

Phonetic fieldwork and experiments with the phonfieldwork package for R

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Presentation is available here: tinyurl.com/y6lf5ch4



Outline of the talk

Introduction

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Most phonetic research consists of the following steps:

1. Formulate a research question. Think of what kind of data is necessary to answer this question, what is the appropriate amount of data, what kind of annotation you will do, what kind of statistical models and visualizations you will use, etc.
2. Create a list of stimuli.
3. Elicite list of stimuli from speakers who signed an Informed Consent statement, agreeing to participate in the experiment to be recorded on audio and/or video.
4. Annotate the collected data.
5. Extract the information from annotated data.
6. Create visualizations.
7. Evaluate your statistical models.
8. Report your results.
9. Publish your data.

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9. Publish your data.

The `phonfieldwork` package is created for helping with items 3, 4 (partially), 5, 6, and 9.

Why/when do you need the phonfieldwork package?

These ideal plan hides some technical subtasks:

- creating a presentation for elicitation task
- renaming and concatenating multiple sound files
- automatic annotation in Praat TextGrids [[Boersma and Weenink 2019](#)]
- creating a searchable .html table with annotations, spectrograms and ability to hear sound
- converting multiple formats (Praat, ELAN [[Brugman et al. 2004](#)] and EXMARaLDA [[Schmidt and Wörner 2009](#)])

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All of these tasks can be solved by a mixture of different tools:

- any programming language can handle automatic file renaming
- Praat contains scripts for concatenating and renaming files

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phonfieldwork provides a functionality that will make it easier to solve those tasks independently of any additional tools. You can also compare the functionality with other packages: rPraat [[Bořil and Skarnitzl 2016](#)], textgRid [[Reidy 2016](#)], pypmi [[Lubbers and Torreira 2013](#)]

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Install phonfieldwork

phonfieldwork is an R package, so you need to install R, RStudio (optional) or use [rstudio.cloud](#). There are two possibilities for installing package in R:

- official version from CRAN

```
install.packages("phonfieldwork")
```

- development version from GitHub

```
devtools::install_github("agricolamz/phonfieldwork")
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Since this package is under [rOpenSci review](#) there is a chance that in couple months the address could be changed to [ropensci/phonfieldwork](#), and documentation page will be moved from [agricolamz.github.io/phonfieldwork](#) to [docs.ropensci.org/phonfieldwork](#).

```
library("phonfieldwork")  
packageVersion("phonfieldwork") # Unreleased version
```

```
## [1] '0.0.8'
```

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You can always write an email or open an [issue on GitHub](#), asking some questions.

The most recent citation information is available with this command:

```
citation("phonfieldwork")
```

```
##  
## Moroz G (2020). _Phonetic fieldwork and experiments with phonfieldwork  
## package_. <URL: https://CRAN.R-project.org/package=phonfieldwork>.  
##  
## A BibTeX entry for LaTeX users is  
##  
## @Manual{,  
##   title = {Phonetic fieldwork and experiments with phonfieldwork package},  
##   author = {George Moroz},  
##   year = {2020},  
##   url = {https://CRAN.R-project.org/package=phonfieldwork},  
## }
```

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