

VARIATION ACROSS NEWSPAPERS IN EARLY MODERN GERMAN: DEGREES OF SYNTACTIC COMPLEXITY*

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ABSTRACT The administrative language used in imperial and city chanceries illustrates formal language use in the Early Modern period, as most evident in its syntactic complexity. Since administrative language was considered prestigious by the literate people of the time, the syntactic features in question are increasingly found in other text types as well (Lötscher 1995, Schwitalla 2002). The present paper investigates early newspapers published in the seventeenth and eighteenth centuries to evaluate their degree of syntactic complexity and hence the extent of formal language used. Contrary to common belief (Admoni 1980, von Polenz 2013), it will be shown that early newspapers do not allow a uniform assessment in terms of their syntactic complexity, when they emerge as a new genre in the seventeenth century: some news segments display a fairly simple syntax, whereas others are of high syntactic complexity. By the end of the eighteenth century, the growing conventionalization of the new genre as well as the impact of standardization processes render newspapers much more balanced in terms of syntactic complexity. Unlike previous work on the syntactic complexity of newspaper language, the measurement of syntactic complexity takes into account not only sentence length and the relationship between independent and dependent clauses, but also the placement of adverbial clauses in relation to their associated clause.

Keywords Variation, syntactic complexity, processing ease, newspapers, Early Modern German, adverbial clauses

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1 INTRODUCTION

The administrative language used in imperial and city chanceries illustrates formal language use in the Early Modern period, as most evident in its syntactic complexity (Admoni 1980, Lötscher 1995, von Polenz 2013, Schwitalla 2002). Measures of syntactic complexity typically include sentence length and the ratio of independent vs. dependent clauses. The degree of formality is less obvious in early periodicals emerging in the 17th century: situational characteristics suggest that early newspapers share linguistic features with chancery language, motivated by the frequent affiliation of news correspondents to imperial and city chanceries (Mackensen 1964, Schröder 1995, Schuster 2014). The widespread oral reception of early newspapers, systematically read aloud to a large audience in the seventeenth and eighteenth centuries (Welke 1981), on the other hand, suggests the occurrence of linguistic features associated with less formal text types. In a study on the extent of syntactic complexity in laws, ordinances, deeds, contracts, and individual reports on major political and military events from about 1700, Admoni (1980) looks into the size of sentences, measured in numbers of words and subclauses. His comparison of historical sources according to their proximity to chancery language shows that deeds and foreign policy documents contain in fact complex sentences of an impressive size, both in numbers of words and of subclauses. Individual news reports, on the other hand, exhibit considerably fewer complex sentences comprising fewer subclauses and words. Admoni (1980) attributes this difference in syntactic complexity to the widespread oral reception of news reports, requiring a more accessible syntax.¹

The present paper will challenge this view on the extent of syntactic complexity in early newspapers. It will establish (i) that newspapers may in fact be syntactically remarkably complex and (ii) that newspapers of the seventeenth century present a highly heterogeneous picture in terms of syntactic complexity: while some parts of a weekly newspaper edition display a fairly simple syntax, other parts are extremely complex from a syntactic point of view. A comparison with newspapers of the eighteenth century will show a levelling between parts of newspapers in terms of syntactic make-up over time. The study of syntactic complexity may serve as a criterion to evaluate early newspapers with respect to their formality and hence their role regarding standardization processes in German. Since news arrived from a wide variety of dialect areas, early periodicals increased the dissemination of local varieties. Mackensen (1964) hence considers early periodicals of primary importance for the standardization process in yet another respect.

¹ In the corpus architecture of the GermanC corpus, early newspapers are assigned to the text type of orally-oriented genres (Scheible, Whitt, Durrell & Bennett 2011: 124).

The measures of syntactic complexity used in the current paper include established measures such as sentence length and the ratio of independent vs. dependent clauses, but also the placement of adverbial clauses relative to their associated clause. Increased sentence complexity due to initial adverbial clauses is considered a typical feature of chancery language, going back to Latin legal language (Admoni 1980, Lötscher 1995, Schwitalla 2002). In the sixteenth century, initial adverbial clauses were used as a prestige marker in many text types, indicating the particular social importance of the discourse in question. The following example provides a typical news segment with a cluster of three embedded clauses at the left edge of the main sentence, preceding the finite verb in second position: the finite adverbial clause at the left periphery includes a complement clause which in turn comprises a non-finite purpose clause, calling into question whether early newspapers were actually good exponents of less formal syntax in the Early Modern period.

- (1) *Ob man wol vermeint/ das Ertzhertzog Leopold mit
whether one well believes that Archduke Leopold with
einem von den beiden Fürsten/ sich mündlich zu bereden/ allhie
one of the both princes REFL orally to consult here
zusammen kommen sollen/ ist doch biß dato nichts
meet should is however until now nothing
erfolgt
done*
'Although one is convinced that Archduke Leopold will meet here
one of the two princes for verbal consultation, nothing has happened
so far.'
(1609: Relation)

To examine the degree of syntactic complexity in early newspapers, including its variation across newspapers and over time, the current paper follows the given outline: the next section provides an overview of data and methodology. Sections 3 and 4 present the historical record and address the question of syntactic complexity in periodicals published in Early Modern German. The final section gives a conclusion.

2 METHODOLOGY AND DATA

The present paper assesses syntactic complexity by three different measures: sentence length, the proportion of subordinate clauses among all clauses and the placement of adverbial clauses. The first two statistical measures are commonly used to capture syntactic complexity, cf. Szmrecsányi (2004) and Ortman & Dipper (2019) for corpus studies of present-day language, and Ad-

Admoni (1967, 1980), Michel (2001) as well as Weerman, Olson & Cloutier (2013) for work on historical corpora. Sentence length is measured by counting words, since previous work on syntactic complexity has established that it produces approximately the same results as counting nodes (Wasow 1997, Szmrecsányi 2004).² The proportion of subordinate clauses is likewise a complexity measure discussed cross-linguistically early on in work by Beaman (1984) and Givón (1991).³ Analyzing different text types from the fourteenth to the eighteenth century in the history of German, Admoni (1967) observes variation as regards the proportion of subordinate clauses in both synchronic and diachronic perspective. Both complexity measures taken together will provide a good impression of syntactic complexity in the text types under consideration.

The placement of dependent clauses relative to their associated clause is taken as a marker for syntactic complexity as well, going on the assumption that dependent clauses preceding their associated clause are more complex than dependent clauses following it (Ebert 1986: 174, Lötscher 1995: 21). Among the set of dependent clauses, our focus here will be on the placement of adverbial clauses.

2.1 Placement of adverbial clauses

Finite and non-finite adverbial clauses may occur in three positions in a sentence in present-day German: they may precede their associated clause (2 a) or follow it (2 b), and they may intervene between the fronted finite verb and the non-finite verb of the associated clause (2 c) – even if this a marked option (Pittner 1999).

- (2) (a) *Bevor die Instandstellung durchgeführt wird, soll ein geologisches Gutachten über den bestehenden Fels erstellt werden.*
 before the repair out.carried is should a geological survey of the existing rock provided be

² Szmrecsányi (2004) demonstrates that sentence length measured in words provides as good results as regards syntactic complexity as other measures requiring time consuming annotations such as counting nodes or applying an index of syntactic complexity based among other parameters on the number of subordinating conjunctions in a corpus.

³ Neither typologically oriented works nor works on the historical syntax of German problematize how to deal with coordinated subordinate clauses. Obviously, they are attributed to subordinate clauses, cf. (Michel 2001: 228), which may distort this complexity measure considerably. To ensure comparability with previous work, the same procedure was followed in this paper.

'Before the repair is carried out, a geological survey of the existing rock should be provided.' (A97/APR.01237)⁴

- (b) *Man lässt sich auf die Couch fallen, um nach*
 you let yourself on the couch drop in order to after
ein paar Sekunden wieder aufzustehen.
 a few seconds again up.to.get
 'You drop down on the couch, only to get up again after a few seconds.'
 (ZWI20/APR.00026)

- (c) *Wieder bekam sie einen Preis und wieder wurde der*
 again received she a prize and again was the
Titel, als der Roman 1945 als Buch erschien,
 title when the novel 1945 as book appeared
vollständig verändert:
 completely changed
 'Again she received a prize and again, when the novel appeared as a book in 1945, the title was completely changed.'
 (A97/APR.01350)

From the point of view of language processing, the placement of dependent clauses at the right periphery is preferred over dependent clauses in initial position. In terms of language comprehension, initial dependent clauses increase the distance between recognition domains and therefore processing costs as pointed out by Hawkins (1994, 2004). And in terms of language production, initial dependent clauses require too much planning in advance, whereas their final placement allows a later commitment to biclausal structures (Arnold, Wasow, Losongco & Ginstrom 2000, Wasow 2002). In a study on the placement of adverbial clauses in present-day English, Diessel (2005) finds that there is competition between different factors: while language processing favors the final position of adverbial clauses, semantics and discourse pragmatic factors rather promote their initial position. This is confirmed throughout the literature: as pointed out by Chafe (1984), preposed adverbial clauses serve as framesetters, providing for instance temporal orientation to the information expressed in the following main clause (3 a). Besides information management, initial adverbial clauses may be used for discourse linking (3 b), as Hasselgård (2014) shows in a contrastive study of Norwegian and English.

