Evaluating lexical countability with count-mass gender

Introduction. It is an ongoing debate whether nouns are classified via countability (Doetjes 2012), henceforth LC (lexical countability). We evaluate the issue relative to the novel empirical domain of count-mass polysemy with varying gender in Maceratese, an Italo-Romance variety where neuter (N) is associated with masshood: (i) There is no neuter plural inflection, (ii) The meaning of every neuter noun involves unindividuated stuff, and (iii) One third of neuters have a masculine (M) counterpart which is pluralizable and has count meaning (Loporcaro 2018). The data pose a challenge to two -LC analyses (Borer 2005, Pelletier 2012), and they motivate a +LC analysis where in the context of N-M doublets, N and M respectively realize the universal grinder and packager.

Data. N caffé 'coffee' ranges over sums of coffee stuff (1) or natural kinds of coffee (2). Conversely, M *caffé* ranges over (1) coffee servings or (2) kinds of coffee servings.

1. So scallato $1{0,u}$ caffè.

the- $\{N, M.sg\}$ coffee 'I heated the coffee {N stuff, M serving}.' aux heated

2. Qual adè $1{0,u}$ caffè più $car{o,u}$ che c'ete? which is-3sg

the-{N, M.sg} coffee most expensive-{N, M.sg} that have-2pl

'What's the most expensive coffee {N natural kind, M serving} that you have?'

All N-M doublets exhibit a pattern parallel to (1-2). Thus, N pesce 'fish' ranges over sums (3) or kinds (4) of fish meat, whereas M pesce ranges over fish specimens (3) or natural kinds of fish (4).

3. M' è $piaciut{0.u}$ $1{0.u}$ pesce.

liked-{N, M.sg} the-{N,M.sg} fish 'I enjoyed the fish {N meat, M specimen}.' to.me aux

4. Qual adè pesce più $car{o,u}$ che c'ete? $l\{0,u\}$

which is-3sg the- $\{N, M.sg\}$ fish most expensive-{N, M.sg} that have-2pl

'What's the most expensive fish {N meat, M natural kind} that you have?'

The preceding data and more pose a challenge to the two -LC analyses in (5a-b), and they motivate (5d) over (5c) among the +LC analyses.

5. In the immediate context of *caffè* 'coffee' and *pesce* 'fish',

LC_1 a. N realizes no count structure	M realizes count structure	(adapts Borer 2005)	
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- $-LC_2$ b. N removes +count entities M removes –count entities (adapts Pelletier 2012)
- $+LC_1$ c. N presupposes –count
- M presupposes +count (adapts Percus 2011)
- +LC₂ d. N realizes GRIND (universal grinder) M realizes PACK (universal packager)

-LC₁. In this adaptation of Borer (2005), all nouns are basically -count, and N caffè 'coffee' and N pesce 'fish' are predicted to be fully uncountable—N realizes the absence of count structure, so all elements of countability should be excluded from the nominal. While it is true that these neuters lack plural countability due to the lack of plural neuter inflection in Maceratese (Loporcaro 2018), they are compatible with the singular count determiner *qarsiasi* 'any/whichever' (6), e.g. (7-8). In short, $-LC_1$ predicts the neuters to be fully uncountable, but they have limited (singular) countability.

6.	Poli	sceglie	quarsiasi	{foglia	*foglie	* fogliame}.	'You can choose any
	can-2sg	choose	any	{leaf	leaf.pl	foliage}	{leaf, *leaves, *foliage}.'
7.	Qui	vennemo	quarsiasi	caffè	affè colombian-o.		'Here we sell
	here	sell-2pl	any	coffee	colomb	ian-N	any (kind of) Colombian coffee.'
8.	Qui	vennemo	quarsiasi	pesce	nostran	-0.	'Here we sell
	here	sell-2pl	any	fish	local-N		any (kind of) local fish meat.'

-LC2. In this adaptation of Pelletier (2012), nouns basically range over all (un)countable entities which can fall under their denotation. However, the aspect of -LC2 where N removes +count entities from the noun's denotation incorrectly predicts that N caffè and N pesce should not be able to range over countable subkinds, contra (7-8). Conversely, the aspect of -LC₂ where M removes -count entities from the noun's denotation incorrectly predicts that M caffé and M pesce should be able to range over any +count entity which fits their descriptive content. However, M caffè cannot range over natural kinds of coffee, e.g. M (2) is not answerable with Lo Caturra 'Caturra'; this answer can only mean 'serving made of Caturra.' Similarly, M pesce cannot range over kinds of fish meat, e.g. M (4) is not answerable with Lo tonno 'tuna meat'. Thus, Maceratese poses a challenge to the -LC analyses of Borer (2005) and Pelletier (2012).

