

*Homework 3 – Linear regression*

*a) In about 2 paragraphs summarize your answer to the research question based on the analysis. Mention which predictors turned out to be significant and which not. Offer possible explanations of why that might be.*

The main predictor for the number of associations a person makes for the given words was the words' imageability. On the other hand, factors like the amount of letters and syllables in a words and their concreteness did not seem to have a big impact on how many associations were made.

That the amount of letters and syllables in the words did not correlate with associativity seems intuitive. Words with one syllable like deed and earth, have quite different associative scores. If there was a positive or negative correlation with amount of either letters or syllables, then words with high values in those should tend to either higher or lower associative scores than if they had few letters or syllables respectively. In the dataset there are examples that would imply that this correlation at least isn't obvious, as there are long words like university with a high associative score and others, such as impropriety, with quite low scores.

That concreteness is not as impactful on associativity isn't as understandable on the other hand. We could not come up with an explanation as to why it is not a significant predictor for the associativity of the words in the data.

*b) For each significant predictor or interaction, describe the kind of effect they have on the dependent variable.*

The plot concerning imageability shows an almost linear distribution of the interaction between imageability and association. The higher the value for imageability is, the higher the value for association. The exact values of the interaction are

*c) Finally, mention anything that was surprising or striking to you and suggest one question or issue for further research.*

We were surprised by the fact that concreteness did not turn out to be a significant predictor of associativity. It would be interesting to research if this finding would remain if a similar study was to be repeated. If so, one might also look into why concreteness of word does not significantly predict how many associations someone makes when hearing certain words.