

# Lexical Plurals in Telugu: Mass Nouns in Disguise

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## 1 Introduction

Lexical plurals, as shown by Acquaviva (2008a), comprise a diverse group. In this paper I discuss a small class of nouns in Telugu (Dravidian) that are inherently morphologically plural, somewhat akin to *pluralia tantum* nouns such as English *scissors*. What is of interest of these nouns, is that whilst they are unambiguously plural in terms of their morphology (having the plural suffix and controlling plural agreement), they clearly have the semantics of mass nouns. That mass nouns have plural morphology is not a new discovery by any means here; the phenomenon has been noted in various other languages including recently in Greek (Tsoulas 2007), Halkomelem Salish (Wiltschko 2008) and Ojibwe (Mathieu 2012) (see also Ojeda 2005 on English). However, where Telugu differs from these languages is that mass nouns combining with plural morphology does not induce a reading of abundance, as happens in Greek or Halkomelem Salish, nor are the mass nouns shifted into a count reading (Ojibwe). In addition to being apparently semantically vacuous, what is further curious about these nouns, is that there appears to be a ‘mass’ versus ‘count’ quantifier split in the language, where we can identify a quantifier that appears to select for mass nouns and one that selects for count nouns. However, the plural mass nouns in Telugu combine unambiguously with the *count* quantifier, and not with the mass one. As I will show, this raises interesting issues for theories of the mass/count distinction, in particular theories that attempt to tie all surface properties of the mass/count distinction (such as quantifier selection) to that which is responsible for the semantic differences.

The paper is organised as follows. In section 2 I outline the mass/count distinction in Telugu showing that there is a genuine mass/count distinction in the language, whilst in section 3 I discuss how the nouns of interest fit in with this distinction. In section 4 I discuss the data in a theoretical context, showing that they raise problems for one prominent recent approach to the mass/count distinction. An account of the phenomenon is offered in section 5, before I conclude the paper in section 6.

## 2 The mass/count distinction in Telugu

### 2.1 Mass versus count: A general overview

Before turning to Telugu, I first briefly overview the main characteristics of the mass/count distinction in English. Space restrictions prevent a detailed overview, and so for more depth I refer the reader to Chierchia (1998) and references therein. The mass/count distinction broadly divides nouns that can be counted, and those that resist counting. It is very much an open question whether all languages have a mass/count distinction, however, in some languages the differences between the two nouns are quite striking. The first, extremely salient, difference between the two categories is that count nouns like *owls* can directly combine with numerals, whereas mass nouns like *water* cannot.<sup>1</sup> Instead, they must combine with some kind of measure phrase, which in turn combines with the numeral.

- (1) a. There are three owls on the branch.  
b. \* There are three \*(drops of) waters on the floor.

A further difference concerns number morphology. In English, count nouns are able to combine with plural morphology, however mass nouns cannot. Finally, we sometimes see differences in quantifiers. In English, this is reflected in differences with combination with *many* versus *much*, and *few* versus *little*. Count nouns, but not mass nouns combine with *many* and *few*, whereas mass nouns, but not count nouns combine with *much* and *little*:<sup>2</sup>

- (2) a. There are many/\*much ducks in the pond.

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<sup>1</sup>There are restricted uses of mass nouns with plural morphology, such as *waters*, e.g. *the territorial waters of Ireland*, see Acquaviva (2008a) and Ghianiabadi (2012).

<sup>2</sup>It should be noted that having quantifiers that are apparently selective for mass versus count is not a prerequisite for there being a mass/count distinction in some language. Dutch, for instance uses the same quantifier *veel* 'many/much' to cover both mass nouns and count nouns, thus the distinction between *many* and *much* is neutralised.

- b. There is \*many/much sand left to be moved.
- c. There are few/\*little questions left to answer.
- d. There is \*few/little water left to drink.

There are also differences between the two classes which seem to relate to the way that the two classes of nouns are interpreted. Count nouns have been argued to be interpreted as if they are individuated, in the sense that we have a clear intuition as to what counts as a minimal unit of a count noun. Mass nouns on the other hand have been claimed to lack this interpretation, and be interpreted as unindividuated ‘stuff’ (Bale & Barner 2009). One test is with *stubbornly distributive predicates* which have been shown to combine with count nouns, but not mass nouns (Schwarzschild 2011, see also Zhang 2012). These are dimensional predicates like *large*, *small* and *round*, which must be true of each individual unit in a group. For instance, in the sentence *the boxes are large*, this sentence is only judged as felicitous if each individual box is large, and not if there are many small boxes that make up one large pile. In (3), we see that there is a difference between mass nouns and count nouns in how they combine with stubbornly distributive predicates.

