

# MORE ON NUMBER

PLIN0020 ADVANCED

SEMANTIC THEORY

MASS/COUNT

# GRAMMATICAL MASS/COUNT

Some languages have a grammatical distinction between **mass** and **count** nouns.

- (1) a. *There is rope in the garage.*  
b. *There is a rope in the garage.*

The terminology is extremely misleading!!

You can often describe the exact same thing with a mass noun or a count noun.

# GRAMMATICAL TESTS

Each language has its own linguistic tests for grammatical mass/count.

E.g. for English:

- ▶ Can be singular bare argument, then mass
- ▶ Can be pluralised, then count
- ▶ Compatible with *every/each/a*, then count
- ▶ *Many/few* vs. *much/little*

If you cannot find such tests in a language, then there's no grammatical mass/count in it.

Important: semantic (in)compatibility is not a good test for grammatical mass/count, e.g. *multiple*

# TERMINOLOGY

The terminology ('mass', 'count') is very misleading!

Nouns describing uncountable objects tend to be grammatically mass; nouns describing countable objects tend to be grammatically count.

But *furniture, footwear, clouds, mashed potatoes*, etc.

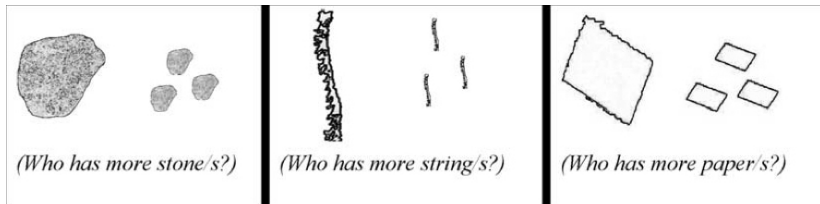
- ▶ Near-synonymous pairs: *letters/mail, coins/change, suitcases/luggage*
- ▶ Nouns that could be either: *rope, hair, liquid*
- ▶ Nouns that don't have physical properties: *prejudices, beliefs, information, knowledge, advice*
- ▶ Crosslinguistic unstability

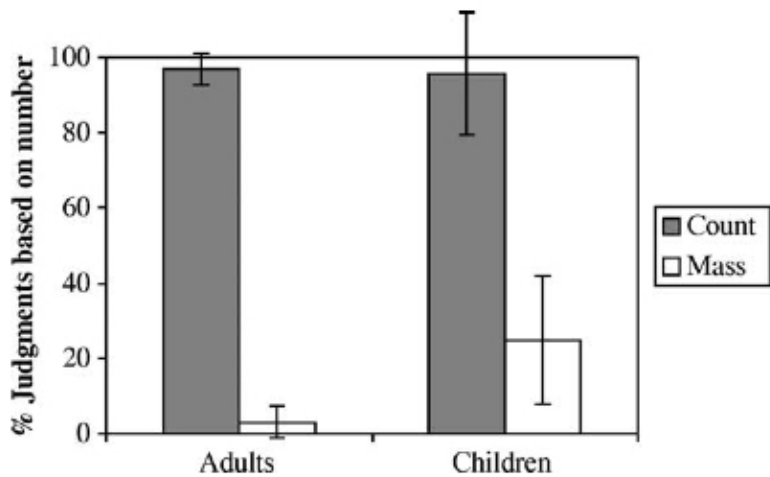
# SEMANTIC EFFECTS

However, the grammatical mass/count distinction is not completely void of meaning.

For nouns that could be either (**hybrid/flexible nouns**), there seems to be a semantic effect.

The comparative task (Barner & Snedeker 2005; cf. Bale & Barner 2018)





# THEORIES AND PROJECTS

Some assume that grammatical mass and/or count always have meaning (Link 1983, Chierchia 1998, Barner & Snedeker 2005).

Good for hybrid nouns, but:

- ▶ Nouns that are always mass are arbitrary: *furniture, evidence, blood, saliva*
- ▶ Nouns that are always/predominantly count might be too: *mashed potatoes, French fries, clouds*

Potential projects:

- ▶ Tests for grammatical mass/count
- ▶ Semantics of grammatical mass/count? (cf. Lima 2014, 2018)
- ▶ My ongoing experimental project with Kurt Erbach on *potatoes*



# CLASSIFIERS

# OBLIGATORY CLASSIFIER LANGUAGES

## (2) Mandarin Chinese (Sino-Tibetan)

*yì bēn shū*  
one cl book  
'one book'

\* *yì shū*  
one book

*sān bēn shū*  
three cl book  
'three books'

*yì zhī māo*  
one cl cat  
'one cat'

\* *yì māo*  
one cat

*sān zhī māo*  
three cl cat  
'three cats'

## (3) Japanese (Japonic)

*hana ichi-rin*  
flower one-cl  
'one flower'

\* *hana ichi*  
flower one

*hana san-rin*  
flower three-cl  
'three flowers'

*kuruma ichi-dai*  
car one-cl  
'one car'

\* *kuruma ichi*  
car one

*kuruma san-dai*  
car three-cl  
'three cars'

# CLASSIFIERS

Languages like Mandarin Chinese, Cantonese, and Japanese have hundreds of classifiers (not all are used frequently).

