

Tracing Semantic Narratives of *Gratia* and *Fides* in Neo-Latin Poetry Digital Storytelling Across Confessional Divides

The early modern period was an age of profound religious instability. Between the late fifteenth and mid-seventeenth centuries, in the era of the Wars of Religion, central Europe experienced repeated outbreaks of doctrinal conflict and ruptures. These transformations have been studied extensively from political, theological, and cultural perspectives, yet we still lack a precise understanding of how these conflicts reshaped language itself. What happens to key theological terms when two sides shape, contest, redefine, or abandon them across time? Which aspects of the Catholic–Protestant divide manifest in textual usage or reveal unexpected overlaps? Traditional studies have long recognised the centrality of religious discourse in institutional and technical literature¹, little work has examined its linguistic dynamics², particularly in genres often regarded as extraneous to overt theological debate.

This study investigates how the semantics and contextual usage of two key theological terms (*gratia* and *fides*) vary across time and religious confessions boundaries in Neo-Latin poetry produced in the German lands (15th–18th centuries). By tracing co-occurrence patterns around these words, the study aims to identify semantic drifts that reflect broader intellectual and confessional shifts during the period of the Reformation and the Wars of Religion.

We argue that neo-Latin poetry, despite not explicitly focusing on theology, shows a strong linguistic consistent lexical patterns that relate to confessional discourse. Early modern neo-Latin drama, despite being a mostly pedagogical genre, consistently embeds confessional positions in precise lexical choices³. Poetry, even less studied than drama, provides a rich and largely unexplored opportunity to detect these phenomena. By focusing on the words’ contextual associations, neighbouring semantic fields, and evolutionary patterns across time, this study examines how the terms *gratia* (“grace”) and *fides* (“faith”), two central notions in both Protestant Reform and Catholic Counter-Reform theology, evolve in early modern neo-latin poetry.

To examine these patterns systematically, we compiled a corpus of 849 Neo-Latin poetic texts (7M tokens) from the CAMENA *Poemata* collections, restricted to authors active in the German lands in the 15th-19th centuries. We applied collocational analysis to trace co-occurrence patterns around these terms across time. This approach transforms large-scale textual evidence into interpretable narrative arcs, revealing how lexical associations evolve over time and across confessional boundaries. We extracted author, year and place of publication and normalised these into 25-year time slices and regions (North, South, Central/West, Swiss, Low Countries, Alsace/France), mapped to confessional categories (Catholic, Lutheran, Reformed/Calvinist, Mixed) based on historical data and contemporary literature⁴. We then extracted verse-based keyword-in-context windows around the lemmas *gratia* and *fides*. For each target × time_bin × region_bin we computed collocational

¹ D. MacCulloch, *Reformation – Europe’s House Divided 1490-1700*. Allen Lane, London, 2003.

² A. Peverelli, M. van Erp, J. Bloemendal, *When a Catholic Comedy looks like a Protestant Tragedy: Predicting Religious and Genre Features in Neo-Latin Drama*, Utrecht University Press, 2024; B. Navarro-Colorado, *On Poetic Topic Modeling: Extracting Themes and Motifs From a Corpus of Spanish Poetry*. In *Frontiers in Digital Humanities*, 5, 2018.

³ A. Peverelli, *Authorial Framework and the Problem of Style through a Computational Analysis of Neo-Latin Drama*, Utrecht University Press.