- (3) a. The boxes are large/round/square.
- b. # The water is large/round/square.

Another test which shows this interpretation difference is to do with comparison sentences. Bale & Barner (2009) show that when count nouns are compared, comparison is done by the number of individual entities under discussion. Thus, (4a) is true if the number of individual owls that Chris saw is larger than the number of individual owls that Mark saw, irrespective of how big each owl was. For mass nouns on the other hand, comparison is done by overall volume of the noun, and not by number. Therefore in (4b), this sentence is only true if the overall volume of milk that Chris drank is larger than the volume that Mark drank. Here, individual entities do not play a role, so the sentence is false even if Mark drank three single litre bottles of milk, but Chris drank one 5 litre bottle of milk, since the overall volume of milk stands at five litres for Chris, but only three for Mark; the number of individual portions of milk plays no role in the interpretation.

- (4) a. Chris saw more owls than Mark.
- b. Chris drank more milk than Mark.

## 2.2 The morphosyntax of the mass/count distinction in Telugu

Turning to Telugu, the first fact of note about the language is that Telugu has a regular singular/plural distinction, that is shown in obligatory nominal and verbal morphology, as well as being reflected in the pronominal system. To show the nominal and verbal morphology, consider the following pair of sentences. In (5), we see that *kukka* ‘dog’ is present in the sentence without any number marking, and is used in a singular sense, shown by the presence of 3.NM.SG morphology on the verb. In contrast, in (6), we see that *kukka* now appears with the plural suffix *-lu*, in addition to triggering 3.NM.PL agreement on the verb.<sup>3</sup>

(5) *kukka* *ṭinn-a-dī*  
dog eat-PAST-3.NM.SG  
(A dog ate)

(6) *kukka-lu ṭinn-aa-ji*  
dog-PL eat-PAST-3.NM.PL  
(Dogs ate)

Number morphology is obligatory for all nouns (aside from mass nouns as we’ll see), and does not become optional through inanimacy. However, as shown in (7), with the noun *isuka* ‘sand’, Telugu does not allow nouns that are prototypically mass nouns to combine with the plural morpheme.

(7) \* *aa abbaaji isuka-lu ṭavvu-ṭunn-aa-Du*  
the boy sand-PL dig-PROG-PRES-3.NM.SG  
*intended*: (The boy is digging sands)

Count nouns in Telugu freely combine with numerals, in a manner much akin to English. Again, plural morphology on the noun is obligatory (for numbers two and above), and count nouns in Telugu do not require some measure/classifier phrase to combine with the noun in order for them to be counted. This is shown in (8) below:

(8) *Raaju muuDū aratipanD-lu ṭinn-aa-Du*  
Raaju three banana-PL eat-PAST-3.MASC.SG  
(Raaju ate three bananas)

Mass nouns on the other hand are not able to combine directly with numerals and require a measure phrase in order to do so:

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<sup>3</sup>In (5) and (6), and what follows, NM indicates non-masculine gender agreement.

- (9) \* Raaju renDu isuka-lu konn-aa-Du  
Raaju two sand-PL dig-PAST-3.MASC.SG  
*intended*: (Raaju dug two (piles of) sand(s))

A final morphosyntactic diagnostic that we can use to identify the mass/count distinction in Telugu is through the quantifiers that translate in English to *few* and *little*. Telugu also has a difference like this, although with only a single quantifier. Unlike English, there is no difference between *many* and *much* in Telugu; both are expressed using the word *caala* as shown below in (10) (see also the discussion in Ponamgi 2012). However, there is an equivalent to the difference between *few* and *little* in Telugu, with the former expressed by *konni*, (11) and the latter by *koncam(u)*, (12):

- (10) raaju caala aratipanD-lu/annam tinn-aa-Du  
Raaju a.lot.of banana-PL/rice ate-PAST-3.M.SG  
(Raju ate many bananas)
- (11) Raaju konni/\*koncam aratipanD-lu tinn-aa-Du  
Raaju few/\*little banana-PL eat-PAST-3.MASC.SG  
(Raaju ate few bananas)
- (12) neenu koncamu/\*konni uppu tinn-aa-nu  
I little/few salt eat-PAST-1.SG  
(I ate little salt)

### 2.3 The semantic distinctions between mass nouns and count nouns in Telugu

Changing track to the semantic side, Telugu again patterns with English in a couple of diagnostics. The diagnostics that will be discussed are the ability to combine with *stubbornly distributive predicates*, and standard of comparison. Recall that count nouns can happily combine with stubbornly distributive predicates, but mass nouns cannot, as shown by the contrasts in (13). In contrast, as shown in (14), an adjective like *heavy* is able to combine with both mass nouns and count nouns:

- (13) The apples are large/#The water is large.  
(14) The boxes are heavy/The silver is heavy.

