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Networks of Conflict: Analyzing the “Culture of Controversy” in Polemical Pamphlets of Intra-Protestant Disputes (1548-1580)

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Abstract

Following the Augsburg Interim ordered at the Augsburg Diet of 1548, the late 16th century witnessed a number of intra-Protestant controversies that fundamentally advanced the formation of Lutheran identity and its central doctrine. They were fought through the medium of polemical pamphlets, which were regularly addressed against specific opponents. While their intention aimed less at the conviction of their respondent than at the formulation and definition of theological issues, they were instrumental in the search for doctrinal truth that found a preliminary conclusion in the publication of the Formula of Concord in 1580. The paper analyzes this culture of controversy from a network theoretical perspective. Building on the relationship between authors and the theologians they directed their polemics against, it focuses on the characteristic attributes of a communication built on antagonistic relationships. Main aspects that are examined consist of the particular structure of conflict-based networks, the reciprocity of relations, and the degree to which historical processes reflect in the graph. In addition, two particular subtypes of controversies and their contribution to the structure of the complete network are examined in closer detail: spheres of conflict related to the views of one particular person, and those revolving around specific issues.



1 Introduction*

1.1 Intra-protestant controversies between the Augsburg Interim and the Formula of Concord (1548–1580)

The history of the Lutheran Reformation and the consolidation of its central doctrine is closely linked to a “culture of controversy” that developed during the 16th century in the territory of the Holy Roman Empire. Strongly influenced by the practice of academic disputations, several debates unfolded in the wake of political events such as the Augsburg Diet of 1548 that could at times exhibit a decidedly antagonistic nature. Not only Luther, who often launched very personal attacks on theological opponents,¹ but also many of his contemporaries and followers engaged in ardent debates on central theological questions.

One period of such conflict commenced after the Augsburg Interim had been ordered at the Augsburg Diet of 1548. The decisions of the Diet were widely rejected among secular as well as religious leaders, and led to conflicts with and among both groups. On the theological side, it heralded vigorous disputes among Protestants themselves. Though alliances changed depending on the point of contention, two main factions are usually identified in contemporary research: Philipp Melanchthon and his disciples, commonly named Philippists after their leader, and Matthias Flacius and his followers, the so-called Flacians, Lutherans, or Gnesio-Lutherans, as they are known today, who claimed to represent the true spirit of Luther’s doctrine.² Apart

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¹ Bebermeyer, “Schmähschrift,” 670.

² Rudolf Keller, “Gnesiolutheraner,” in *Gesellschaft/Gesellschaft und Christentum V – Gottesbeweise*, ed. Horst Robert Balz et al. Vol. 13 of *Theologische Realenzyklopädie* (Berlin and New York: Walter de Gruyter, 1985), 512–519. – Dingel, “Historische Einleitung” (2008), 4–5. – For a more detailed overview, see Irene Dingel, “The Culture of Conflict in the Controversies Leading to the Formula of Concord (1548-1580),” in *Lutheran Ecclesiastical Culture, 1550-1675*, ed. Robert Kolb. Vol. 11 of *Brill’s Companions to the Christian Tradition* (Leiden: Brill, 2008). – It should be emphasized, that these are modern attributions that were not perceived as such at the time of the Reformation. While Melanchthon and Flacius were undoubtedly highly influential figures and shaped many of the controversies discussed here, as mentioned above coalitions among Reformers were not monolithic and subject to frequent change. Therefore, in concordance with Dingel, in this paper the termini “Philippists” and “Gnesio-Lutherans” are used rather in the sense of helpful scientific constructs characterizing

from smaller topics, they argued about several fundamental issues that would contribute to form the basis of the later Lutheran confession, such as the question of *adiaphora*³ or conflicts centered around controversial views of specific persons such as Georg Major⁴ or Andreas Osiander (chapter 3.2).

In 1580, these disputes culminated in the publishing of the Formula of Concord, which legitimized the positions that had prevailed in the previous controversies. In the following decades until the end of the Thirty Years' War in 1648, this doctrine was consolidated and expanded upon in the Lutheran Orthodoxy.⁵ As such, the time between 1548 and 1580 served as the basis for later efforts of confessionalization⁶, in which a second generation of reformers after Luther and his contemporaries played a main role.⁷

1.2 Polemical pamphlets as a medium of conflict

Beyond verbal confrontations such as the *disputatio*, the disputes were mainly conducted through the medium of polemical publications, so-called *Streitschriften*, most in the form of pamphlets.⁸

While the German term *Streitschrift* or *Schmähschrift*⁹ finds no direct equivalent in English literature, both “polemic” and “pamphlet” have been

certain points of view than as descriptions of actual historical realities (Dingel, “Historische Einleitung” [2010], 10–12).

³ For more detail see Jan Martin Lies and Hans-Otto Schneider, *Der Adiaphoristische Streit (1548–1560)*, ed. Irene Dingel. Vol. 2 of *Controversia et confession* (Göttingen: Vandenhoeck & Ruprecht 2012).

⁴ For more detail see Lies and Schneider, *Majoristischer Streit*.

⁵ Markus Matthias and Olivier Fatio, “Orthodoxie,” in Ochino - *Parapsychologie*, ed. Horst Robert Balz *et al.* Vol. 25 of *Theologische Realenzyklopädie* (Berlin and New York: Walter de Gruyter, 1995), 464–497.

⁶ Due to the close connections and interdependency between church and state in Early Modern History, the confessionalization processes during the Reformation affected not only the theological sphere. Consequently, the terminus is frequently understood to enclose all of the religious, political, and societal developments initiated or aggravated by the formation of the Lutheran (or Calvinist) confession (Dingel, “Historische Einleitung” [2010], 13. – Heinz Schilling, “Die Konfessionalisierung im Reich. Religiöser und gesellschaftlicher Wandel in Deutschland zwischen 1555 und 1620,” *Historische Zeitschrift* 246 [1988]: 3–7). Nevertheless, this paper focuses on the theological aspect of this process and uses the terminus accordingly.

⁷ Bebermeyer, “Schmähschrift,” 672. – Dingel, “Pruning the Vines,” 405–407.

⁸ Dingel, “Pruning the Vines,” 400–401.

⁹ Generally, *Streitschriften* (argumentative texts) are seen as more factual as *Schmähschriften* (vilifying texts), which often contain personal attacks and insults. Some authors see the 16th century as the divide, after which the more rational *Streitschrift* became common, yet the term is often used for the conflicts of the Reformation as well. Bebermeyer suggests this stems from a respect for Luther, despite the often abusive tone of his writing, while according

used in a similar meaning. The Oxford Dictionary of Literary Terms describes a polemic as a „written attack on some opinion or policy, usually within a theological or political dispute“¹⁰, and the *Dictionary of Literary Terms and Literary Theory*, while alluding to its more physical meaning of a “small unbound book, usually with paper covers”, considers a pamphlet a “short work written on a topical subject on which an author feels strongly”, usually from the sphere of politics or religion.¹¹ However, in this paper, pamphlet is used in the meaning of the physical medium alone, i.e. a loose collection of one or more pages, while the particular nature of the *Streitschriften* is expressed by the terms polemics or polemical pamphlets as is common in the relevant literature.

This terminological vagueness stems from the fact that the genre of the *Streitschrift* has never been formally defined¹², although the practice of attacking one’s opponent through writing can be traced back to Greek and Roman antiquity and was also frequently used in religious conflicts prior to the rising of Protestantism.¹³ Yet, a consensus exists that the polemic reached its height during the period of the Reformation; some researchers even call it the defining medium of the 16th century.¹⁴ The invention of the printing press and the use of printed pamphlets as a medium allowed the wide distribution of the polemics and encouraged their publication¹⁵. Often written in German rather than Latin – the traditional language of academic dispute – they also served to further the tradition of folk literature and played an instrumental role in the development of the German language¹⁶. At the same time, polemic debates about religious topics were also carried out in other countries such as England,

to Rohner it can be explained by the many overlaps between the two categories (Bebermeyer, “Schmähschrift,” 670; 672–673. – Ludwig Rohner, *Die literarische Streitschrift. Themen, Motive, Formen* [Wiesbaden: Harrassowitz, 1987], 211).

¹⁰ Chris Baldick, “Polemic,” in *The Oxford Dictionary of Literary Terms* (Oxford: Oxford University Press, 2015), accessed 6 January 2017.

¹¹ Cuddon and Habib, *Dictionary*, 507f.

¹² Bebermeyer, “Schmähschrift,” 665.

¹³ Dingel, “Pruning the Vines,” 399–400. – Martial and Seneca can be named as some of the most famous Roman representatives of the *invective oratio* (Bebermeyer, “Schmähschrift,” 667).

¹⁴ Bebermeyer, “Schmähschrift,” 666. – Bremer, *Religionsstreitigkeiten*, 12. – Mahlmann-Bauer, “Normalform reformatorischer Streitgespräche,” 175.

¹⁵ Hund and Jürgens, “Pamphlets,” 163–165. – Mahlmann-Bauer, “Normalform reformatorischer Streitgespräche,” 176; 178.

¹⁶ Bremer, *Religionsstreitigkeiten*, 41–45.

where for example the protestant reformer William Tyndale used pamphlets to disseminate his views.¹⁷

Characteristically, polemics serve to expose and denounce issues and opinions that are seen as controversial or problematic, either in the political, theological, cultural, or literary sphere. Furthermore they often emerge in times of societal or political change or upheaval.¹⁸ This is certainly true for the *Streitschriften* of the Reformation¹⁹. In many ways, they embody traits usually associated with the genre. Most importantly, the author or authors regularly directed them against one or more specific opponents, often aiming to discredit this person's reputation along with his or her opinions. Consequently, the polemics can take on a dialogic form, in which a pamphlet is followed by an answering text by the affected person, which in turn can elicit a response by the original author and so forth. Through their medium – the pamphlets – and their language – oftentimes German – they reached and were intended for a wide public audience, that for the first time also incorporated laypersons and less educated people to a substantial degree. Nonetheless, this focus shifted in the second half of the 16th century, where the target audience was again mostly comprised of scholars of theology. In this context, it is noticeable that the origin of the texts can often be traced to verbal forms of debate, such as sermons and especially the academic *disputatio*, which represents one of the main influences on the development of the polemical pamphlets of the Reformation. By printing debates, academic *disputationes* were opened up to and generated a broad public audience and, in a process Füssel calls “kommunikative Entgrenzung”²⁰, transcended much of the rules and norms that had previously governed and restrained them.²¹

¹⁷ Cuddon and Habib, Dictionary, 507f. – For another example of religious controversies in England see David J. Appleby, *Black Bartholomews Day. Preaching, polemic and Restoration nonconformity* (Manchester: Manchester University Press, 2007).

¹⁸ Bebermeyer, “Schmähschrift,” 666.

¹⁹ Obviously, such conflicts as described were also fought out between Catholic and Protestant scholars, so that Bebermeyer even called them a “literarisches Vorspiel” (literary prelude) of the Thirty Years' War (Bebermeyer, “Schmähschrift,” 669. – Bremer, *Religionsstreitigkeiten*). In this paper however, the focus lies on intra-Protestant disputes, and Catholic-Protestant debates are not taken into account.

