

A singular view of mass in Marsican¹

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1 Introduction

Chierchia (1996, 1998) proposes that the extension of mass nouns is essentially the same as that of plurals, which is taken to denote a class of sets of individuals. Dubbed ‘The Inherent Plural Hypothesis’, Chierchia takes this plurality view as the null hypothesis of mass nouns. Marsican, an Italo-Romance language of the Abruzzo region in Italy, however, poses a serious challenge to this prediction. Marsican has a clear distinction between count and mass nouns, though it has no plural marking. In this paper, an alternative account is proposed that treats mass terms as singular-denoting rather than plural denoting. Moreover, this ontological distinction is reflected in the syntax if mass nouns are analyzed as NPs and count nouns as DPs.

2 The Inherent Plurality Hypothesis (Chierchia 1996)

The basic idea of the Inherent Plurality Hypothesis is that mass nouns come out of the lexicon with plurality already built-in. That is to say, mass terms are already denotationally plurals. The observation that there appears to be a striking similarity between mass and plural is certainly not new. For example, Link (1983) and Gillon (1992) noted that both mass and plural share the cumulative property. In fact, Chierchia’s model – a lattice of individuals – is adopted from Link

¹ I would like to thank Mario Saltarelli for discussion on the Marsican data and the audience at WIGL-5 for their comments and feedback. All errors, of course, are mine.

(1983). This model assumes a domain of entities constituting a complete free atomic join semi-lattice containing only atoms and pluralities. A singular count noun is taken to denote singular entities (atoms) and plural count nouns the sums of those singular entities (pluralities). For example, each one of these – Fred, Bill, Steve – is an individual ‘student’ in, say, the class Student. The plurality ‘students’ may be the set {Fred, Bill}, {Bill, Steve}, {Fred, Steve} or the largest aggregate set {Fred, Bill, Steve}, all of which may also constitute the denotation of plural definite NPs like ‘those students’ or ‘these students’.

(1) *a lattice of individuals*

$$\begin{aligned} \text{“Students”} &= [\quad \{f, b, s\} \quad] \\ & [\{f,b\} \quad \{b,s\} \quad \{f,s\}] \end{aligned}$$

$$\text{“Student”} \quad [f, b, s] = At$$

For Chierchia (1996), a mass noun simply denotes a set of ordinary individuals plus all the pluralities of such individuals. Under this treatment, a mass noun like ‘furniture’ would denote the set of those singular pieces plus the sets including the combination of those pieces, all of which can be appropriately referred to as ‘furniture’:

$$(2) \quad \begin{aligned} \text{“Pieces of furniture”} &= [\quad \{x, y, z\} \quad] \\ & [\{x,y\} \quad \{z,x\} \quad \{y,z\}] \end{aligned}$$

$$\text{“Piece of furniture”} \quad [x, y, z] = At$$

Under the Inherent Plurality Hypothesis, the fact that mass nouns cannot be pluralized follows straightforwardly: since mass nouns are already marked with plural, they cannot take plural morphemes.

3 Rethinking mass: Evidence from Marsican

Marsican, an Italo-Romance language of the Abruzzo region in Italy, however, poses a serious challenge to the prediction made by the IPH. Though it has no plural marking, Marsican has a clear distinction between count and mass nouns. Marsican DPs realize both singular/plural and mass/count contrasts uniquely on the determiner and has different determiner marking for each gender. Interestingly, the same morphosyntactic set of allomorphs extends uniformly to articles, demonstratives and unstressed (clitic) pronouns (Saltarelli 2000 & p.c).

The interaction of gender, number and mass/count categories is given below in Table 1.

Table 1: The Marsican Data

1. DETERMINERS (DEF.)	Singular	Plural
a. Masculine (i) Count	[a]	[λə]
(ii) Mass	[lə]	---
b. Feminine (i) Count	[la]	[lə]
(ii) Mass	[la]	---

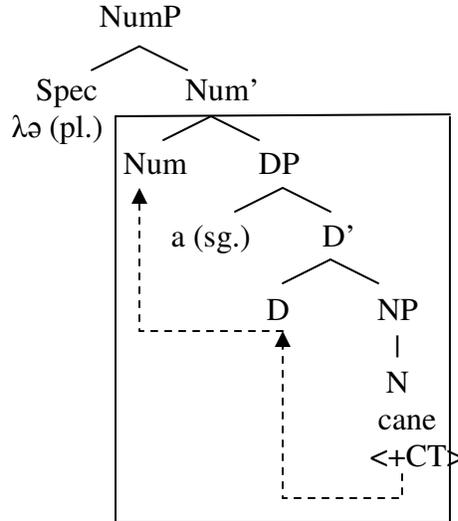
- (3) a. i. [a kanə]/[λe kanə] ‘the dog/dogs’
 ii. [lə vinə]/*plur. ‘wine/*plur.’

