



Operationalizing and Measuring Conflict in German Novels

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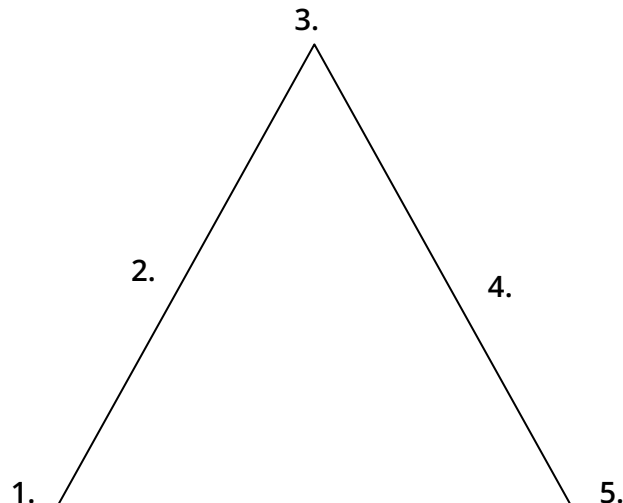
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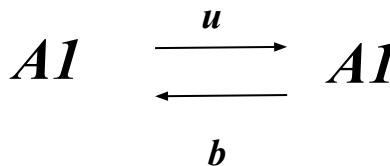
1. **Analyzing Conflict in Literature**
2. **Annotating Social Conflict**
3. ***SentiArt*-ing Conflict**
4. **Comparison and Next Steps**

1. Analyzing Conflict in Literature

Approaches to Conflict in (Computational) Literary Studies



a. Aristotelian Drama



cf. Gerstorfer and Gius, 2023

b. Social Conflict

E: ah der, der normalerweise leichter akzeptiert, dass dann ein Redakteur kommt-
I: ja.
E: während so diese- diese- dieser Konflikt zwischen "das ist doch nur ein Kollege
und maßt sich jetzt an, als Redakteur aufzutreten."
I: aha.
E: ich glaube, da ist ein großer Reibungspunkt.
I: ja.
E: und ähm ein- ja, ein Beispiel für 'ne gelungene Zusammenarbeit, ein- ein
jüngere Kollege, der jetzt seit hm zwei- ja zwei, drei Jahren erst in der
Redaktion ist ähm, der auch ah Stücke macht für diese Sendung und +ähm-
I: hmhm.+
E: damals 'n längeres- das war sein erstes längeres eigenes Stück ähm -- junge
Schauspielerin, 'n deutschen Film, und dann ähm - hab' ich mir das angesehen im
Schnitt und war nicht glücklich und hab' gesagt: 'nein, da muss irgendwie das und

cf. Gius, 2015

c. Conflict vs. no Conflict



2. Annotating Social Conflict

- **Social Conflict** (Glasl, 2009)
 - **interaction** between **two agents**
 - one agent **experiences incompatibility** with other agent
 - incompatibility **impairs** realization of what agent thinks, feels, or wants
- here:
 - **assumption a)**: different kinds of **perceiving** and **experienced incompatibility** are **explicated in literary text**
 - **assumption b)**: these can be detected on the **sentence level**

1. Is **someone** narrated as **experiencing something**?
2. Is the **experiencing** of this something narrated as somehow **contrary to how someone else experiences** this something?
OR
Is the **experiencing** of this (narrated as) something represented as **negative**?
3. Is the experience tied to something that is a **fact** or that is portrayed as **possible**?
→ actual or hypothetical incompatibility

- **"Because you don't know what it is to love a man, - to have to love a man, - how that burns!"** (Dahn (1886): *Fredigundis*, our translation)
- "With the awakening also **my malice awoke**, which increased still violently, when I heard from over there the mocking words and the laughter of my opponent, who on the other side, a little more mildly than me, might have come to earth." (Goethe (1811): *Aus meinem Leben. Dichtung und Wahrheit*, our translation).

