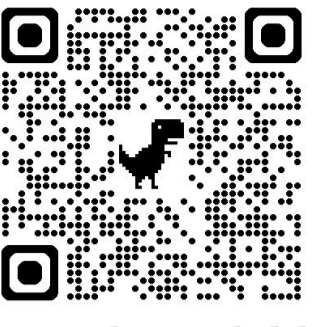


# Word order affects uniqueness: experimental data<sup>1</sup>

Arkady Shaldov ark.shaldov@gmail.com and Karolina Berzina caro.berzina@gmail.com, HSE University Moscow



other stimuli available here

## Outline

Russian has flexible, information structure conditioned, word order.

E. g. the internal subject normally precedes the verb when topical (1) and follows it when focused (2), though not necessarily (3).

- (1) sobaka LAJET  
dog is barking  
'The dog [is barking]<sub>F</sub>.'
- (2) lajet SOBAKA  
is barking dog  
'[The dog]<sub>F</sub> is barking.' or '[A/the dog is barking]<sub>F</sub>.'
- (3) SOBAKA lajet  
dog is barking  
'[The dog]<sub>F</sub> is barking.' or '[A/the dog is barking]<sub>F</sub>.'

## Word order and definiteness

But it has also been frequently described that word order in Russian (and other languages) correlates with definiteness (King 1995, Brun 2001, a. o.).

- (4) upal METEORIT  
came down meteorite  
'A/the meteorite came down.'
- (5) meteorit UPAL  
meteorite came down  
'The/\*a meteorite came down.'

There is natural connection between topicality and definiteness (e. g. Erteschik-Shir 2014, Leonetti 2016). Hence it is unclear what is the effect of word order itself.

E.g. Geist (2010) notices that SV with accented S do not carry definiteness presupposition.

- (6) METEORIT upal  
meteorite came down  
'A/the meteorite came down.'

## Previous experimental data

Furthermore, the effect turns out to be vague.

Šimík & Demian (2020, 2021): no statistically significant difference between acceptance of SV and VS in reference to non-unique individuals.

## Our approach

We attempted to change a number of things:

- control topicality: make individuals topical, not focused
- avoid the bias against verb-initial sentences (Siewierska 1993)
- check for existence presupposition along with uniqueness

The idea

- use distributive contexts, where some subsituations satisfy the presupposition and some don't
- present an image that topicalizes the referent and introduces the presupposition into the Common Ground

## The hypothesis

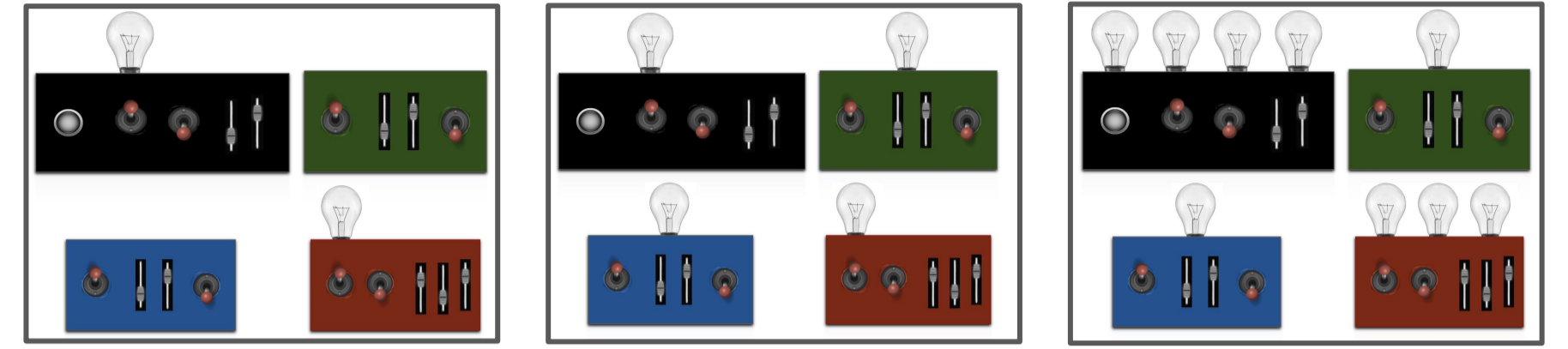
SV introduces existence and maximality presuppositions

⇒ VS will be dominant when some sub-situations either lack the referent or have multiple of them.