⁴ MacCulloch, *Reformation*, 2003; J. Bloemendal and H. Norland, *Neo-Latin Drama in Early Modern Europe*. Leiden: Brill, 2013; *Religious Divisions of Germany c. 1610*, *The Cambridge Modern History Atlas*, 1912.

association scores (logDice⁵) for all non-stopword context lemmas. Diachronic semantic change was then analysed as variation in logDice across ordered time slices. We extracted the top-scoring collocates by applying a minimum logDice filter of 9⁶. This yielded a core set of collocates for our target lemmas, representing the most directly relevant theological/poetic/affection vocabulary. Within this semantic core we further classified collocates into stable, mildly drifting, and strongly drifting based on the magnitude of their delta. For each target word and religion (Catholic, Lutheran, Calvinist, Mixed) we recomputed logDice trajectories. We then derived cross-religion pattern labels (shared increase/decrease, opposite directions, rise/decline confined to some confessions). Finally, we merged the global (religion-agnostic) drift with the religion-specific patterns to obtain, for each collocate in the semantic core of *gratia* and *fides*, a joint classification of its overall temporal trend and its specific confessional behaviours.

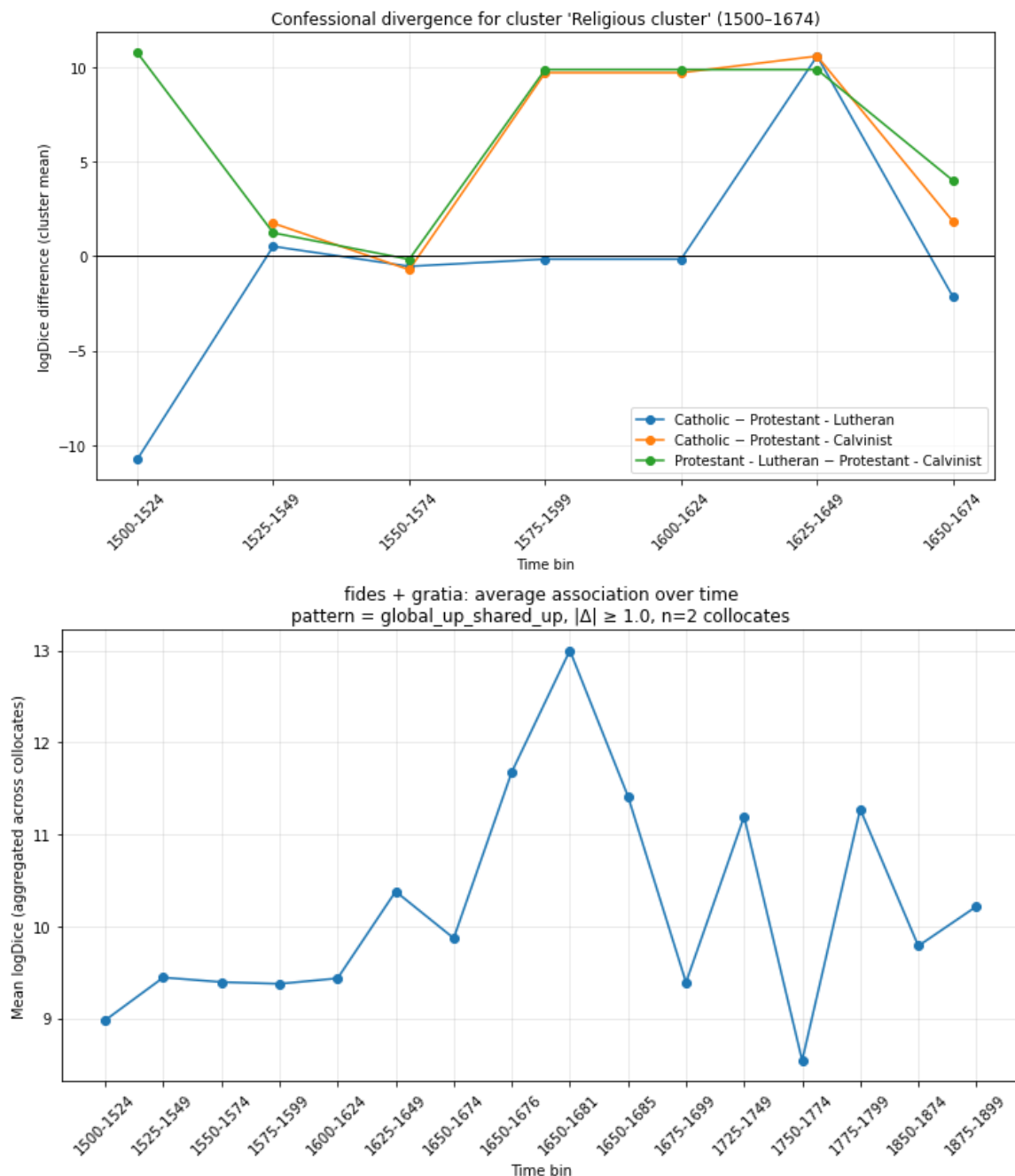
The results uncover clear semantic imprints of confessional discourse in Neo-Latin poetry. For *gratia*, explicitly theological collocates (e.g., *Christus*, *spiritus*, *pater*, *uerbum* - Christ, spirit, father, word) dominate until around 1650, after which they sharply decline. This fall coincides with a rise in classical, aesthetic, and natural imagery (*flos*, *frons*, *musa*, *poeta* - blossom, bough, muse, poet), marking both the historical shift towards Neoclassicism and the abating of disputes between Catholics and Protestants. Distinct confessional fingerprints emerge: Catholics associate *gratia* more strongly with *amor* and *gloria*, reflecting Counter-Reformation emphases on divine love and splendour; Protestants show the opposite trend. Terms like *lex*, *iustitia* and *foedus* (law, justice and pact) remain central for Protestant contexts, aligning with Reformation soteriology and the key tenets of Covenant Theology, while *mater* (mother) increases only for Catholics, signalling Marian dimensions of grace absent in Protestant discourse. *Verbum* declines overall, yet it remains stable among Protestants, reflecting the tenet of *sola scriptura*.

