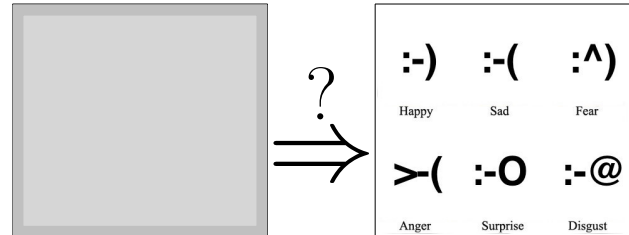


Sentiment analysis...

- ...is **established** for many areas.
- ...typically focuses on **polarities** (binary or scale).
- ...is not sufficient to analyze literature!

Emotions...

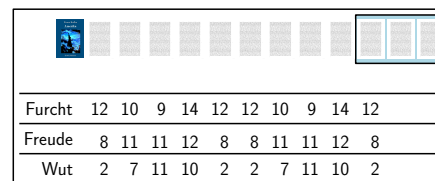
- ...are quite well analyzed in psychology.



Dictionaries

- German dictionaries for fundamental emotions
 - Manually compiled
 - Semi-automatically enriched (NRC, OpenThesaurus, Duden)
 - Curated
- Dictionary and Software are publicly available

Count Words in Sliding Windows



Examples

Freude/Joy

Ballermann Mausi Optimismus
hallöle! hammergeil hervor-
ragend juhu tipptopp toll willkom-
men

Ekel/Disgust

Eiterbeule Erbrochenes Gam-
melfleisch Spinne Verwesung
igitt kotzen pfui schimmeln
widerlich übergeben

Wut/Anger

Beschwerde Grimm Hass Mob
Raserei gallig hundertachtzig
platzen erbittert feuern ka-
puttmachen

Furcht/Fear

Abgrund Abreibung Muttersöhnchen Spuk Unfall Ungeheuer Zahnarzt Zittern aussichtslos bleich drohen töten

Trauer/Sadness

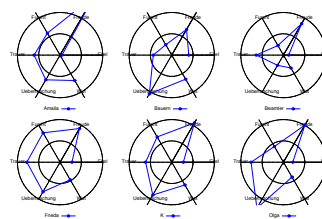
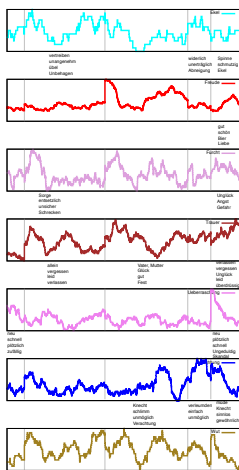
Abschied Apathie Aussicht-
losigkeit Beileid Schwarzmal
Tod Versagen tragisch wim-
mern sickig

Überraschung/Surprise

Attacke! Erstaunen Exklusivbericht Fuck! brüsk flink geschockt unbeabsichtigt oha wirr

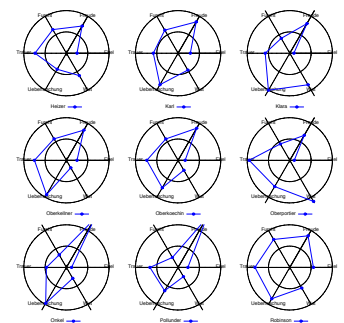
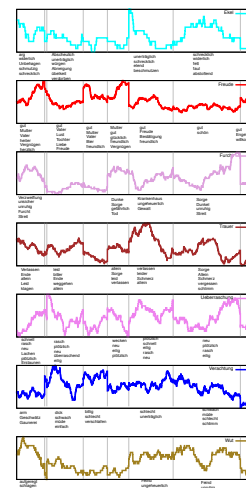
Results

Das Schloss



- **Bauern**
 - **Wut** ärger, gemein, Ungeduld
 - **Ekel** unangenehm, übel
- **Beamte**
 - **Trauer** leid, arm, Abwesenheit
- **Frieda**
 - **Freude** gut, Lieb, Bier
 - **Trauer** verlassen, allein, leid, vergessen, schlimm, traurig, Sorge
 - **Furcht** unsicher, Sorge, Angst

Amerika



- **Karl**
 - **Überraschung** rasch, neu, plötzlich, schnell, eilig, zufällig, ungeduldig, Vorsicht, Erstaunen
 - **Freude** gut, Freude, freundlich, froh, lebhaft
- **Oberportier**
 - **Wut** Feind, ärgerlich, Faust
- **Pollunder**
 - **Freude** gut, freundlich, Tochter, Gefallen
 - **Trauer** leider, unsern, allein

Discussion

- Building dictionaries is difficult: Only for 46 % words in dictionary three annotators agree, for 85 % two annotators agree.
- No context taken into account, figurative language is challenging.
- No difference between character and narrator (so far).
- Attribution by surrounding window leads to noisy results.
- However, valuable approach to support scalable reading.