Romanticism

Realism

Naturalism

(cf. Schumacher et al., 2022)

(cf. Gius et al., 2020)

Annotating Conflict - Preliminary Results

- 1,000 sentences, random sample
- two annotators
- Cohen's Kappa 0.325

1,000 sentences

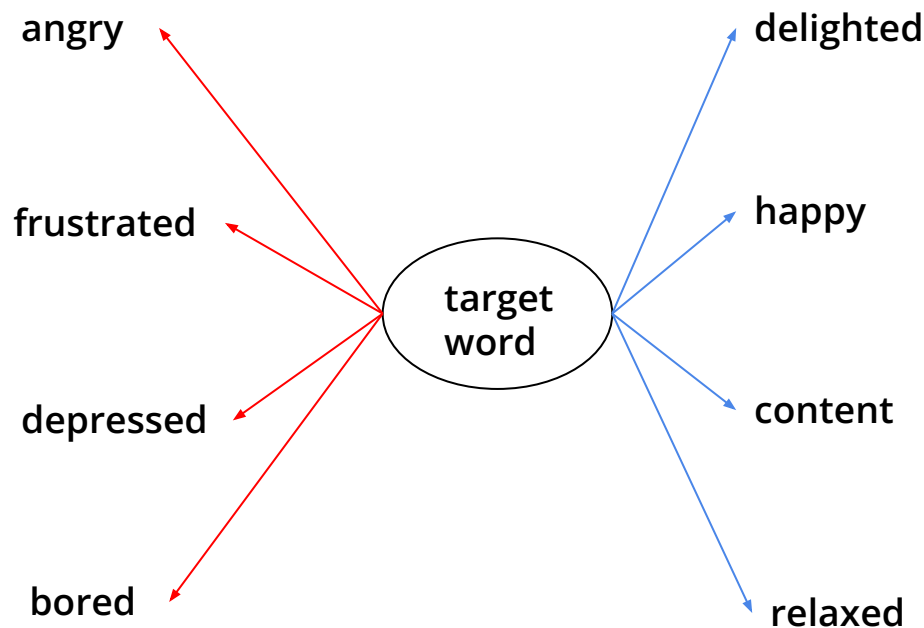
Romanticism

Realism

Naturalism



3. *SentiArt*-ing conflict



N : no. of valence keywords (here:
 $N=8$)

\rightarrow : cosine similarity to positive
sentiment

\rightarrow : cosine similarity to negative
sentiment

valence value:
$$\frac{\sum \rightarrow - \sum \rightarrow}{N}$$

cf. Jacobs, 2019

Keywords (Translated)

conflict vs. harmony (cf. Dornseiff, 2004)

arousal

valence

+

kill, misfortune, danger, fear, fright,
quarrel, fight, torment, revenge,
violence, weapon, protection

