.), *Morphologies of Africa and Asia*, 1233–1275. Winona Lake, Ind.: Eisenbrauns.

Armoskaite, Solveiga, and Martina Wiltschko. 2012. "There are many ways to be gendered". *Proceedings of the 2012 annual conference of the Canadian*

Linguistic Association. Available at: http://homes.chass.utoronto.ca/~cla-acl/actes2012/

Baker, Mark C. 2008. *The syntax of agreement and concord.* Cambridge: Cambridge University Press.
DOI: 10.1017/cbo9780511619830.

Béjar, Susana and Milan Rezac. 2009. "Cyclic Agree". *Linguistic Inquiry* 40: 35–73.
DOI: 10.1162/ling.2009.40.1.35.

Borer, Hagit. 2005. *Structuring Sense, Vol. 1: In name only.* Oxford: Oxford University Press.
DOI: 10.1093/acprof:oso/9780199263905.001.0001.

Brody, Michael. 2006. Syntax and Symmetry. Ms. Available at: http://ling.auf.net/lingbuzz/000260.

Carstens, Vicki. 2000. "Concord in minimalist theory". *Linguistic Inquiry* 31: 319-355.
DOI: 10.1162/002438900554370.

Chomsky, Noam. 1995. *The minimalist program.* Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. "Derivation by phase". In Michael Kenstowicz (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.

Chomsky, Noam. 2013. "Problems of projection". *Lingua* 130: 33-49.
DOI: 10.1016/j.lingua.2012.12.003.

Corbett, Greville. 1991. *Gender.* Cambridge: Cambridge University Press.
DOI: 10.1017/cbo9781139166119.

Corbett, Greville. 2014. "Gender typology". In Greville Corbett (ed.), *The Expression of Gender*, 87-130. Berlin: Walter De Gruyter.
DOI: 10.1515/9783110307337.87.

Cowper, Elizabeth, and Daniel Currie Hall. 2012. "Aspects of individuation". In Diane Massam (ed.), *Count and mass across languages*, 27-53. Oxford: Oxford University Press.
DOI: 10.1093/acprof:oso/9780199654277.003.0003.

Crisma, Paola, Lutz Marten, and Rint Sybesma. 2011. "The Point of Bantu, Chinese and Romance Nominal Classification". *Italian Journal of Linguistics* 23: 251–299.

Csirmaz, Aniko, and Eva Dékány. 2010. Hungarian classifiers. Handout of a talk presented at the Word Classes conference, Rome, March 24-26, 2010.

de Belder, Marijke. 2011. "A morphosyntactic decomposition of countability in Germanic". *Journal of Comparative Germanic Linguistics* 14: 173–202.
DOI: 10.1007/s10828-011-9045-0.

Déchaine, Rose-Marie, Raphaël Girard, Calisto Mudzingwa, and Martina Wiltschko. 2014. "The internal syntax of Shona class prefixes". *Language Sciences* 43: 18-46.
DOI: 10.1016/j.langsci.2013.10.008.

Denny, Peter, and Chet Creider 1976. "The semantics of noun classes in Proto-Bantu". *Studies in African Linguistics* 7: 1–30.

Dorvlo, Kofi. 2005. A grammar of Logba (Ikpana). Ph.D. thesis, University of Leiden.

Egerland, Verner. 1995. "Spec-Head Agreement, Case Theory, and the Syntax of Participles: Absolute Participial Clauses in Old Italian". *Rivista di Grammatica Generativa* 20: 33-68.

Embick David. 2000. "Features, Syntax, and Categories in the Latin Perfect." *Linguistic Inquiry* 31: 185-230.
DOI: 10.1162/002438900554343.

Fábregas, Antonio. 2012. "Structural and lexical aspects of the grammar of desinences". *Poznań Studies in Contemporary Linguistics* 48: 239-284.
DOI: 10.1515/psicl-2012-0012.

Fedden, Sebastian. 2013. Combining gender and classifiers. Paper presented at the 9th Mediterranean Morphology Meeting (MMM), Dubrovnik, September 15-18, 2013.

Fernández-Ordóñez, Ines. 2009. "The development of mass/count distinctions in Indo-European varieties". In Vit Bubenik, John Hewson and Sarah Rose (eds.), *Grammatical Change in Indo-European Languages. Papers Presented at the Workshop on Indo-European Linguistics at the XVIIIth International Conference on Historical Linguistics*, Montreal 2007, 55-68. Amsterdam: John Benjamins.
DOI: 10.1075/cilt.305.08fer.

Ferrari Bridgers, Franca. 2008. "A unified syntactic analysis of Italian and Luganda nouns". In Cécile De Cat and Katherine Demuth (eds.), *The Bantu-Romance connection*, 239-260. Amsterdam: John Benjamins.
DOI: 10.1075/la.131.13fer.