²⁰ Füssel, “Zweikämpfe des Geistes,” 169.

²¹ Kenneth G. Appold, „Disput und Wahrheitsfindung im Konfessionellen Zeitalter,“ in *Streitkultur und Öffentlichkeit im konfessionellen Zeitalter*, ed. Henning Jürgens and Thomas Weller (Göttingen: Vandenhoeck & Ruprecht, 2013), 149–157. – Bebermeyer, “Schmähschrift,” 666. – Bremer, *Religionsstreitigkeiten*, 6; 30–41; 45–46. – Dingel, “Historische Einleitung” (2010), 4. – Dingel, “Pruning the Vines,” 399–404. – Füssel, “Zweikämpfe des Geistes.” – Hund and Jürgens, “Pamphlets,” 165–166. – Mahlmann-Bauer, “Normalform reformatorischer Streitgespräche,” 169. – Jürgens and Weller, “Einleitung,” 9–10; 13.

Through these traits, in the 16th century polemical pamphlets were instrumental in the development of a theological culture of controversy (*Streitkultur*), that Dingel sees as “a critical characteristic of the early modern period”²². It describes a process in which core Protestant beliefs and doctrine were argued out and defined, usually in clear differentiation from contesting opinions. Theological questions were disputed not to reach consensus, but to convince the other party of their erroneous belief. In doing so, reformers aimed to elaborate on and consolidate their own convictions, facilitate the formation of a confessional identity and, to a more unspoken degree, generate public favor for them. Since the foremost goal was the search for a religious truth valid for all Christians, the participants engaged in those debates with considerable fervour and animosity. Compromise was usually not an option as both parties upheld a claim of such an absolute truth for their respective positions.²³ In *Conflict and the Web of Group-Affiliations*, even Simmel used intra-Protestant controversies to illustrate the intensity of conflicts revolving around religious issues, reasoning that “[b]ecause of dogmatic fixation, the minutest divergence here at once comes to have logical irreconcilability – if there is deviation at all, it is conceptually irrelevant whether it be large or small.”²⁴ Yet, Dingel stresses that nevertheless conflict “functions as a decisive medium in the search for doctrinal ‘truth’”²⁵. Consequently, the culture of controversy has to be considered as an essential prerequisite of the processes of confessionalization of the 16th and 17th century.²⁶

1.3 Analyzing the “culture of controversy” from a network theoretical perspective

As discussed before, one key aspect of the intra-Protestant disputes of the late 16th century lies in the formation of a Protestant identity, or rather identities. In his aforementioned work, Simmel ascribes the sociological importance of conflict to its meaning “not for the reciprocal relation of the parties to it, but for the inner structure of each party itself.”²⁷ He further considers conflict a form of sociation, built from relations between humans, and calls it “one of the most vivid interactions, which, furthermore, cannot possibly be carried on by one individual alone.”²⁸ Certainly, the conflicts carried out between Reformers through the medium of polemical pamphlets

²² Dingel, “Pruning the Vines,” 398.

²³ Bremer, *Religionsstreitigkeiten*, 56–60; 215; 217; 221. – Dingel, “Historische Einleitung” (2010), 4–5. – Dingel, “Pruning the Vines,” 397; 399; 404–405. – Hund and Jürgens, “Pamphlets,” 176–177. – Mahlmann-Bauer, “Normalform reformatorischer Streitgespräche,” 178–179.

²⁴ Simmel, *Conflict*, 43.

²⁵ Dingel, “Pruning the Vines,” 399.

²⁶ Dingel, “Historische Einleitung” (2010), 3; 5–6. – Dingel, “Pruning the Vines,” 405. – Hund and Jürgens, “Pamphlets,” 176–177.

²⁷ Simmel, *Conflict*, 85.

²⁸ *Ibid.*, 13.

can be seen as a necessary prerequisite for the definition and consolidation of the Lutheran confession and its core tenets.²⁹ Following this logic, an analysis of the described controversies through network theoretical methods suggests itself.

Building upon the nature of a discourse through polemics as discussed above, this paper examines if and to what extent the characteristics outlined above – namely their highly antagonistic, decisive nature intended not to reach compromise but to state doctrinal “truths” as well as the new publicity their printed publication generated – can be observed in a network created through the author-opponent-relationship of polemical pamphlets. Thus it focuses on the intra-protestant conflicts from 1548 to 1580. The paper questions whether an antagonistic communication such as this produces a network with specific properties that is decidedly distinguished from networks formed by other methods of communications, e.g. letters, and aims to identify and describe these properties. In the special case of Protestant controversies, it also strives to assess to which degree conflicting parties can be distinguished in the network, and to draw conclusions to the strength of the differentiation and group-building processes outlined above.

Another point of interest concerns those pamphlets which can be combined in so-called “*Streitkreise*” or “spheres of conflict”, which deal with one distinctive point of controversy. As alluded to above, there were several conflicts which centered on either specific issues such as Original Sin³⁰ or the question of *adiaphora* or on a particular opinion posed by individual authors. Two examples of such types of spheres of conflict will be examined to determine differences in their structure.

2 Study design and data collection

The data for this study was collected by the long term editorial project *Controversia et Confessio. Quellenedition zur Bekenntnisbildung und Konfessionalisierung (1548-1580)*, funded by the Academy for Sciences and Literature, Mainz. It deals with the outlined intra-Protestant disputes that arose after the Augsburg Interim and with their contribution to the formation and confessionalization of Lutheran Protestantism.³¹ Alongside print publications, six of which have already been published, the project also maintains a database of printed sources related to the conflicts between 1548

²⁹ Dingel, “Historische Einleitung” (2010), 3; 5–6. – Dingel, “Pruning the Vines,” 399; 405. – Hund and Jürgens, “Pamphlets,” 176–177.

³⁰ Dingel, “Historische Einleitung” (2010), 25–25.

³¹ “*Controversia et Confessio. Quellenedition zur Bekenntnisbildung und Konfessionalisierung (1548-1580)*,” accessed 9 January 2017, <http://www.controversia-et-confessio.de>.

and 1580.³² To date, it has catalogued 2,063 printed sources, which consist mostly of polemical pamphlets, but also include exegetical writings or sermons if quoted by opponents as well as published university disputations. Furthermore, due to the mentioned problems in defining the genre of *Streitschrift*, some texts are taken into account which would not necessarily be considered polemical pamphlets, for example because of their length. Because some sources were translated or reprinted, the number of unique texts amounts to approximately 1,300 objects.³³

In 2015, the database was updated and extensive normalization efforts took place, which led to the data basis for the study detailed in this paper. The data was also placed under a CC BY 4.0 licence.³⁴ Despite the listed exceptions, the sources are overall highly homogenous in their structure and composition, systematically collected and categorized, and as such eminently suited for quantitative analyses.³⁵

2.1 Network structure and data modifications

Based on the collected data, a two-mode network was created. It consists of persons and sources as nodes which are connected through directed ties that mark the persons as either authors or opponents of a certain text as they are specified in the project database. For each source, the year of publication, the associated sphere(s) of conflict, and the locality of print were added. To date, only individual persons are included. While groups also appear as authors or opponents of texts, they often represent merely vaguely defined categories such as “theologians from Wittenberg”³⁶ or “City council”³⁷, that might include

³² “Projektbeschreibung: Controversia et Confessio,” accessed 9 January 2017, <http://www.controversia-et-confessio.de/projekt/projektbeschreibung.html>; “C&C Digital: Controversia et Confessio,” accessed 9 January 2017, <http://www.controversia-et-confessio.de/cc-digital.html>.

³³ For a more in depth description of the database, see Hund and Jürgens, “Pamphlets,” 158–162.

³⁴ “Creative Commons — Attribution 4.0 International — CC BY 4.0,” accessed 17 May 2017, <https://creativecommons.org/licenses/by/4.0/legalcode>.

³⁵ In this they comply to the demands put forth by Bixler and Reupke, who emphasize the need for systematic collection of data for network studies to enable comparison and verifiability of analyses (Bixler and Reupke, “Quellen,” 109).

³⁶ For example in a text written by the theological faculty of Wittenberg against Flacius, in which they condemn his views on numerous subjects (*Ad toties criminationes Flacii Responsio*). In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 17 May 2017. <http://www.controversia-et-confessio.de/id/e48437f4-3720-4de7-b12a-8ce4410273ee>.

³⁷ Exemplified among others in a text written in the context of the siege of Magdeburg, which also shows the vagueness of group designations. Here the mayor and the city council of Magdeburg appear as authors of a pamphlet directed against “Baalspfaffen und andere Feinde” (priests of Baal and other enemies) (*Widerlegung und Verantwortung alles Ungrunds*). In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 17 May 2017. <http://www.controversia-et-confessio.de/id/ddbfe106-cac7-41b2-9445-b276624f502b>.

authors who also appear as individuals in the database, but are not easily unravelled into separate persons. Depending on the date of publication of the source, these appellations can also apply to various assemblages of persons. Beyond that, the study focuses on the personal interconnections between actors of the reformation.

From this bimodal network, a directed, weighted one-mode graph consisting only of authors and opponents was constructed, in which the weight of a tie is calculated from the number of sources an author wrote against a specific opponent. For example, if Flacius wrote ten polemics directed against Melanchthon, a directed tie with the weight of ten would be created between the two actors. It has to be noted that due to the adversarial nature of the author-opponent-relationship, the ties carry negative meaning. This factor has obvious consequences for the interpretation of the network.

While all network analyses were carried out on the unimodal graph, the two-mode perspective on the data adds significant details to the study. For instance, some sources, especially the longer ones, can have more than one author and/or be directed against more than one opponent. Consequently, they tend to be overrepresented in the one-mode network. On the other hand, the simplification of relationships eliminates information about co-authorship or co-opponentships. Contextualizing results gained from the one-mode network with two-mode data helps to account for these factors during interpretation.

Some adjustments on the original data were undertaken, since – as Bixler and Reupke mention in their 2016 chapter on data collection in the *Handbuch Historische Netzwerkforschung* – historical research dedicates a good amount of its resources on detailed deliberations of the uncertain nature of the historical record, yet quantitative studies require a more decisive approach.³⁸ These mainly concerned sources whose authors were also listed as opponents in the database, for example because texts were re-printed by other reformers to emphasize a certain point of contention.³⁹ Each case was carefully considered and the record adjusted accordingly.⁴⁰ Sources where the author could not be

³⁸ Bixler and Reupke, “Quellen,” 108f.

³⁹ The most illustrious example for this practice is undoubtedly Luther himself, who despite his death in 1546 appears as an actor in the network analysed in this paper because his writings were seen as particularly convincing arguments and therefore included in numerous publications (Dingel, “Pruning the Vines,” 407. – Hund and Jürgens, “Pamphlets,” 166).