-

happiness, light, pleasure, admire,
beauty, peace

conflict vs. resolution

+

apprehensive, fearful, cruel,
rifle, clench, stab, knife,
smash, obey, scold

-

comfort, rich, reassure, win,
back, ask, easy

Romanticism

10,702,163 words

A

Realism

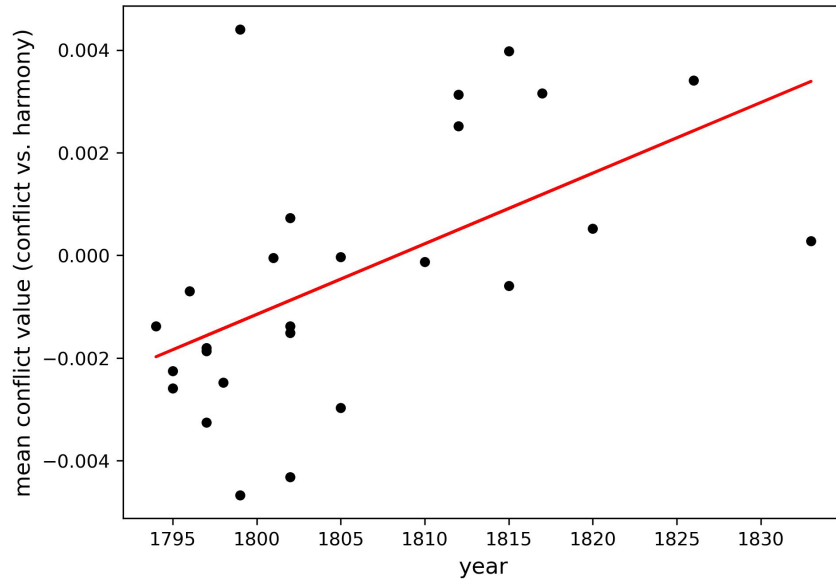
4,330,063 words

B

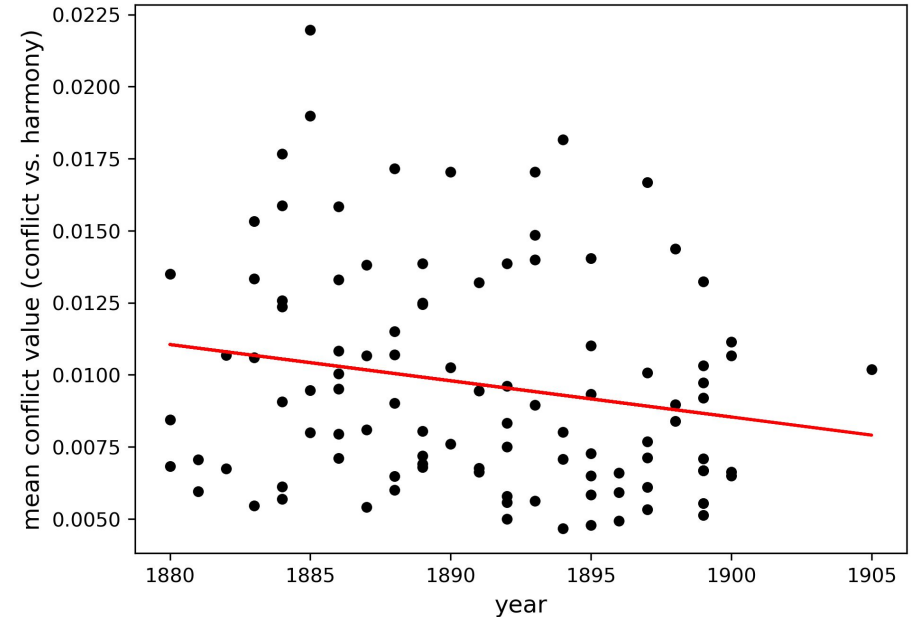
Naturalism

4,357,163 words

Conflictuality in Romanticism and Realism/Naturalism

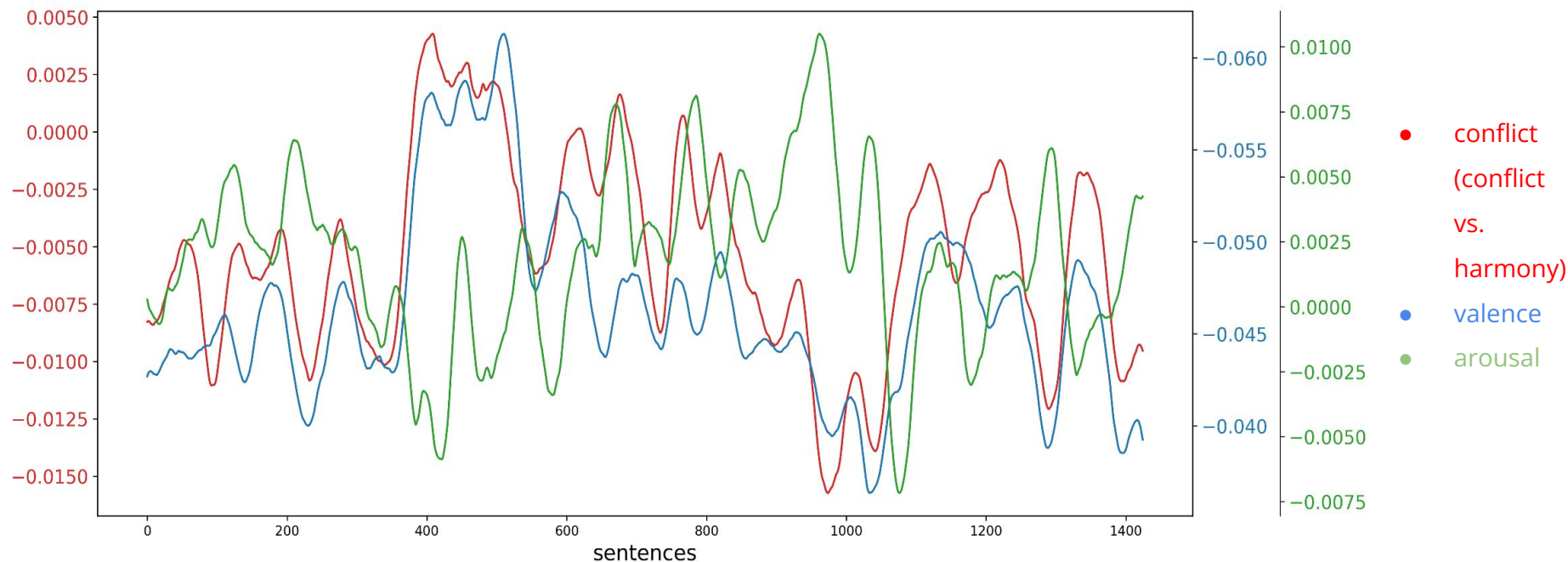


Romanticism Core Corpus (26 of 115 novels)



