

Affective Polarisation in the German Gender Debate

A hybrid NLP & Corpus Linguistics Approach to Social Media Discourse

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Polarisation is a dynamic process emerging in and through communication.

(Brüggemann & Meyer 2023)

WHY TEXT, NOT ONLY SURVEY

SURVEY INSTRUMENTS

maps attitude distributions at the macro level – but misses situational dynamics, interactional escalation and platform-specific sub-publics.

SOCIAL-MEDIA CORPUS

Captures the highly engaged, self-selecting actors for whom gender becomes a symbolic battleground – where polarisation is performed through stance, moral evaluation and out-group construction.

DATA: KoKoKOM CORPUS (<https://kokokom.de/>)

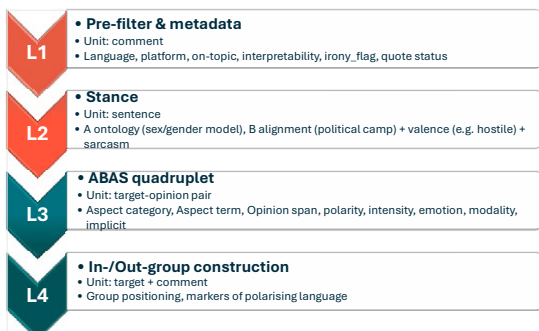
21,000 German social media comments from Facebook, Instagram, Reddit, X, YouTube (Feldmüller et al. 2025)

METHODOLOGICAL FRAMEWORK

Stance detection, Aspect-based sentiment analysis (ABSA) and Concordance analysis.

Levels 1 to 3 are **pre-annotated by claude.ai**. L4 is **human-annotated only**.

THE FIVE-LEVEL ANNOTATION PIPELINE



RESEARCH QUESTIONS

- Q1** How do users define the number of sexes, and what justification do they invoke?
- Q2** How do users position themselves within ideological camps?
- Q3** How do emotions shape stances and drive in-group/out-group dynamics?
- Q4** Which rhetorical-linguistic markers polarise the debate?

ONE COMMENT, ALL FIVE LEVELS

„... immer wieder wird Voss zitiert und jener Voss als „die Biologie“ dargestellt. Der ist mit seiner Meinung aber ziemlich alleine. Klassische false balance, die man doch sonst bei „den anderen“ immer so lautstark kritisiert.“

L1 METADATA	L2 STANCE	L3 ABSA	L4 GROUP
lang de platform facebook on_topic yes	A binary-biological B gender-critical valence dismissive	Aspect-category: scientist Aspect-term: Voss polarity negative emotion contempt modality assertion implicit no	positioning out-group (voss-citing side) scare quotes „die Biologie“ legitimation scientific consensus

PRELIMINARY FINDINGS

FIVE DOMINANT IDEOLOGICAL FRAMES

Biological determinism. Appeals to „objective“ science – chromosome, reproduction – to justify a binary sex model.
Binary gender model. Insistence on two sexes, framed as „natural“ or „evolutionary“.
Sex-gender distinction. Separation of biological sex from social gender/identity, sometimes used to dismiss non-binary identities.
Delegitimation of social sciences. Portrayal of social sciences, gender studies, or queer theory as “unscientific” or “ideological”.
Non-binary /spectrum model. Support for fluid or multidimensional gender concepts, often countered with accusations of “ideology”.

HOW AFFECT POLARISES?

Naming the Out-group Collective nominalisation – <i>Genderideologie, TERFs</i> – to erase individuality.
Derogatory Language Pathologisation – <i>Störung, Fehlbildung</i> – to frame opponents as deviant.
Good/evil moral representation Good/evil moral representation – <i>Abschaffung der Demokratie, menschenverachtend</i> – to frame the outgroup as morally deficient.

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Affective Polarisation in the German Gender Debate: A Hybrid NLP and Corpus Linguistics Approach to Social Media Discourse

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A previous corpus analysis of social media comments has revealed that the debate over sex and gender in German-speaking digital spaces is a critical arena of democratic conflict, characterised by ideological divisions and increasing emotion-driven polarisation. As citizens debate the legitimacy of binary versus non-binary sex/gender models, the discourse often escalates beyond mere disagreement, evolving into hostile contention that challenges the authority of opposing epistemologies. Brüggemann and Meyer define polarisation not just as a static state, but as a dynamic process emerging in and through communication. Despite this, empirical research has largely overlooked the analysis of actual media content and user interactions. To address this gap, the authors propose a framework by integrating the multidimensional facets of polarisation that both structure and potentially fragment the public sphere. This study builds on this framework to examine affective polarisation in content related to polarised groups on social media.

The poster presents a novel analytical pipeline designed to capture the nuances of polarisation within the KoKoKom corpus — a dataset comprising German-language social media comments from platforms such as YouTube, Facebook, Instagram, X and Reddit. Based on a preliminary quantitative-qualitative analysis of ideological frames in this discourse, the poster describes the development of a multilayered annotation pipeline that combines stance detection, aspect-based sentiment analysis (ABSA) and corpus linguistics methods (concordance analysis). This approach systematically captures the language and emotional aspects of polarisation. It moves beyond traditional surveys by mapping how digital communication drives affective polarisation and social fragmentation.

The motivation for this corpus-linguistic and NLP-driven approach becomes apparent when its findings are compared with representative survey data. Survey instruments such as MIDEM's Polarisation Barometer model polarisation using representative samples, scalar self-reports and generalised items on values, discrimination and pride symbols. This captures the distribution of attitudes and the perceived divisiveness of topics at a macro level, but necessarily overlooks situational dynamics, interactional escalation and platform-specific sub-publics. In contrast, a corpus of social media comments highlights precisely those highly engaged, self-selecting actors and contexts in which gender becomes a symbolic battleground. Here, affective polarisation is performed through stance-taking, moral evaluations and the construction of hostile out-groups in specific sequences of interaction. From a methodological perspective, this discrepancy is not a contradiction, but rather a sign that polarisation should be studied as both a structural phenomenon in opinion distributions and a form of communication that emerges in specific media environments. Therefore, a hybrid NLP–corpus linguistic pipeline is not just a technical choice, but a conceptual necessity. It enables us to link survey-based, issue-level measures of ideological and affective polarisation with detailed, text-based evidence of how these conflicts are enacted, intensified and amplified in everyday digital communication.

This project provides a data-driven analysis of how gender debates on social media reflect societal divisions, connecting computational social science with qualitative discourse analysis to enrich our understanding of democratic deliberation in digital spaces. The pipeline can be adapted to other polarised discourses (e.g. climate change and migration), offering a reusable framework for studying affective polarisation in social media.

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