Telugu also has a class of predicates that show this property. In the sentences below, I show this with the adjective *peddagaa*, which combines with count nouns such as *aratipanDlu* ‘bananas’, but not mass nouns like *vendu* ‘silver’, (15). By way of contrast, an adjective that does not obligatorily distribute,

like *baruvugaa* ‘heavy’ happily combines with both count and mass nouns, (16), as in English.

- (15) aratipanD-lu/#vendi pedḍa-gaa unn-aa-ji  
banana-PL/silver big-GA be-PRES-3.NM.PL  
(The bananas are large)
- (16) aratipanD-lu/vendi baruvu-gaa unn-aa-ji  
banana-PL/silver heavy-GA be-PRES-3.NM.PL  
(The bananas are heavy)

Telugu thus shows an identical distribution of stubbornly distributive predicates to English; there exists in Telugu a set of predicates which must obligatorily distribute down to atomic entities, and these predicates happily combine with count nouns in Telugu, but not mass nouns.

Moving on to a second interpretative diagnostic, Telugu also distinguishes count nouns from mass nouns with respect to comparison contexts. Count nouns are compared by number of individuals entities and not any volume measurement, whereas mass nouns are compared with respect to the total volume of the mass noun, and the number of distinct individual quantities is irrelevant. Telugu also shows this pattern. Count nouns in Telugu are compared by number whereas mass nouns are compared by volume. The relevant sentences are given below. (17) is true when the number of bananas that Raju ate is larger than the number of bananas that Raani ate, whereas (18) is true where the overall quantity of oil is relevant, and not individual quantities, for instance bottles.<sup>4</sup>

- (17) raajũ raani kannu ekkuva aratipanD-lu tinn-aa-Du  
raaju raani COMP more banana-PL eat-PAST-3.M.SG  
(Raju ate more bananas than Raani)
- (18) raajũ raani kannu ekkuva nuune konn-aa-Du  
raaju raani COMP more oil buy-PAST-3.M.SG  
(Raju bought more oil than Raani)

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<sup>4</sup>In order to elicit these judgements, scenarios such as those discussed above with regard to (4) above. The consultant was then asked to determine whether the sentences would be true or false in such situations. For instance, in order to judge (18), a context along the following lines was given to the consultant, and she was asked to judge whether the (18) could be felicitously uttered:

- i. *Raju and Raani are shopping for cooking oil. Raju ends up buying a large five litre bottle of oil, whilst Raani buys three one litre bottles of oil.*

The same kinds of contexts were used when discussing comparisons with relation to *niiLLu* and *paalu* below.

The preceding discussion has established that there is a mass/count distinction in Telugu, and that it shares many properties with English. There are other properties relevant to the mass/count distinction in English that have not been discussed here. I leave investigation of these properties for future study, but the above discussion has established the existence of the mass/count distinction in Telugu, and now I move the discussion on to a small class of mass nouns that have plural morphology on them.

### 3 Milk and water: Plural mass nouns in Telugu

#### 3.1 Milk and Water

As mentioned above, an incompatibility with plural morphology is one of the hallmarks of the mass/count distinction in Telugu. However, as noted in Krishnamurti & Gwynn (1985), there is a small class of mass nouns in Telugu that occur with plural morphology. I focus my attention throughout this paper on two nouns, *niiLLu* ‘water’ and *paalu* ‘milk’, though it should be pointed out that the class of these nouns is larger than just two, and they are not limited to liquid mass nouns, see Krishnamurti & Gwynn (1985) for more details.<sup>5</sup> Consider the following sentences. Note that the forms do not just look as though they are plural by virtue of ending in *-lu*, but they also trigger plural morphology on the verb that they agree with, and not singular morphology.

- (19) a. *nii-LLu unn-aa-ji/\*undi*  
water-PL be-PRES-3PL/be-3.NM.SG  
(There is water)
- b. *paa-lu table miida padd-aa-ji*  
milk-PL table on spill-PAST-3.PL  
(Milk spilled on the table)

Interestingly, even though these nouns are prototypically mass in English, in Telugu they appear to show (at least a subset of) count properties.<sup>6</sup> For instance, we see that they combine with the count quantifier *konni*, and not *končam*. *Konni*, recall from above, appears with nouns that are prototypically count and *končam* with nouns that are prototypically mass:

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<sup>5</sup> I focus my attention to these nouns since they were the nouns that were easiest to elicit from my consultant. The other nouns listed in the grammar are *wadLu* ‘paddy’, *pesalu* ‘green gram’ and *kandulu* ‘red gram’.