- (3) (a) When the new information is inconsistent, the judgment is whether to accept or reject it. (Chafe 1984: 445)

⁴ Present-day German data are taken from the DeReKo and provide information on the particular text and its year of publication.

- (b) There was a story circulating about Ms. McKinley that at one luncheon given in honor of the president and his wife, the centerpiece was a large, stuffed American eagle. When the guests sat down, the thing began to bob its head and move up and down in perky, life-like movements. (Diessel 2005: 459)

Before turning to the situational characteristics of early newspapers, we need to address two more positions, attested for adverbial clauses in present-day German. Regarding the initial position of adverbial clauses in German, we can in fact distinguish between integrated and non-integrated word orders according to König & van der Auwera (1988): the latter word order is only available for conditionals, concessives and concessive conditionals in present-day German as in (4), but actually played a more important role in the historical development of adverbial clauses (Axel 2004, Lötscher 2005). For the purpose of the present study, we will disregard this distinction, since preposing of adverbial clauses is considered more costly in terms of language processing, regardless of whether the preposed adverbial clause is placed in the position preceding the finite verb or even further to the left.

- (4) *Was auch immer bei Shakespeare steht, das Nature Theater of whatever in Shakespeare occurs the Nature Theater of Oklahoma hat sich die bekannte Story von Freunden Oklahoma has REFL the known story by friends spontan nacherzählen lassen. spontaneously retell let*
 'Whatever is written in Shakespeare, the Nature Theater of Oklahoma had someone spontaneously retell the well-known story.'
 (HMP08/AUG.01902)

In addition to final and initial position, adverbial clauses may also occur in medial position as illustrated in (2c). According to Pittner (1999: 305f), medial position is licensed for adverbial clauses in present-day German but not for complement clauses, because only adverbial clauses are introduced by conjunctions which clearly indicate the respective semantic relation between adverbial clause and its associated clause. In terms of processing, I consider the medial position of adverbial clauses more costly than their final position, taking into account the work by Hawkins (1994, 2004) on recognition domains and by Arnold et al. (2000), Wasow (2002) who point to the higher processing costs due to the speaker's earlier commitment to a biclausal structure. Processing costs hence increase due to the relative position of the adverbial clause to its associated clause, regardless of how the medial position

of the adverbial clause is linguistically motivated.⁵

Overall, the position of adverbial clauses is considered as a proxy for syntactic complexity: while initial and medial position testify to a greater proximity to chancery language, the position of adverbial clauses at the right periphery of sentences points to an obvious affinity of newspaper language to other types of less formal language. In addition, the possibility of overhauling the incoming news may also play a role.

2.2 Corpus: situational characteristics

In order to evaluate the syntactic complexity of early periodicals, the present study looks into the placement of adverbial clauses in eleven newspapers published in the seventeenth and eighteenth centuries and two trade fair reports from the seventeenth century. Excerpts of about 10,000 word forms are used from all periodicals. A sample of private letters from the late sixteenth century and an excerpt from a travelogue written in the first half of the seventeenth century serve as the control corpus.

The earliest newspapers are published on a weekly basis, starting in 1609 in Strasbourg and Wolfenbüttel. The news sheets comprise on average between six to eight news reports from a variety of places, regularly including news letters from Cologne, Vienna, Prague, Rome, Venice and Antwerp. The choice of these places is obvious, because they all include either the seat of secular or ecclesiastical rulers or play a prominent role in long-distance trading all over Europe. For this reason, early newspapers report on a wide variety of topics: besides latest news from politics, social life, church, economy and natural disasters, important documents are sometimes rendered verbatim (Mackensen 1964, Schröder 1995, von Polenz 2013). The following news report from the Relation of 1609 displays a short letter from Vienna on political news concerning among others an official trip of the King and the announcement of the Austrian Diet after the King's return from Moravia.

- (5) *Auß Wien vom 13. Junij.*
from Vienna of.the 13. June
Donnerstags früh sein jr Kön. May. nach Mehrern
Thursday morning is His Royal Majesty to Moravia
verreist/ den Landtag alda zuhalten/ die möchten in 5.
traveled the Diet there to.hold he may about 5
wochen damit zubringen/ auff dero widerkunfft wirdt man den
weeks there spend on His return will one the

⁵ See Frey (2020) for a recent approach to the placement of different types of adverbial clauses in present-day German from a theoretical perspective.

*Oesterreichischen Landtag fürnemen/ vnter welchem/ wie die
 Austrian Diet hold during which as the
 sag/ es viel verendrung in Emptern geben wird.
 rumor there a.lot.of change in posts happen will
 Sither jüngst hört man auß ober Vngarn anders nichts/
 lately hears one from Upper Hungary else nothing
 dann daß man sich wegen der gehuldigten Dörffer mit
 except that one REFL due.to the tribute villages with
 den Türcken nicht vergleichen kan/ derhalben vnser Orator noch
 the Turks not settle can therefore our orator still
 zu Ofen/ vnd der Türckische Beeg hieauß bleiben thut.
 at Ofen and the Turkish governor here remain does
 'From Vienna, June 13.*

On Thursday morning, His Royal Majesty left for Moravia to hold the Diet there. He may spend about five weeks there. On His return the Austrian Diet will be hold, during which, as they say, there will be a lot of shifting of posts. Lately, nothing else has been heard from Upper Hungary, except that it is not possible to come to an understanding with the Turks as regards the tribute villages, which is why our orator is still at Ofen and the Turkish governor will remain here.' (1609: Relation)

News correspondents are typically affiliated with imperial and city chanceries, a major news source at the time. The reception of early newspapers was largely a collective one due to joint subscriptions by for instance city councils eager to read the locally printed newspaper, or due to the keen interest of urban communities in news from the German-speaking world (Welke 1981, von Polenz 2013). An important issue – at least at the beginning of the seventeenth century – are the time constraints governing the printing process, but also the gathering of news reports from all over Europe. The weekly publication of a newspaper was an ambitious goal of printing agencies that could only succeed by refraining from revising the incoming news. Situational characteristics of early newspapers obviously differ fundamentally from their counterparts in modern times, which are usually carefully edited (Biber & Conrad 2019). In the Early Modern era, the publication of trade fair reports twice a year for the annual book fairs in Leipzig and Frankfurt is presumably less demanding as regards time restrictions. Their collection of news reports covers the same catchment area as the weekly published newspapers, including however news reports compiled for a time period of six months. Table 1 provides a list of all periodicals in the corpus, comprising roughly 145.000 words. The weekly published newspapers are spread out over two

centuries, including three newspapers for each 50 year period except the first period in the seventeenth century. Both trade fair reports have been published on the occasion of the Leipzig Fair in 1609 (i.e. spring and fall fair).

Periodical	Year	Size
Aviso	1609	11.300
Relation	1609	11.500
Ordinari Zeitung	1628	10.350
Mercurius	1667	10.050
Postzeitung	1667	10.500
Relation	1667	11.050
Berlinische Zeitung	1724	10.800
Mercuri Relation	1743	11.750
Leipziger Zeitung	1750	11.400
Ordinari Zeitung	1766	11.500
Kurfürstliche Zeitung	1797	11.800
Continuatio I & Continuatio II, Leipzig		
> Trade fair, spring	1609	10.600
> Trade fair, fall	1609	14.200

Table 1 Periodicals in the seventeenth and eighteenth centuries

Syntactic complexity may vary across newspapers in terms of time, publication mode and topic: it is probable that the publishing process will become less demanding over time due to technological advances, allowing more time for review and editing of incoming news reports (Stöber 2014). Thus, syntactic complexity may change over time, which is also suggested by studies of newspaper language in the 19th century (Hosokawa 2014, Michel 2001, Schuster 2010). Likewise, additional time for the publication process may show in the comparison between weekly published newspapers and trade fair relations with the latter allowing for a careful processing of the periodical. Overall, early newspapers report on a wide range of topics, including both political controversies between the King and the Estates and miscellaneous news from the court. Syntactic complexity may vary according to topic and hence according to the place of origin as suggested by Demske (1996).⁶

⁶ This ties in with a claim made by Chafe (1984) and Diessel (2005) who both emphasize that the position of adverbial clauses is genre-driven.