Realism and Naturalism (102 novels)

Schlegel (1799): *Lucinde*

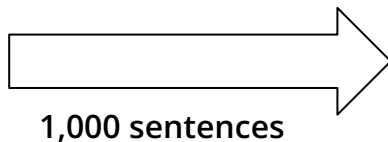


4. Comparison

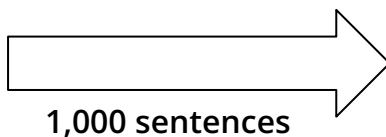
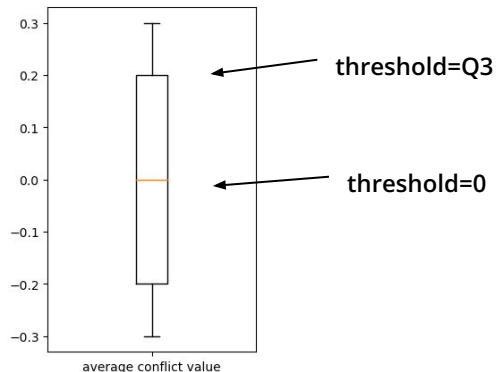
From Gold Standard/Scalar Values to Binary Labels

actual incompatibility

hypothetical incompatibility



0 = no_conflict
(893 sentences)
1 = conflict
(107 sentences)



0 = no_conflict
1 = conflict

Gold Standard Annotation and Conflict vs. Harmony

		conflict vs. harmony (threshold=0)	
		1	0
manual annotation incompatibility	1	65	42
	0	512	381

F1 = 0.19

		conflict vs. harmony (threshold=Q3)	
		1	0
manual annotation incompatibility	1	27	80
	0	228	665

F1 = 0.15

Sentiment and Conflict vs. Harmony

		valence (threshold=Q1)	
		1	0
conflict vs. harmony (threshold=Q3)	1	101	154
	0	112	633

F1 = 0.43

		arousal (threshold=Q3)	
		1	0
conflict vs. harmony (threshold=Q3)	1	64	191
	0	200	545

F1 = 0.25

Next Steps

- include impairment in guidelines
- bigger sample size annotation

Metadata and Code availability:

https://github.com/forTEXT/conflict_in_german_prose

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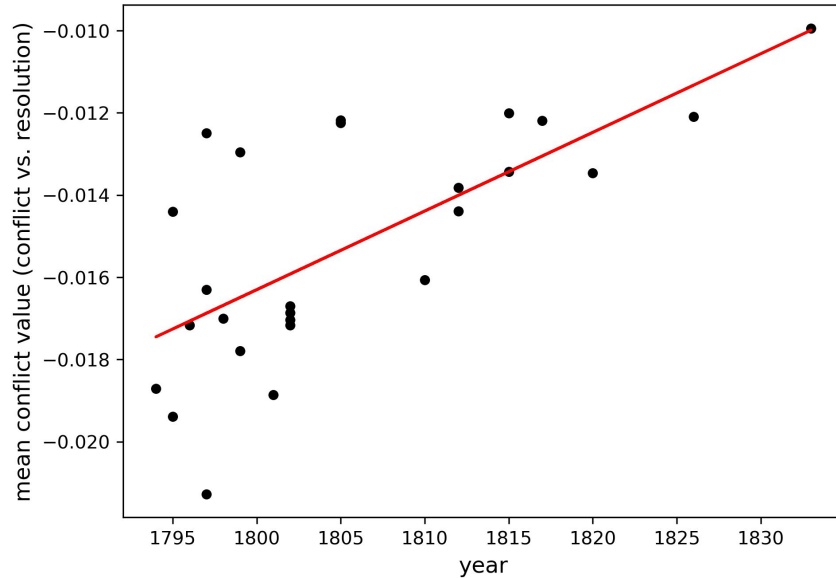
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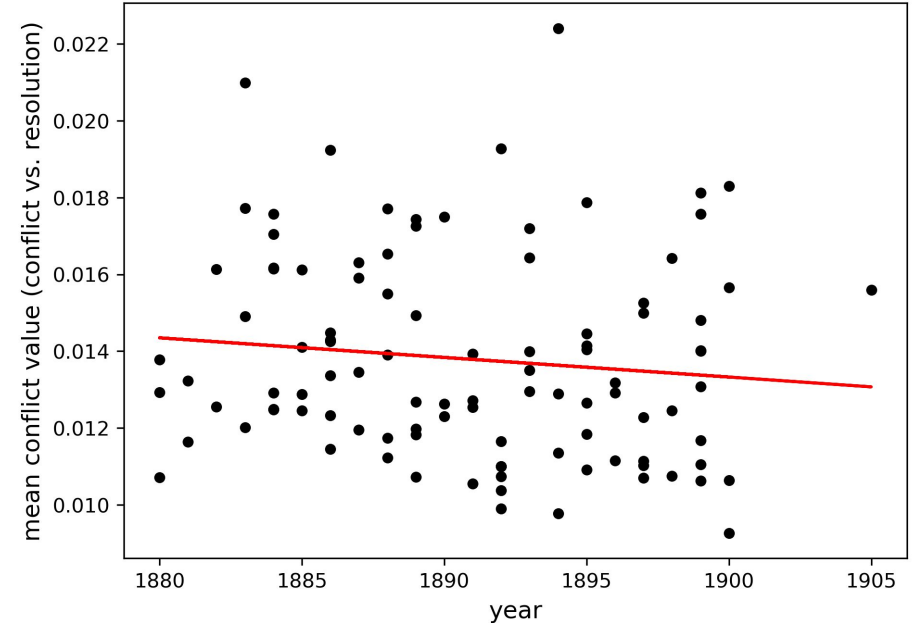
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Appendix