As the table shows, Marsican has different determiner marking for each gender. While both gender use *λə* for plural count nouns, each gender uses a different determiner for singular count nouns- *a* for men and *la* for women. The particular phenomenon to be noted is in the masculine form. In (3aii) for example, the mass noun *vinə* ‘wine’ can only be combined with the mass determiner *lə*; the plural form is not possible. Also, the word in Marsican for iron is the same (*ferre*), but the one with mass sense is preceded by the determiner *lə* and the one with count sense by *a* (for man). This is different from Modern Italian and Spanish, which have the same word for both the mass and count sense. And when English speakers read ‘The iron is hot’ they do not know on the face of it whether the iron is some stuff or something used for pressing. In languages like Marsican, then, where mass IS encoded as singular, a theory such as the Inherent Plural Hypothesis would actually prove to be counterintuitive. As the Marsican system has evidently shown the inexistence of mass plural DPs, it makes no sense to say that mass nouns in Marsican are inherently plural.

In light of the Marsican data, I make an alternative proposal to treat mass terms as singular-denoting instead. That is, mass nouns denote a singleton-whole rather than a plurality of individuals. Moreover, this ontological distinction is reflected in the syntax if mass nouns are analyzed as NPs and count nouns as DPs.

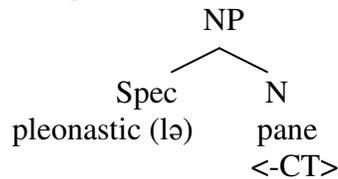
Specifically, in DPs, the determiner, a kind of quantifier specifying a unique entity, will select an NP. For *a cane* ‘the dog’, it will have a referential function by the fact that it is a count noun <+CT> (Saltarelli, personal communication).

(4) *cane* 'dog'



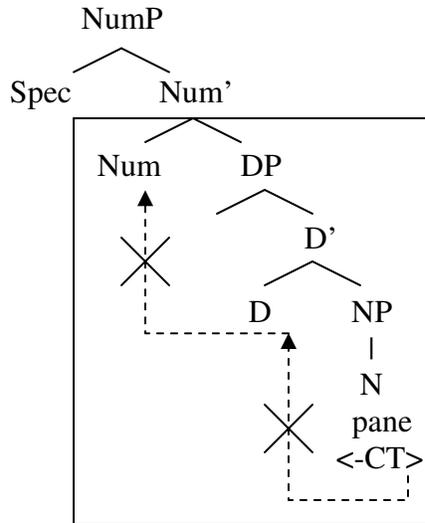
As shown in (4), each projection will have a function and the noun will move to check the function. In the case of count nouns, a determiner is projected and as a consequence, N moves to D and then to Num to satisfy number, as Num selects DP. On the other hand, as shown in (5), mass nouns are NPs not dominated by a determiner.

(5) *pāne* 'bread'



The implication here is that because there is no determiner, mass nouns don't have plurals. Thus in (6), *pāne* 'bread' cannot move (i.e. non-CT function) to D because it's not plural; it's not referential.

(6) *pane* 'bread'



This singular view of mass terms is not only empirically and logically appealing, but also avoids the problem of acquisition faced by Chierchia's hypothesis. Indeed, Chierchia's hypothesis that mass nouns are lexically plural requires an explanation of the learnability issue it raises. From what input or other evidence does a speaker learn that mass nouns in Marsican are lexically plural? The input data the learner is exposed to does not include plural morphology for mass nouns, which is problematic for the Inherent Plurality Hypothesis. Recognizing a mass/count distinction, the view of mass terms as proposed here faces no such problem.