2.3 Variables and annotation

Situational characteristics of early newspapers provide contradicting expectations regarding their syntactic complexity. From a syntactic point of view, early newspapers seem to pattern with less formal language, exhibiting sentences which are less impressive in size than deeds and foreign policy documents (Admoni 1980). To establish that the language of early newspapers has in fact a lot in common with more formal language as well, the present study sets out to explore its syntactic complexity. Apart from measures as sentence length and the proportion of dependent clauses, the placement of adverbial clauses is used as a proxy for syntactic complexity, working on the assumption that initial and medial position of adverbial clauses induce higher processing costs than adverbial clauses in final position.

For each periodical, a subcorpus of about 10.000 words of running text was extracted, each subcorpus made up of several editions of the respective newspaper.⁷ The digitized text was first manually broken down into sentences, following a widely used method in historical syntax of conceiving a sentence as a syntactic unit consisting of at least one independent clause (Admoni 1980, Demske 2007). The manual segmentation is necessary because punctuation at the time was used to rather imitate intonation breaks than to indicate syntactic constituents (Besch 1981, Stolt 1990). Sentences containing adverbial clauses are then manually extracted from all newspapers listed in Table 1 and analyzed according to place of origin, placement, and semantic relation. The newspaper corpus for both centuries comprises about 120.000 words, containing 1.172 adverbial clauses. In order to include news topic as an explanatory variable, I use place of origin as a proxy: correspondences from Vienna and Prague focus on political issues (6a), while trading places such as Venice, Hamburg or Antwerp are more likely to report on topics of interest to trading companies (6b) as illustrated in the following news segments.

- (6) (a) *Des Herrn Graffen Anthon Günther von Oldenburg*
 the Lord's Count's Anthon Günther of Oldenburg
begebenes Absterben ohne hinterlassung
 accomplished demise without leaving
Manns-Erben/ dörrfte fast einige ungelegenheiten
 male-heirs would surely some inconveniences
nachziehen/ indem bericht anhero kommen/ daß Dessen
 entail, as reports here arrive that his

⁷ Complete weekly issues were randomly selected from each newspaper volume, resulting in a comparable corpus size of about 10,000 word forms for each newspaper. As for the trade fair reports, here the reports were extracted by month. Table 1 provides the exact figures.

*Succession nicht allein von Dännemarck/ und Hollstein
succession not only from Denmark and Hollstein
Gottorff/ sondern auch von Schwedischer seithen/ ob
Gottorff but also from Swedish side whether
solte die Graffschafft Delmenhorst vor diesem vom
should the County Delmenhorst before that of
Ertz-Stift Bremen Lehenräng gewesen seyn/ starck
archdiocese Bremen fiefdom been has rigidly
prætendirt würde.
claimed were*

'The death of Count Anthon Günther of Oldenburg without leaving any male heirs will surely result in some inconveniences, as reports come that his succession was not only claimed by Denmark and Hollstein Gottorff, but also from the Swedish side, as if the County of Delmenhorst before that time has been a fiefdom of the archdiocese Bremen.'

(1667: Relation)

- (b) *Bey Palermo ist ein stuck von einem Berg auff ein
near Palermo is a piece of a mountain on a
Dorff gefallen davon über 100. häuser und 500.
village fallen of which over 100 houses and 500
menschen erschlagen worden. Sonst haben die Corsaren
people destroyed been otherwise have the Corsairs
von Thunis und Algiers dem Türckischen Kayser 8.
of Tunis and Algiers the Turkish Emperor 8
Schiff mit 1800. Christen Sclaven nach Constantinopel
ships with 1800 Christian slaves to Constantinople
geschickt seinen anschlag auff Candia zu vollziehen.
sent his attack on Candia to carry out*

'Near Palermo, a piece of a mountain fell on a village, destroying over 100 houses and killing over 500 people. In addition, the Corsairs of Tunis and Algiers sent the Turkish Emperor 8 ships with 1800 Christian slaves to Constantinople to carry out his attack on Candia.'

(1667: Relation)

The assessment of syntactic complexity is carried out in three steps: in step one, early newspapers are compared in terms of sentence length and proportion of dependent clauses with two other text types, also representing informational text types (personal letters and travelogues).⁸ In step two, the syn-

⁸ Note that the primary function of early newspapers was to disseminate information in the German-speaking world (Michel 2001: 226, Schröder 1995: 222-241).

tactic complexity of newspapers of the seventeenth century is evaluated in terms of the placement of adverbial clauses. The final step evaluates syntactic complexity of newspapers over time, based on the placement of adverbial clauses in the seventeenth and the eighteenth centuries.⁹

3 SYNTACTIC COMPLEXITY IN EARLY PERIODICALS

3.1 *Informational text types: newspapers, letters and travelogues*

Because of their situational characteristics, early newspapers are expected to include features typical of both chancery language as well as less formal language. Focussing on his findings with respect to sentence length, Admoni (1980) considers early newspapers close to spoken language. To establish that early newspapers are also syntactically complex, the syntax of newspapers from the first half of the seventeenth century will be compared with text samples of two other informational text types, i.e. private letters written at the end of the sixteenth century and a travelogue from the first half of the seventeenth century.¹⁰ Personal letters, in particular, are regarded as a text type close to spoken language because of their situational characteristics (Hopper 1997, Schuster 2020).¹¹ They exhibit features typical of spoken language such as simple clauses linked by coordination rather than subordination, and simple noun phrases, including only few and short modifiers (Biber & Conrad 2019, Pérez-Guerra & Martínez-Insua 2011).¹² Even if situational characteris-

⁹ The current paper presents the results of a corpus study using descriptive statistics. Analyzing the frequency data, dispersion statistics is reported along with statistics of central tendency to illustrate and evaluate syntactic complexity across early periodicals and beyond. As for the size of the corpus, the excerpts from the weekly newspapers and the fair reports are all about the same size to facilitate comparison among periodicals. Only the corpus comprising private letters and a travelogue, here used for contrast, is significantly less extensive. Methodologically, this article thus joins quantitatively oriented work in linguistics that argues that statistical tools should indeed be used as a means to gain new and deeper insights into linguistic problems. At the same time, it is emphasized that the discussion of methodological groundwork should never substantially constrain the discussion of linguistic issues (Larsson, Egbert & Biber 2022).

¹⁰ Private letters share with travelogues and newspapers the characteristic that they communicate information. Therefore, following Biber & Conrad (2019: 107), we speak here of informational text types.

¹¹ It goes without saying that the present context only allows for a snapshot with respect to a specific type of letter. For a detailed diachronic appraisal and a typology of the text type letter, cf. Matthews-Schlinzig, Schuster, Steinbrink & Strobel (2020).

¹² In a corpus study contrasting the two text type of news reports and letters in Early Modern English, Pérez-Guerra & Martínez-Insua (2011: 114) characterize the latter as a text type between “formal and informal language, between written and oral language, and between private and public language”, while the former one is taken to represent formal language.

tics for travelogues published in the Early Modern period are different from the interpersonal text type of personal letters, their syntax evokes proximity to spoken language as well: as shown by (7), clauses are simple, coordinated rather than subordinated. Dependents in noun phrases include prenominal determiners and adjectival modifiers, cf. *ein gr̄un baum-blat* ‘a green tree leaf’, while syntactically more complex nominal modifiers such as prepositional phrases and relative clauses are rarely attested.