<sup>6</sup>Ponamgi (2012:812) goes as far to claim “Interestingly the Telugu word for ‘water’ is considered a CT.PL (=count, plural, PWS), noun.”

- (20) a. aa abbaaji konni nii-LLu taag-ees-tun-aa-Du  
the boy few water-PL drink-EMPH-PROG-PRES-3.MASC.PL  
(The boy is drinking some water)
- b. \* končam nii-LLu  
little water-PL  
*intended:* (Little water)

One might suppose that it is expected that these nouns would appear with the count quantifier, since they exhibit plural morphology. For theories of the mass/count distinction like that espoused in Borer (2005), plural morphology is only possible if the noun root combines with the count syntax. Thus one may suppose that these nouns are simply count nouns in Telugu. However, this faces two problems. As will be discussed below, it is not the case that plural morphology never combines with mass nouns. Furthermore, it is not so clear that these nouns are count nouns since they do not exhibit the full range of count-properties, for instance, they are not countable without the aid of some measure phrase:

- (21) Raaju renDu \*(kap-lu) nii-LLu taag-ææ-Du  
Raaju two cup-PL water-PL drink-PAST-3.MASC.PL  
(Raaju drank two (cups of) water)

In addition to not being countable, these nouns also show the hallmark properties of having non-divided extensions and so being regular mass nouns. For instance, they do not combine felicitously with stubbornly distributive predicates, as shown in the following, which cannot for instance be used to refer to a lake, a puddle or any other body of water:

- (22) # nii-LLu peddagaa unn-aa-ji  
water-PL big-GA be-PRES-3PL  
(The water is large)

Furthermore, they do not combine with quantifiers that require division, such as *prati* ‘every’ (see Ponamgi 2012 for discussion):<sup>7</sup>

- (23) \* aa abbaaji prati niiLLu taag-ees-tun-aa-Du  
the boy every water-PL drink-EMPH-PROG-PRES-3.MASC.SG  
*intended* (The boy is drinking every water)

<sup>7</sup>This quantifier is reminiscent of ‘every’ in English, which must combine with count singular nouns. Ponamgi (2012) proposes that it can combine with count singulars, but not count plurals. Thus, the problem with *niiLLu* and *paalu* combining with *prati* could be related to the plural morphology on *niiLLu* and *paalu*. However, *prati* does not combine with mass nouns Ponamgi (2012), so it is not possible to reduce the requirements with *prati* to morphological number, given that mass nouns in Telugu are singular.



Finally, as is the case with mass nouns, comparison is done by volume, crucially not by number. In the following, (24) is true is a situation where Raaju used one 5 litre bottle of milk and Raani used three 1 litre bottles. Thus, the overall volume of milk used by Raaju was larger than that used by Raani, even though Raani used more individual portions of milk. It is *not* true if Raaju used three 1 litre bottles of milk and Raani used one 5 litre bottle, where the number of individual portions of milk used by Raaju is greater than the number used by Raani.

- (24) Raaju Raani kannā ekkuvā paa-lu vaaD-ææ-Du  
Raaju Raani COMPR more milk-PL use-PAST-3.MASC.SG  
(Raaju used more milk than Raani)

In sum, we can see that *niiLLu* and *paalu* show the interpretative properties of mass nouns in Telugu (lack of atomic elements), but the morphosyntactic properties of count nouns (plural morphology and count quantifiers). It is worth mentioning here, though I do not have the space to discuss the issue, is that these nouns appear to be the converse of *furniture*-nouns in English, which as Smith (2015) shows, have the semantic properties of count nouns, but the morphosyntactic properties of mass nouns. I refer the reader to Smith (2015) for an in depth discussion.

### 3.2 Plural mass nouns: A cross-linguistic picture

As was mentioned earlier it is not unheard of for mass nouns to occur with plural morphology. One way noted by Tsoulas (2007) and Wiltschko (2008) that this happens is that the combination of mass noun and plural morphology can in some languages give rise to some kind of abundance reading. This is shown in the following example from Halkomelem Salish (Wiltschko 2008).

