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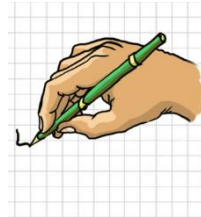# SLIPS OF THE EAR:

# NATIVE SPEAKERS VS. SECOND LANGUAGE LEARNERS

# Overview

1) Theoretical and methodological background

2) Our research: method and results

3) Discussion and outcomes

# What do we call slips of the ear?

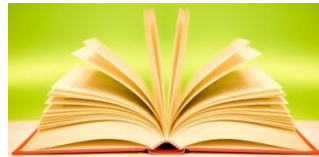a type of "negative linguistic data"
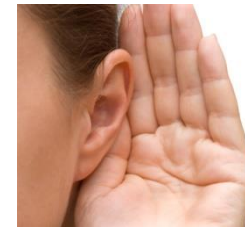
slips of the pen, misprints

slips of the tongue

"slips while reading"

slips of the ear, misperceptions, mishearings

# Slips of the ear

"a listener reports hearing clearly something that does not correspond to what a speaker has said"

Shockey L., Bond Z. (2014)
What Slips of the Ear Reveal about Speech Perception.
*Linguistica Lettica*. Vol. 22. P. 107.

# How to get data?

**1. "Paper-and-pencil" method: collections of perceptual errors:**

- Bogoroditskij, V.A. (1911) Lektsii po obschemu jazykovedeniju [Lectures in General Linguistics]. Kazan', 246 pp.

- Bond, Z.S. (1999) Slips of the Ear: Errors in the Perception of Casual Conversation. San Diego, CA, US: Academic Press.

# How to get data?

**2. Analysis of spoken corpora:**
Stepanova S.B. Oslyshki i peresprosy kak baza dl'a issledovanija vosprijatija rechi [Slips of the ear and echo-questions as the basis for speech perception research]. *Problemy fonetiki* [Problems of phonetics]. Moscow: Russian Language Institute, 2014. P. 112-113.

- natural communication

- mistakes of transcribers

# How to get data?

**3. Dictation task experiment:**

Chiari, I. (2005) Slips and errors in spoken data transcription. In: Proceedings of 5th International Conference on Language Resources and Evaluation. Università La Sapienza di Roma Dipartimento di Studi Filologici, Linguistici e Letterari.

# Slips of the ear

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for native speakers

# Slips of the ear

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for second language learners:
slip of the ear - **only for familiar words!!!**

# How to get data?

**1. Introspection + "paper-and-pencil" method:**
Polivanov, Ye.D. (1928 / 1968) Faktory foneticheskoj evolutsii jazyka kak trudovogo protsessa [Factors of the phonetic evolution of a language as a workflow] // Stat'i po obschemu jazykoznaniju [Papers in General Linguistics]. M.: Nauka. P. 64.

# How to get data?

**2. Dictation task experiment + post-experiment interview:**
- our current research

# Our research: the aim of the study

To compare the mechanisms of word recognition in Russian as a native and as a second language

# Our research: material

100 frequent Russian words (according to http://dict.ruslang.ru/freq.php) = 5 lists, 20 words each

# Our research: material

In every list:
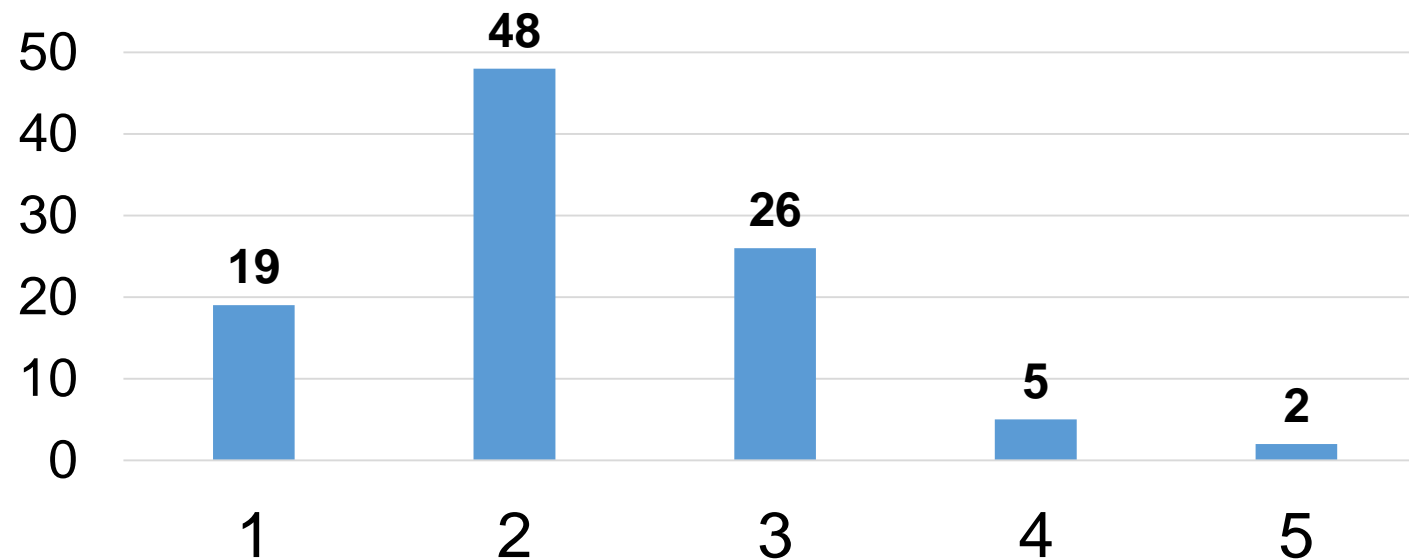1) all possible Russian consonants + 18 perceptual variants of vowels

