



# Chasing pragmatics: an experimental study of bare noun interpretation

Daria Bikina, Harvard University

Human Sentence Processing

March 9-11, 2023

University of Pittsburgh

## Introduction

Bare nouns in languages without articles like Russian are ambiguous:

- (1) *Ja smotru iz okna: devočka*  
I am.looking from window girl  
*prygaet čerez skakalku.*  
is.jumping through rope  
'I am looking out of the window:  
a girl/the girl is jumping rope.'

### Interpretation 1

*ix. girl(x)*  
There exists a unique  
(non-unique)  
individual x such that  
x is a girl

### Interpretation 2

*∃ x. girl(x)*  
There exists a  
individual x such that  
x is a girl

- Dayal 2004, 2014: bare SG are definite, bare PL are ambiguous between definite and kind readings

~ Interpretation 1 is the "basic" one

- Borik et al. 2019, 2020, Šimik&Demian 2020: bare nouns are born indefinite and sometimes get definite interpretation as a pragmatic inference

~ Interpretation 2 is the "basic" one

- This study investigates the presence of the uniqueness interpretation in Russian bare nouns and English definite and indefinite nouns in presentational contexts

- Such contexts force **indefiniteness** (non-familiarity)

- Two quantitative surveys
  - E1 for subject NPs
  - E2 for object NPs

Poster and references:



## Design and methodology

### E1: felicity judgment task with a 2 × (2) × 5 design on Russian and English speakers (n = 30 for each)

- Simulated language game scenario: a non-native speaker draws a picture and says a sentence about it
- "How natural does their response sound to you?"
- Number of the subject NP (SG vs. PL) in the sentence
- For English, also definiteness of the NP (DEF vs. INDF)

Target sentences:

- (2) a-b. *The girl/A girl is playing the violin.* English, SG  
c-d. *The girls/Girls are playing the violin.* English, PL  
(3) a. *Devočka igraet na skripke.* Russian, SG  
b. *Devočki igrajut na skripke.* Russian, PL

## Hypothesis:

- a. Singular bare nouns in Russian and definite singular nouns in English are rated higher for pictures/videos enforcing uniqueness
- b. Plural bare nouns in Russian and definite plural nouns in English are higher rated for pictures/videos enforcing maximality
- c. English indefinite singular and plural nouns are rated relatively high in all contexts

### E2: felicity judgment task with the same parameters (2 × (2) × 5), n = 30 for each language

- (4) a-b. *The woman put the bag/a bag on the table.* English, SG  
c-d. *The woman put the bags/bags on the table.* English, PL  
(5) a. *Devuška položila paket na stol.* Russian, SG  
b. *Devuška položila pakety na stol.* Russian, PL

- Videos instead of pictures in order to reinforce the perfective interpretation
- Question-answer design: a question about the video focusing the target noun (*What did the girl put on the table?*), the target sentence is the supposed answer to this question (*The girl put the bag on the table*)
- "How natural does this answer sound to you?"

## 5 types of visual stimuli:

- SG vs. PL referent
- ±UNIQ/MAX referent
- for -UNIQ contexts: ±PROM

### 1. SG, +UNIQ



### 2. SG, -UNIQ, +PROM



### 3. SG, -UNIQ, -PROM



### 4. PL, +MAX

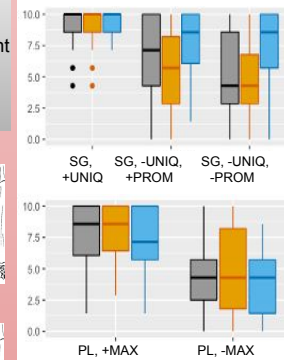


### 5. PL, -MAX

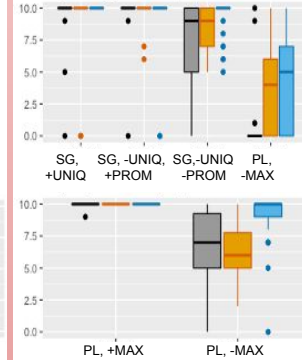


## Results

### E1. nouns in subject position



### E2. nouns in object position



Legend: Russian bare nouns (grey), English definite nouns (the girl/the girls) (orange), English indefinite nouns (a girl/girls) (blue)

## Discussion

- Russian bare nouns, both singular and plural, align with English definite nouns rather than indefinites, and we got this result in presentational contexts forcing indefiniteness → **pro Dayal's theory: the core meaning of Russian bare nouns is definite-like (Interpretation 1)**

- I adopt the view that Russian has a dedicated syntactic determiner head D (Lyutikova 2018, Pereltsvaig 2006), but this D hosts a silent argument-forming operator, realizing as / or kind readings

- We found empirical evidence of **context adjustment**: if an individual is somehow prominent in the context but not unique, it can be referred by a bare noun in Russian
- This prominence effect is also found in English definite nouns, but only in object position

- Surprisingly, English bare (indefinite) plurals also prefer a maximal interpretation, which is an empirical evidence of the pragmatic effect of Maximization of bare plurals (Dayal 2013, Chierchia 2022)