- (25) tsel kw'éts-lexw te/ye shweláthetel  
1SG.S see-TRANS-3O DET/DET.PL fog.PL  
(I've seen a lot of fog)

The same pattern is seen in Greek (Tsoulas 2007, Alexiadou 2011), where the use of the plural suffix on the mass noun gives rise to the reading that a lot of the noun was involved:

- (26) Trexoun nera apo to tavani  
drip-3.PL water-PL.NEUT.NOM from the ceiling-NEUT.SG  
(Water is dripping from the ceiling)

Tsoulas notes that these nouns come with an abundance reading, in that the quantity of water denoting by *tavani* in (26) is more than one would otherwise expect. Tsoulas gives the following dialogue to illustrate this point:

- (27) SPEAKER A: Afise o gianis anihto to lastiho ke gemise i avli nera  
(Giannis left the hose on and the yard was full of waters)  
SPEAKER B: Min ipervalis fofo mu, de gemisame nera, na ligo nero# nera  
etrekse.  
(Don't exagereate fofo, it wasn't full of waters, just a little water/# wa-  
ters dripped out of the hose)

Another way whereby plural morphology appears on what otherwise looks like a mass noun. Consider the following data from Ojibwe, from Mathieu (2012):

- (28) a. maandaamin 'corn' maandaamin-ag 'corn-PL'  
b. semma 'tobacco' semaa-g 'tobacco-PL'  
e. aasaakamig 'moss' aasaakamig-oon 'MOSS-PL'

All of the nouns in (28) are prototypically mass nouns, but they appear to freely combine with plural morphology. Number in Ojibwe is not derivational, as Wiltschko (2008) claims to be the case for Halkomelem Salish. Mathieu also shows that the plural forms do not come with abundance reading that is present in similar nouns from Halkomelem Salish. What they come with is in fact an individuated reading. Thus, they are akin to mass to count shifts, like *three waters* in English, a fairly productive process of coerced. However, the process is slightly different, since in Ojibwe it results from a singulative operation. Their individuation is shown by the fact that they can combine with numerals, as well as distributive quantifiers like *gakina* 'every':

- (29) bezhig azhashki  
one mud  
(One chunk of mud)

It might be tempting to wonder whether *niiLLu* and *paalu* fall into either of these classes of plural mass noun. However, these nouns are certainly not of the former type, since my consultant states that the *niiLLu* and *paalu* are able to be used when only a little amount of milk and water is intended. In the following situation, an abundance use of the mass noun would render the sentence infelicitous, however the sentence is felicitous:

- (30) Raaju ṭana coffee-lo paa-lu poos-ææ-Du  
Raaju his coffee-in milk-PL pour-PAST-3.MASC.SG  
(Raaju put milk in his coffee)

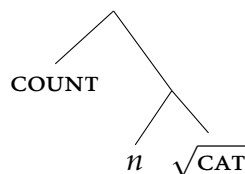
Neither are these two nouns the result of a singulative shift, since, they do not come with an individuated interpretation (see the above discussion). I do not have the space to consider why such readings are missing in Telugu (or in English instances like *waters*), however, I refer the reader to Smith (2015) where this issue is taken up.

## 4 Issues that Telugu raises for theories of the mass/count distinction

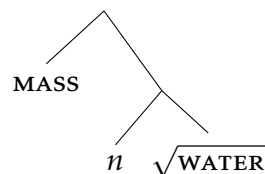
Theories of the mass/count distinction often try to account for all the properties highlighted above as being related to the element responsible for ‘massness’ or ‘countness’. One instance of this kind of approach is what I will term here the ‘flexible roots’ approach, such as Borer (2005), Bale & Barner (2009), de Belder (2013). Here, the intuition is that noun roots are not inherently either mass or count, but rather inherently neither mass nor count; roots are made mass or count depending on the syntactic structure they find themselves in. The structure is then responsible for quantifier selection (mass quantifiers select for a certain kind of structure, count quantifiers select for a different kind of structure).

Working within this viewpoint, Borer (2005) claims that there is only structure for division, and roots without this structure are interpreted in the default, non-divided way. However, as noted by Bale & Barner (2009), such an approach runs into problems with *furniture* nouns in English. They claim instead that masshood is not the absence of structure, but rather there are distinct functional heads **MASS** and **COUNT**, which are responsible for creating division or not. Roots are once more inherently undivided, but **COUNT** is a function from undivided lattices into a divided one, whereas **MASS** is simply the identity function. Since roots are undivided by default, **MASS** maps an undivided lattice to itself (see Link 1983, Landman 1989a,b for early discussion of how lattice structures can be used to derive the differences between mass and count):

(31)



(32)

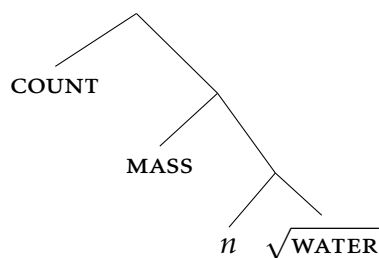


Looking at Telugu, a problem arises for both Borer and Bale & Barner comes when we consider quantifier selection. For both Borer and Bale & Barner, quantifiers are intimately linked to the syntactic structure. They both assume that