- ▶ `https://en.wikipedia.org/wiki/List_of_Chinese_classifiers`
- ▶ `https://en.wikipedia.org/wiki/Korean_count_word`
- ▶ `https://en.wikipedia.org/wiki/Japanese_counter_word`

Numeral Classifiers, the World Atlas of Language Structures:  
`https://wals.info/feature/55A#2/28.0/149.8`

# NOMINAL NUMBER

**Sanches-Greenberg-Slobin Generalisation:** Obligatory classifier languages have no obligatory number marking on nouns, i.e. have general number nouns (Doetjes 2012).

(There might be optional number marking, e.g. Japanese reduplicated plurals)

But not all languages without obligatory number marking are classifier languages, e.g. Dëne Sųłiné (Wilhelm 2008), Yudja (Lima 2014, 2018, Lima & Rothstein 2018).

# THEORIES

Majority view (Chierchia 1998, Borer 2003)

- ▶ Classifier languages only have grammatically mass nouns.
- ▶ Classifiers turn mass nouns into count NPs.

(4) *three \*(pieces) of evidence/furniture*

Alternative view (Sudo 2015, 2016)

- ▶ Numerals in classifier languages cannot function as modifiers on their own.
- ▶ Classifiers turn numerals into modifiers/predicates.

Potential project: Apply Sudo's (2015) arguments to a new language.

# CZECH NUMERALS

Potential project: Apply Sudo's (2016) theory to non-canonical numerals.

- ▶ Normal, e.g. *dv-a/ě*
- ▶ Aggregate, e.g. *dv-oje*  
used with pluralia tantum and collective nouns
- ▶ Taxonomic, e.g. *dv-ojí*  
used to count subkinds
- ▶ Group, e.g. *dv-ojice*  
used to count members of a group, e.g. *dvojice mužů* is a group of two men

(see Kim 2009, Dočekal, Grimm & Ziková 2014, Wągiel 2018)

## OPTIONAL CLASSIFIER LANGUAGES

- (5) *egy/három (darab) könyv*  
one/three (cl) book  
'one/three book(s)'

Hungarian

Schvarcz & Rothstein (2017) claim that *könyv* is a hybrid noun; the classifier appears with the mass version.

Potential projects:

- ▶ See if S&R's theory can apply to a new language.
- ▶ Compare S&R's theory with Erbach, Sutton & Filip's (2019) in Hungarian or a new language.

## VERBAL CLASSIFIERS

- (6) *Taroo-wa Ziroo-o san-patsu nagutta.*  
Taro-top Ziro-acc 3-CL punched  
'Taro punched Ziro three times' (Japanese)
- (7) *Dàlín dǎ-le Yùrú sān-quán.*  
Dalin beat-PRF Yuru three-CL  
'Dalin punched Yuru three times' (Zhang 2017; Mandarin)

Such classifier phrases for verb phrases are extremely understudied in the theoretical literature (Donazzan 2012, Zhang 2017)



VERBAL NUMBER

## VERBAL NUMBER

Some languages mark verbs for number, similarly to nominal number. Verbal number morphology tends to convey one of two things:

- ▶ How many events
- ▶ How many participants

English does *not* have verbal number, although:

- (8) a. *He smokes.*  
b. *They smoke.*

Exercise: Show with examples that number marking on verbs does not perfectly correlate with the number of participants or events.

## EX: MUPUN

(9) a. *n-tu* *joos*

1sg-kill.SG rat

'I killed a rat.'

b. *n-tue* *joos*

1sg-kill.PL rat

'I killed rats.'

(Frajzyngier 1993: 60)

(10) a. \**wu* *cit* *mo*

he hits.SG them

'(intended) He hit them.'

b. *wu* *nás* *war*

he hits.PL her

'He hit her multiple times.'

(Frajzyngier 1993: 59)

# EX: FRENCH SIGN LANGUAGE



Figure 3 Picture of FORGET-rep



Figure 4 Picture of FORGET-alt

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	/-rep/	/-alt/
a. distribution over only time	✓	*
b. distribution over participants and time	✓	✓
c. distribution over only participants	*	✓

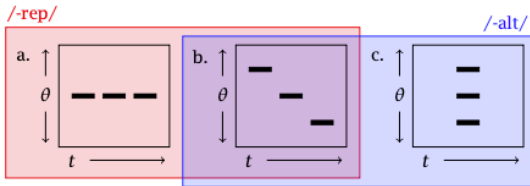


Figure 5 Summary of available readings with /-rep/ and /-alt/

(Kuhn & Aristodemo 2017)

# POTENTIAL PROJECTS

Verbal number is less well studied in the theoretical literature, compared to nominal number.

But we can ask similar questions:

- ▶ Morphological markedness and semantic markedness
- ▶ Unmarked plurals?

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