| C_C | C_Cʲ | Cʲ_C | Cʲ_Cʲ |
|:---:|:---:|:---:|:---:|
| | | ɨ | |
| ɨ | | | |
| a | aⁱ | ⁱa | ⁱaⁱ |
| o | oⁱ | ⁱo | ⁱoⁱ |
| u | uⁱ | ⁱu | ⁱuⁱ |
| e | eⁱ | ⁱe | ⁱeⁱ |

# Our research: material

In every list:
1) all possible Russian consonants + 18 perceptual variants of vowels

2) words of different syllable structures (from 1 to 5 syllables)

Stimuli: number of syllables

| Number of syllables | Count |
|---|---|
| 1 | 19 |
| 2 | 48 |
| 3 | 26 |
| 4 | 5 |
| 5 | 2 |

# Our research: material

In every list:
1) all possible Russian phonemes + perceptual variants of vowels

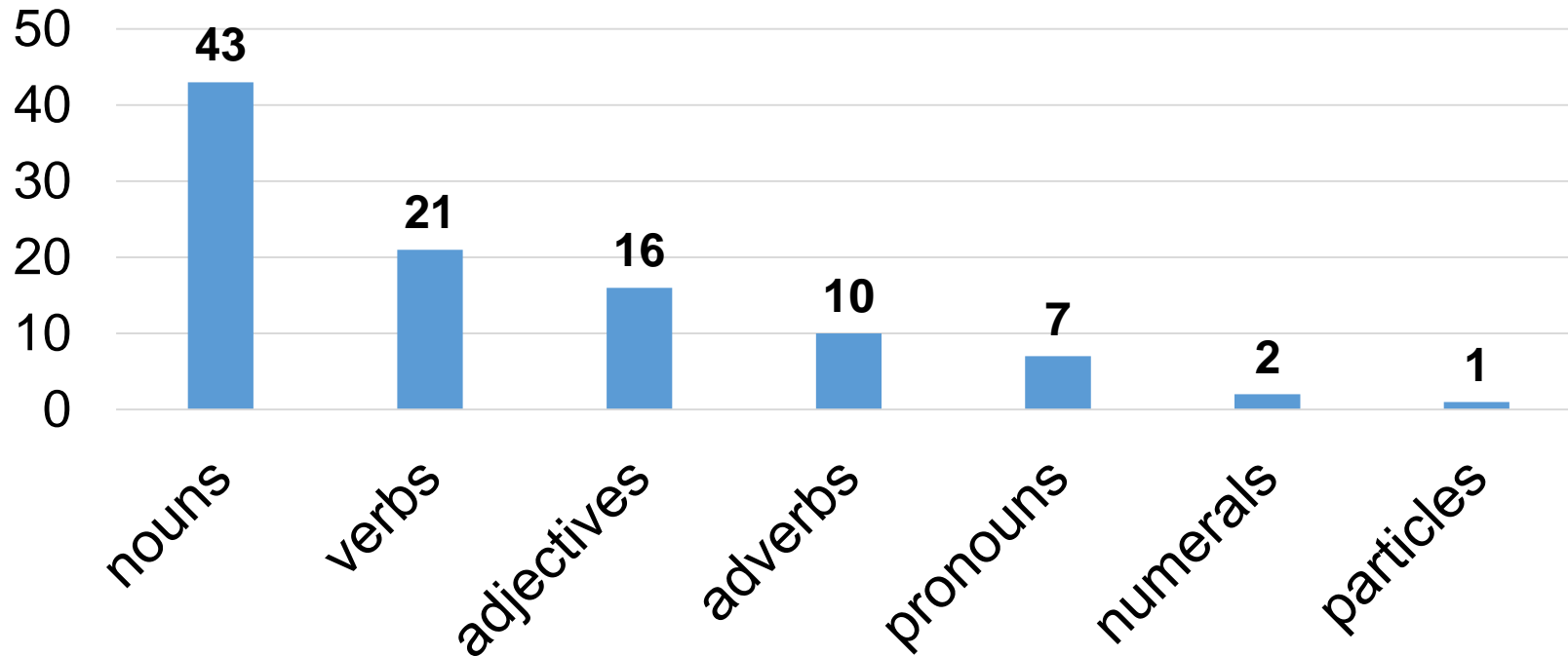2) words of different syllable structures (from 1 to 5 syllables)