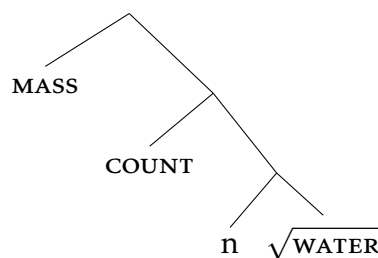
*many* and *few* are both only compatible with the structure responsible for creating cunthood. Likewise, *much* and *little* are only compatible with masshood structure. It is this that part of the theory that *niiLLu* and *paalu* cause so much of a problem for. The semantics of *niiLLu* and *paalu* suggests that they have combined with the MASS head, however, their quantifier selection suggests that they have combined with the COUNT head. Since Bale & Barner have two functional heads, one for creating cunthood and one for creating masshood, it is in principle possible for both to co-occur on the same noun, potentially offering an explanation. However, supposing that the two heads could co-occur, it seems reasonable to assume that COUNT would be the uppermost head for *niiLLu* and *paalu*, since this would be the one most local to the quantifier for means of selection.

Thus, the surface behaviour of the nouns leads us to expect the structure in (33). However, supposing that this were possible, when this gets interpreted by the semantics, we still expect a divided reading, since COUNT will always yield an individuated interpretation to what it applies to. In fact, the problem is more general; since MASS is an identity function, then whenever COUNT is in the structure we will still get division. Even if the order of COUNT and MASS were reversed, as in (34) then MASS will map an individuated semi-lattice to itself. No matter what we do, with MASS being an identity function, anything with COUNT will yield division. One could perhaps define MASS in such a way such that MASS destroys division, and is a function that maps any type of lattice to an unindividuated semilattice. However, this then would give an apparent paradox in that the semantics would suggest that (34) is the correct structure, since MASS would need to be apply after COUNT, whilst the morphology suggests that (33) is the right order, where the order COUNT is higher than MASS.

(33)



(34)



Whilst I have focused here on the problems that the Telugu data cause for the flexible roots approach in the cited works, it should be pointed out that the problem is more general, and in fact inherent for any theory which attempts to unify all the surface effects of the mass/count distinction to whatever is responsible for their semantics. Take for instance, Chierchia (1998), who argues that

*many* is only able to combine with count nouns in English, because its domain is restricted to count nouns, with *much* surfacing as the elsewhere variant. Now, applying this to Telugu will again struggle, since *konni* is clearly not restricted just to applying to count nouns, but can apply to some mass nouns too. Similarly, Solt (2009) argues that the difference between mass and count quantifiers is such that *many* and *few* are sensitive to cardinality, whereas *much* and *little* have other dimensions. Again, we see that such an approach is not able to be applied to Telugu, since there is no clean division: if *konni* were defined as only applying to cardinalities, then *niiLLu* and *paalu* remain unexplained. Similarly, we cannot define *končam* as applying to non-cardinalities, as we would predict *niiLLu* and *paalu* to combine, contrary to fact.

## 5 A solution

The problems noted above show how Telugu causes a challenge for various existing proposals of the mass/count distinction. In this section I offer an account of the data, which keeps the insights of the flexible roots approach, but allows for the ‘errant’ quantifier data to be explained. Whilst the theories discussed above (which is by no means an exhaustive discussion of the mass/count distinction, which would take us too far afield) fail to account for the data, what I will make use of for Telugu is the insight that just as *many* seems to be a restricted use of *much* (see Chierchia 1998) in English, and I will argue that *konni* is a restricted use of *končam*. By which, I mean that they both represent the same underlying quantifier KONČAM, but *konni* is used in certain environments, with *končam* being the elsewhere case.

### 5.1 *Končam* and *konni* are allomorphs

I propose that the relevant criterion that splits the two quantifiers is morphological number. Whereas treating the difference as one between mass and count nouns leaves an unexplained residue with regards to *niiLLu* and *paalu*, a division based on number makes a cleaner cut: only nouns that are plural can combine with *konni*, whereas only singulars combine with *končam*. Rather than treat this as a matter of selection however, I propose that we are dealing with allomorphy. I propose that there is one quantifier KONČAM. For concreteness, I adopt the following meaning for KONČAM, which follows the definition that Chierchia (1998) gives for MOLTO in Italian. In brief, KONČAM ensures that the set of elements fulfilling the predicate,  $\mu$ , is smaller than a contextually set amount  $n$  that is considered ‘little’ or ‘few’ ( $\cup$  refers to lattice closure, in the sense of Link 1983).