- (7) *Sie haben keine M̄hlenen/ sondern die Weiber zerreiben das Korn auff den steinen/ wie man bey vns das eysen auff den steinen schleyfft oder streichet. Wirdt gar rein. Wann sie es bachen w̄ollen/ kochen sie es im wasser: (dann sie haben keine ofen:) machen einen Teig an sehr d̄unn mit wasser. Vnd wann er anfahet auffzugehen/ so schlagen sie es in ein gr̄un baum-blat/ binden-s zu/ legen-s in einen hafen mit wasser/ lassen-s eynkochen biß es trocken wirdt wie brodt/ hat aber kein rampff. Ist sonst gut zu essen.*
- they have no mills but the women grind the corn on the stones as one with us the iron on the stones grinds or strikes becomes very clean if they it bake want boil they it in water since they have no ovens work a dough up very thin with water and when it begins to rise so wrap they it in a green tree-leaf tie-it up put-it in a pot with water let-it boil until it dry becomes as bread has however no crust is otherwise good to eat
- ‘They have no mills, but the women grind the grain on the stones, just as we grind or strike iron on stones. It becomes very clean. When they want to bake it, they boil it in water (since they have no ovens) and use water to make a very thin dough. When it begins to rise, they wrap it in a green leaf, tie it up, put it in a pot of water, and let it boil until it dries like bread, but it has no crust. Otherwise it is good to eat.’ (1624: Samuel Brun)

Newspapers on the other hand are syntactically more complex: the data given above (cf. examples (1) and (6a)) testify to the complexity of sentences, including a substantial number of subordinate clauses. In addition, early newspapers tend to pack a lot of information into noun phrases, resulting in rather complex nominal constituents (Admoni 1967). The following example provides a typical instance: the first conjunct of the noun phrase coordination in (8a) comprises a prenominal genitive phrase and a postnomi-

nal prepositional phrase, both dependents of the nominalized infinitive *verraisen* ‘travel’. The prenominal genitive phrase is itself modified by an appositive noun phrase, *ein Sohn deß Hertzogs von Guastalla* ‘a son of the Duke of Guastalla’. A distinctive feature of early newspapers is noun phrases with deverbal heads alternating with finite adverbial phrases. Complexity arises here from high information density (Degaetano-Ortlieb, Kermes, Khamis & Teich 2016, Degaetano-Ortlieb 2021). Example (8b) illustrates the use of an *ung*-nominalization, functioning as a temporal adverbial.¹³

- (8) (a) *Deß Sig. D. Cæsaris, ein Sohn deß Hertzogs von*
 the Sig. D. Cæsaris’, a son of the Duke’s of
Guastalla verraisen nach Mayland/ vnnd die vilfältige
 Guastalla traveling to Milan/ and the manifold
handlungen mit dem Gubernator allda/ verursacht allhie
 dealings with the governor there causes here
vil vnd mancherley discours
 much and various discourse
 ‘The Sig. D. Cæsaris’, a son of the Duke of Guastalla, traveling
 to Milan and the manifold dealings with the governor there
 triggers many a discussion here.’ (1628: Ordinari Zeitung)
- (b) *bey Schliessung der Brieffen wären einige Companien ins*
 by closing the letters were some companies to
Gewehr beordret worden
 arms ordered been
 ‘By closing these letters, some companies would have been
 ordered to arms.’ (1667: Postzeitung)

Data such as (8) once again call into question that early newspapers approximate spoken language. The following figure illustrates sentence length for the two oldest newspapers in the corpus as well as both trade fair reports, compared to a travelogue and a sample of personal letters – all sources published between 1582 and 1609. The overall size of this corpus amounts to 62.300 words in 2.364 sentences.

¹³ A comprehensive diachronic account of deverbal nominalizations in German is found in Demske (2000).

Text type	Year	Size
Personal Letters	1582-1592	2.500
Aviso	1609	11.300
Relation	1609	11.500
Continuatio I & Continuatio II, Leipzig		
> Trade fair, spring	1609	10.600
> Trade fair, fall	1609	14.200
Travelogue	1624	12.200

Table 2 Text types in the sixteenth and seventeenth centuries

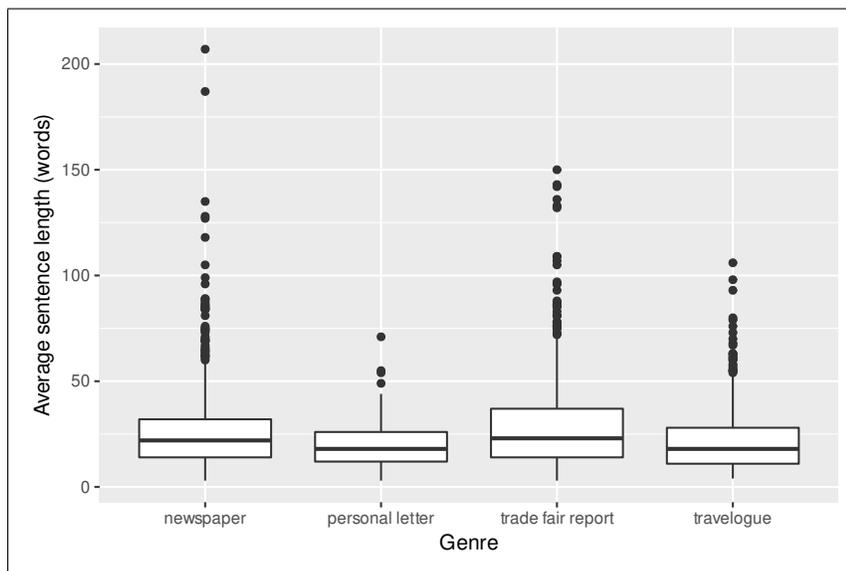


Figure 1 Average sentence length across informational genres

Regarding the descriptive statistics for sentence length in early periodicals (newspapers and trade fair reports) as well as travelogues and personal letters, the expected differences are borne out: the median, indicated by the thick line inside the box, is slightly lower for personal letters and the travelogue than for newspapers and trade fair reports, ranging from 18 words for personal letters and the travelogue to 23 words for the fair trade reports.¹⁴

¹⁴ In their corpus study covering the period from 1759 to 1990, Pérez-Guerra & Martínez-Insua (2011: 134) find for the history of English that the text type of news exhibit a higher degree of linguistic complexity than the text type of letters. Their measures of syntactic complexity include the size of noun phrases and prepositional phrases.

More interesting than the value for the central tendency, however, are the measures of dispersion, as shown in Figure 1: the interquartile range (IQR) is largest for the trade fair reports, and much smaller for newspapers, letters and travelogue, indicating half of the individual sample is distributed across a wider range in the former genres than in the later ones. For personal letters for example, this means that most sentences in the corpus are of a similar size with the dots pointing to the presence of only a few outliers. The boxplot for the newspapers points to a clearly different use of sentence length: even if the IQR indicates that half of the sentences are of a similar size (though their dispersion is larger than the one for personal letters), the statistics comprises many outliers with two sentences including about 200 words each.¹⁵ Obviously, early newspapers present a highly heterogeneous picture in terms of syntactic complexity, while personal letters are much more homogenous in their syntactic make-up. The findings with respect to sentence length hence support the previous assessment of early newspapers as oscillating between spoken and written language. As regards the other genres, we find that trade fair reports and travelogues comprise more outliers than personal letters, indicating that their syntax is not as homogenous as the syntax of personal letters.

The second complexity measure strongly resembles the mean values for sentence lengths in Figure 1: the average proportion of subordinate clauses as illustrated in Figure 2 shows that all text types comprise more subordinate clauses than syntactically independent clauses with newspapers, trade fair reports and the travelogue exhibiting slightly higher values than personal letters.

¹⁵ Lötscher (1995: 24) calls sentences of this size monstrous samples.

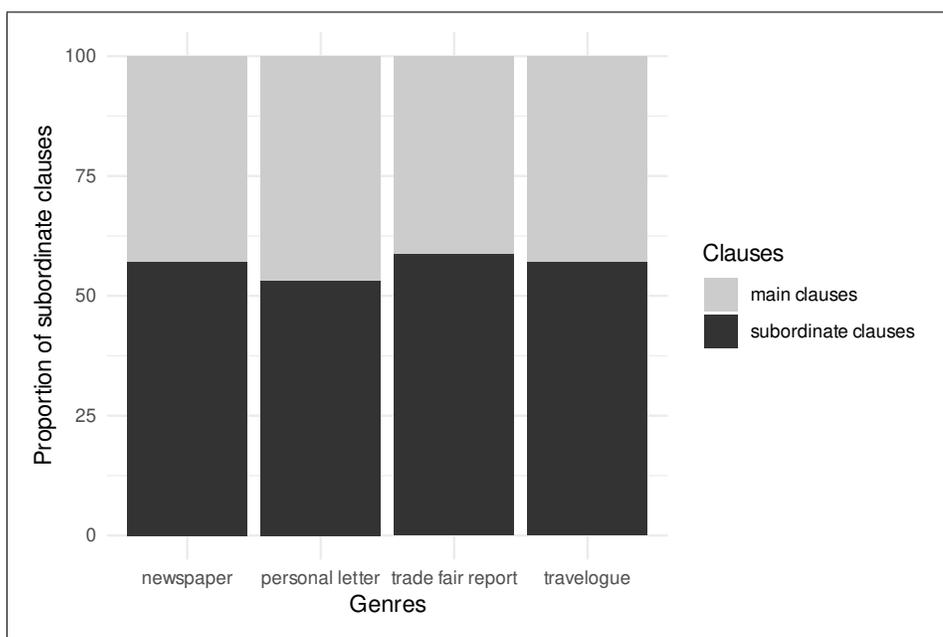


Figure 2 Proportion of subordinate clauses across text types

This outcome may be due to the strong variability in the syntax of early newspapers (and trade fair reports), resulting in surprisingly similar average values. Turning to the position of adverbial clauses, I will consider a third measure of complexity in the following section, focussing now on newspapers published in the seventeenth century.