⁴⁰ The sources in question are (identified by their VD16 number):
S 7556: In this source, Hieronymus Menzel answers to a pamphlet by Cyriakus Spangenberg, which contains Spangenberg’s writings as well as Menzel’s answer and therefore lists both persons as author and as opponent. For the study, only Menzel is considered as an author, and Spangenberg as an opponent (Das Spangenbergische Bekenntnis. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et->

identified, even though the opponent was known, were excluded from the study. Another aspect concerns texts that contained a preface or were edited. While mostly, the author of the preface or the editor were the same person as the author of the text itself, a few times this was not the case. Currently, those prints are not included in the study, but will be considered in future analyses.

confessio.de/id/baa2cc7b-0c07-410a-ba3f-29f9caa7fb34). – M 5873: This print presents a collection of the letters written between Osiander and Joachim Mörlin in the course of the Osiandrian controversy. Since all these letters are in the database as single sources, this source is excluded from the study (Epistolae quaedam ad Osiandrum. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/a8da4c01-940e-4c95-8c79-f3822e414430>). – R 2667: Two pamphlets written by and against, respectively, Albert Hardenberg and Eilart Segebadius that were printed together. For the purpose of the study these pamphlets were divided into two nodes and the original excluded (De Ubiquitate scripta duo adversaria. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/f57a740e-d4a8-4f82-bd0d-dfa643e7ca13>). – E 242: The printing includes two pamphlets, one text by “colleagues from Magdeburg,” probably written by Matthias Judex and Johannes Wigand and signed by all scholars except Matthias Flacius, and an answer by the „Wittenberger Schloastici.” The first text is written against Justus Menius, who disparaged a work about ecclestial history that was being written in Magdeburg and hadn’t been published yet (“Centurien”), and defends Flacius. The second one in turn defends Menius and Melanchthon and attacks mainly Flacius and Wigand. The project database mentions Menius, Flacius and Wigand as opponents and the “Wittenberger Scholastici” and the “editors of the ‘Centurien’ from Magdeburg (Wigand)” as authors of the texts. Because groups are not considered in the current study, the second text is dismissed and only the first one is included as a source written by Wigand against Menius (Narratio historica ecclesiastica. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/a2012328-2385-4531-9bbb-b706b079b810>). – M 2392: Anton Otho reprinted a text by Melanchthon to illustrate the strength of his former convictions and his – in Otho’s eyes – moral decline evident in his compliance with the Regensburg Interim. Because of the reprint, Melanchthon is considered an author, but since it serves as an attack on him, in the study he is only considered as an opponent (Die Vorrede auff das fürgelegte Buch zu Regensburg; Acta in conventu Ratisbonensi <dt.>. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/a1bcb753-4310-4be4-bb37-6c10b9c9091c>). – W 3724: Another reprint of a text by Melanchthon to show his betrayal of the ideals of the reformation, this time published by Flacius. Even though Flacius did not provide additional commentary beyond the reissue of the text, and the project database does not consider him an author in this context, the study includes him as an author while Melanchthon is only seen as an opponent (Epistola concionatoribus Norimbergibus missa 17. Febr. 1540, dt. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/d6275644-73aa-4f4b-80a6-f0815858038e>). – M 3541: Another letter by Melanchthon that was reprinted by Johannes Gallus with commentary. Melanchthon is excluded as author and only seen as opponent (Iudicium de controversia coenae Domini <dt.>. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/a7c68645-4db3-4fa4-b4de-0d05da97d114>).

Some author attributions such as “*vir pius*” were considered too vague to contribute to the analysis in a significant manner and were consequently excluded from the data basis.⁴¹

2.2 Source criticism

In relation to the project database, Hund und Jürgens themselves note that “as is true for all numbers concerning printing activity in the sixteenth century, the figures from the database cannot claim statistical accuracy, but are indicative.”⁴² Apart from these gaps in the historical record, which are always to be expected, there are a number of other factors that are important to bear in mind.

As mentioned above, of the 2,063 records in the database, only about 1,300 represent unique texts due to a wide-spread practice of re-issuing and re-printing texts, e.g. to support an argument by citing authoritative works. Beyond that, not all disputes that were held were also published in print. Also, a substantial amount of communication between the reformers was carried out in other mediums, e.g. letters.⁴³

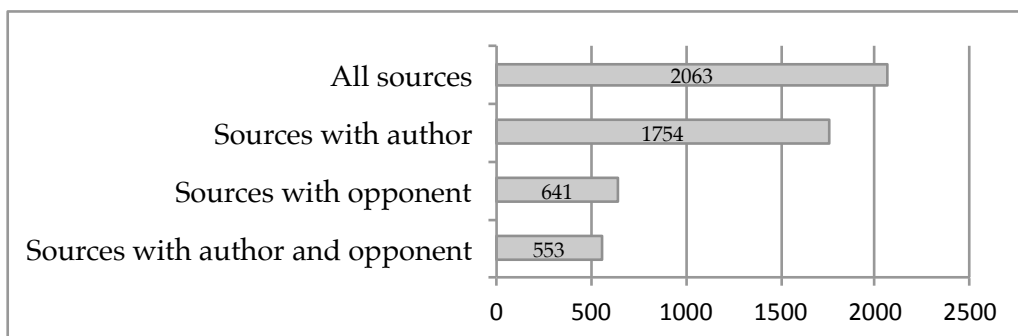


Figure 1: Number of sources in the project database possessing a known author, an opponent, or both.

Other issues concern the structure of the pamphlets themselves. As alluded to above, not all pamphlets were actually addressed to a specific opponent, and of these texts written against groups of opponents are excluded from the study due to their vague nature. Of the remaining sources, 554 are addressed to an opponent while their author is known (figure 1). In this context, it is also interesting to take a closer look at the number of sources prolific authors wrote addressed against an opponent compared to that of texts without a specific target, which can vary quite substantially for different

⁴¹ The other actor taken out of the study was “unknown author”.

⁴² Hund and Jürgens, “Pamphlets,” 162.

⁴³ Dingel, “Pruning the Vines,” 404. – Hund and Jürgens, “Pamphlets,” 169.

reformers. Figure 2 shows the ten authors of whom most texts are represented in the database, and the number of pamphlets collected divided into those with and without an opponent. A significant difference can already be observed between the first two authors, Flacius and Melanchthon. Apart from the strong involvement of Flacius in the post-Interim controversies, the high percentage of his texts written against a named opponent (over 40%) stands out in comparison to Melanchthon (about 30%). These numbers might hint at the more conciliatory position Melanchthon usually took⁴⁴, while also highlighting the aggressive nature of Flacius' works.⁴⁵

Another issue previously alluded to is the frequency of co-authorship and co-opponentship observable in polemical pamphlets. While in the case of some authors, for example Matthäus Judex, Christop Pezel, or Victorinus Strigel, 50-70% of the sources attributed to them were written together with other reformers, most authors with a substantial body of work represented in the database show decidedly lower numbers that seldomly rise beyond 30%.

As noted by other authors⁴⁶, historical network research aims not to recreate an accurate representation of past societies but selects data to answer specific research questions. Insofar, it is important to note that the network analyzed in this paper shows neither a complete picture of acquaintances, working relationships, or antagonisms nor of the written output of the individual authors mentioned. Apart from the outlined gaps and uncertainties of the source record, the reformers maintained a plethora of relationships via other mediums such as letters or personal meetings. Geographical factors – such as working or teaching at the same universities and courts – as well as actual kinship relations⁴⁷ also contributed. In addition, the focus on discourse strategies, i.e. pamphlets addressed to a specific opponent, excludes a large part of the text corpus. Consequently, conclusions regarding the actual content of the controversies should be considered with caution.

⁴⁴ Irene Dingel, "Melanchthon's Efforts for Unity between the Fronts: the Frankfurt Recess," in Philip Melanchthon. Theologian in Classroom, Confession, and Controversy, ed. Irene Dingel, Robert Kolb, Nicole Kuropka, and Timothy J. Wengert. Vol. 7 of *Refo500 Academic Studies* (Göttingen : Vandenhoeck & Ruprecht, 2012), 123–124. – Mahlmann-Bauer, "Normalform reformatorischer Streitgespräche," 179.

⁴⁵ Dingel, "Pruning the Vines," 406–407. – Hund and Jürgens, "Pamphlets," 166–167.

⁴⁶ Bixler and Reupke, "Quellen," 104; Lemerrier, "Formale Methoden," 24.

⁴⁷ Among the many examples were the daughter of Osiander, who was married to Johannes Funck, one of the closest confidants of her father (Funck, Johannes. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/f57de007-a99a-4c53-b752-6e6dee4bd3ac>), or Caspar Peucer, whose father-in-law was none other than Melanchthon himself (Dingel, "Historische Einleitung" (2008), 5).

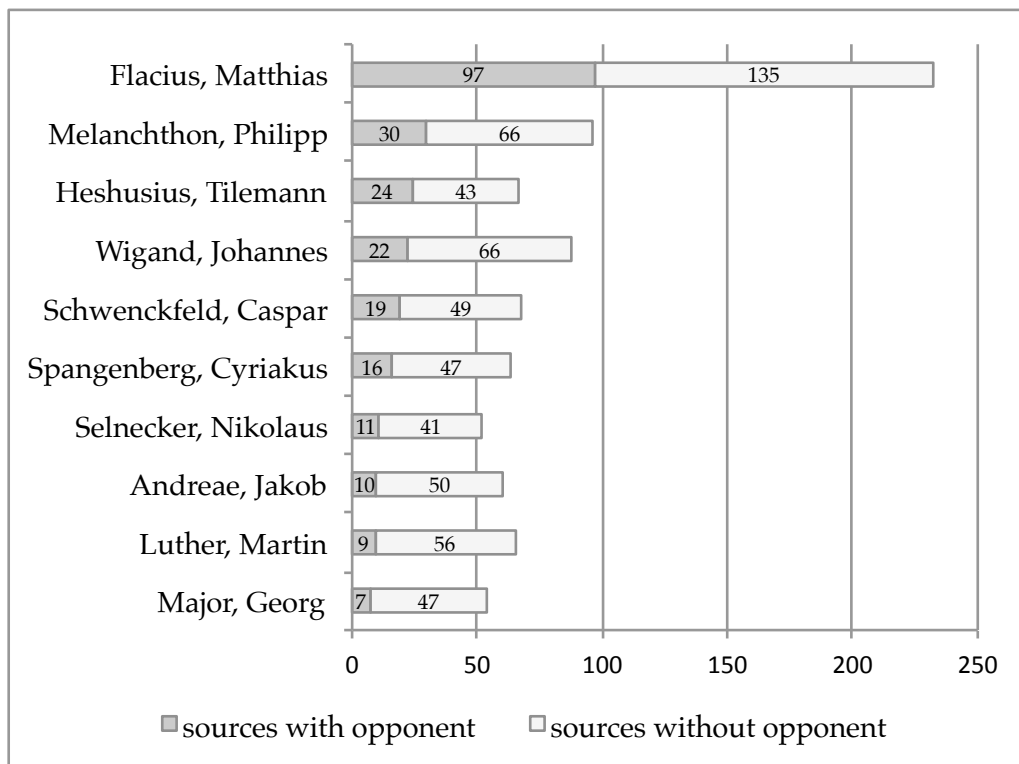


Figure 2: Number of sources written by the ten most prolific authors, split into sources addressed to and not addressed to opponents.