$$(35) \text{ KONČAM}(X)(Y) = \mu(\bigcup(\cup X \cap Y)) < n$$

I further propose that this quantifier undergoes agreement for number with its head noun. If this agreement process yields plural number, then the combination of [KONČAM + plural] will be realised as *konni*. Otherwise, KONČAM is realised as *končam*. Specifically, I assume a late-insertion model of morphology, such as Distributed Morphology (Halle & Marantz 1993) and propose the following Vocabulary Insertion rules:

$$(36) \text{ KONČAM}, [uF:\text{plural}] \Leftrightarrow \text{konni} \\ \text{KONČAM} \Leftrightarrow \text{končam}$$

Treating the quantifiers as allomorphy in this manner, will ensure that *konni* will always combine with nouns that are morphologically plural, whereas *končam* will only combine with nouns that are singular. This is ensured by the Elsewhere Principle (Kiparsky 1973), namely that the most specific exponent is chosen and *konni* will be chosen over *končam* wherever possible.

## 5.2 The Inner Structure of *niiLLu* and *paalu*

That *konni* and *končam* are allomorphs accounts for the problems noted above for the theories of the mass/count distinction. I will here spell out further assumptions so as to make the account more complete. Following Borer (2005), Bale & Barner (2009), Smith (2015), *i.a.*, I assume that roots are unspecified for mass and count, but this distinction is created by structure. Following Bale & Barner (2009), I assume that there are two functional heads, annotated here as  $n_{-DIV}$  and  $n_{+DIV}$  that play into creating the mass/count distinction, and along with Smith (2015), I will assume that these functional heads are different variants of the nominalising head  $n^0$ .  $n_{+DIV}$  is a nominalising head that creates division, whereas  $n_{-DIV}$  does not.<sup>8</sup>

Secondly, I adopt the theory of features given in Smith (2015), whereby features are split into two halves, a morphological  $uF$ , and a semantic  $iF$ . Both halves are present in the syntax, and at the point of spell-out,  $uF$ s are transferred along the PF-branch, whilst  $iF$ s are transferred to LF. This distinction plays only a peripheral role here, however it allows for a noun to have morphological plurality, without there being a semantic effect of that plurality. In Smith's terms, this means that the  $uF$  half of a number feature can be valued as plural, but the  $iF$  half can have no value. This allows us to capture the fact that the plurality seen on *niiLLu* and *paalu* is only morphological, and plays no semantic role.

<sup>8</sup>I remain agnostic as to whether  $n_{-DIV}$  should be treated as an identity function, or defined in such a way that when a root combines with it, the result is a non-divided interpretation.

Finally, along with Acquaviva (2008b) and Smith (2015) (see also Kramer 2014, 2015) I assume that lexical properties are located on functional heads, and that certain roots can combine only with certain heads, regulated by licensing rules. It has been commonly assumed, since at least Ritter (1991) that non-inherent  $\phi$ -features are introduced in functional projections above the root. However, lexical properties of the root seem to be much more intimately connected. Take *pluralia tantum* nouns for instance. It seems to be a lexical property that they must appear with plural morphology. If not introduced in the usual functional structures, then they can either be inherently carried on the root introduced elsewhere, that the root must combine with. It makes sense to assume that if introduced elsewhere, they would then form part of the category defining nodes (see also Landau 2016). We can tease these two positions apart if we find instances where the lexical information disappears. If this information were carried on the root, then we do not expect the information to ever not be realised. However, this is too strong. *Pluralia tantum* nouns, when they appear in compounds, can appear without the expected plural morphology.<sup>9</sup>

- (37) a. The goal was scored by a magnificent scissor-kick (\*scissors-kick)  
 b. Every hotel room used to have a trouser-press (\*trousers-press)

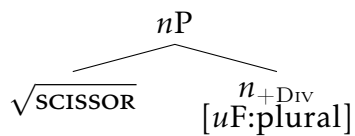
I assume that a *pluralia tantum* root such as  $\sqrt{\text{SCISSOR}}$  will necessarily combine with a nominalising head that carries a  $uF:\text{plural}$  feature (if it combines a nominalising head, see note 9). If it combines with a head not carrying this feature, then the resulting structure is not licensed (see Acquaviva 2008a and Smith 2015 for much further discussion on this licensing relation). To illustrate, the inner structure of a *pluralia tantum* noun phrase will be as in (38). For Telugu, I assume that the *niiLLu* and *paalu* are essentially equivalent to English *pluralia tantum* in that the category defining node must carry  $[uF:\text{plural}]$ , however, we must add the qualification that they combine with  $n_{-DIV}$ , as opposed to  $n_{+DIV}$ , hence their non-divided interpretation.<sup>10</sup> Therefore, we expect that they cannot combine with stubbornly distributive predicates, will not be compared by number (and so must be compared by volume), and cannot form a good basis for counting (hence they don't combine with numerals). Furthermore, since