3.2 *Adverbial placement across newspapers*

The assessment of sentence length in informational text types has shown that newspapers from the first half of the seventeenth century display strong internal variation, supporting the view that they share syntactic patterns with both more and less formal language. The goal of the current section is to better understand the attested variation in early newspapers, including six newspapers from the entire seventeenth century with about 64.750 running words (cf. Table 1). The complexity measure adopted here is the position of adverbial clauses, elaborating on the broad agreement that adverbial clauses tend to appear at the right edge of sentences for processing reasons, and that divergent positions are motivated by either information or discourse structure (cf.

section 2.1). All adverbial clauses (= 608 instances) are coded for their placement, distinguishing between final, medial and initial position. Note that the initial position comprises the placement at the left edge of main clauses (9 a) as well as at the left edge of subordinate clauses (9 b). Placement in the middlefield between complementizer (*daß* 'that') and verb cluster in final position (*ausrüßten lasse* 'equip let') is illustrated in (9 c).

- (9) (a) *Einen Pfeiffer oder Trommelschlager/ [weiln er ein Liedl
a piper or drummer because he a song
wider den Buchingam gesungen/] hat man mit Ruthen
against the Buchingam sung has one with rods
durch die gantze Statt auß gestrichen.
through the whole town out struck
'A piper or drummer was chased with rods through the whole
town because he sang a song against the Buchingam.'*
(1628: Ordinari Zeitung)
- (b) *Von Madrid hat man/ [als selbiger König das
from Madrid has one when same King the
erstemal von seiner Kranckheit widerumb außgangen]/ hat
first.time after his illness again out.gone has
er seinem Doctor 2000. Cronen verehret/ vnnnd Jährlich
he his doctor 2000 crowns honored and annually
so lang er lebt 600. Cronen verschafft
so long he lives 600 crowns provided
'From Madrid: When the same king first recovered from his
illness, he honored his doctor with 2000 crowns and provided
him with 600 crowns annually as long as he lived.'*
(1628: Ordinari Zeitung)
- (c) *der Currier/ welchen der Käyserliche Resident zu
the currier whom the Imperial Resident at
Constantinopel ahnhero geschickt/ bringt Zeitung/ daß der
Constantinople here sent brings news that the
GroßVezier eine grosse Armata/ [umb in eigener
Grand.Vezier a large armada in order to in own
Persohn nacher Candia zugehen/] außrüsten lasse
person to Candia to.go equip let
'the courier sent here by the Imperial Resident in
Constantinople brings news that the Grand Vezier has a large
armada equipped to go to Candia in person.'*
(1667: Postzeitung)

Working on the assumption that the amount of syntactic complexity, and hence variation across newspapers, depends on the topic of the respective news segment, political news are expected to exhibit syntactic patterns of higher complexity, while miscellaneous news are supposed to display a simpler syntax. The corpus data below seem to support this assumption: the news segment in (10) exhibits a causal clause occurring at the left edge of a V2-complement clause depending on the reporting verb *vermeinen* 'believe'. The adverbial clause is itself complex, comprising an embedded V-final complement clause. Contentwise, the news segment conveys news from the political realm. The causal adverbial provides a frame for what is stated in the V2-complement clause depending on the reporting predicate.

- (10) *man vermeint auch/ [[weil die Hollender sehen vnd spüren/
one believes also because the Dutch see and feel
[daß der König in Spannia zu Wasser vnnnd Landt grosse
that the King in Spain on sea and land extensive
Kriegspræparation machen vnd zurichten lest/]] werden sie
war.preparations carry.out and finish lets will they
durchauß keine tractation eingehen wollen]
certainly no negotiation enter want*
'It is also believed that because the Dutch see and feel that the King
in Spain has carried out extensive preparations for war on sea and
land, they will certainly not want to enter into any peace
negotiations.'
(1609: Relation)

Miscellaneous news on the other hand are rendered in syntactically simpler structures as in (11), comprising reporting predicates like *vermelden* 'report', *hat man* 'one gets' and *Aviso* 'news' and the associated content clauses. Two non-finite purpose clauses follow their respective reference clauses. The opening of a correspondence from Venice contains three separate news segments.

- (11) *Auß Venedig vom 7. Julij.
from Venice of 7 July
Auß Nanzi wird vermeld/ das man in starcker tractation
From Nancy is reported that one in intense negotiation
stehe/ desselben Hertzogen Sohn mit einer Princeßin von
be the.same's duke's son with a princess of
Florentz/ auch deß Hertzogen von Savoia Tochter mit deß
Florence also the Duke's of Savoy daughter with the
Duca di Lerma Sohn in Spania zu verehlichen. Auß Genua
Duca di Lerma son in Spain to marry From Genoa*

hat man/ der Spanische alda residirente Ampassator were
 one has the Spanish there residing ambassador were
auff deselben Herrschafft Haupt Galleren nach Vado paßirt,
 on the.same's sovereignty main galley to Vado gone
die Mayländische Soldaten in die Schiff einzuladen/ zu denen
 the Milan soldiers in the ships to.load to which
die 4. Gallioten von Piserta stossen sollen/ mit dem
 the four galliots of Piserta come are with the
Signor Vincenzo Centurione nach Mayland zu segeln/ alda
 Signor Vincenzo Centurione to Milan to sail there
were auch ein fregata mit Briefen vom Vice Re de Sicilia
 were also a frigate with letters of.the Vice Re de Sicilia
eingelauffen/ mit Aviso, daß sich die Türckische Armada bey
 arrived with news that REFL the Turkish Armada at
Navarino sehen lassen/ welche Brieff der Doria alsbald
 Navarino seen let which letters the Doria immediately
mit einem Currier nach Spania geschickt...
 with a courier to Spain sent...

'From Venice, July 7.

From Nancy it is reported that there are intense negotiations to marry the son of the local duke with a princess of Florence, and the daughter of the Duke of Savoy with the son of the Duca di Lerma in Spain. From Genoa: The Spanish ambassador residing there has gone to Vado on the main galley of the local sovereignty, to load the Milan soldiers into the ships, which four galliots of Piserta are meant to join, and to sail to Milan with Signor Vincenzo Centurione. There also arrived a frigate with letters from the Vice Re de Sicilia with news that the Turkish Armada has shown itself at Navarino. The Doria immediately sent those letters with a courier to Spain...'

(1609: Relation)

As pointed out by [Diessel \(2005\)](#), the initial placement of adverbial clauses may be motivated by the preference of certain semantic types of adverbial clauses for a particular syntactic position: his corpus of adverbial clauses in present-day English includes a high proportion of preposed conditional clauses, whereas purpose clauses tend to appear in final position. This observation carries over to Early Modern German, as shown by the following table based on newspaper data from the seventeenth century: adverbial clauses denoting semantic relations of concession or condition involve a high proportion of preposed adverbial clauses, whereas purpose clauses rather appear

at the right edge of their associated clause.¹⁶ Overall, preposed adverbial clauses account for a high proportion of all adverbial clauses attested in 17th century-newspapers, namely about 38% (= 230 instances).

Semantic relation	Placement					
	initial		medial		final	
concession	30	93.8%	0	0%	2	6.2%
condition	29	53.7%	8	14.8%	17	31.5%
purpose	11	7%	18	11.5%	128	81.5%
reason	88	39.5%	11	4.9%	124	55.6%
time	72	50.7%	21	14.8%	49	34.5%
Total	230		58		320	

Table 3 Positions of adverbial clauses in 17th century newspapers

The clustering of initial adverbial clauses in news segments with political content probably results from their embedding in larger contexts promoting comprehension. As soon as negotiations between the king and the estates are reported, for instance, the positions of both parties must be presented as well as the conditions under which these positions can be adjusted. If, on the other hand, newspapers report on the arrival of merchant ships, the report is often confined to pure facts. However, there are other semantic relations like reason, for instance, which occur at the left and the right periphery of the associated clause, as exemplified in (10) and (11). Table 3 shows that preposed causal clauses are a frequent syntactic pattern in seventeenth century newspapers. As to present-day English, Diessel (2005) observes that causal clauses rather occur in final than in initial position. Preposing an adverbial clause of reason in a news report of the seventeenth century may therefore be motivated by information or discourse structure as suggested above. As for temporal adverbial clauses, their position is probably iconically driven, with the linear arrangement of main clause and temporal clause reflecting the sequence of the events the clauses describe (Diessel 2008).