Summarily, the study represents a network created by a subset of the controversies fought out between Protestant leaders in the form of explicitly addressed, printed polemical pamphlets, focusing on the time from 1548 to 1580 and the geographical area of the Holy Roman Empire. Referring to the dimensions of social relationships outlined by Claire Lemerrier⁴⁸, its ties present actual, conscious interactions between two persons – even if those interactions can be assumed to present only a fraction of the total communication between those person.

⁴⁸ Lemerrier, “Formale Methoden,” 26–29.

3 Analyzing networks of conflict

3.1 The complete author-opponent network

The directed, weighted network created from the author-opponent relationship of the polemical pamphlets contains 206 persons as nodes – of which 59 enter into the study only as authors, and 68 only as opponents – which are connected by 770 ties (458 unique ties).⁴⁹ Of the five connected components, only one includes a substantial amount of actors, while the others consist of relations stemming from single texts about a variety of controversies and as such are not relevant to the study. In the main component, no significant clusters or weakly connected components are distinguishable, however, even at first glance (figure 3) a core of about 25 strongly connected, high-degree nodes stands out against numerous less connected nodes, many of which have ties to only one other node.

This first impression is supported by several network measures. For instance, the density of the graph is very low (0.018), while the average degree lies at 7.746. A closer look at the degree distribution (figure 4) reveals a steep decline with a long tail. As such it follows a power-law distribution as detailed by the scale-free property that most real-world networks follow.⁵⁰ Still, the shape of the curve seems extreme; while the highest degree value lies at 172 (Flacius), the median of the distribution reaches only 2, and 81 of 206 actors have a degree of 1. This overrepresentation of low-degree nodes and the low network density also remains when nodes with a degree of one are filtered out, suggesting the pattern to be inherent to the graph structure.

⁴⁹ All analyses were performed with the help of the software Visone (University of Konstanz and Karlsruhe Institute of Technology. “Visone.” Accessed 12 January 2017. <http://visone.info/>) or the database management system Neo4j (Neo Technology, Inc. „Neo4j: The World’s leading graph database.” Accessed 12 January 2017. <https://neo4j.com/>). Unless required by the specific measure or specified otherwise, analyses were conducted on the weighted network.

⁵⁰ Barabási, *Network Science*, chapter 4.

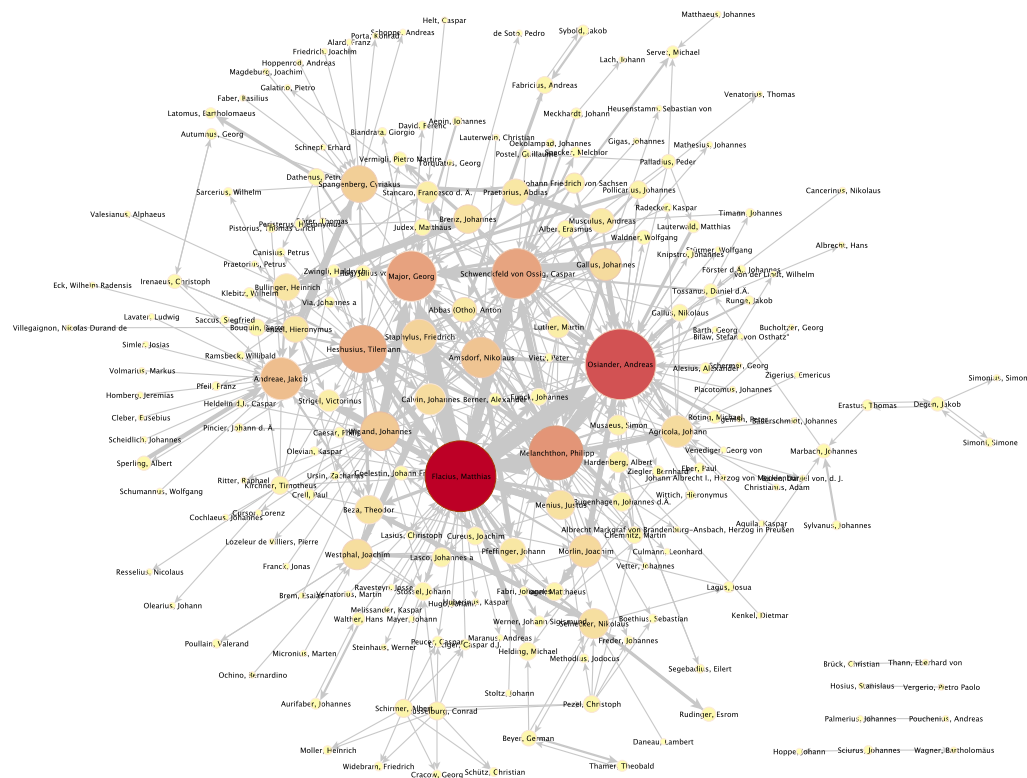


Figure 3: Visualization of the complete network. – Size of nodes: degree. Color of nodes: Indegree. Color of node borders: Outdegree.

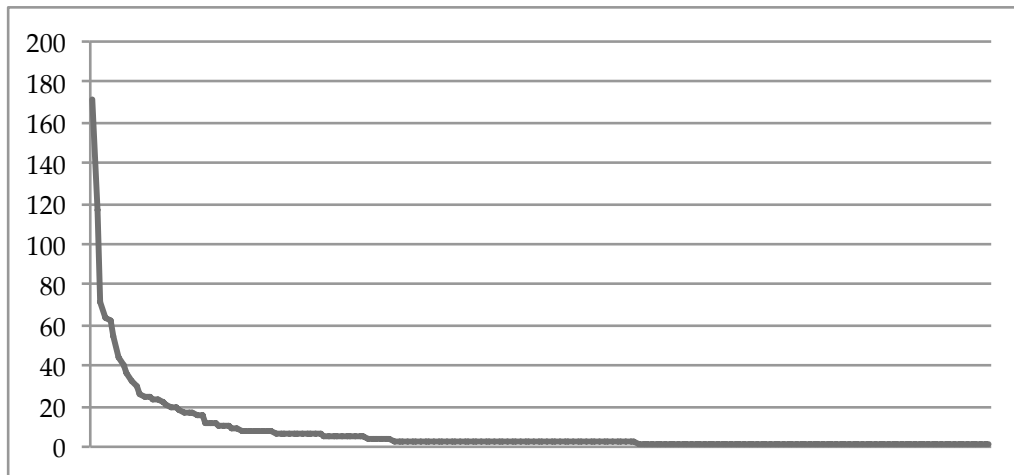


Figure 4: Weighted degree distribution.

According to the theory of preferential attachment, this appearance of the distribution chart is to be expected as nodes tend to favor high-degree hubs in their connections, resulting in disparities that become the more extreme the

bigger the network becomes.⁵¹ On the other hand, the correlations between the degree of nodes and the average degrees of their neighbours seem unusual (figure 5). None of the correlations present values associated with assortative or disassortative graphs, i.e. hubs connecting to hubs and low-degree nodes to low-degree nodes or vice versa as characteristic for most real networks.⁵² Instead, authors seem to target low- as well as high-degree actors. Merely slight tendencies are observable. For example, actors with few connections tend to have more ties to authors that are a frequent target of polemics, while hubs seem to be the driving force in the construction of the networks in that they are more often the opponent of pamphlets written by argumentative authors and contribute more often to attacks against persons at the center of controversies.

The focus of outgoing ties on a smaller amount of actors also shows in the values of in- and outdegree (figure 3). With the exception of Flacius and Melancthon, i.e. the leaders of the main two rivaling factions, actors with a high indegree tend to have a lower outdegree and vice versa. This observation will be examined in more detail in chapter 3.2.1 ("spheres of conflict" related to persons).

While betweenness centrality mirrors the hub structure already given by degree values, closeness centrality corroborates the unexpected findings of the degree correlations. Standardized, the measure varies between 0,192 (Tilemann Heshusius) and 0, with an average of 0,085. This shows that despite its low density the network is evenly spaced out and no actors claim a significantly more central position than others in respects to distance.

One factor to be regarded as instrumental in analyzing the structure of Protestant controversies is reciprocity. As alluded to before, the authors of the Reformation chose very deliberately whose theological views they contested and whose pamphlets they responded to. In a census of the dyads in the network, 397 appear as asymmetric, 373 as mutual, and 20.345 as null dyads. While the last number points once again to the low density of the network, the other values seem to be relatively equal at first. Yet, a closer look reveals, that only 60 of the mutual ties belong to actors with a degree of 10 or less. Indeed, the ten nodes with the highest degree share over 40% of mutual relations (163), supporting the impression of a tightly connected main core given by the visualization of the network graph.

⁵¹ Ibid., chapter 5.

⁵² Ibid., chapter 7, esp. Box 7.3.

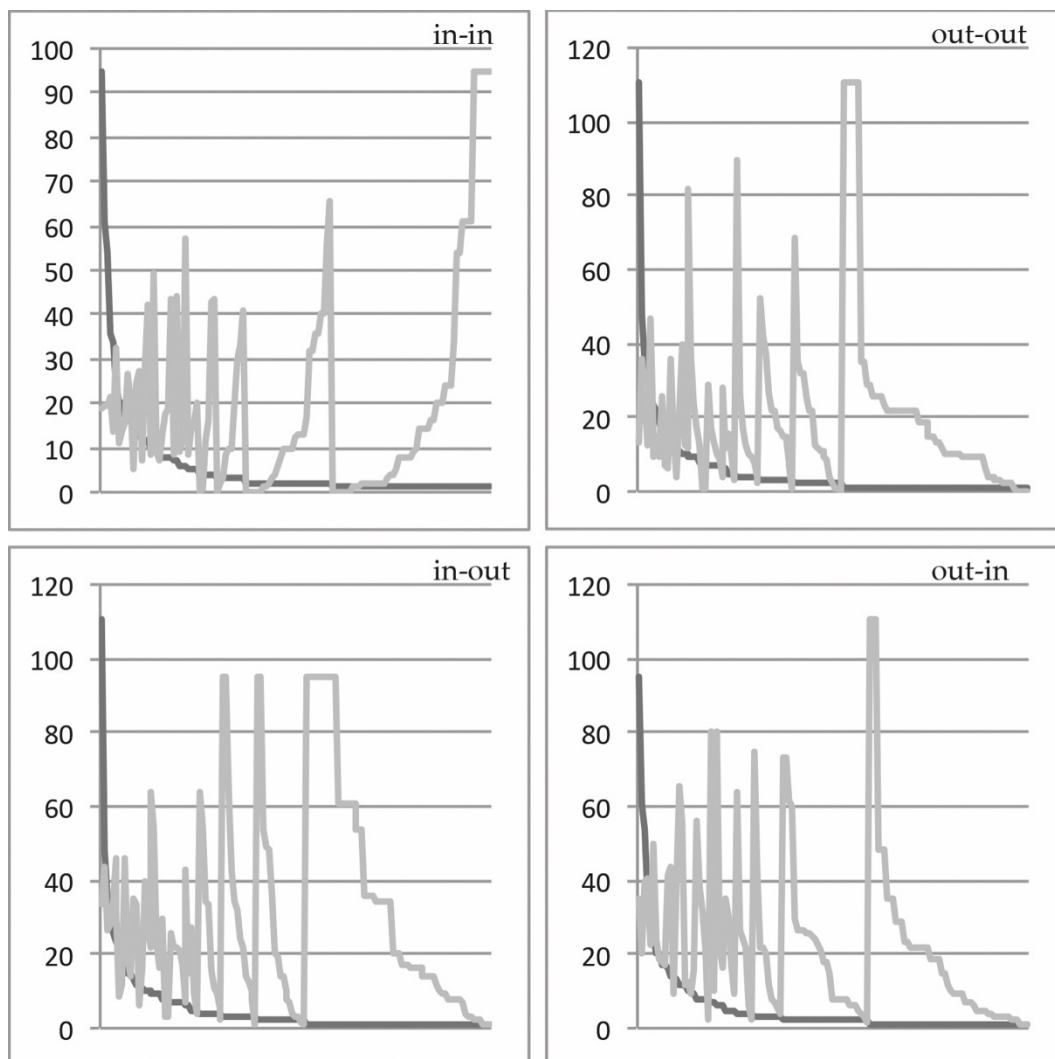


Figure 5: Correlations between degrees of actors (dark line) and average degree of their neighbours (light line). – In-in: Average indegree of in-neighbours. Out-out: Average outdegree of out-neighbours. In-out: Average indegree of out-neighbours. Out-in: Average outdegree of in-neighbours.

