## Task Three (Sentence-Level Analysis)

## Jiayue Lu

Refer to https://www.r-bloggers.com/2020/04/sentiment-analysis-in-r-with-sentimentr-that-handles-negation-valence-shifters/, I did a sentence-level sentiment analysis over my book (gutenberg\_id = 1424).

The biggest difference between word-level sentiment analysis and sentence-level sentiment analysis is about the Negation words. For example,

"I'm happy" -> Positive "I'm not happy" -> Negative.

In word-level sentiment analysis, it can only get "not" and "happy" separately and it will recognize it as positive sentiment. However, in sentence-level sentiment analysis, "not happy" will be analyzed in one sentence and get the negative sentiment instead.

The result of Task 2 and Task 3 are not the same due to the difference between word-level analysis and sentence-level analysis. But we can capture some obivious trend at some points, like 55. And also some fully inverse result like 137-150. The result proves that word-level analysis is more accurate at some low magnitude, while sentence-level analysis can capture the overall sentiment in a large unit. In the future, it will be great to conduct sentiment analysis by combining different levels of analysis (words, sentence, paragraph, character).