Working on the assumption that preposed adverbial clauses are more difficult to process, their distribution across newspapers depending on place of origin is of particular interest. Figure 3 displays the distribution for the ten most prominent places, including 501 adverbial clauses. About one hundred

¹⁶ Semantic relations were identified through subordinators, even if in Early Modern German there is still a lot variation as regards their repertoire. The most prominent markers include: *als* 'when', *bis* 'until', *da* 'then', *ehe* 'before', *nachdem* 'after', *sobald* 'as soon as', *dann*, *denn*, *weil* 'because', *damit*, *um* 'in order to', *im Fall* 'if', *wann* 'if', *wofern* 'insofar', *obwohl* 'although'. Purpose clauses comprise infinite and non-finite instances. The latter often lack any subordinator.

clauses of the preceding assessment in Table 3 are disregarded, because they were included in news reports sent from places only rarely represented in the newspapers (less than ten times).

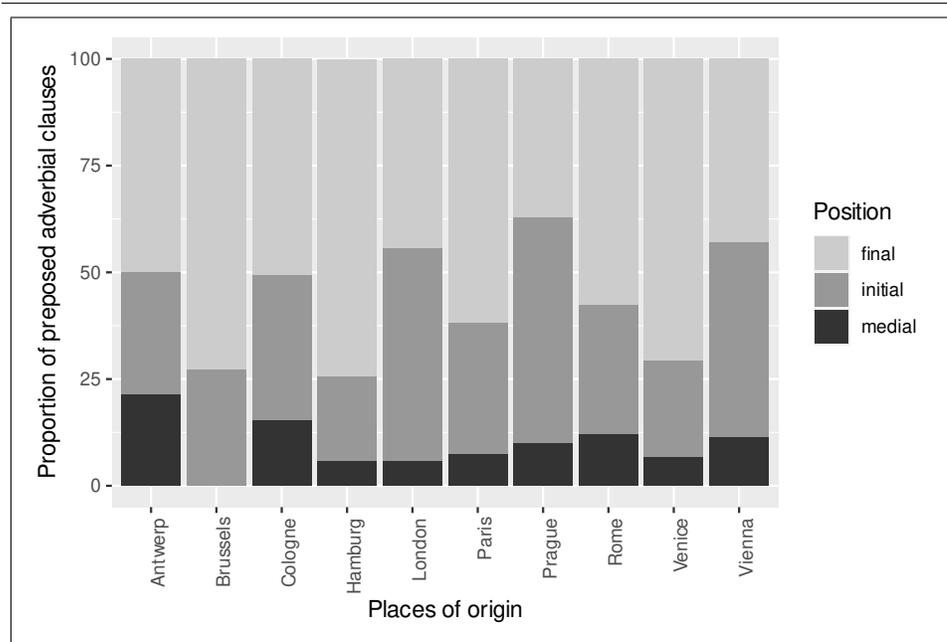


Figure 3 Placement of adverbial clauses in newspapers of the 17th century

The above figure supports the assumption that there is a relation between the placement of an adverbial clause and the place of origin of the particular news report: high numbers of preposed adverbial clauses are shown for Prague, Vienna and London. Low frequencies of preposed adverbial clauses are found in correspondences from Brussels, Hamburg and Venice. The distribution shown in Figure 3 fits perfectly with the assumption that news reports from individual places have committed themselves to certain subjects: news reports from cities like Prague and Vienna are dedicated to news from the courts of the emperor and the king, respectively. In addition to courtly pleasures such as sleigh rides, the focus of interest is the exchange between ruler and subjects with regard to the practice of religion. News reports from important trading cities such as Antwerp and Cologne often include shipping news as well as news on peace negotiations and troop movements that have an impact on commercial traffic. The two news segments in (12) involve preposed clauses of reason, the first one preceding a main clause, the second one occurring at the left edge of a subordinate clause, i.e. in medial position.

- (12) (a) *Weil den Ständen nunmehr von J. M. Perdon*
because the Estates now by His Majesty pardon
ertheilt/ vnd der Mayestet Brieff zugestelt worden/ also
given and the Majesty Letter granted been so
hat der Landgraff von Leichtenberg/ wegen J. Mayst.
has the Landgrave of Leichtenberg for His Majesty
an die Ständ begehrt/ daß sie jhr Kriegsvolck
to the Estates requested that they their military forces
abdancken/ auch die Directores abgeschafft/ vnd auff dem
dismiss also the directors abolished and at the
Altstädter Rahthauß nicht mehr zusammen kommen
Old Town Hall no longer together come
sollen/ welches sie aber nicht thun wollen
should what they however not do want
‘Because the Estates have now been pardoned by His Majesty
and because the Majesty Letter has been granted, the
Landgrave of Leichtenberg has requested of the Estates, on
account of His Majesty, that they dismiss their military forces,
that the directors be abolished, and that they no longer meet at
the Old Town Hall, what they decline.’ (1609: Aviso)
- (b) *Haagische brieff vom 23. diß berichten/ daß/*
Hague letters of the 23rd of this report that
weilen nunmehr des Königs in Engell. Ratification zu
because now the King’s in England ratification at
Breda angelangt/ so machten Sich alle bey denen Tractaten
Breda arrived so made REFL all at the treaties
gewesene Ambassadeurs, desgleichen die Staadische auch
been ambassadors likewise the Staadian also
thäten/ zur abreyse wieder nacher Breda fertig/
did to the return again to Breda ready
umb die Friedens-Tractaten gegen einander
in order to the peace treaties against each other
auszuwechseln/
to exchange
‘Hague letters of the 23rd report that all the ambassadors who
had been at the treaties, including the Staadian ambassadors,
prepared to return to Breda to exchange the peace treaties
among each other, because the English king’s ratification has
now arrived at Breda.’ (1667: Relation)

News reports from Venice, Hamburg and Brussels, on the other hand, include

only low numbers of preposed adverbial clauses, because they mainly report facts without further contextualization. The different strategies for conveying news reports are also reflected in considerably varying sentence lengths as documented in Figure 1.

Taking into account the placement of adverbial clauses as well as sentence length as two measures for syntactic complexity, newspapers of the seventeenth century are characterized by a striking variability in terms of their syntactic make-up. In my view, this is due to the fact that newspapers belong to a new genre, emerging only at the beginning of the seventeenth century. Though there are certainly forerunners in the sixteenth century like trade fair relations or the monthly published *Annus Christi*, a weekly published periodical is clearly a novel news format at the turn of the seventeenth century. There is not yet a repertoire of typical linguistic features for the text type newspaper. Instead, early newspapers borrow from other text types: the authors of newspaper reports use familiar patterns from chancery language for the reproduction of political matters. The familiarity of newspaper writers with official documents from the chancelleries is shown, for example, by partially reprinting the so-called ‘Majestätsbrief’ in a newspaper issue from 1609, which addresses matters concerning the free practice of religion. This letter is not part of the corpus evaluation because of its obvious exceptional character. For newspaper reports from other areas of seventeenth century-life, authors resort to text patterns from non-fictional, informational text types such as letters or travelogues. Newspapers in their early days therefore represent a conglomerate of different, already established text types, each contributing a set of syntactic features to the emerging text type of newspapers. And the technical challenges of producing a weekly newspaper at the beginning of the 17th century contribute to the fact that a smoothing revision of individual news reports is out of the question. In the following section, we will take a diachronic perspective on the question of syntactic complexity in early newspapers, adding newspapers from the eighteenth century to our evaluation.

3.3 *Newspapers as an emerging genre*

Newspapers published in the seventeenth century vary significantly regarding syntactic complexity, as testified by complexity measures such as sentence length and placement of adverbial clauses. The striking heterogeneity of newspapers receives a plausible explanation if one takes into account that newspapers were a very young text type in the seventeenth century. Looking into newspapers of the eighteenth century, we hence expect lesser variation in terms of complexity measures. In addition to the newspapers of the seventeenth century, we evaluate syntactic complexity in excerpts of five newspa-

pers published throughout the eighteenth century, the latter corpus comprising about 57.250 words (in addition to 64.750 words in the newspaper corpus from the seventeenth century).