A similar picture results from the triad census (table 1). The highest value unsurprisingly belongs to triad 003⁵³, which is entirely unconnected, mirroring the findings of the dyad census. Triads with one asymmetric tie appear as second most frequent (012), and with one mutual tie third (102). Again the

⁵³ The categorization of triads follows the M-A-N labeling scheme as introduced by Davis, Holland and Leinhardt (Stanley Wasserman and Katherine Faust, *Social network analysis. Methods and applications*. Vol. 8 of *Structural analysis in the social sciences* [Cambridge: Cambridge Univ. Press, 1994], 564–567).

relation reflects the dyad census, and their much more frequent occurrence the low density of the network. At the same time, the substantial difference between the two frequencies is also linked to the high number of nodes with a degree of one in the network, i.e. those with one asymmetric tie.

type of triad	complete network	Osiandrian Controversy	Eucharistic Controversy
003	1.362.001	15463	89109
012	56.543	925	7645
102	12.738	173	1478
021D	765	15	184
021U	938	230	75
021C	909	29	116
111D	901	328	61
111U	599	20	66
030T	61	4	7
030C	8	0	0
201	243	105	26
120D	32	2	2
120U	16	0	0
120C	20	1	1
210	38	1	0
300	8	0	0

Table 1: Triad Censuses of the complete network and the networks of the Osiandrian Controversy (Chapter 3.2.1) and of the Eucharistic Controversy (chapter 3.2.2).

Concerning triads with one null dyad, again a focus on opponents rather than authors emerges, as patterns where two ties are directed against a specific actor are more common than two ties originating from the same author

towards two different opponents. Triads involving mutual ties are much less numerous than those with only asymmetric ties.

Triads without null dyads occur only rarely. Perhaps not unexpectedly, circular structures like 030C and 300 are almost non-existent. Patterns like these would indicate a direct conflict between authors of three parties and negate the logic of the main conflicts presented here. In fact, this reason might be responsible for the generally low values of triads of this group. In addition to this, triads with mutual ties again appear decidedly less frequently than those with only asymmetric dyads. Interestingly, the transitive triad 030T presents itself with the highest number of this group.

A closer look at the network shows that the existence of this last group of triads is mostly due to the involvement of hubs and their numerous relations to each other as well as to actors with fewer connections. For example, almost all of the triads of type 030C involve either Flacius, Osiander, Caspar Schwenckfeld, or Major, while those of type 300 are centered on Flacius und Osiander (figure 6).

The traits outlined above indicate a structure of discourse formed through polemical pamphlets that is heavily influenced by hubs – persons either the author or the opponent of a large number of texts, or both – and numerous low-degree actors, many only involved with one or two sources, whose communication, while also conversing among each other, is mainly focused on these hubs. This relationship is exemplified by the low density of the network, the comparative high average degree (see chapter 3.2), and the prevalence of 012 and 102 triads as well as the low variation in the closeness centrality of the nodes.

As is to be expected, most important among these hubs are Flacius and Melancthon as main representatives of the Philippist and Gnesio-Lutheran sides of the debates. In addition, the reformers Heshusius and Osiander rank highly in their out- and indegree values, respectively.⁵⁴ Both are deeply involved in particular spheres of conflicts and will be discussed in more detail in the next chapter.

⁵⁴ As already noted by Hund and Jürgens, “Pamphlets,” 166–167.

On the other hand, the prevalence of low-degree actors in the graph might be a reflection of the popularization of the controversies through the printing of polemics, which led to a wider dissemination. It is a testament to the importance the issues discussed held not only in the sphere of religion, but also their political and societal impact.⁵⁵

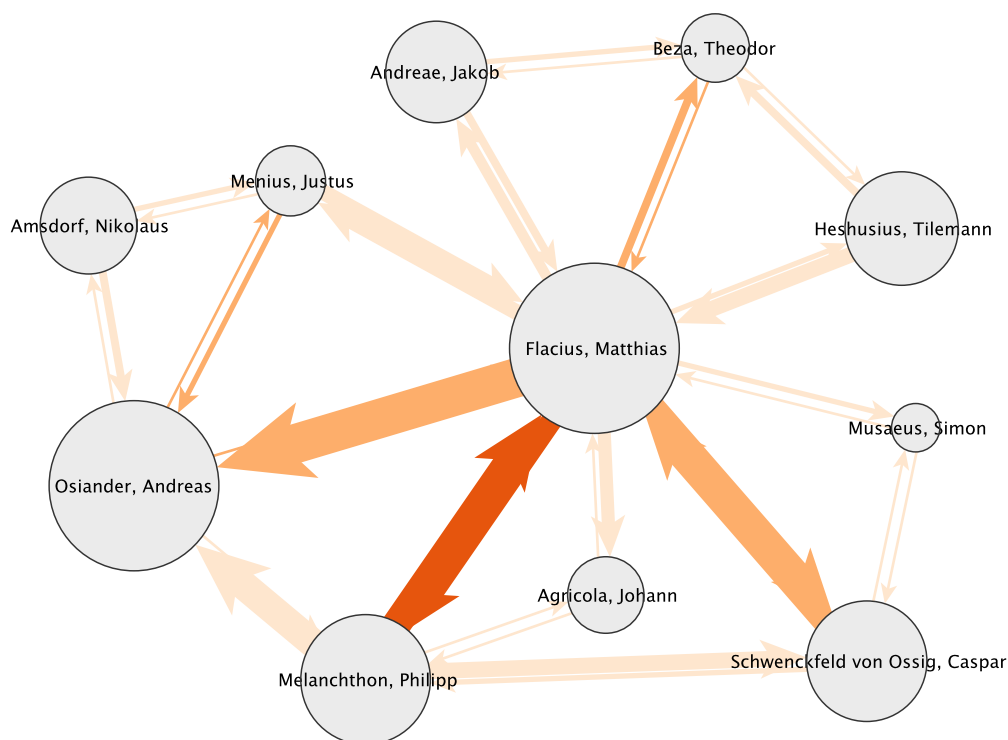


Figure 6: Network visualization of triads of type 300. – Size of nodes: degree. Color of links: number of triads the link is part of (light orange: 1, orange: 2, dark orange: 3).

Contrary to trends observed in other real networks, there is no observable correlation between degree and the type of actors nodes prefer to connect with. As already mentioned, the reformers were quite deliberate in choosing which polemics to respond to, and the network findings suggest that this selection process was only to some extent dependent on the “popularity” of a certain author. While there is a tendency among less prolific authors to connect more to the influential figures of the Reformation, both of these groups also wrote to and were attacked by everyone alike. It follows, that other factors such as topical considerations or personal affects played a bigger role than mere illustriousness. One such case is illustrated by the polemical pamphlet written

⁵⁵ Dingel, “Historische Einleitung” (2010), 4; 12–13. – Füssel, “Zweikämpfe des Geistes,” 169–178. – This impact is particularly obvious in cases like the Eucharistic Controversy as discussed in chapter 3.2.2.

by Osiander against Bernhard Ziegler in the Osiandrian Controversy detailed below. Though Ziegler plays only a small role in the network, Osiander – who responded to almost none of the other attacks against his views in personally addressed writings – directed a pamphlet against him as he suspected him of siding with an opponent of his in his native Königsberg, Matthias Lauterwald.* This example illustrates how the disputes between the reformers were influenced by countless factors such as geography, personal affiliations to one faction or the other, and so on.

Nevertheless, reciprocity in the network is low and mostly restricted to a small number of high-degree actors as is evident by the prevalence of mutual dyads in this group and the general low frequency of triads including mutual ties. While the Protestant authors were very deliberate in their selection of opponents, they apparently chose not to dignify the better part of the attacks against them with a personally addressed response. This might be due to the development of the polemics from the structures of academia, especially from the *disputatio*. Even if printed controversies reached a wide audience and subsequently brought forth numerous responses from a public very much interested in the issues at hand, the Reformers themselves might have still operated in the communicative space previously determined by the *disputatio*, i.e. a debate between a limited number of opponents which took place at a specific geographic space.⁵⁷ While many were quick to exploit the possibilities a wider dissemination of their works offered them to manipulate public perception in their favor*, the structures of the actual discourse might have been more ingrained and slower to change.

In accordance with the nature of the network, one of the main driving forces of the creation of the network – next to a high output of prints by some authors such as Flacius, Melancthon, or Heshusius – seems to have been the opposition against views held by individual persons. Apart from the high indegrees of actors like Osiander, Major, or Schwenckfeld (see chapter 3.2.1), this is also evident in the high frequency of patterns emphasizing arcs by several actors against one specific actor as seen by the prevalence of triads of type 021U, 111D, 201, or even 030T. Also, as the lack of more involved triads attests – namely those consisting of only asymmetric or mutual dyads – despite

⁵⁶ Epistola in qua confutantur ... deliramenta. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 3 January 2017. <http://www.controversia-et-confessio.de/id/e9c9c736-oed5-4018-8e49-8d20bc1271ea>. – For a more detailed look at the conflict between Osiander, Lauterwald and Ziegler, see Stupperich, Osiander in Preussen, 36–61.

⁵⁷ In this context, Jürgens and Weller mention how forms of personal communication still retained great importance and obviously continued to exist next to printed texts (Jürgens and Weller, “Einleitung,” 13).

⁵⁸ Frequently, discussions between scholars were printed despite previous agreements of discretion, in order to publically determine a “winner” of debates that had ended in a standoff. For some examples, see Füssel, “Zweikämpfe des Geistes,” 169–175.

the complex issues at hand most conflicts seem to have been of such a divisive nature that they were overwhelmingly fought between two opposing factions. If a third party took part in a controversy, it appears to not have taken an entirely new or even conciliatory position but joined one of these two sides, as will be examined in further detail in chapter 3.2.2.

