

Kind reference within DPs: evidence from Lithuanian

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Introduction: This study investigates Lithuanian nominal expressions that can denote a kind reference, which are bare nominals and nominals modified by adjectives with the definite morpheme *-jis*. I address two main points: what governs the nominal's ability to denote kinds and how is kind reference formed within a DP in terms of semantics and morphosyntax. I use a well-known theoretical model of kinds, the so-called *Neocarlsonian theory* (Carlson 1977, 1989; Chierchia 1998; Dayal 2004), to investigate these points and discuss what implementations the Lithuanian data have for this theory.

Number Marking and Kinds: As far as the first point is concerned, Chierchia (1998) and Dayal (2004) show that number marking and presence of (in)definite articles within a language constrain nominal's ability to express a kind reference. Lithuanian kind-referring expressions are indeed sensitive to number marking since bare mass nouns (1a) and bare plurals (1b) can express kinds, while bare singulars (1c) cannot. Nevertheless, their theory predicts that languages without articles should allow both bare plurals and bare singulars as kinds. Plural kinds are derived via the down operator " \cap ", while singular kinds are formed via the iota operator " ι ". This prediction is not borne out for Lithuanian, an article-less language. Even though Lithuanian singulars can be combined with the iota operator, they still cannot express kinds challenging the Neocarlsonian theory.

- (1) a. Bronza buvo išrasta labai anksti.
Bronze was invented very early.
'Bronze was invented very early.'
- b. Tigrai greitai išnyks.
Tigers.**PL** quickly extinct.FUT.3
'Tigers will extinct soon.'
- c. *Tigras greitai išnyks.
Tiger.**SG** quickly extinct.FUT.3.
'The tiger will extinct soon.' (non-taxonomic reading)

Number marking and Sub-kinds. For sub-kinds, Lithuanian uses adjectives with the definite form suffix *-jis*, which attaches only to non-NP categories. I will call these adjectives long adjectives. The incompatibility of singular morphology and kind formation is resolved once the long adjective is added to a nominal. Both plural (2a) and singular nominals (2b) are allowed. Adjectives without this suffix fail to denote kinds as in (3). The Neocarlsonian model again predicts that plural nominals with long adjectives are formed using the down operator and the singular instances are derived with the iota operator. I investigate the behavior of nominals with long adjectives and show that both singular and plural nominals include the down operator, which is lexicalized as the suffix *-jis*. This finding is important because it requires the readjustment of the denotation of the down operator which in Chierchia's (1998) analysis is defined only for plural instances.

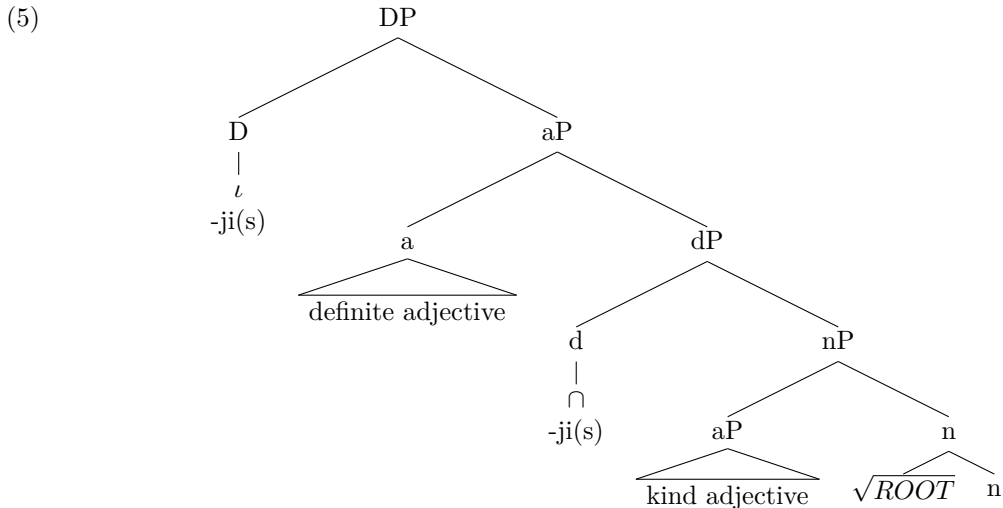
- (2) a. Baltie-ji lokiai greitai išnyks.
white-DEF bear.**PL** quickly extinct.FUT.3
'Polar bears will extinct soon.'
- b. Baltas-is lokys greitai išnyks.
white-DEF bear.**SG** quickly extinct.FUT.3
'The polar bear will extinct soon.'

- (3) a. #Balti lokiai greitai išnyks.
white bear.**PL** quickly extinct.FUT.3
‘White bears will extinct soon.’
b. #Baltas lokys greitai išnyks.
white bear.**SG** quickly extinct.FUT.3
‘The white bear will extinct soon.’

The position of kinds within a DP. As far as the second point of this paper is concerned, I exploring morphosyntactic properties of kind expressions with a particular focus on long adjectives. Long adjectives have not only a kind meaning, but also a definite meaning as in (4). I call adjectives with a kind meaning kind-level adjectives and those that express definiteness definite adjectives. Kind-level adjectives and nominals are two pieces on a surface, however, unlike definite adjectives, they form a single inseparable complex within a NP, which is a A-N construct (in a sense of Borer 1998, 2009) that resembles compounds, but has some phrasal properties otherwise not found in compounds. This finding gives additional support for a claim that kinds originate low within a DP (Cetnarovska 2014; Rutkowski & Progovac 2005, 2006; Zamparelli 2000).

- (4) baltas-is lokys
white-DEF bear
(i) ‘the white bear’ - ✓definite reading, (ii) ‘the polar bear’ - ✓kind reading

By drawing a comparison between definite and kind-level adjectives, I give evidence for the presence of two functional heads within a DP as in (5): a D head responsible for definiteness where the iota operator originates, and a little d head, base-generated immediately above an NP, where the down operator responsible for kinds is located. Both operators are applied covertly to nominals without adjectives or expressed as *-jis* when adjectives are present. Thus, I offer a modified version of Neocarlsonian model where the down operator has a fixed position within a DP and is applied to both singular and plural expressions to derived kinds. This analysis makes correct predictions for nominals with long adjectives and draws a new theoretical perspective to kind reference.



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