+LC. We evaluate +LC analyses where *caffê* 'coffee' is basically –count, *pesce* 'fish' is basically +count, and three operations are responsible for count-mass polysemy: PACK derives the 'serving' reading of M *caffê*, GRIND derives the 'meat' reading of N *pesce*, and SORT (= universal sorter) derives the subkind reading in (2), (4) and (7–8) (Chierchia 2010, Landman 2020). Example derivations with SORT include SORT COFFEE 'natural kind of coffee', SORT PACK COFFEE 'kind of coffee serving', SORT FISH 'natural kind of fish', and SORT GRIND FISH 'kind of fish meat'.

+LC₁. In this adaptation of Percus (2011), nouns which do not satisfy the presupposition of M or N can do so via PACK, GRIND or SORT. For example, the basically –count *caffè* satisfies the –count presupposition of N, hence N *caffè* can mean 'coffee stuff'. Additionally, *caffè* can satisfy the +count presupposition of M via PACK, hence M *caffè* can mean 'coffee serving'. Crucially, the +count presupposition of M can also be satisfied via SORT, which incorrectly predicts that M *caffè* should be able to range over any kind of coffee. However, it cannot range over natural kinds of coffee, e.g. M (2) is not answerable with *Lo Caturra* 'Caturra'. This incorrect prediction is remedied by assuming that only PACK can satisfy the +count presupposition of M, but this seems ad-hoc.

+LC₂. A potential objection to +LC₂ is that M (= PACK) is semantically redundant with *pesce* 'fish', and so is N (= GRIND) with *caffè* 'coffee'. This is addressed by assuming that each noun token requires a gender, i.e. M is not morphologically redundant with *pesce*, nor is N with *caffè*.

One advantage $+LC_2$ is that it accounts for M *tonnu* 'tuna' lacking the reading 'serving of tuna meat' in (9) (*tonn{o,u}* is another N-M doublet).

9. [On a flight or in a wedding meal, one can choose the tuna dish or the pasta dish.]

Semo ordinato un #tonnu. × 'We ordered a tuna dish.'

aux-2pl ordered a tuna-M ($\sqrt{}$ 'We ordered a living tuna specimen.')

The unavailable reading in (9) is derived via PACK (GRIND TUNA). Under $+LC_2$, GRIND is realized as N due to being in the immediate context of TUNA, and PACK is covert due to not being in this immediate context. $+LC_2$ therefore correctly excludes this reading from M *tonnu* 'tuna'.

Crucially, the three other analyses in (5) incorrectly admit (9). For $-LC_1$, a nominal with count structure (= M) should be able to have any count meaning, including 'serving of fish meat', and the same goes for a nominal with the –count entities removed (= M) under $-LC_2$. For $+LC_1$, the +count presupposition of M is satisfiable via PACK \circ GRIND, which would yield the unavailable reading in (9).

+LC₂ makes two incorrect predictions which are addressed by appealing to principles of reducing redundancy. First, M *caffè* should be able to mean 'coffee stuff' via GRIND (PACK COFFEE). This is blocked via (10)—PACK is informative with COFFEE, but it is redundant in this context due to GRIND. 10. Don't use an informative feature in a context where it is redundant.

Second, $+LC_2$ incorrectly predicts that M *pesce* should be able to mean 'fish meat' via GRIND (PACK FISH). This is blocked via (11)—PACK is redundant with FISH, and it occurs in a context with the informative GRIND.

11. Don't use a redundant feature in a context with an informative feature.

(10–11) join Percus' (2011) conditions on interpreted features, except they express a preference against redundancy (rather than against synonymy).

Conclusion. Of the four present analyses of N-M doublets in Maceratese, the best one has contrastive lexical countability: *Pesce* 'fish' is basically +count, and *caffè* 'coffee' is basically –count. Furthermore, N and M respectively realize the universal grinder and packager in the context of such N-M doublets. We appeal to principles of reducing redundancy to block certain unavailable readings.

Borer, H. 2005. *In name only*. • Chierchia, G. 2010. Mass nouns, vagueness and semantic variation. *Synthese*. • Doetjes, J. 2012. Count/mass distinctions across languages. In *Semantics: An international handbook of natural language meaning*. • Landman, F. 2020. *Iceberg semantics for mass nouns and count nouns*. • Loporcaro, M. 2018. *Gender from Latin to Romance*. • Pelletier, F. J. 2012. Lexical nouns are both +MASS and +COUNT, but they are neither +MASS nor +COUNT. In *Count and mass across languages*. • Percus, O. 2011. Gender features and interpretation: a case study. *Morphology*.