3) nouns, verbs, adjectives, adverbs, pronouns, numerals, and particles

# Our research: material

**List 1**

chelovek 'man / person'

l'ubit' 'to love'

gotovyj 'ready'

fil'm 'movie'

skazat' 'to tell'

zhenschina 'woman'

vmeste 'together'

por'adok 'order'

pervyj 'first'

stikhi 'poems'

vz'at' 'to take'

khorosho 'well'

forma 'form'

den'gi 'money'

dal'okij 'distant'

protsess 'process'

poluchit' 'to receive'

russkij 'Russian'

jescho 'more / else'

l'uboj 'any'

# Our research: method

- Dictation task experiment

- For second language learners: + a post-experiment questionnaire (written translation)

# Our research: participants

- 30 native speakers of Russian;

- 30 Chinese students who study Russian as a foreign language (B1 or B2).

# Our research: Results

**Number of answers and mistakes:**

|  | Overall number of answers | Number of slips of the ear | Number of different words with at least one mistake |
|---|---|---|---|
| Native speakers | 3000 | 61 (2.0%) | 21 out of 100 |
| Second language learners | 2934 | 137 (4.7%) | 48 out of 100 |

# Our research: results – native speakers

Initial consonant substitutions (34):

*bol'she 'more' – Pol'sha 'Poland' (15!)*

*den' 'day' – ten' 'shadow'*

*belyj 'white' – spelyj 'ripe'*

# Our research: results – native speakers

Other (less frequent) phonetic changes:

- non-initial consonant substitutions;

- vowel substitutions;

- extra syllable;

- final substitutions;

- sound metathesis.

# Our research:
# results – second language learners

Final substitutions (33):

*ka**zhdyj** 'every' – ka**rty** 'cards'*

*nacha**lo** 'beginning' – nacha**t'** 'to begin'*

*ve**rit'** 'to believe' – ve**ra** 'faith'*

# Our research:
# results – second language learners

*Stress shift (21):*

*t'**ó**t'a 'aunt' – te**á**tr 'theatre'*

*p'**á**tnitsa 'Friday' – p'atn**á**dtsat' 'fifteen'*

*zh**é**nschina 'woman' – tishin**á** 'silence'*

# Our research:
# results – second language learners

Typical sound substitutions:

*fi**r**ma 'company' – fi**l**'ma 'film.GEN'*

*da**l**'okij 'distant' – do**r**ogi 'roads'*

***r**egion 'region' – **l**egion 'legion'*

# Our research:
# results – number of syllables

For native speakers: the more syllables there are in a word the less often slips of the ear occur.
Does not work for the Chinese students!!!

| Number of syllables | Native speakers | | Second language learners | |
|---|---|---|---|---|
| | Percentage of words with at least one wrong answer | Percentage of all incorrect answers | Percentage of words with at least one wrong answer | Percentage of all incorrect answers |
| 1 | **36.8** | **3** | 31.6 | 2.5 |
| 2 | **20.8** | **2.4** | 45.8 | 4.8 |
| 3 | **15.4** | **1.3** | 42.3 | 6 |
| 4 | **0** | **0** | 20 | 1.4 |
| 5 | **0** | **0** | 100 | 15 |

**Discussion:**
**why do native speakers substitute consonants more often than vowels?**

**Discussion:**
**why did we get different results for native speakers and second language learners?**

# Discussion: are there any common strategies?

- part-of-speech-effect:



Percentage of words with at least one slip of the ear

Spearman test: $r_s$=0.96, p<0.01

# Discussion: are there any common strategies?

- _____:

l'ub**it'** ('to love')  -> gotov**it'** ('to prepare') **(4 / 10)**

(instead of gotov**yj** 'ready')

familija ('last name') -> o**tch**estvo ('patronymic') **(4 / 12)**

(instead of o**bsch**estvo 'society')

# Discussion: are there any common strategies?

- _____:

*firma 'company' –> forma 'form'*

*sfera 'sphere' –> vera 'faith'*

*znat' 'to know' –> znachit 'so / it means'*

# Discussion: are there any common strategies?

- _____:

*firma 'company' –> forma 'form'*

*sfera 'sphere' –> vera 'faith'*

*znat' 'to know' –> znachit 'so / it means'*


- **only for native speakers:** _____*:*

 *bol'she 'more' –> Pol'sha 'Poland'*

# What to do next?

# Acknowledgements

# Thank you!