## Our experiment

### Design

1. Preamble  
*Every worker has their own control panel.*
2. Stimulus: one of the three variants



≤1 (existence unsatisfied)      =1 (baseline)      ≥1 (uniqueness unsatisfied)

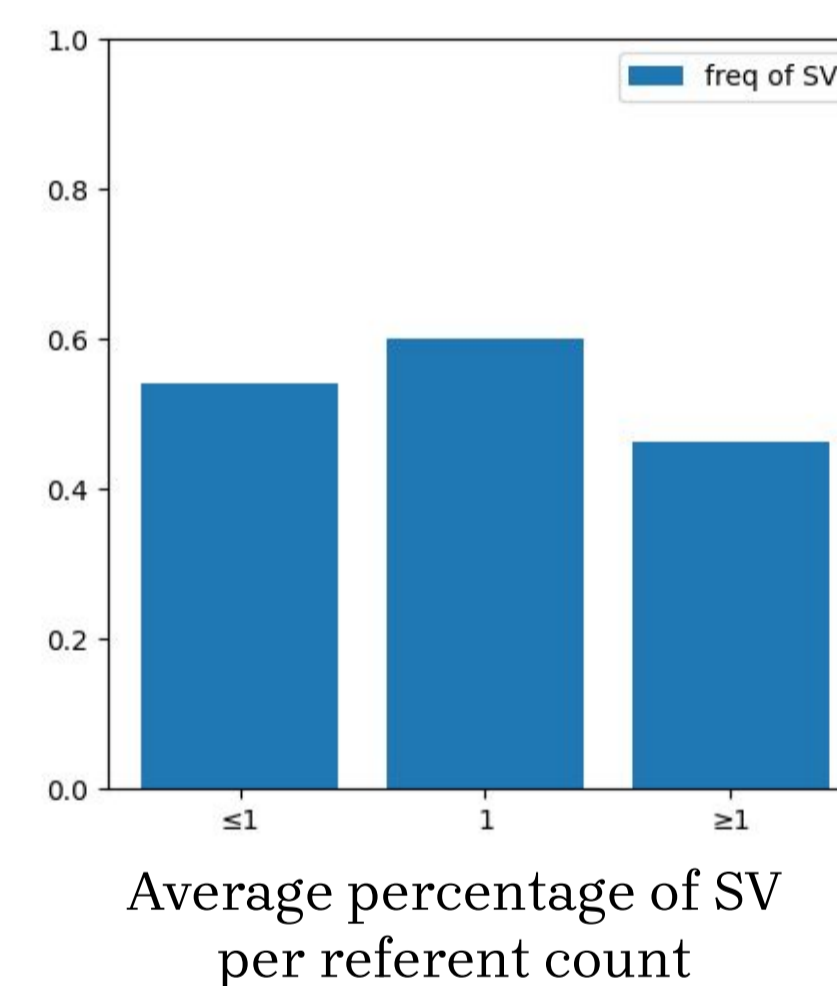
3. Left context and a forced choice between VS and SV alternatives  
*The boss explains to new workers:*
  - (7) **Esli lampočka zagoritsja, zapišite točnoe vremja v žurnal**  
If lamp lights up  
(8) **Esli zagoritsja lampočka, zapišite točnoe vremja v žurnal**  
If lights up lamp  
'If a lamp lights up, write the timestamp down.'

9 target sentences + 9 fillers

Participants divided into 3 groups, each presented with each image in one of the variants

- independent variable object count (≤1, =1, ≥1)
- dependent variable word order (VS, SV)

## Results



The correlation of preferred word order with referent uniqueness is statistically significant ( $p = .04$ )

The correlation with referent existence is statistically insignificant ( $p = .18$ )

### Interpretation #1: uniqueness

- Pre-verbal internal subjects do tend to get interpreted as unique (maximal).
- Still, this tendency is weak.
  - Either it is not a presupposition but e. g. an implicature;
  - Or there are other factors involved.

### Interpretation #2: existence

Existence of the referent in every subsituation did not affect word order significantly.

- Either the N is too low and std is too high;
- Or it is the problem of distributivity.

**A hypothesis.** The speaker only evaluates the conditionals in the worlds where the protasis is relevant. 'If a lamp lights up' is irrelevant where there is no lamp, so one can simply ignore them.

This is not the case with uniqueness. The instruction most naturally holds when there is any number of lamps.

In either way, testing existence presupposition experimentally requires more sophisticated tools.