Franco, Ludovico, Elisa Zampieri, and Francesca Meneghello. 2013. "Evaluating evaluative morphology in agrammatism". *Lingue e Linguaggio* XII: 191-222.
DOI: 10.1418/75041.

Franco, Ludovico, M. Rita Manzini, and Leonardo M. Savoia. 2015. "Linkers and agreement". *The Linguistic Review* 32: 277-332.
DOI: 10.1515/tlr-2014-0024.

Frascarelli, Mara. 2007. "Subjects, Topics and the Interpretation of Referential pro. An interface approach to the linking of (null) pronouns". *Natural Language and Linguistic Theory* 25: 691-734.
DOI: 10.1007/s11049-007-9025-x

Gebhardt, Lewis. 2009. Numeral classifiers and the structure of DP. Ph.D. thesis, Northwestern University.

Ghaniabadi, Saeed. 2012. "Plural marking beyond count nouns". In Diane Massam (ed.), *Count and Mass Across Languages*, 112-128. Oxford: Oxford University Press.
DOI: 10.1093/acprof:oso/9780199654277.003.0007.

Gorelova, Liliya M. 2002. *Manchu Grammar*. Leiden: Brill.

Hall, Robert, 1968. "'Neuters', Mass-Nouns, and the Ablative in Romance". *Language* 44: 480-486.
DOI: 10.2307/411715.

Halle, Morris and Alec Marantz. 1993. "Distributed morphology and the pieces of inflection". In Kenneth Hale, and Samuel J. Keyser (eds.), *The view from Building 20*, 111-176. Cambridge, MA.: MIT Press.

Halle, Morris and Bert Vaux. 1998. "Theoretical Aspects of Indo-European Nominal Morphology: The Nominal Declensions of Latin and Armenian". In Jay Jasanoff, H. Craig Melchert and Lisi Oliver (eds.), *Mír Curad: Studies in Honor of Calvert Watkins*, 223-240. Innsbruck: Innsbrucker Beitraege zur Sprachwissenschaft.

Harris, James. 1991. "The exponence of gender in Spanish". *Linguistic Inquiry* 22: 27–62.

Harris, James. 1994. "The syntax-phonology mapping in Catalan and Spanish clitics". In Andrew Carnie and Heidi Harley (eds.), *MITWPL 21: Papers on phonology and morphology*. Cambridge, MA, 321-353.

Higginbotham, James. 1985. "On Semantics". *Linguistic Inquiry* 16: 547-621.

Irslinger, Britta. 2014. "The gender of abstract noun suffixes in the Brittonic languages". In Sergio Neri and Roland Schuhmann (eds.), *Studies on the Collective and Feminine in Indo-European from a Diachronic and Typological Perspective*, 57-114. Leiden: Brill.
DOI: 10.1163/9789004264953_005.

Janhunen, Juha. 2000. "Grammatical gender from East to West". In Barbara Unterbeck, and Matti Rissanen (eds.), *Gender in Grammar and Cognition*, 689-708. Berlin: Mouton de Gruyter.
DOI: 10.1515/9783110802603.689.

Kayne, Richard. 1993. "Toward a Modular Theory of Auxiliary Selection". *Studia Linguistica* 47: 3-31.
DOI: 10.1111/j.1467-9582.1993.tb00837.x.

Kayne, Richard. 2010. *Comparisons and Contrasts.* New York: Oxford University Press

Kihm, Alain. 2005. "Noun class, gender, and the lexicon/syntax/morphology interfaces: a comparative study of Niger-Congo and Romance languages". In Guglielmo Cinque, and Richard Kayne (eds.), *The Oxford Handbook of Comparative Syntax*, 459-512. Oxford: Oxford University Press.
DOI: 10.1093/oxfordhb/9780195136517.013.0011.

Kortmann, Bernd, Tanja Hermann, Lucas Pietsch and Susanne Wagner. 2005. *A comparative Grammar of British English dialects. Agreement, gender, relative clauses.* Berlin: Mouton de Gruyter.
DOI: 10.1515/9783110197518.

Kratzer, Angelika. 2009. "Making a Pronoun: Fake Indexicals as Windows into the Properties of Pronouns". *Linguistic Inquiry* 40: 187-237.
DOI: 10.1162/ling.2009.40.2.187.

Kučerová, Ivona, and Anna Moro. 2011. "On mass nouns in Romance: semantic markedness and structural underspecification". *Proceedings of the 2011 annual conference of the Canadian Linguistic Association.*

Ledgeway, Adam. 2009. *Grammatica diacronica del dialetto napoletano* (Beihefte zur Zeitschrift für romanische Philologie Band 350). Tübingen: Niemeyer.
DOI: 10.1515/9783484971288.

Ledgeway, Adam. 2012. *From Latin to Romance: Morphosyntactic Typology and Change*. Oxford: Oxford University Press.
DOI: 10.1093/acprof:oso/9780199584376.003.

