The baseline was computed by guessing the most likeliy result – which is having no accent at all (y=0). And if I geussed it all times the baseline is around 0.699. Any feature that contributes to increasing this accuracy (score) will be taken to the final train.

The following table is the test score (avaraged of 2 loops of 5-fold of a random subset of 10k)

Without the Feature	Score
no_phrases	0.739
no word	0.772
no_func	0.773
no_dial	0.773
no_nuc	0.775
no_sylls	0.776
no_neg	0.78
no_kontrast	0.783
no_c_tag	0.784
no_tag	0.785

Most of the trials here succesfully overcome the missing feature however, phrases is suspected to crucial due to the relatively high decreased score. The second most contributing but with not a small gap was word.

The following table is the isolated feature test score in a decending order.

With the Feature Only	Score
word	0.738
c_tag	0.727
kontrast	0.723
tag	0.720
all_sylls	0.719
function	0.703
phrases	0.703
negation	0.702
nuc_info	0.702
dialect	0.696

The top 5 (without tag) will be used to the bottom up feature selection.

With 2 Feature Only	Score
phrases+words	0.775
Phrases+c_tags	0.766
phrases+sylls	0.743
c_tags+words	0.736

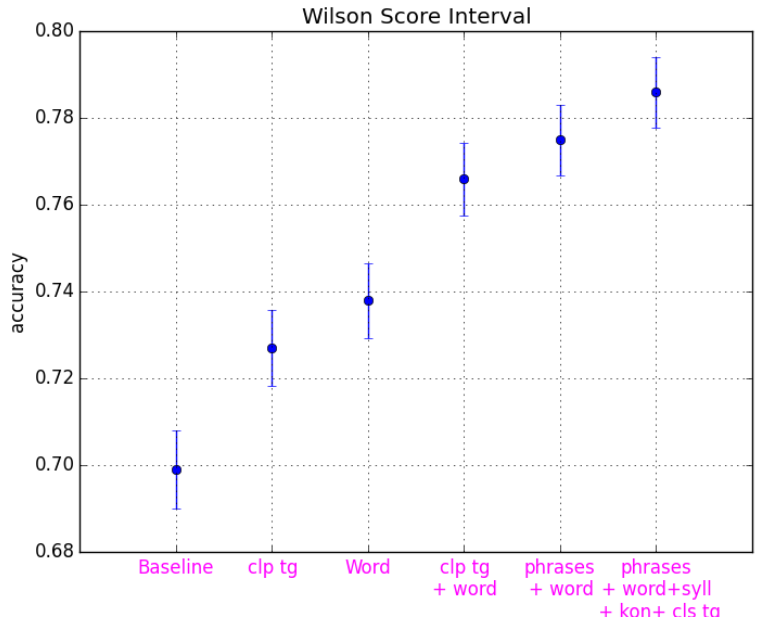
kontrast+sylls	0.735
kontrast+words	0.731
c_tags+sylls	0.729
sylls+words	0.728
kontrast+phrases	0.723

Though phrases isolated are meaningless (table 2) when the were with word or tags they boosted the scores and also improved sylls.
Kontrast improves sylls.

With 3 Feature and more	Score
phrases+sylls+words	0.783
phrases+sylls+words+kontrast	0.772
phrases+sylls+words+c_tags	0.78
phrases+sylls+words+c_tags+kontrast	0.786

The final features that were found to be the most contributing are: words, syll, phrases, c_tags and kontrast

The Wilson confidence interval score plot with selected feature combinations is:



*The code is in the repository. It seems that using these features demostrated that we were able to improve our model in a way that is higher than just the baseline.