

## **Project specification**

### **MEi:CogSci 1st year semestral project**

#### **TOPIC OF SPECIALISATION**

*The project is aimed at the perception of speech errors.*

#### **PHENOMENON & (PERSONAL) GOALS**

*In my work I am going to examine our ability to detect speech errors, its sensitivity and interpersonal differences in this phenomenon in Slovak language. The project is a replica of Rosa Ferber's experiment from 1991 which pointed out surprising limits of our perception of speech errors. Design of the experiment combines knowledge and methodology of linguistics, psycholinguistics and cognitive psychology.*

#### **LEARNING OUTCOMES**

##### **Subject specific**

- *Knowledge and new information from the field of linguistic, psycholinguistic and cognitive psychology*
- *Making of the research from theoretical base through experimental design and data acquisition to interpretation of the results*

##### **Methodological**

- *Ability to approach a phenomenon in an interdisciplinary manner*
- *Making of the research from theoretical base through experimental design and data acquisition to interpretation of the results*

##### **Generic**

- **Instrumental**
  - *Ability to create or scheme out the project in my own topic of interest*
  - *Ability to write and follow a project plan*

##### **Systemic**

- *Interdisciplinary work and thinking*
- *Project-oriented work*
- *Communication Skills*
- *Work under supervision and cooperation with supervisor*
- *Critical evaluation of approaches & methods*
- *Quick orientation & navigation in partly mother and partly novel complex field*
- *Change of perspectives*
- *Phenomenon-oriented thinking*
- *Problem-solving abilities*

## PROJECT

### Project title:

*Can We Trust Our Ears? Perception and Transcription of Naturalistic Speech Errors in Slovak Language*

### Short Project Description (300-500 characters)

*The aim of this project was to examine our ability of naturalistic speech errors detection. We took a closer look at its sensitivity, potential influential factors and interpersonal differences within Slovak language. We were inspired by the work of R. Ferber who investigated the accuracy and reliability of observational data on spontaneous speech errors. In majority of cases, speech errors are noted down immediately after being heard without any possibility of reexamining the correctness or completeness of transcription. Nevertheless, collection of spontaneous speech errors formed the basis for language production processing models. Results of the Ferber's study showed that only half or less of speech errors were recorded in the condition of immediate transcription relative to repeated listening condition. In this study, we compared results within Slovak language with the results of Ferber's study, plus we focused on potential influential factors which might had an impact on immediate speech errors perception. We presumed that emotions, attitudes and socio-demographic characteristics might be the potential influential factors.*

## PROJECT PLAN

### Project steps:

#### I. Literature research

- *The purpose and goal of this step was to gain the insight into the problematic and to build a theoretical baseline for the project*
- *Milestones: Literature research 16.3.2016 – 5.4.2016*
- *Deliverables: List of references and presentation of studied literature for 6.4.2016*
  - R. Ferber, "Slip of the tongue or slip of the ear? On the perception and transcription of naturalistic slips of the tongue", *Journal of Psycholinguistic Research*, 1991, Vol. 20, No. 2, pp. 105 – 122

#### II. Formulating hypotheses

- *The purpose and goal of formulating hypotheses is to define the aim of experiment and to clarify the steps and design of the experiment*
- *Milestones: Formulating of hypotheses up to 22.5.2016*
- *Deliverables: List of hypotheses and research questions*
  - H1: According to Ferber's results, we presume that participants would be able to detect half or less of speech errors presented in the record
  - Q1: Would the change of experimental design have any impact on the amount of the detected speech errors compared to the original Ferber's experimental design?
  - Q2: Is there a relationship between the level of perception of speech errors and socio-demographical characteristics of participants?
  - Q3: Is there a relationship between the level of perception of speech errors and participants' attitudes towards politics?
  - Q4: Is there a relationship between the level of perception of speech errors of concrete politician and participants' feelings towards him?

**III. Planning of experiment**

- *The purpose and goal of planning of experiment is better organization of work and consideration of the time demands of individual steps of project*
- *Milestones: First version of Project Plan 16.3.2016, Update of the plan after each completed step*
- *Deliverables: Table of Project Plan*

Up to 6.4.2016	Studied Literature
Up to 22.5. 2016	Formulating hypotheses and Experimental design
Up to 10.6.2016	Realization of the experiment
Up to 15.6.2016	Data analysis & interpretation of data
Up to 20.6.2016	Poster

**IV. Realization of the experiment**

- *The purpose and goal of it is the data collection*
- *Milestones: Data collection from 23.5.2016 to 10.6.2016*
- *Deliverables: Data from 32 participants*

**V. Data analysis & interpretation of data**

- *The purpose and goal of it is to find the answers of hypotheses and research questions*
- *Milestones: Data analysis and formulation of findings 11.6.2016 – 15.6.2016*
- *Deliverables: Presentation of Results for 15.6.2016*

- For data analysis will be used qualitative approach for analyze of categories of speech errors and SPSS for quantitative analysis

**VI. Documentation of project**

- *The purpose and goal of it is to prepare materials (abstract and poster) for Mei:CogSci Conference 2016 in Vienna*
- *Milestones: Final version of abstract – 1.6.2016, Final version of poster – 20.6.2016*
- *Deliverables: Abstract and poster*

Abstract:

Can We Trust Our Ears? Perception and Transcription of Naturalistic Speech Errors in Slovak Language

The aim of this study was to examine our ability of naturalistic speech errors detection. We took a closer look at its sensitivity, potential influential factors and interpersonal differences within Slovak language. We were inspired by the work of R. Ferber [1] who investigated the accuracy and reliability of observational data on spontaneous speech errors. In majority of cases, speech errors are noted down immediately after being heard without any possibility of reexamining the correctness or completeness of transcription. Nevertheless, collection of spontaneous speech errors formed the basis for language production processing models. Results of the study [1] showed that only half or less of speech errors were recorded in the condition of immediate transcription relative to repeated listening condition. In this study, we compared results within Slovak language with the results of [1], plus we focused on potential influential factors which might had an impact on immediate speech errors perception. We presumed that emotions, attitudes and socio-demographic characteristics might be the potential influential factors.

## Methods

The design of experiment was, unless little differences, comparable to the base study. Participants were listening 20-minute record of post-election debate, which satisfied the condition of naturalistic speech listening. As participants do not have any experience with transcription of speech errors, trial version was passed and then the experiment started. Participants were told to stop the record immediately after hearing any kind of speech error and to note down the time and the perceived expression to prepared answer sheet. After the transcription, listening continued. On the contrary, in the base study [1] participants were not allowed to stop listening during transcription. In both studies participants were not allowed to repeated listening. The choice of theme of the record – post-election debate – was intentional because of its emotional charge and potentiality for revelation of presumed influential factors of speech errors perception. After experiment, participants filled the questionnaire about socio-demographic characteristics, their attitudes towards politics and selected politicians and their feelings and experience related to process of experiment and its content.

We presumed that participants would not be able to perceive all of the speech errors presented in the record and that emotions and attitudes provoked by political debate would have the impact on the perception of speech errors.

## Acknowledgement

Special thanks goes to my supervisor Mgr. Jana Bašňáková, MSc.

## References

[1] R. Ferber, “Slip of the tongue or slip of the ear? On the perception and transcription of naturalistic slips of the tongue“, *Journal of Psycholinguistic Research*, 1991, Vol. 20, No. 2, pp. 105 - 122

## Resources needed:

30 minutes of participants' time, Consultation with supervisor about categorization of speech errors, CVTI assess to full-text of Ferber's study