

# A general theory of “singular” kind terms

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## Background

### Previous studies on kind terms

Kinds can be derived by either the nominalization operator  $\cap$  (Chierchia 1998) or the  $\iota$ -operator (Dayal 2004).  $\iota$  is only available if  $\cap$  is undefined. It is assumed that  $\cap$  is defined for pluralities, but not for singularities.

(1) Dayal’s (2004) system

Plural	Singular
objects	objects
$\downarrow \cap$	$\downarrow \cap$
kinds	undefined
	$\downarrow \iota$
	kinds

The lexicalization patterns of  $\cap$  and  $\iota$  vary cross-linguistically.

### Prediction

**Assumption 1:** A type-shifting operation (e.g.  $\iota$ ,  $\cap$ ) cannot apply covertly if it is associated with an overt morpheme (The Blocking Principle; Chierchia 1998).

**Assumption 2:**  $\iota$ , but not  $\cap$ , is the basic function of definite articles.

(2) Possible

	$\iota$	$\cap$	Sg. kinds	Pl. kinds	Languages
a.	D	D	D NP	D NP	Italian, French
b.	D	(D)	D NP	(D) NP	German
c.	D	$\emptyset$	D NP	NP	English
d.	$\emptyset$	$\emptyset$	NP	NP	Hindi, Russian

(3) Impossible

	$\iota$	$\cap$	Sg. kinds	Pl. kinds
a.	(D)	(D)	(D) NP	(D) NP
b.	$\emptyset$	D	NP	D NP

Bare singular kind terms are not allowed in languages with a definite article.

### Brazilian Portuguese: A counter-example?

Brazilian Portuguese, which encodes  $\iota$  with definite articles, has been claimed to allow bare singular kind terms:

- (4) %**(O)** panda logo estará extinto.  
the panda soon will be extinct  
‘Pandas will soon become extinct.’

However, their empirical status remains unclear (Schmitt and Munn 1999, 2002; Müller 2002; Dobrovie-Sorin and Pires de Oliveira 2008; Ionin et al. to appear).

**Q1:** Should our theory of kind terms include bare singular kind terms as an option available for languages with a definite article?

## New data point: Singlish

Singlish (Colloquial Singapore English) also encodes  $\iota$  with a definite article and allows bare singular kind terms:

- (5) **(The)** dinosaur extinct already.  
‘The dinosaur became extinct.’

Unlike Brazilian Portuguese, their acceptability is very high.

Therefore, bare singular kind terms are an available option for languages with a definite article. (A1)

**Q2:** What causes the difference in acceptability between Brazilian Portuguese and Singlish?

## Proposal

### Claims

- There are three basic number categories for nominals: (i) singular, (ii) plural and (iii) general. The general is associated with number-neutral properties.
- $\cap$  is only defined for number-neutral properties, but not for plural as well as singular ones.

### Evidence: Classifier languages

Classifier languages encode the three categories distinctly.

- Morphologically bare, general NPs denote kinds:
 

(6) Dinosaur telah pupus.  
dinosaur PERF extinct  
‘Dinosaurs became extinct.’ Malay
  - (Bare) plurals denote subkinds rather than kinds:
 

(7) Ada di antara dinosaur-dinosaur yang pupus  
be at among dinosaur.PL that extinct  
pada masa itu.  
at time that  
‘Among the dinosaurs there were also some (sub-species) which went extinct at that time.’ Malay
  - ‘Classifier + NP’ constituents denote singular objects:
 

(8) Zek gau zungji sek juk.  
CLF dog like eat meat Cantonese  
‘The dog likes to eat meat.’ (Cheng & Sybesma 1999)
- Numeral classifiers = Singular number morphology

### Derivation of kind terms in my system

(9)

General	Plural	Singular
objects	objects	objects
$\downarrow \cap$	$\downarrow \cap$	$\downarrow \cap$
kinds	undefined	undefined
	$\downarrow \iota$	$\downarrow \iota$
	subkinds	kinds

## Analysis

### Basic morphosyntax and semantics

- (10) a.
- ```

      #P
     /  \
  Num   #   NP
         |   |
         [+Sg, ±PI]
    
```
- b. [+Sg, -PI] ↔ singular marking  
[-Sg, +PI] ↔ plural marking  
[+Sg, +PI] ↔ singular and plural marking  
[-Sg, -PI] ↔ no marking

(11)

| Features   | Denotation                                        | Description |
|------------|---------------------------------------------------|-------------|
| [+Sg, -PI] | singularities alone                               | Singular    |
| [-Sg, +PI] | pluralities alone                                 | Plural      |
| [+Sg, +PI] | singularities and pluralities                     | General 1   |
| [-Sg, -PI] | neither singularities alone nor pluralities alone | General 2   |

### Cross-linguistic variations

- Languages may collapse one category with another.
  - Some languages lack General 2 ([-Sg, -PI]).
  - \*[+PI]/ $\emptyset$   $\gg$  \*[+Sg]/ $\emptyset$  ‘[+PI] is more marked than [+Sg].’
- (12)
- | Type                      | Languages                   |
|---------------------------|-----------------------------|
| a. SG : GN2 : GN1 : PL    | classifier languages        |
| b. <b>SG/GN2 : GN1/PL</b> | Br. Portuguese, Singlish    |
| c. SG : GN1/PL            | all languages listed in (2) |
| d. <b>SG/GN1/PL</b>       | Malagasy, Dene              |
- Bold:** Unmarked categories.

### Brazilian Portuguese (BP) and Singlish (SG)

- Definite articles are obligatory for  $\iota$  and optional for  $\cap$ , i.e. the German type (2b).
- Unmarked NPs are number-neutral (Schmitt and Munn 2002; Gil 2003; Kim et al. 2009). They are ambiguous between Singular and General 2 (11b). Both are considered to be “singular” in previous studies.

There are two paths to definite “singular” kind terms, which gives rise to a processing problem: Speakers cannot recover the value of the  $[\pm Sg]$  feature...

(13)

| Singular [+Sg, -PI] | General 2 [-Sg, -PI] |
|---------------------|----------------------|
| objects             | objects              |
| $\downarrow \iota$  | $\downarrow \cap$    |
| D: obligatory       | D: optional          |
| $\downarrow$        | $\downarrow$         |
| definite            | definite or bare     |
| “singular” kinds    | “singular” kinds     |

Speakers can infer the feature value based on the fact that the number-neutrality of General 2 NPs disappears when they are modified by a determiner:

- (14) a. BP: cachorro SG: dog  
‘one or more than one dog’  
b. BP: o/este cachorro SG: the/dis dog  
‘the/this dog’, \*‘the/these dogs’  
c. BP: os/estes cachorros SG: the/dis dogs  
‘the/these dogs’, \*‘the/this dog’

Definite unmarked/“singular” NPs are necessarily [+Sg].

This inference strategy works in SG, but not in BP (probably due to the further complications involved in the agreement system of the latter; cf. Thomas 1969).

→ Bare “singular” kind terms:  $\surd$  (SG) vs. % (BP) (A2)

## Conclusion

- Dayal’s claim that languages with a definite article do not allow bare singular kind terms is valid. Bare “singular” kind terms exist, but they are actually not singular but general.
- The nominal number system consists of not two but three basic categories, including the general. They are expressed by the combination of two binary features  $[\pm Sg]$  and  $[\pm PI]$ .
- Contrary to popular belief, classifier languages do not lack number distinction, but they have the finest basic number distinction.

### Selected references

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