This phenomenon of having grammaticized the mass/count category on the morphosyntax of the determiner, arguably in parallel with its loss of inflectional number distinction, is not exclusive to the Neolatin Marsican varieties like Pescaeroli but also to Celano, Auilano (L' Aquila), Neopolitan (Naples) and Asturian (Northern Spain). For example, Celanese, another Neolatin language spoken in southern Italy, also has the distinction in the determiner and attests to the singularity of the linguistic realization of "count" nouns.

Celanese

- (7) a. *i/*le cane* 'the dog(s)' (sing, pl)
- b. **i/le pane* 'the bread' (sing. only)

4 Implications of the proposal

The proposal that mass/count behavior follows from the meaning of the lexical roots is in contrast with Borer (2005), who claims that lexical noun roots are unmarked for mass or count. Borer argues that the syntax provides partitioning function elements like number inflection or classifiers. Nouns are countable if they are embedded in such syntax; otherwise, they have a default mass interpretation. Under this view, nouns in languages such as Mandarin Chinese which are bare are said to be in some sense mass (see also Chierchia 1998). Borer (2005) makes the stronger claim that *all* language are mass and in need of being portioned out before they can interact with the “count” system. This portioning-out function is accomplished through the projection of classifiers or by plural inflections. While singular count denotations, for their part, arise from an individuating functional element such as a plural marker or a classifier, bare nouns are uncountable without the aid of some such grammatical element. The main prediction is then that count nouns are never bare.

Marsican, again, poses a serious challenge for this prediction. First, it is observed that count and mass noun phrases in Marsican have identical morphosyntax – both are bare and numberless. But unlike Mandarin Chinese, which is also bare and numberless, Marsican allows direct association of count nouns with a numeral; compare (8a) and (8b). Marsican mass nouns, however, are not directly compatible with a numeral, as in (9).

(8a) *liang *(zhi) gou* ‘two CL dogs’

(8b) *du cane* ‘two dogs’

(9) **du vino* ‘two wine’

Second, many Marsican nouns have both a mass and a count meaning, but one cannot be predicted from the other by the regular semantic mechanisms that a syntactic view must rely on. For example, in Marsican, the word for mass and count iron is the same (*ferre*), but the one with mass sense is preceded by the determiner *le* and the one with count sense by *a*. This gender differences also holds for adjectives. *Le nire*, for example, refers to the color black, while *se nire* refer to a black person.

(10) *a ferre* ‘iron (instrument)

le ferre ‘iron (matter)’

(10) *a nirə* ‘black (person)’

le nirə ‘black (color)’

If the syntactic view of Borer (2005) that all nouns should be mass by default in this bare environment is correct, how is it that some nouns are count while others are mass? The only possible explanation, then, is that the lexicosemantic properties of the roots are responsible for count/atomic denotations – i.e. the count or mass is part of the nouns’ inherent meaning. This means that the acceptability of numeral plus noun is a matter of semantic compatibility, not of grammaticality. The lexical roots of these nouns – *ferre* ‘iron’ and *nirə* ‘black’ – have two separate semantic specifications, one of which yields suitable atoms (<CT>), while the other one does not (<-CT>).

5 Conclusion

The counterintuitive nature of the Inherent Plurality Hypothesis in light of the Marsican data forces us to rethink the status of mass nouns. Towards a solution, an alternative view was proposed: a singular view of mass terms. Syntactically, I proposed that the distinction between mass and count nouns is encoded in that count expressions are syntactic DPs, while mass expressions are syntactic NPs.

References

- Borer, Hagit. 2005. *Structuring Sense*. Oxford University Press.
- Chierchia, Gennaro. 1996. Plurality of Mass Nouns: On the Notion of ‘Semantic Parameter’. Ms, University of Milan.
- Gillon, Brendon. 1992. Towards a Common Semantics for English Count and Mass Nouns. *Linguistics and Philosophy* 15: 597-639.
- Link, Godehard. 1983. The Logical Analysis of Plurals and Mass Terms: A Lattice Theoretical Approach. In *Meaning, Use and Interpretation of Language*, ed. R. Bauerle, C. Schwarze and Armin von Stechow (eds), 302-323. Berlin: De Gruyter.
- Saltarelli, Mario. 2000. Gender Identity and Linguistic Constraints the Selection of the Determiner, *AAIS*.

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