Conflictuality in Romanticism and Realism/Naturalism

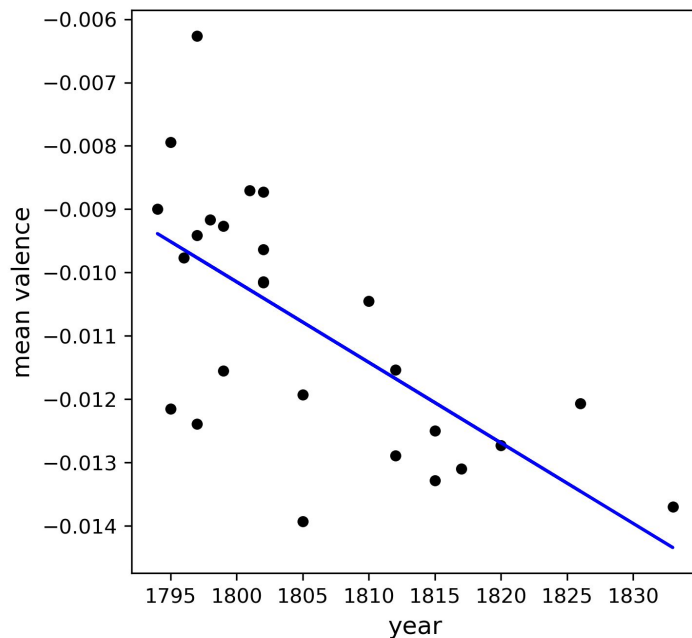


Romanticism Core Corpus (26 of 115 novels)

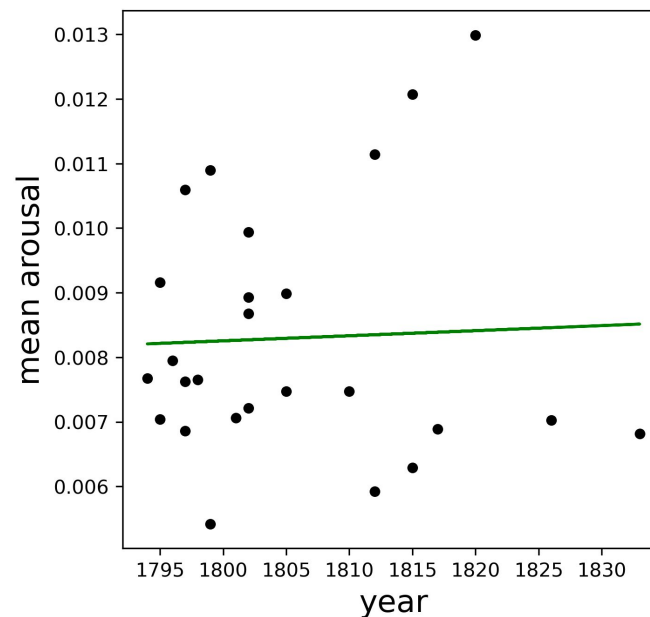


Realism and Naturalism (102 novels)

Sentiment in Romanticism Core Corpus



Valence



Arousal