3.2 Spheres of conflict

Beyond their individual scope, the sources analyzed in this paper can be categorized as belonging to one of several spheres of conflict.⁵⁹ The project *Controversia et Confessio* traces 24 of such controversies, 18 of which were discussed in pamphlets that were written by a known author against one or more opponents.⁶⁰ While most of these conflicts involve less than a hundred sources, others were debated through much larger numbers of texts, for example the Adiaporistic Controversy with almost 300 polemics. Especially longer pamphlets or summarizing texts can comment on more than one controversy, however, less than 8% of the texts in the database are concerned with more than one conflict, and only five with more than one.

As to be expected, most of the actors remarking on numerous controversial issues can be counted among those prolific authors that exhibit high degree values in the network. Yet, noticeable exceptions also exist, for example Matthäus Judex who wrote 14 pamphlets on eight topics, or Anthon Otho, who published 13 texts dealing with 9 conflicts. On the other hand, actors with a high indegree, who were often the target of polemics, tend not to be involved in many different controversies, even if they also published a considerable numbers of texts. To a large extent, this can be attributed to the two different types of categories the controversies can be sorted into, namely spheres of conflict relating to persons, and those relating to specific issues.

⁵⁹ Dingel, “Historische Einleitung” (2010), 13–14.

⁶⁰ While the sources collected in the project database belong to 24 spheres of conflict, the print publications cover only the eight most important ones, each in a separate volume (Hund and Jürgens, “Pamphlets,” 161).

3.2.1 Conflicts relating to persons: the Osiandrian Controversy

As alluded to above, it is noticeable that among the five actors with the highest indegree, three were at the center of conflicts – Schwenckfeld⁶¹, Major and Osiander – two of which were even named after them: the Majoristic⁶² and the Osiandrian Controversy, the latter of which will be examined in further detail below.

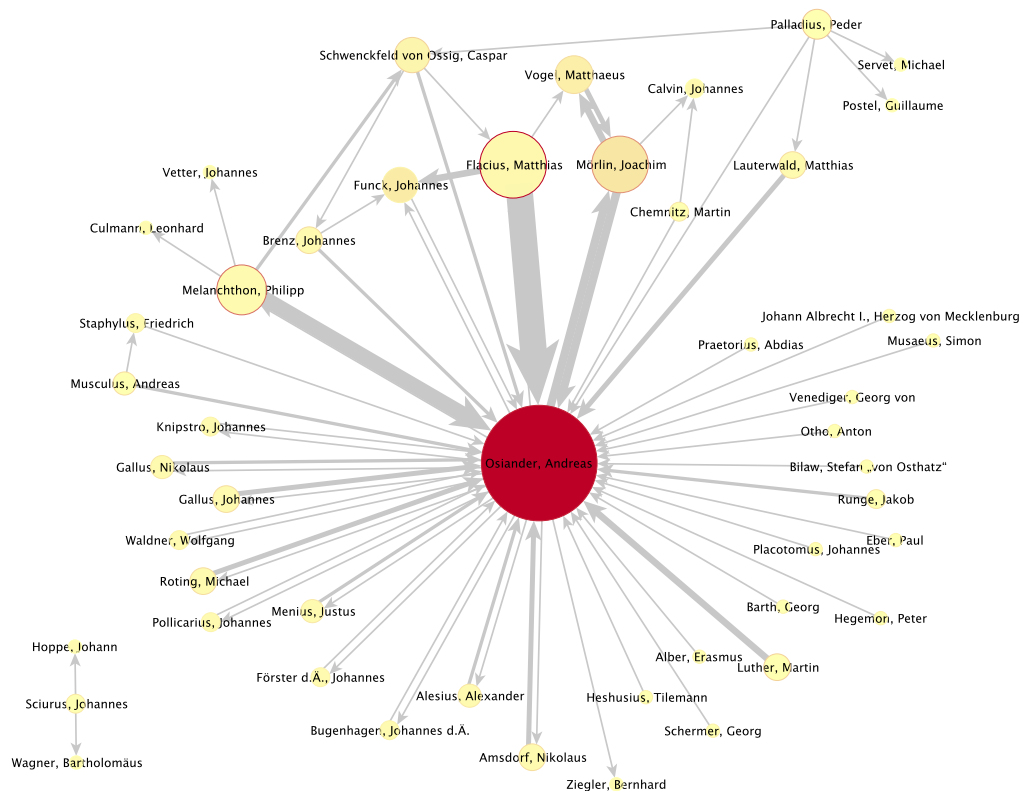


Figure 7: Network vizualisation of the author-opponent-relations of the Osiandrian Controversy. – Size of nodes: Degree. Width of links: Weight. Color of nodes: Indegree. Color of node borders: Outdegree.

The Controversy incited on Osiander's view on justification by faith that he first presented in 1550 and published in 1551 in form of a pamphlet titled

⁶¹ For more detail see Robert Emmet McLaughlin, *The freedom of spirit, social privilege, and religious dissent. Caspar Schwenckfeld and the Schwenckfelders*. Vol. 6 of *Bibliotheca dissidentium. Scripta et studia* (Baden-Baden: Koerner, 1996)

⁶² For more detail see Lies and Schneider, *Majoristischer Streit*.

“Von dem einigen Mittler Christo.”⁶³ In opposition to the view of the “alien righteousness of Christ, which we grasp by faith, and thus the obedience of the whole person to Christ”⁶⁴, it revolved around subjects such as “justification, redemption, faith and Christology”⁶⁵. Especially the first one was seen as one of the central doctrines of Christianity, which led to particularly bitter disputes.⁶⁶

In many ways, the Osiandrian Controversy can be considered as an archetype of a conflict centered upon a person. Almost every Protestant scholar rejected Osiander’s view on justification, to the effect that Philippists and Gnesio-Lutherans stood united in opposition against Osiander. Even Flacius and Melancthon not only allied with each other in their fight against him, but also defended one another despite their opposing views on almost every other issue of the Lutheran doctrine.⁶⁷ Beyond that, the Controversy drew a wide coalition of Protestant reformers “from [...] many different traditions within the Evangelical camp”⁶⁸.

This particular nature of the conflict is immediately apparent in the visualization of the network (figure 7). Osiander stands out as the center of the graph, exhibiting the highest indegree by far with a value of 84 while Mörlin, the actor with the second highest value, has only 8 texts directed against him. Apart from some small entanglements, the graph reminds strongly of the star form of an ego-network. This impression is supported by the average degree value, which at just 3 is considerably lower than in the complete network. Indeed, the main protagonists of Osiander’s ego-network correlate with those of the graph of the Controversy, indicating the significance of this conflict on his theological work.

⁶³ Wengert, *Defending Faith*, 10–11; 22–25. – Von dem einigen Mittler Christo. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 13 January 2017. <http://www.controversia-et-confessio.de/id/ef04a890-cd47-40ba-b67e-8db8c4b3ee20>; <http://www.controversia-et-confessio.de/id/d7659290-e96e-4e40-bc48-5ca4ea6e99d2>.

⁶⁴ Jörg Baur, with Timothy J. Wengert, “Formula of Concord,” in E-I. Vol. 2 of *The Encyclopedia of Christianity*, ed. Erwin Fahlbusch, Jan Milič Lochman and John Mbiti (Leiden: Brill), 334.

⁶⁵ Wengert, *Defending Faith*, 2.

⁶⁶ Dingel, “Historische Einleitung” (2010), 26–27. – Wengert, *Defending Faith*, 1; 4. – Stupperich, *Osiander in Preussen*. – For a detailed consideration of this controversy in the context of culture of conflict and (theological) public opinion see Henning Jürgens, “Das ‘Urteil der Kirche’ im Osiandrischen Streit. Theologische Öffentlichkeit als Schiedsinstanz,” in *Streitkultur und Öffentlichkeit im konfessionellen Zeitalter*, ed. Henning Jürgens and Thomas Weller (Göttingen: Vandenhoeck & Ruprecht, 2013), 229–252.

⁶⁷ Dingel, “Historische Einleitung” (2010), 12; 28. – Wengert, *Defending Faith*, 4.

⁶⁸ Wengert, *Defending Faith*, 4.

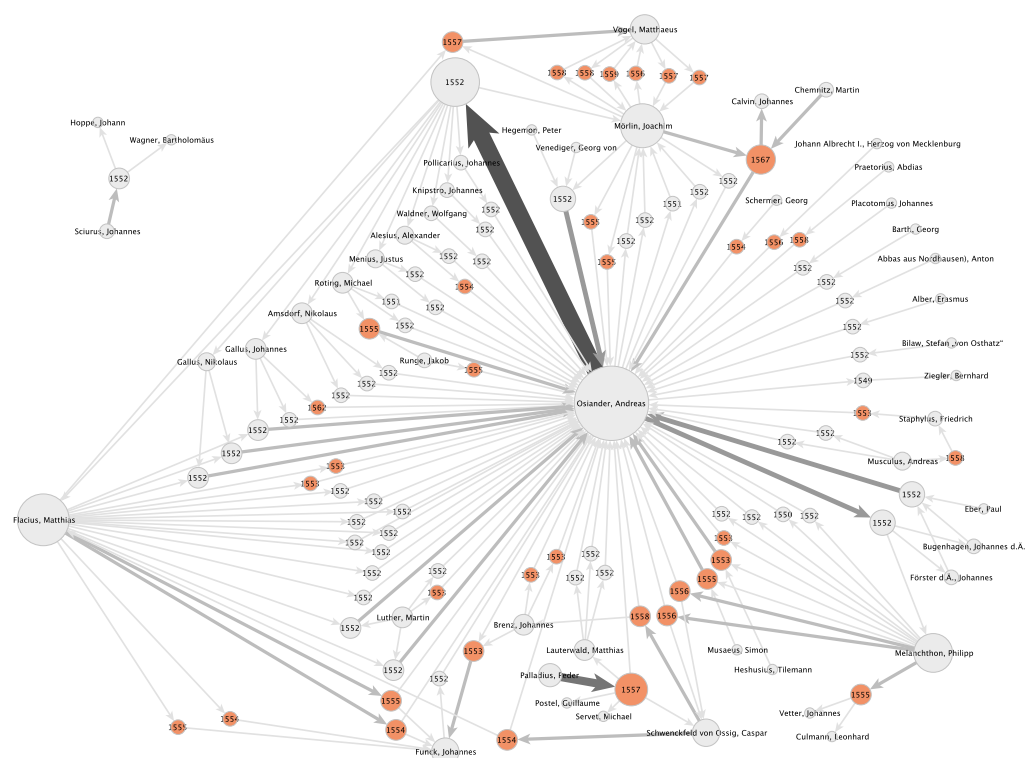


Figure 8: Two-mode network of sources and authors involved in the Osiandrian Controversy (Persons labeled with name, sources with year of publication). – Size of nodes: degree. Color of nodes: Written before (gray) or after (orange) Osiander's death. Width and color of links: number of simultaneously addressed opponents/of simultaneous authors.

