CBD2204: Week 11

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unstructured data

The majority of data analysis occurs on structured data, or data that can be readily converted into data frames

However, there is a substantial amount of useful information that can be gleaned from unstructured data, such as articles, video or audio files, medical reports, speeches, financial statements, witness accounts, etc.

Text mining is a process by which prose (unstructured text) is processed for useful information; we often convert text into a kind of structured form, and then perform sentiment analysis, word correlations (N-grams),

text mining

tokenization

the process of parsing out text into meaningful units (think: strings separated by white space, for example) that are pertinent to our analysis

We can “*tidy*” text in this manner, allowing a **data frame** to be created from the text.

corpus

a group of unstructured text files (containing strings), often accompanied by metadata https://www.tidytextmining.com/

text mining cont’d

document-term matrix

a sparse matrix that describes a corpus with one row for each document and one column for each term

word counts and frequencies

a common form of text analysis which allows a straightforward quantification of unstructured text

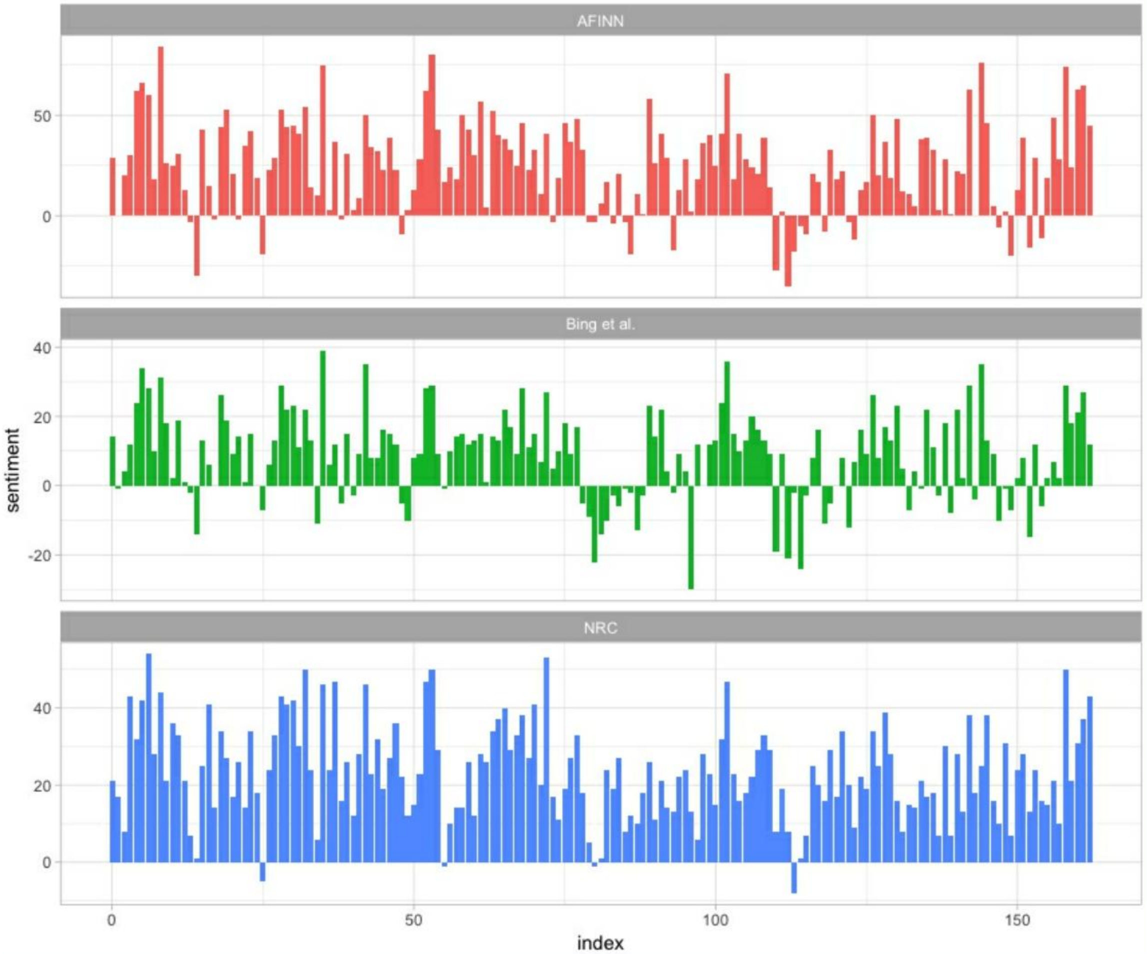


Figure 2-3. Comparing three sentiment lexicons using Pride and Prejudice

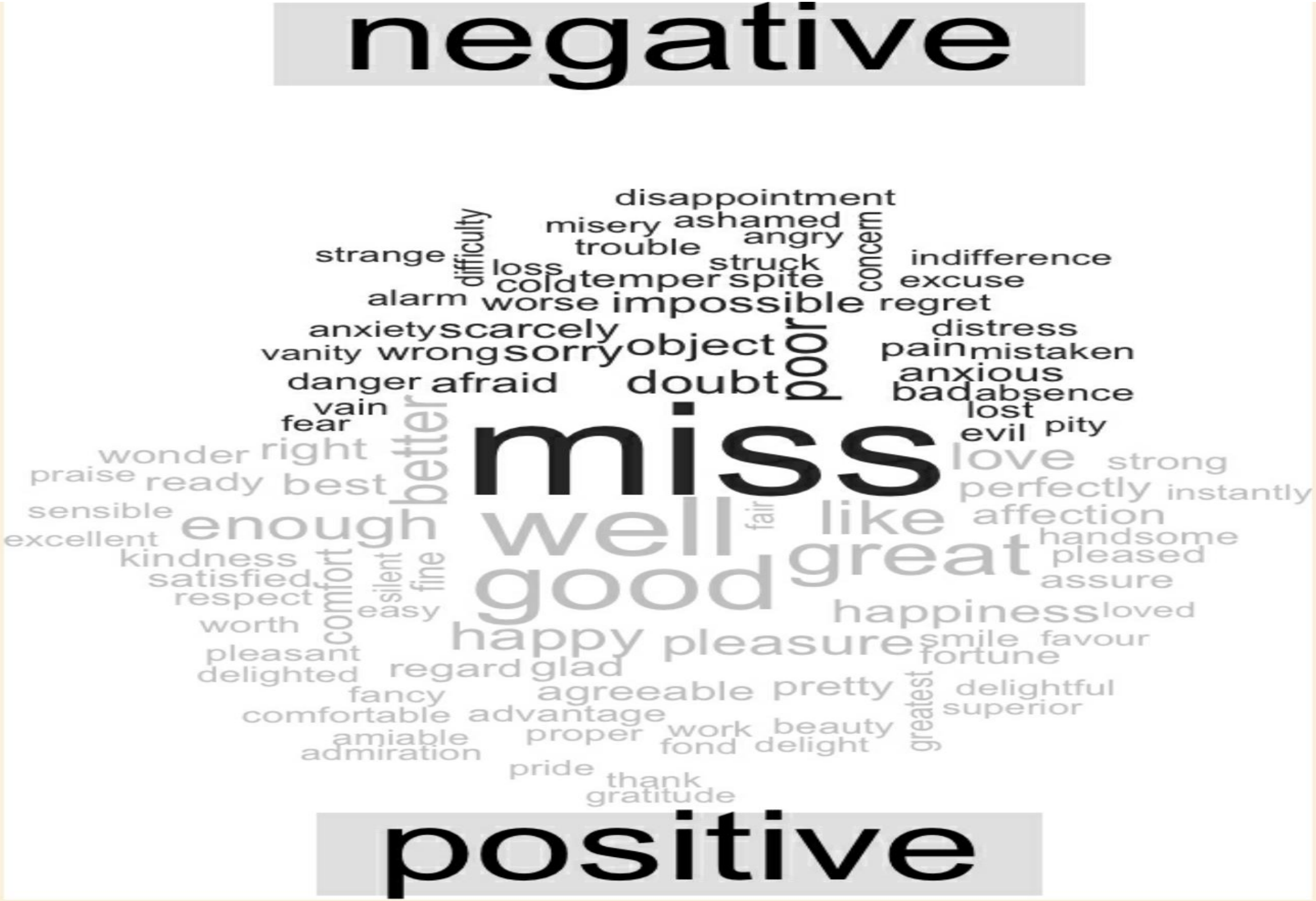
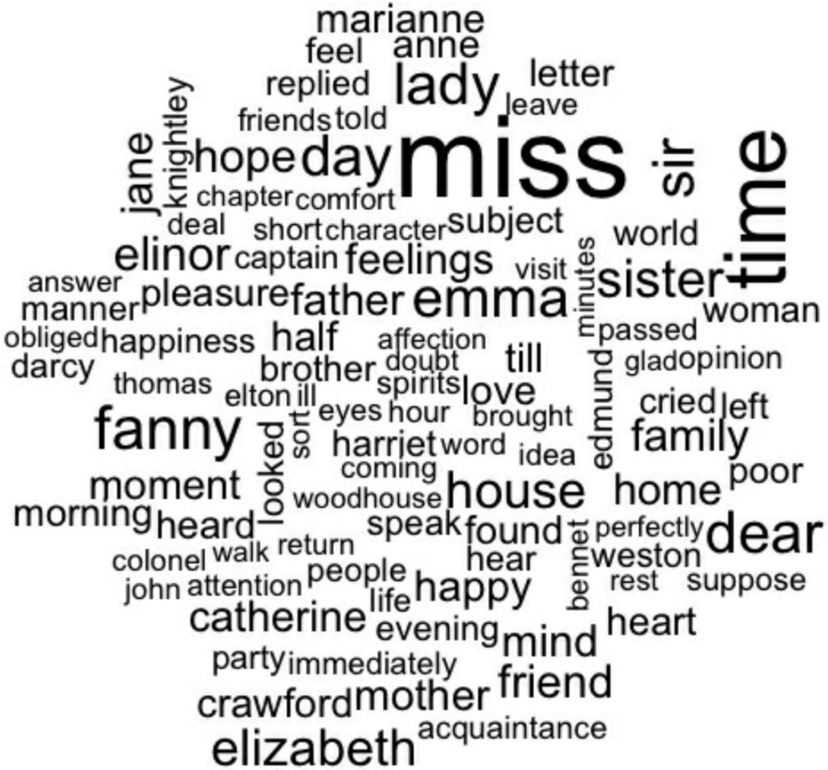


Figure 2-6. Most common positive and negative words in Jane Austen's novels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