

Handout 4: articles cross-linguistically

Obligatory reading: Abbott (2006), sections 1 and 5

Optional reading: Abbott (2006)

1 Articles in English

English *the* and *a* are traditionally called articles (definite and indefinite, respectively):

- (1) The cat was sleeping
- (2) A cat was sleeping

English *the* has presuppositions, *a* doesn't:

- (3) Presuppositions of *the* (from Handout 3)
 - (a) Existence: "there is a maximal z in $[[N']^s]$ "
 - (b) Maximality: "there is a maximal z in $[[N']^s]$ "

Not all languages have articles. Not all of those that do have definite-indefinite articles

Today's arguments:

-you can find presuppositions without overt articles → some languages have null articles
-even though in English existence and maximality go together, maximality can be found without existence

2 What existence and maximality presuppositions help to explain

- (4) Rule for *the* (from Handout 3)
If $X = [_{NP} \textit{the} N']$ then for any s : $[[\textit{the} N']^s]$ is only defined if there is a maximal z such that $z \in [[N']^s]$. If defined, $[[\textit{the} N']^s]$ is that z

Existence presupposition

- (5) $[[\textit{The cat is sleeping}]^s]$ is only defined if there is a maximal z such that $z \in [[\textit{cat}]^s]$. If defined, $[[\textit{The cat is sleeping}]^s] = 1$ iff that z sleeps in s

Presupposition of existence satisfied as long as there is a (maximal) member in $[[\textit{cat}]^s]$. That will happen as long as there is a (single) cat in the situation. *The cat* then refers to that cat

Out-of-the-blue, *once-upon-a-time* contexts do not guarantee existence in the situation:

- (6) Once upon a time, there was **a girl** who talked to the moon. And she was mysterious and she was perfect, in that way that girls who talk to moons are (Stephanie Perkins, *Lola and the boy next door*)

- (7) *Once upon a time, there was **the girl** who talked to the moon

The girl triggers the existence presupposition that there is a girl in the relevant situation which makes (7) true. That is, the context preceding (7) has to already contain a girl, and *the girl* has to pick her as its referent. But that is impossible, because there is no context preceding (7), since it's an out of the blue/beginning of fairy tale context

A girl doesn't trigger presuppositions, so it is fine in the same context ((6))

(8) Once upon a time, there was a girl who talked to the moon. And she was mysterious and she was perfect, in that way that girls who talk to moons are. In the house next door, there lived a boy. **And the boy watched the girl grow more and more perfect, more and more beautiful with each passing year** (Stephanie Perkins, *Lola and the boy next door*)

The girl triggers the existence presupposition that there is a girl in the context preceding the highlighted sentence in (8)—which is fine, since such a girl indeed exists in that context. That is, the situation in which the sentence is evaluated contains a girl. *The girl* has to refer to that previously introduced referent (same with *the boy*)

(9) **[[The cats are sleeping]]^s** is only defined if there is a maximal z such that $z \in \llbracket \text{cats} \rrbracket^s$. If defined, **[[The cats are sleeping]]^s** = 1 iff that z sleeps in s

Presupposition of existence satisfied as long as there is a (maximal) member in $\llbracket \text{cats} \rrbracket^s$: for example, abc (if $\llbracket \text{cats} \rrbracket^s = \{ab, ac, bc, abc\}$)

(10) *Once upon a time, **there were the girls who talked to the moon**

Maximality presupposition

(11) **[[The cat is sleeping]]^s** is only defined if there is a maximal z such that $z \in \llbracket \text{cat} \rrbracket^s$. If defined, **[[The cat is sleeping]]^s** = 1 iff that z sleeps in s

Presupposition of maximality satisfied as long as there is a maximal member in $\llbracket \text{cat} \rrbracket^s$. That will happen as long as $\llbracket \text{cat} \rrbracket^s$ is a singleton set, since, if there is only one cat in that set, that is the maximal cat individual. *The cat* then refers to that cat

(12) *Once upon a time, **there was the girl who talked to the moon.**

(13) Three girls and an elder lady appeared in the hallway. **#The girl was dressed up as a witch**
(cf. *One of the girls was dressed up as a witch, The girls were dressed up as witches*)