A particular circumstance makes it advisable to also take a closer look at the context of the two-mode network of the conflict (figure 8): While Osiander died in 1552⁶⁹, about 42% of the texts regarding his views were written after this date. Also, the bimodal graph helps to corroborate the findings of the one-mode projection, mainly that despite some cases of co-authorship⁷⁰, the unimodal relations mostly represent the underlying source material. However, Osiander's responses are shown to be overwhelmingly pamphlets directed against several opponents at once, exacerbating the findings of the one-mode network.

⁶⁹ Osiander, Andreas. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 13 January 2017. <http://www.controversia-et-confessio.de/id/f326a444-a4c5-4872-b060-1329ea1d010b>.

⁷⁰ One interesting observation is presented in the relations between Flacius and Luther, whose co-authorship long after Luther's death illustrates the frequent invocation of Luther's texts by Flacius, for example in the pamphlet "Tröstliche Gegensprüche gegen Osiander" (in *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 17 May 2017. <<http://www.controversia-et-confessio.de/id/e10bf3d3-3591-42f7-85ef-2f733b164c77>>).

Indeed, the relations between Osiander and the other actors of the network are characterized by a very selective reciprocity. On the one hand, except for few exceptions⁷¹, all actors have outgoing ties towards Osiander. On the other hand, Osiander himself replied only to 16 actors, ten of which he addressed together in one pamphlet, and three in another. The only author to whom he maintains truly mutual relations is Joachim Mörlin, who emerged as his main opponent. This might be traced back to the geographical proximity and personal acquaintance between the two men. Both Mörlin and Osiander lived and worked in Königsberg at the time of the conflict, one as a pastor and the other a professor of theology at the local university, and communicated frequently. At the start of the Controversy, Mörlin was appointed as a mediator by Duke Albert of Prussia, yet soon he found himself in direct competition with Osiander for the Duke's opinion, and was eventually exiled from Königsberg.⁷² These events doubtlessly served to exacerbate the conflict between them and might have led to the reciprocity observed in the network. Another point of particular interest are Osiander's disregarded interactions in the case of Flacius and Melancthon, apart from Mörlin the two other main antagonists of his views.

The triad census of the network – particularly in comparison to the one of the complete graph – supports this notion (table 1). While again null triads and asymmetric dyads occur most frequently, the third most common pattern in the network of the Osiandrian Controversy is not the mutual dyad as observed in the complete graph, but 111D, detailing one mutual and one asymmetric tie against a shared target. Accordingly, the dyad census sees mutual and asymmetric dyads almost equally represented (35 and 37). The 201 dyad (two mutual relations) appears at a higher percentage than in the complete network as well, all representing patterns that emphasize how Osiander – as the negative centre of the graph – shapes the network through his selective responses to a few opponents. Accordingly, the triads of type 021D and 021C exhibit low values, as they are based on outgoing ties of a central actor, while triads requiring three non-null dyads, meaning interactions between three different persons, are almost non-existent.

In consequence, the subgraph of the Osiandrian Controversy, while certainly an extreme case, represents an archetypical example of a conflict centered on the views of a specific individual. This focus is visible in the

⁷¹ Namely Bernhard Ziegler, who is the only target of a pamphlet by Osiander as detailed in chapter 3.1, a second connected component revolving around a source written by Johannes Sciurus (*Sciurus, Apologia*. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 13 January 2017. <http://www.controversia-et-confessio.de/id/ac3bff54-3e44-48a8-9d71-987ebe82b802>), and two actors addressed in a text by Melancthon (*Antwort und Bericht Melancthons*. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 13 January 2017. <http://www.controversia-et-confessio.de/id/cb35af53-27c9-4976-83e9-b621765fie99>).

⁷² Wengert, *Defending Faith*, 6; 9–11. – Stupperich, *Osiander in Preussen*, 120–165; 359–362.

structure of the network resembling a star pattern, the high indegree value of Osiander, the low average degree, and the frequency of triads of type 111D and 021U. At the same time, it illustrates Osiander's communication strategy, which seems deliberately economical in its restraint. It consists of few responses at selected opponents, often summarized in one publication. Instead of engaging in a personal feud with prominent, influential enemies such as Melancthon and Flacius, at least in terms of specifically addressed pamphlets he focuses on the much more immediate antagonism towards his fellow Königsbergian Mörlin.

3.2.2 Conflicts relating to topics: the Eucharistic Controversy

The second Eucharistic Controversy presents another highly consequential issue of the post-Interim period, and the one on which the database of the project *Controversia et Confessio* contains the most sources⁷³. As such, it suggests itself for the analysis of the network of a topic-related conflict. Apart from its theological side, it was also a deeply political conflict as it revolved around the impression that Calvinist beliefs had been secretly spread in Saxony. Since Calvinism – also known as Reformed Protestantism – was not covered by the Peace of Augsburg that granted electors of the Holy Roman Empire the right to choose between Catholicism and Lutheranism as their official confession, this would have had serious political consequences and prompted Augustus of Saxony to take resolute measures against the suspected “crypto-Calvinists.”⁷⁴

Essentially, the controversy revolved around the concept of the Eucharist and associated arguments of Christology. While Luther advocated the doctrine of Real Presence of Christ in the Eucharist, Calvinists stood for a more metaphorical interpretation, which he strongly rejected. Disputes between the Calvinist camp and Lutherans already started in 1552, when Joachim Westphal spoke out against the Reformed doctrine. However, it turned into a controversy between Philippists and Gnesio-Lutherans only in 1571, when Christoph Pezel published the *Wittenberg Catechism*⁷⁵, which the Gnesio-Lutheran faction considered to contain Calvinist views, especially on the Eucharist, and to deviate from the teachings of Luther. After intense disputes

⁷³ Specifically 526 prints, 122 of which have been written by a known author against one or more specific opponents.

⁷⁴ Dingel, “Historische Einleitung” (2010), 29–31. – For this reason, the controversy is occasionally known as “Crypto Calvinism in Electoral Saxony,” but as Dingel remarks, the term is misleading since the confrontation and its consequences went far beyond the events in Saxony or the question of crypto-Calvinism; among others it led to the publication of the Formula of Concord (Dingel, “Historische Einleitung” (2008), 3; 15. – Hund and Jürgens, “Pamphlets,” 171; 161).

⁷⁵ Johannes Hund, “Wittenberger Katechismus (1571),” in Dingel, *Wittenberger Abendmahlslehre und Christologie*, 79–288.

that also included conciliatory writings such as the *Consensus Dresdensis*⁷⁶, the conflict escalated in 1574, when an anonymous print⁷⁷ later to be revealed to be written by Joachim Cureus sided with Melanchthon using Calvinist argumentations on Christology. Its publication led to the aforementioned measures by elector Augustus, who arrested several Philippists and ordered a group of theologians to compose a confession about the Eucharist and Christology contradicting Calvinist beliefs, the *Torgauer Artikel*⁷⁸, which had to be signed by all theologians remaining in Saxony.⁷⁹

The focus on issues rather than persons becomes already evident in the ratio of all sources contained in the project database to those sources that were addressed against an opponent. While for the Osiandrian Controversy, 58% of all sources were written against a specific target, for the Eucharistic Controversy this number amounts to only 23%.

The two types also differ markedly in the shape of the network itself (figure 9, 10). In comparison to the almost star-graph of the Osiandrian Controversy, the visualization of the Eucharistic conflict appears much more spread out and connected. While there are still hubs that dominate the graph, the number of low-degree actors centered on one high-degree node is far lower. A closer look at the original bimodal network confirms these observations, as apart from some texts by Melanchthon and Heshusius, most connections come from sources against or from one or two opponents or authors, respectively. The only exception is a cluster around Christoph Pezel, Albert Schirmer, and Conrad Schlüsselburg, which actually consists of only two sources, one by Schirmer and Schlüsselburg⁸⁰, and a re-issue of the *Wittenberger Katechismus* by Pezel with a commentary by Melanchthon⁸¹ that accounts for the many shared links between them.

⁷⁶ Henning Jürgens, "Consensus Dresdensis (1571)," in Dingel, *Wittenberger Abendmahlslehre und Christologie*, 797–822.

⁷⁷ Johannes Hund, "Joachim Curaeus: Exegesis perspicua (1574)," in Dingel, *Wittenberger Abendmahlslehre und Christologie*, 1017–1089.

⁷⁸ Henning Jürgens, "Torgauer Artikel (1574)," in Dingel, *Wittenberger Abendmahlslehre und Christologie*, 1093–1151.

⁷⁹ Dingel, "Historische Einleitung" (2008). – Dingel, "Historische Einleitung" (2010), 29–31. – Hund and Jürgens, "Pamphlets," 170–177. – For a closer look at the theological issues discussed, see Johannes Hund, *Das Wort ward Fleisch. Eine systematisch-theologische Untersuchung zur Debatte um die Wittenberger Christologie und Abendmahlslehre in den Jahren 1567 und 1574* (Goettingen: Vandenhoeck & Ruprecht, 2006).

⁸⁰ Schlüsselburg/ Schirmer, *Bekenntnis*. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 13 January 2017. <http://www.controversia-et-confessio.de/id/ce8ff902-1914-4a15-b669-29497c71ab70>.

⁸¹ Pezel, *Wittenberger Katechismus*. In *Controversia et Confessio Digital*, ed. Irene Dingel. Accessed 13 January 2017. <http://www.controversia-et-confessio.de/id/f57af537-65e8-43d9-aebo-99726e03da30>.

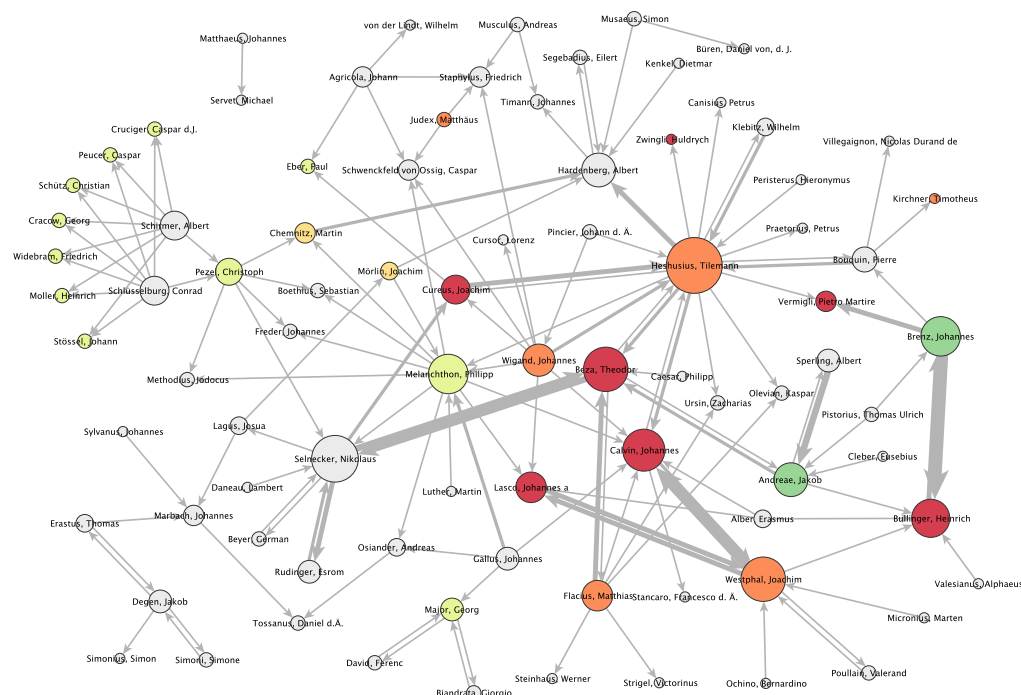


Figure 9: Visualizations of the network. – Size of nodes: degree. Color of nodes: (Assumed) affiliation of main contributors (red: Calvinists, orange: Gnesio-Lutherans, Green: Württemberg, light orange: Lower Saxony, light green: Philippists).