Newspapers	Year	Size
Aviso	1609	11.300
Relation	1609	11.500
Ordinari Zeitung	1628	10.350
Mercurius	1667	10.050
Postzeitung	1667	10.500
Relation	1667	11.050
Berlinische Zeitung	1724	10.800
Mercuri Relation	1743	11.750
Leipziger Zeitung	1750	11.400
Ordinari Zeitung	1766	11.500
Kurfürstliche Zeitung	1797	11.800
Total		122.000

Table 4 Periodicals in the seventeenth and eighteenth centuries

Turning to sentence length first, measures of central tendency prove to be relatively stable over time with the median slightly increasing throughout the seventeenth and eighteenth centuries (from 21 words/sentence to 22 words/sentence). As shown in Figure 4, the interquartile range also changes only slightly during both centuries. However, we can observe a noticeable change with regard to the range of outliers: while a sentence of 207 words is attested in the first time period under investigation, the maximum size of sentences decreases significantly throughout the following periods under investigation. The maximum length of sentences in the second half of the seventeenth century is 170 words, followed by 166 words in the first half of the eighteenth century and 147 words as maximum length in the second half. Obviously, syntactic complexity of newspapers becomes more uniform over time.

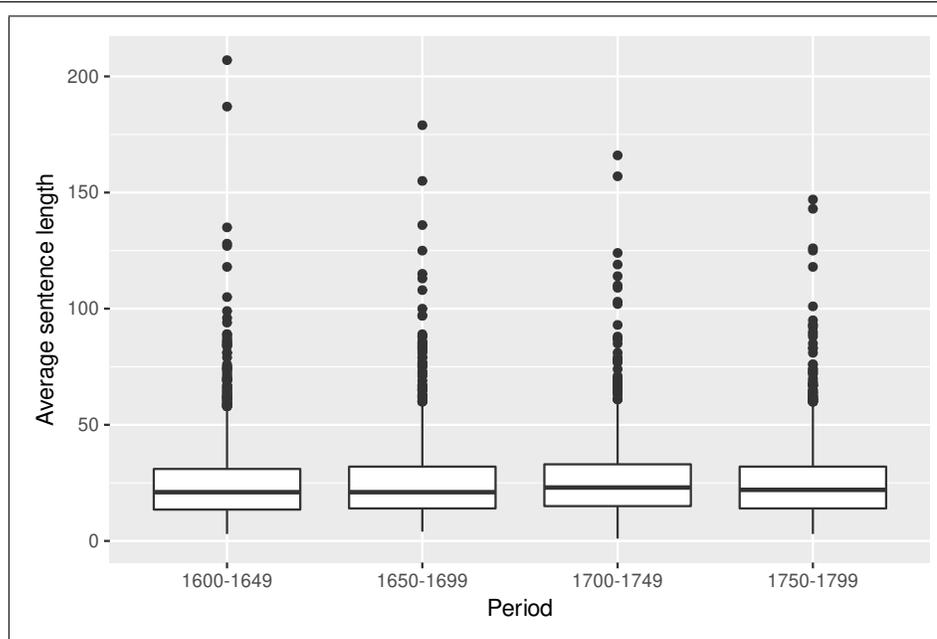


Figure 4 Sentence length in newspapers of the 17th and 18th centuries

In the second half of the seventeenth century, however, we still observe considerable variation across newspapers which may be attributed to situational characteristics: the *Relation* is a newspaper with a long history, with the first volume (as far as we know) published in 1609. The same holds for the *Postzeitung* which goes back until 1629. The *Mercurius* on the other hand is known for at least some editing on the part of the publisher, resulting in a median value for sentence of only 18, in contrast to a median of 23 for *Relation* and *Postzeitung*. In addition, the interquartile range indicates that the majority of sentences are between 11 and 28 words long in the *Mercurius*, whereas they are significantly longer in the other two newspapers (between 15 and 35 words). Any investigation into the variation across newspapers of one and the same year and the question whether different situational characteristics are responsible for this variation goes beyond the scope of this paper.

A decline of the overall syntactic complexity is also reflected in the position of adverbial clauses, as illustrated in Figure 5: in the first half of the seventeenth century, initial adverbial clauses account for almost half of all adverbial clauses. This proportion decreases sharply in the following time periods, until it reaches about 30 percent at the end of the eighteenth cen-

ture. The proportion of adverbial clauses occurring in medial position slowly increases, mainly affecting purpose and temporal clauses. The purpose clause in medial position (13) provides a typical example. As for adverbial clauses in final position, their predominance is reinforced towards the end of the 18th century.

- (13) *Er giebet vor, daß ihm ehestens 4 Chinesische Printzen,*
 he suggests that him earliest 4 Chinese princes
nebst einem Mandarin statt Hofmeisters folgen,
 together.with a Mandarin instead.of court.master follow
und nach Rom, [um daselbst zu studiren], gehen sollen.
 and to Rome in order to there to study go should
 'He suggests that 4 Chinese princes, together with a Mandarin
 instead of a court master, should follow him earliest and go to Rome
 to study there.'
 (1724: Berlinische Zeitung)

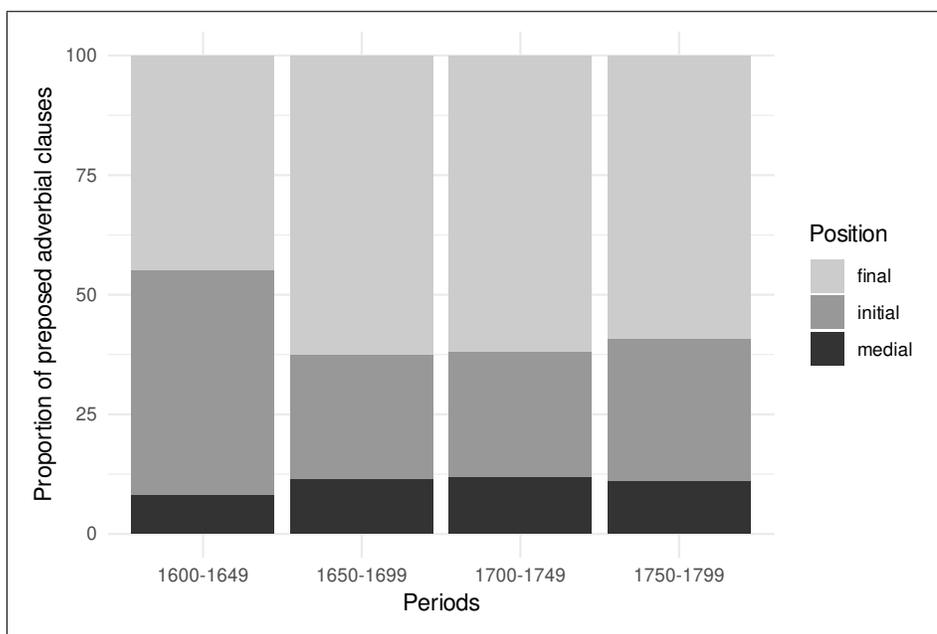


Figure 5 Placement of adverbial clauses in newspapers over time

Taken together, both complexity measures testify to the growing conventionalization of newspapers as a new genre: having started as a text type that is built up by text segments from a variety of genres, newspapers are developing into a new text type in Early Modern German with specific manifestations

of linguistic features. By favoring adverbial clauses at the right periphery of sentences in the eighteenth century, newspapers have moved away from chancery language with its remarkably complex syntax including a high proportion of initial adverbial clauses towards a more processing-oriented, less complex syntax. This result is in line with findings by [De Cesare \(2021\)](#) who looks into the placement of non-finite complements in the history of German irrespective from text type. In her corpus study, she shows that since the mid-18th century non-finite complements of control verbs increasingly appear at the right edge of sentences, probably due to the growing impact of spoken language on the written standard and hence the gradual convergence of spoken and written German. The current findings are likewise supported by [Gosemann \(2020\)](#) who examines, without restriction to a particular text type, finite and non-finite adverbial clauses in a corpus covering the period between 1800 and 2000. She also observes a strong tendency of adverbial clauses towards placement in final position, with finite adverbial clauses clearly outnumbering non-finite adverbial clauses. No such distinction was made in the present study. How to account for the slight increase of adverbial clauses in medial position during the seventeenth century shown in [Figure 5](#)? We might speculate that this increase is due to normative pressures favoring the sequence object-verb in a temporal context that is strongly linked to standardization processes at all levels of the language system.