<sup>9</sup>The plurality doesn't have to disappear. For instance *jeans-pocket* seems perfectly fine (?*jean-pocket*), as does *glasses-maker*. However, this only shows that the category defining node can be used in compound formation, leading to the preservation of the inherent information, as has been proposed for synthetic compounds, see Harley (2009). What is important to bear in mind though, is that the examples in (37) shows that inherent information can be lost, which is unexpected on the view that inherent information is inexorably carried by the root.

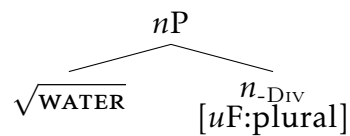
<sup>10</sup>Following Alexiadou (2011), this licensing relation here provides an answer for the question as to why not every mass noun in Telugu can show the behaviour of *niiLLu* and *paalu*; it is only these roots (and a small number of others - see footnote 5) that are licensed under  $n_{-DIV}$  with  $[uF:\text{plural}]$ .

the inherent number feature is morphological, we expect to see plurality represented in terms of a plural suffix on the noun.

(38)

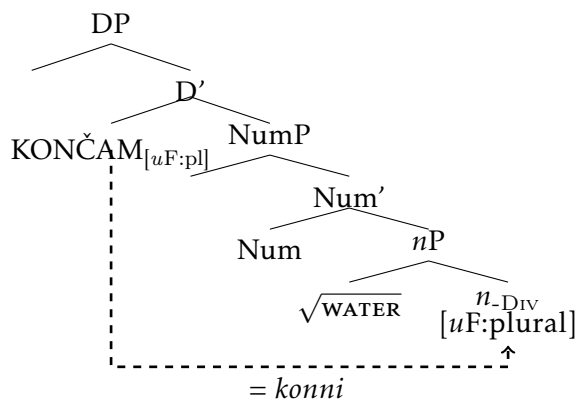


(39)



However, we still must explain the facts about quantifiers. As noted above, I assume that the quantifier agrees with its noun in terms of number, and takes the *uF* value of the noun. To make this concrete, I assume that the quantifier KONČAM has an unvalued number feature. This feature probes the head noun and takes its value from the number feature of the head noun, as shown in (40). On the other hand, a regular mass noun like *isuka* does not carry any obligation to combine with *uF:plural*, and so combines with just *n-Div*. Assuming that no number information is introduced in NumP for mass nouns, then when the quantifier undergoes agreement with the head noun, it does not receive a number value. Thus, it receives the elsewhere realisation of *končam*.

(40)



Putting all of these together, we see that the reason why *niiLLu* and *paalu* show the semantic properties of being undivided is that they combine with *n-Div*, a functional head that does not divide the root in any way (or creates a non-atomic interpretation). Since no minimal parts are created, then *niiLLu* and *paalu* are predicted not to be able to be licit with operation which requires divided interpretation, such as counting, a combination with stubbornly distributive predicates, comparison with number, or combination with *prati* 'every'. Yet, the fact that they inherently must combine with plural morphology - being lexically specified such that the category defining node that they combine with must carry a *uF:plural* - accounts for their apparent countness, in the



sense that they combine with plural morphology. Crucially, the proposal that the *konni* versus *končam* distinction is not a matter of mass versus count, but rather plural versus non-plural quantifiers accounts for the fact that *niiLLu* and *paalu* apparently combine with the wrong quantifier. In reality, what makes them appear to be count nouns - the plural morphology and the fact that they combine with an apparently count quantifier - is really a result of them being inherently morphologically plural.

## 6 Conclusions

In this paper I have provided a description of a small class of plural mass nouns in Telugu, showing that they have the curious properties of being clearly semantically mass, but apparently morphosyntactically count. In order to explain this behaviour, I adopted the flexible roots approach of Borer (2005) and others, and proposed that the Telugu system can be explained if we assume that the quantifiers that seem to select for mass nouns and count nouns are actually sensitive to the morphological number of the head noun. Since *niiLLu* and *paalu* are lexically morphologically plural, and mass nouns in general in Telugu do not combine with plural morphology but count nouns do, then this is enough to make it appear as though *niiLLu* and *paalu* are combining with a count quantifier.

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