This structure is also reflected in the measures of network density and average degree, which exhibit a slightly lower and higher value, respectively, than for the Osiandrian Controversy, representing less isolated disputes centered on one central actor and instead a discussion among more or less equals.

The degree values of the individual nodes point to the main actors of the conflict as outlined above. For the Flacian camp, Heshusius⁸² appears as the most prolific representative, along with Westphal, whose involvement however mainly consists of his disputes with several Calvinists before 1571 (figure 9).⁸³ Also at the center of the controversy appears Nikolaus Selnecker. Although initially a disciple of Melanchthon, he distanced himself from him in

⁸² Heshusius particularly distinguished himself in these discussions with his concepts on the Eucharist and Christology (Peter F. Barton, “Heshusius, Tilemann [1527–1588],” in Heinrich II. – Ibsen, ed. Horst Robert Balz *et al.* Vol. 15 of *Theologische Realenzyklopädie* [Berlin and New York: Walter de Gruyter, 1986], 257–258).

⁸³ Dingel, “Historische Einleitung” (2008), 6.

his position on the Eucharist and Christology.⁸⁴ Nevertheless, the network visualization shows him primarily in an intense dispute with Theodor Beza.

Further, he wrote a number of polemics against groups such as Zwinglians, Calvinists, and the faculty of theology at Wittenberg, which are not considered in network study. In the light of his former affiliation, this high output in the context of the controversy shows an acute need for distinguishing himself and thus embodies the processes of argumentative identity consolidation characteristic to the culture of conflict.

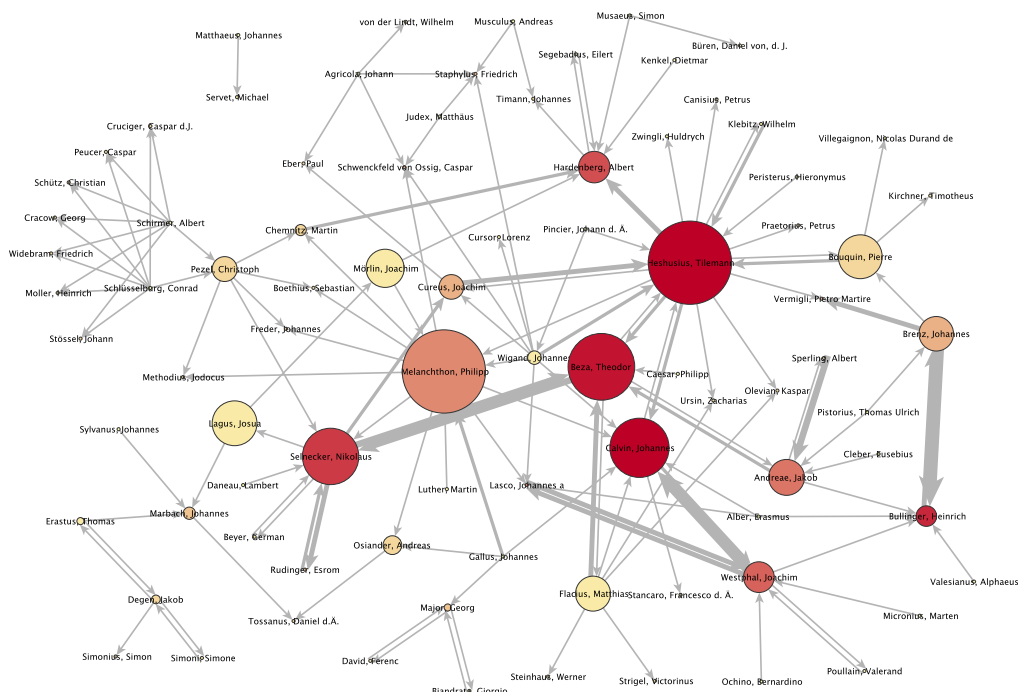


Figure 10: Visualizations of the network. – Size of nodes: Betweenness centrality. Color of nodes: Indegree.

His personal attacks against Beza, yet not Melanchthon, also serve to illustrate another aspect of the network. The comparison of in- to outdegree values show a high disparity in the case of the Calvinists authors, who were disproportionately the target of texts, while the ratio is much more even for Lutheran actors, demonstrating a more equal conversation. This focus on reformed authors as the generally accepted adversaries of this conflict becomes even clearer in the betweenness centrality of the individual actors, which clearly shows Beza and Johannes Calvin as central figures, together with Melanchthon as the representative of the suspected crypto-Calvinists, and Heshusius and Selnecker as the central opponents of reformed theology. As

⁸⁴ Hund and Jürgens, “Pamphlets,” 172.

figure 9 shows, these persons were also those involved in debates with members of more than one camp, other than for example Westphal, who though prolific, mainly disputed Calvinist authors.

These relations represent one defining trait of the Eucharistic Controversy: the many different groups of reformers involved, transcending the boundaries of the Holy Roman Empire⁸⁵. Apart from Calvinists, the Philippist faction in Wittenberg, and the one around Flacius in Jena, theologians from Württemberg and Lower Saxony were also involved.⁸⁶ Yet this multitude of actors was hardly reflected in the positions that were taken. Essentially, the authors were either Calvinists or suspected of Calvinist inclinations or claimed to defend the true Lutheran doctrine. This dichotomy is clearly visible in the patterns of reciprocity and the absence of more complex relations between triads in the network (table 1), for example in the common occurrence of mutual ties or the chain-pattern 021C in comparison to the Osiandrian Controversy. As such, the network is shaped less by the complexity and plurality of the reformatory discourse⁸⁷, and instead primarily by the medium of the polemics and the antagonistic, divisive nature of the communicative processes conducted through them.

Another aspect the triad census demonstrates is the nature of the conflict as driven by a broad discussion of issues instead of opposition against one individual actor. So are triads that embody authors writing pamphlets against two opponents, i.e. 021D and 111D, much more frequent than in either the complete or the Osiandrian network, while their counterparts, 021U and 111U, exhibit comparatively lower numbers. Generally, in examining the two different types of controversies, a picture emerges of how they shape the characteristic structure observed in the complete network.

4 Conclusion and Outlook

One of the main advantages of network theory is the ability to cross the micro-macro-divide and integrate structural and actor-based perspectives into one study.⁸⁸ Following this concept, analyzing the structure of the Protestant conflict of culture from a network-theoretical perspective as it reveals itself in the relations between authors and opponents of polemical pamphlets discloses

⁸⁵ Apart from Calvin, his faction also included the Swiss reformers Zwingli and Bullinger as well as the leader of the Dutch exiles in London, Johannes a Lasco (Dingel, "Historische Einleitung" [2008], 6).

⁸⁶ Dingel, "Historische Einleitung" (2008), esp. 11–12. – Hund and Jürgens, "Pamphlets," 172–174.

⁸⁷ Dingel, "Historische Einleitung" (2010), 10–12.

⁸⁸ Lemercier, "Formale Methoden," 19.

several characteristics that can be seen as profoundly distinctive of this particular type of communication.

The confrontations were dominated by two types of actors that stood in intense connection to one another: high-degree hubs with a multitude of ties to weakly as well as strongly interlinked persons, and a high number of low-degree nodes engaged in often asymmetric contact to each other, but primarily to the central hubs. The network they create is sparse, but evenly spread out, as no group is removed from the core by a significant distance. While reciprocity is low except among hubs, the mechanisms of selection seem to depend not on a dominant position in the network, but follow others preferences, for example geography or topical interests.

A closer examination of the two types of controversy that shape the network – those revolving around controversial views of one individual person and those related to specific issues – shows that their influence fundamentally contributes to this characteristic structure. On the one hand, person-related controversies introduce a focus on opposition against one particular actor that manifests itself in an almost ego-network-like form, while topic-related networks exhibit a more connected, more reciprocal organization without many isolated actors that embody their focus on widely debated issues.

These traits illustrate a conception of the culture of conflict as a structure of confrontation that revolved around a few main actors – chief among them Philipp Melancthon and Matthias Flacius – yet also included a broader audience in the form of numerous less influential theologians and scholars who joined in the discussion of the fundamental questions of their forming confession. Opponents were chosen carefully, and not everyone was “worthy” of a personal rebuttal. Instead, despite the wide public resonance brought forth by the printing and subsequent wider dissemination of pamphlets as well as by subjects of high political interest, authors still followed the structures of discourse rooted in academic practices of debate, particularly the *disputatio* with its narrow personal and spatial focus. At the same time, it emphasizes the divisiveness of the issues at hand, as despite the existence of numerous, only vaguely defined factions formed by persons with highly individual, pronounced beliefs, this multitude finds no reflection in the networks. Instead, antagonistic relations prevail, and more complex communication patterns – as observable mainly in the complete network – most likely stem from the intersection of several controversies influential actors were involved in simultaneously. These severe patterns of contention pay testament to the intensity of the processes of identity formation and group consolidation that took place in the wake of the Augsburg Diet. For the reasons outlined in chapter 2.2, the results presented certainly can not give a complete picture of these processes. Still, they are unquestionably indicative of certain trends of

the source material as outlined above, and in their focus on the author-opponent-relationship help to illuminate the structure of the communicative processes of antagonism embodied in these conflicts.

The findings presented in this paper are a starting point for the quantitative analysis of Post-Lutheran controversies. A variety of questions extend beyond its reach, but certainly deserve attention in future studies. Apart from the inclusion of different roles actors could inhabit, such as editor or author of a preface, the comparison of these findings to other spheres of controversies, for example among Catholic and Protestant scholars, would certainly be of great interest. As Dingel remarks, it “would be worthwhile to ascertain whether in that period in other geographical setting similar clusters of these characteristics can be identified or whether dependence on contingent factors in their environment gave different ‘cultures of controversy’ their unique cast”.⁸⁹ Another aspect entails the dynamics of the network at hand. As alluded to in the discussion of the Osiandrian Controversy, chronological factors certainly are of great importance regarding aspects such as reciprocity or the emergence and resolution of confrontations. The role of geographic distance could shed light on these mechanisms as well. And last but not least, a comparison of the network with one created by a different type of communication, for example letters, could help to ascertain the significance of the characteristics outlined above.

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⁸⁹ Dingel, “Pruning the Vines,” 399.

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