The girl triggers the maximality presupposition that there is a maximal/unique girl in the context preceding the highlighted sentence in (13), and *the girl* has to pick that as its referent —but there isn't a maximal/unique girl in that context (there's three)

(14) #A cat came in **and the cat didn't come in** (cf. *A cat came in and a cat didn't come in*)

The cat triggers the maximality presupposition that there is a maximal/unique cat in the context preceding the highlighted part in (14), and *the cat* has to pick that as its referent — but then one and the same cat can't both come in and not come in

- (15) **[[The cats are sleeping]]^s** is only defined if there is a maximal z such that z ∈ [[cats]]^s.
If defined, **[[The cats are sleeping]]^s** = 1 iff that z sleeps in s

Presupposition of maximality satisfied as long as there is a maximal member in **[[cats]]^s**: for example, abc (if **[[cats]]^s** = {ab, ac, bc, abc})

- (16) Three girls and an elderly lady appeared in the hallway. **The girls** were dressed up as **witches, #and one was dressed up as a dragon**
(cf. *Two of the girls were dressed up as witches, and one was dressed up as a dragon*)

The girls triggers the maximality presupposition that there is a maximal non-atomic girl in the context preceding the highlighted sentence in (16), and *the girls* has to pick that complex girl as referent—that can only happen if *the girls* refers back to the three girls, not if it refers back to just two

3 Lithuanian null articles

Lithuanian is a Baltic language spoken in Lithuania. There is no definite article in this language, and nouns can appear bare (Lithuanian data from Gillon and Armoskaite 2012)

No existence presupposition

- (17) *Lithuanian*

Tad nusipirko tikrų žmogaus plaukų **peruką**. [...]
hence buy.PST real man hair wig
'Hence he bought himself a wig made of real human hair.'

- (18) *Lithuanian*

Šuo loja
dog.NOM.SG bark.PRES
'A dog is barking'

If bare nouns in Lithuanian presupposed existence, they should be as impossible in these sentences, where they introduce a new referent, as English *the* is in (7)/(12) or (10)

Maximality presupposition

We can observe maximality without existence if we do provide a referent for the bare noun in the preceding discourse:

- (19) *Lithuanian*

Tad nusipirko tikrų žmogaus plaukų peruką. [...]
hence buy.PST real man hair wig
Kas čia juokinga kad pametei **peruką**?
what here funny that lose wig

'Hence he bought himself a wig made of real human hair. [...] What's so funny about losing the wig?' (one wig only)

(20) *Lithuanian*

[Pointing to a postcard:]

Atvirukeketuri šunys.

#Šuo loja

postcard four dog.NOM.PL dog.NOM.SG bark.PRES

'There are four dogs on the postcard. #The dog is barking' (cf. *One of the dogs is barking*)

If there is a maximal/unique referent to refer back to, Lithuanian bare nouns must refer back to it. (19) is necessarily about one wig, not two. Šuo in (20) refers back to a maximal single dog individual in the preceding context if there is one—there is a maximal dog individual in the context, but it is not a single individual. Hence, the highlighted sentence in (20) is not acceptable as a continuation (the sentence is in principle grammatical, see (18))

(21) *Lithuanian*

#Katė buvo didelė ir katė buvo maža

cat be.PSTbig and cat be.PSTsmall

Intended: 'A/the cat is big and the cat is small'

If there is a maximal/unique referent to refer back to, Lithuanian bare nouns must refer back to it. In (21), the second instance of *katė* refers back to a maximal single cat individual in the preceding context if there is one—but one and the same cat can't be both big and small (at least, not without explicitly changing the comparison class, which doesn't occur here)

(22) *Lithuanian*

Pamačiau penkias meškas ir septyni vilkus.
see.PST five bear.PL and seven wolf.PL

Užmušiau meškas, #bet viena (meška) paspruko.

kill.PST bear.PL but one (bear) escape.PST

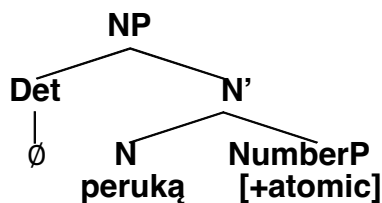
'I saw five bears and seven wolves. I killed the bears, but one escaped'