Loporcaro, Michele, and Tania Paciaroni. 2011. "Four gender-systems in Indo-European". *Folia Linguistica* XLV: 389-433.
    DOI: 10.1515/flin.2011.015.
Mahootian, Shahrzad. 1996. *Persian*. London: Routledge.
Manzini, M. Rita, and Leonardo M. Savoia. 2005. *I dialetti italiani e romanci* (3 vols.) Alessandria: Dell'Orso.
Manzini, M. Rita, and Leonardo M. Savoia. 2007. *A unification of morphology and syntax. Studies in Romance and Albanian varieties.* London: Routledge.
    DOI: 10.4324/9780203968154.
Manzini, M. Rita, and Leonardo M. Savoia. 2011. *Grammatical Categories.* Cambridge: Cambridge University Press.
    DOI: 10.1017/cbo9780511974489.
Manzini, M. Rita, Leonardo M. Savoia, and Ludovico Franco. 2014. Ergativity splits in Punjabi and Kurdish. Ms. Available at: ling.auf.net/lingbuzz/002337/.
Marantz, Alec. 1997. "No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon". *University of Pennsylvania Working Papers in Linguistics 4*, 201–25.
Marantz, Alec. 2007. "Phases and words". In Sook-Hee Choe (ed.), *Phases in the theory of grammar,* 191–222. Seoul: Dong In.
Mascaró, Joan. 1985. *Morfologia*. Barcelona: Enciclopèdia Catalana.
Mathieu, Éric. 2012. "Flavour of division". *Linguistic Inquiry* 43: 650-679.
    DOI: 10.1162/ling_a_00110.
Matthews, Peter H. 1972. *Inflectional Morphology: A Theoretical Study Based on Aspects of Latin Verb Conjugation.* Cambridge: Cambridge University Press.
Nomoto, Hiroki. 2013. Number in Classifier Languages. Ph.D. thesis, University of Minnesota.
Ott, Dennis. 2011. "Diminutive-formation in German. Spelling out the classifier analysis". *Journal of Comparative Germanic Linguistics* 14: 1-46.
    DOI: 10.1007/s10828-010-9040-x.
Payne, John. 1989. "Pamir Languages". In Rüdiger Schmitt (ed.), *Compendium Linguarum Iranicarum*, 417-444. Wiesbaden: Reichert Verlag.
Picallo, Carme. 2008. "Gender and number in Romance". *Lingue e Linguaggio* VII: 47-66.
    DOI: 10.1418/26709.
Pomino, Natascha, and Elizabeth Stark. 2011. "How the Latin neuter pronominal forms became markers of non-individuation in Spanish". In Katerina Stathi, Elke Gehweiler, Ekkehard König (eds), *Grammaticalization: Current Views and Issues,* 273-293. Amsterdam: John Benjamins.
    DOI: 10.1075/slcs.119.14sta.
Quine, Willard V. O. 1960. Word and Object. Cambridge, MA: MIT Press.
Rohlfs, Gerhard. 1968 [1949]. *Grammatica storica della lingua italiana e dei suoi dialetti. Morfologia.* Torino: Einaudi.
Stark, Elisabeth 2005. "Typological correlations in nominal determination in Romance". In Klaus von Heusinger, Georg A. Kaiser and Elisabeth Stark (eds.), *Specificity and the Evolution/Emergence of Nominal Determination*

Systems in Romance. Fachbereich Sprachwissenschaft der Universität Konstanz. Arbeitspapier 119, 123-138.

Thornton, Anna M. 2003. "La rappresentazione dell'informazione morfologica nelle entrate lessicali". In Antonietta Bisetto, Claudio Iacobini and Anna M. Thornton (eds.), *Scritti di morfologia, in onore di Sergio Scalise in occasione del suo 60 compleanno*, 67–84. Roma: Caissa Italiana Editrice.

van de Velde, Mark. 2008. *A grammar of Eton*. Berlin: Mouton De Gruyter. DOI: 10.1515/9783110207859.

Vigliocco, Gabriella, David P. Vinson, Randi C. Martin, and Merrill F. Garrett. 1999. "Is count and mass information available when the noun is not? An investigation of tip of the tongue states and anomia". *Journal of Memory and Language* 40: 534–558. DOI: 10.1006/jmla.1998.2626.

Williams, Edwin. 1994. *Thematic Structure in Syntax*. Cambridge, MA: MIT Press.

Zhang, Niina Ning. 2012. "Countability and numeral classifiers in Mandarin Chinese". In Diane Massam (ed.), *Count and mass across languages*, 220-237. Oxford: Oxford University Press. DOI: 10.1093/acprof:oso/9780199654277.003.0012.

Zeijlstra, Hedde. 2012. "There is only one way to agree". *The Linguistic Review* 29: 491–539. DOI: 10.1515/tlr-2012-0017.