The semantic field of *fides* reveals its own confessional dynamics. Terms like *caelum*, *fatum*, and *aeternus* (heaven, fate, eternal) remain stable for both confessional sides, indicating a shared eschatological frame. By contrast, the Protestant lexicon exhibits increasing association with *pariter* (equally) and *mereor* (to deserve, merit), again key concepts of Covenant Theology. Conversely, Catholic poetry reinforces *fides* through *credo*, *probo*, and *iuro* (believe, vow, swear), reflecting Ignatian and Jesuit emphases on profession and testing of faith. After 1650, both *Christus* and *salus* (salvation) decline across confessions, mirroring the gradual waning of explicit doctrinal vocabulary as religious conflict subsides by the turn of the century. Crucially, the Catholic pairing of *fides* with *opus* (work, act) strengthens over time, still revealing a strong Ignatian and Jesuit imprint, while Protestants manifest the opposite trend. Notably, terms associated with sanctity (*sanctus*, *sacrum* - saint, sacred) decline across all confessions, although the reason for this is less clear.

⁵ D. Gablasova, V. Brezina, T. McEnery, Collocations in Corpus-Based Language Learning Research: Identifying, Comparing, and Interpreting the Evidence, *Language Learning*, 67, 2017.

⁶ Already found in previous literature to be quite effective in finding stable semantic associations: A. Frankenberg-Garcia, Investigating the collocations available to EAP writers, *Journal of English for Academic Purposes*, 35, 2018.

Beyond empirical findings, the project contributes to the core idea of digital storytelling in two senses. First, it presents semantic change as a narrative: words such as *gratia* and *fides* acquire, lose, reinforce or even entirely change their associated contexts over time, and their trajectories tell stories of, initial, bloody religious conflict, a later negotiation, and finally a hard-won reconciliation. Second, the methodology itself directly speaks of how quantitative tools shape the stories we tell about historical languages. They allow us to reconstruct centuries-long semantic arcs that no reading of a single author could perceive, transforming large-scale textual evidence into interpretable narrative forms.



Corpus, code and notes are available at: <https://anonymous.4open.science/r/Tracing-Key-Religious-Terms-through-time-in-Early-Modern-Neo-Latin-Poetry--713A/README.md>