There is a plural referent introduced in the context preceding the highlighted sentence in (22), and so the bare noun *meškas* needs to refer back to it in its entirety, given maximality, but the continuation is incompatible with that

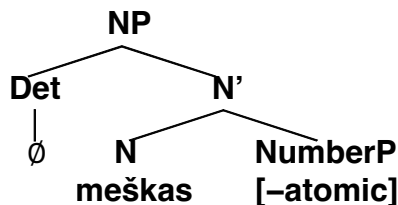
Analysis for Lithuanian

We can account for Lithuanian bare nouns with the tools that we have if we hypothesize that there is an article in this language, but it is null (= has no phonology), and has a semantics like (25):

(23)



(24)



(25) Rule for null article in Lithuanian

If $X = [_{NP} \emptyset_{Det} N']$ then for any s : if there is a maximal z such that $z \in \llbracket N' \rrbracket^s$, $\llbracket \emptyset_{Det} N' \rrbracket^s$ is that z ; if there isn't, then $\llbracket \emptyset_{Det} N' \rrbracket^s$ is a z such that $z \in \llbracket N' \rrbracket^s$

This is a semantics of maximality without existence; it's like English *the*, but without the presupposition of existence.

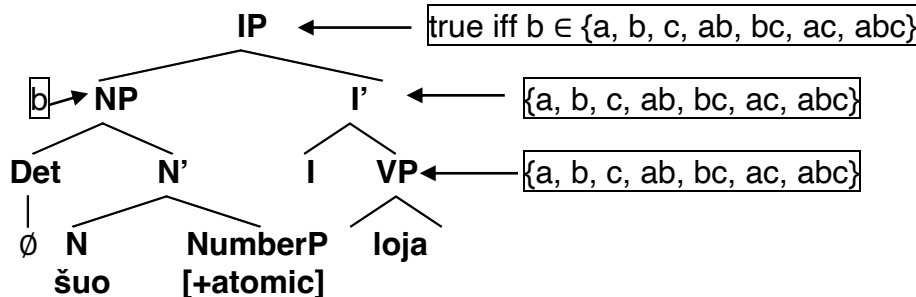
Why can't bare nouns in Lithuanian be analysed without a null article?

Argument, internal to our system, for a null article in Lithuanian: without a null article, Lithuanian subjects can't combine with VPs in our system

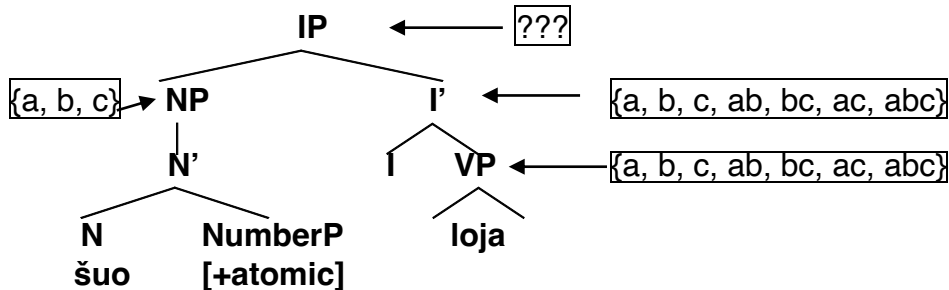
(26) *Lithuanian*

Šuo loja
 dog.NOM.SG bark.PRES
 'A dog is barking'

(27) With null article:



(28) Without null article:



(29) Subject-predicate rule (from *Intro to Semantics*; only the non-quantificational part)

If $X = [_{IP} NP I']$, then for any s : $\llbracket X \rrbracket^s = 1$ iff $\llbracket NP \rrbracket^s \in \llbracket I' \rrbracket^s$

References

Gillon, Carrie and Solveiga Armoskaite (2012) "The semantic import of (c)overt D", in Jaehoon Chi *et al.* (eds.) *Proceedings of the 29th West Coast Conference on Formal Linguistics*, Cascadilla Proceedings Project, Somerville, MA, pp. 337-345

Obligatory reading (on QM+): Abbott (2006), sections 1 and 5

Optional reading (on QM+): Abbott (2006) (whole article)