4 SYNTACTIC COMPLEXITY IN EARLY NEWSPAPERS

Considering different measures of syntactic complexity, we have found that the earliest newspapers are highly heterogeneous. While some parts of a weekly newspaper edition display a quite simple syntax, including short sentences, often paratactically related, other parts are extremely complex from a syntactic point of view, including long sentences with high numbers of preposed adverbial clauses. Earlier work on the syntax of early newspapers ([Admoni 1980](#), [Demske-Neumann 1990](#), [Schuster 2008](#)) has accordingly either argued that newspapers are close to spoken language, or has highlighted their proximity to the more formal chancery language, invoking either the widespread oral reception of early newspapers or the frequent affiliation of news correspondents to imperial and city chanceries. Neither type of approach, however, takes into account the systematic variation of early newspapers in terms of syntactic complexity.

According to [Lötscher \(1995\)](#), authors of narratives in the sixteenth century are often chancery scribes who tend to adopt linguistic features from chancery language. He disagrees, however, with the assumption that this was part of their writing routine. According to him, the authors purposefully

use the pertinent linguistic features in their narratives as prestige markers, displaying individual differences as regards the use of the repertoire. The findings from early newspapers, however, support a different picture: news reports arrive from a wide variety of places in the German-speaking world, involving many authors from politically and/or economically important urban centers. And as our findings have shown, syntactic complexity depends above all on news topics, not on individual authors or individual printing agencies, suggesting that variation across newspapers of the seventeenth century originates in fact from time pressure: chancery scribes rely on their writing routines when they report on political issues, whereas they merely provide lists of facts insofar as other subjects are concerned. Other text types such as deeds or official letters may even be included in newspapers of the seventeenth century in order to inform the addressees in the best possible way, but without investing time to edit the reprinted documents.

An early signal of the beginning of conventionalization of newspapers in the seventeenth century is the position of *wh*-complement clauses: a news report may conclude with a complex sentence exhibiting a *wh*-complement clause at its left periphery (14a). Example (14b) exhibits a brief message reporting the presence of several Brabant delegates in Cologne. The news segment closes with an indirect question referring to the purpose of their visit (cf. Haß-Zumkehr 1998: 70–77, for a comprehensive list of predicates).

- (14) (a) [*wie es nun ablaufen wird*] *lehret zeit*
 how it now proceed will shows time
 ‘Time will show how it will proceed.’ (1609: Relation)
- (b) *Allhier befinden sich etliche Deputirte aus Brabant/*
 here are REFL several delegates from Brabant
 [*was Dieselben suchen werden/*] *ist noch zur zeit*
 what they look.for will is still at.the time
unbewust:
 unknown
 ‘Several delegates from Brabant are here. what they will be
 looking for is still unknown at the moment.’ (1667: Relation)

Overall, the specific distribution of syntactic complexity across newspapers and in particular their variation across individual news reports in the seventeenth century should be attributed to two determinants: newspapers are a newly emerging genre for which there are initially no established models to fall back on by news correspondents. Instead, there was a lot of time pressure at all levels of production, including the laborious collection of messages and the still cumbersome printing process in the seventeenth century, leaving no

time for revising news reports in the face of a weekly publication schedule. Early newspapers are printed as they reach the printing agencies.

5 CONCLUSION

Previous research on syntactic complexity in early periodicals highlighted the impact of either writer or recipient on syntactic complexity, associating newspapers either with more or less formal language. The current paper provides quantitative evidence that early newspapers in fact involve linguistic features of both, distributed in a systematic way. The range of syntactic complexity across newspapers suggests that processing circumstances, in particular circumstances of production, play a significantly more important role for the syntactic make-up of newspapers than news correspondents or readers and hearers. In the following centuries, technical issues play less and less of a role, thus allowing publishing agencies to focus on content design and information packaging as well as the development of new newspaper-specific text types such as sales advertisements or press reviews. Along with conventionalization of newspapers as a genre over time, we observe a levelling between parts of newspapers in terms of syntactic make-up, first apparent in newspapers from the second half of the seventeenth century. Ultimately, newspaper readers seem to benefit from the steady convergence of written and spoken standard German, because newspaper language is becoming much more accessible to the reader. And since newspapers have a wide coverage in cities of the Early Modern Era, their impact on the development of a syntactic standard is of considerable importance.

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menniglichen / mit kurtzweil vnd nutz zu läsen / in Truck kommen lassen. Johann Jacob Genath: Basel. 1624.

Continuatio 1609-1 Continuatio I. Der Zehenjährigen Relation/ oder Calendarii Historici decennalis. Warhafftige Beschreibung aller gedenkwürdigen Historien/ so sich seidhero des Leipzigerischen Newen Tages Marckt Anno 1609. bis auff gegenwertigen Ostermarckt gedachtes Jahrs/ hin vnd wider im Römischen Reich/ sonderlich aber in Oesterreichischen Landen: Auch in Hungern vnd Böhemen/ [...] rc. zugetragen haben. Mit sonderlichem Fleis zusammen verfast/ vnd in Druck verfertiget/ durch GREGORIUM Wintermon. Leipzig: 1609 (Bayerische Staatsbibliothek, urn:nbn:de:bvb:12-bsb10503602-0).

Continuatio 1609-2 Continuatio II. Der Zehenjährigen Historischen Relation/ Gründliche Beschreibung aller fürnemen Handlungen vnd Geschichten/ so seidhero des jüngst verwiechnen Leipzigerischen OsterMarckts Anno 1609. biß auff gegenwertigen MichaelsMarckt/ sich hin vnd wider in der Welt jnner vnd ausserhalb der Christenheit/ sonderlich aber im Römischen Reich/ Jtalien/ [...] zugetragen: Beneben dem ReligionsZustand in Böhmen/ Schlesien/ vnd Oesterreichischen Landen/ Mit sonderm fleiß zusammen getragen/ vnd den Liebhabern der Historien zu gefallen an Tag gegeben/ Durch Gregorium Wintermonat. Leipzig: 1609 (Bayerische Staatsbibliothek, urn:nbn:de:bvb:12-bsb10503603-5).

DeReKo Das deutsche Referenzkorpus DeReKo. Institut für deutsche Sprache Mannheim (<https://cosmas2.ids-mannheim.de/cosmas2-web>; retrieval January 2021).

Leipzig 1750 Leipziger Zeitungen. Leipzig: 1750 (Staatsbibliothek zu Berlin, urn:nbn:de:gbv:46:1-6030).

Kurfürstliche Zeitung 1797 Kurfürstlich gnädigst privilegirte Münchner=Zeitung. Verlegt von Joseph Ludwig Edlen von Dronius Erben. München: 1797 (Bayerische Staatsbibliothek, urn:nbn:de:bvb:12-bsb10505704-5).

Mercurius 1667 Nordischer Mercurius. Welcher kürztlich vorstellet/was in diesem 1667. Jahre an Novellen aus Europa eingekommen ist. Hamburg: 1667 (Staats- und Universitätsbibliothek Bremen, urn:nbn:de:gbv:46:1-2683).

Postzeitung 1667 Ordentliche Wochentliche Post=Zeitungen/ dises 1667. Jahrs. München: 1667 (Staats- und Universitätsbibliothek Bremen, urn:nbn:de:gbv:46:1-2276).

- Ordinari Zeitung 1628** Particular vnd rechte Ordinari Zeitungen/ auß vnderschiedlichen Orten/auff das 1628. Jahr. München: 1628 (Bayerische Staatsbibliothek, urn:nbn:de:bvb:12-bsb10505558-3).
- Mercurii Relation 1743** Mercurii Relation, oder wochentliche Ordinari Zeitungen von unterschiedlichen Orthen. Münchnerische Ordinari Post=Zeitungen. München: 1743 (Bayerische Staatsbibliothek, urn:nbn:de:bvb:12-bsb10505638-7).
- Ordinari Zeitung 1766** Ordinari=Münchner=Zeitung, Welche Montags, Dienstags, Donnerstags, und Freytags ausgegeben werden. Mit Jhro Churfl. Durchl. Gnädigstem Privilegio. Druckts und verlegt Johann Paul Jacob Bötter, Churfuestl. Hof= Landschafts= und Stadt= Buchdrucker. München: 1766 (Bayerische Staatsbibliothek, urn:nbn:de:bvb:12-bsb10505666-2).
- Relation 1609** Die Relation des Jahres 1609. Ed. by Walter Schöne, facsimile edition. Leipzig: Harrassowitz 1940.
- Relation 1667** Relation Aller Fürnemmen vnd gedenckwürdigen Historien. Straßburg: 1667 (Staats- und Universitätsbibliothek Bremen, urn:nbn:de:gbv:46:1-2249).

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