

GOAL

- Analyze reaction times (RTs) and accuracy of subjects performing our grammaticality judgement task;
- We will compare RTs and accuracy of the four different conditions: dn trials (determiner + noun), dv trials (determiner + verb), pv trials (pronoun + verb), pn trials (pronoun + noun);
- Therefore, we need a script that extracts RTs and accuracy for each of the four conditions. Analysis will then be implemented in R.

HOW OUR DATA LOOK LIKE

- Tabulated .txt file (text file in which the values corresponding to different columns are separated by a tab space). Every column stores certain information: subject and trial number (col 1 and 2), audiofile played (col 3), trial ID (col 4) and so on;
- Every line after the **header** stores information regarding a single trial, as indicated in the header;
- New lines are created adding the escape character (i.e. characters that do not get printed but indicate format etc of line to be printed) '\n' at the end of a line.
For example the **first line** of the file is created writing to a .txt file the following string:
Pancaro TMS\n
- The tab spaces (and therefore the columns) are created adding the escape character sequence '\t' between elements that need to be separated.
For example, the **first data line** is written to a file like this:

1\t1\fter_fechter_607_cp.wav\tpn11\t3\t3\t189.4\t1096\t226349.3\t1408\t502.700...\n

Open

+

Subj1_Session1_Block1_pancaro.txt
~/The neural basis of merge/pilot_data/logfile

FileEditViewSearchToolsDocumentsHelp

Pancaro TMS

Date: [REDACTED]

Subject: 1

Session: 1

Block: 1

###

Displayed instructions:
Betätigen Sie den Knopf zwei(2) mal wenn der Ausdruck richtig,
und drei(3) mal wenn der Ausdruck falsch ist. Benutzen Sie den Mittel- und Zeigefinger der rechten Hand,
um die Knöpfe zu betätigen###

Subject	Trial nr	Item Name	Trial ID	ExpectedResponse	GivenResponse	ReactionTime	DP	SoundAbsEndtime	SoundDuration	CueLat
1	1	[REDACTED].wav	pn11	3	189.4 1096	226349.3	1408	502.700000000012		
1	2	[REDACTED].wav	dv13	3	686.5 994	229714.6	1538	502.7999999999988		
1	3	[REDACTED].wav	dn14	2	3131.6 758	233397 1266	502.5			
1	4	[REDACTED].wav	dv37	3	448 996	239745.1	1402	502.100000000006		
1	5	[REDACTED].wav	pv30	2	908.5 1114	243676.7	1499	502.2999999999988		
1	6	[REDACTED].wav	dn17	2	913.8 949	247457.8	1320	503.2000000000012		
1	7	[REDACTED].wav	pv04	2	1899.5 831	251740.6	1384	502.1999999999983		
1	8	[REDACTED].cp.wav	dv38	3	1601 963	257088.7	1454	502.2999999999988		

STEPS

- Import data from the .txt file;
- Find where our data starts (i.e. when the header is over);
- Retrieve which column has the information we are looking for;
- Store this information to a variable;
- Export it to a .txt file that can be imported in R.

USEFUL CONTROL STATEMENTS AND FUNCTIONS IN PYTHON (see code.py) (of course, different approaches can be used)

- “For” loops: to repeat a series of operations multiple times;
- “If” statements: run some lines of code only if a condition is met;
- Read .txt files in Python
- Split imported lines
- Write output