

‘A very pleasant, safe, and effectual medicine’: The serial comma in the history of English

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RESEARCH ARTICLE



'A very pleasant, safe, and effectual medicine': The serial comma in the history of English

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ABSTRACT

The present paper traces the historical development of the serial comma in the history of English until its eventual decline over the course of the twentieth century. The *serial comma* (also known as the *Oxford comma* or *Harvard comma*) refers to the existence of a pause immediately before the conjunctions *and/or* (and sometimes *nor*) in a series of three or more elements in a clause. Although the use of this mark of punctuation is no longer a desideratum in Present-day British English, it was a disseminated practice among seventeenth-, eighteenth- and nineteenth-century writers. In light of this, this work has been conceived with the following objectives: (a) to study the use and distribution of the serial comma in the period 1500–1999; (b) to evaluate its distribution in the two types of writing, i.e. handwriting and printing, and the level of variation across text types; and (c) to ascertain whether the number of elements in the series participates in its deployment. The source of evidence comes from *The Málaga Corpus of Early English Scientific Prose* (MCEESP), the corpus of *Early English Medical Writing* (CEEM) and *A Representative Corpus of Historical English Registers* (ARCHER 3.2).

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1. Introduction

Punctuation in historical documents has been traditionally disregarded in the literature on account of its arbitrariness and the lack of correspondence to the modern system of punctuation. The editors of handwritten texts must necessarily deal with the overlapping functions of some symbols, which in many cases become a rule rather than an exception (Calle-Martín & Miranda-García, 2005, p. 28; Lucas, 1971, p. 19; Mitchell, 1980, p. 412; Smith, 2020a). More importantly, they must also take a stand in the dilemma between preservation or modernization, despite the losses that both attitudes actually convey. Smith suggests that “editorial deployment of punctuation is not at all a simple matter” and any attempt at the actual reconstruction of the work as originally envisaged by the author is problematic and, so to say, unattainable. This view presupposes that any modern edition of a historical document can never be deemed as the perfect reading of the original, but surely a biased interpretation mediated by printers and editors in their role of textual critics (Smith, 2020b, p. 132).

The Renaissance, however, stands out as the transitional period towards the consolidation of the English system of punctuation, with the establishment of the printing press contributing to some extent to the **standardization** of both the inventory of marks and the functions attributed to them. The press allowed the printing of “multiple copies of a text with identical punctuation, and the circulation of the copies led to wide dissemination of texts which could serve as models of usage” (Parkes, 1992, p. 87), and is thus regarded as a vehicle for the **standardization** of the language. In a previous paper, Calle-Martín (2020) has tentatively confirmed the existence of an on-going process of **specialization** of marks of punctuation in early Modern English printed documents with the presence of an inventory of symbols with a preconceived set of rules, even though overlapping is still commonplace. In this rationale, the *paraph* is the symbol typically used to signal the beginning of a section, the *punctus* is chosen to mark off the end of a sense unit, a paragraph or the text itself, while the comma and the virgule are more committed to the expression of syntactic relationships, both at sentence and at clause level. The printers’ commitment to this pragmatic aspect of punctuation sheds light on the existence of a level of **specialization** and expertise not hitherto witnessed in other handwritten compositions of the period (Calle-Martín, 2020, p. 199).

The study of historical punctuation has been mainly concerned with Old and Middle English. Even though the early Modern English system has also been the object of editorial attention, most of the studies focus on literary compositions (Alden, 1924; Atkins, 2003; Isaacs, 1926; Jenkinson, 1926) while the other text types have been notably disregarded, scientific and legal texts in particular (see Alonso-Almeida & Ortega-Barrera, 2014; Calle-Martín & Esteban-Segura, 2018; Calle-Martín & Miranda-García, 2008). This unexplored condition of punctuation is even more significant in the particular case of early Modern printed texts, despite their active participation in the process of **standardization**, where just a few articles on the use of selected marks have been recently published (Claridge, 2020; Moore, 2020).

Curiously enough, no studies have focused on the use of the serial comma in the history of English. The *serial comma* (also known as the *Oxford comma* or *Harvard comma*) refers to the placing of a comma immediately before the coordinating conjunctions *and/or* (and *nor*) in a series of three or more elements, irrespective of the existence of an actual pause (Marcello, 2020, p. 128).¹ Although the use of this mark is no longer a desideratum in Present-day British English, it was a disseminated practice among **seventeenth-**, **eighteenth-** and nineteenth-century writers, at least in contexts in which the list includes three or more items in the series. In fact, this is the prerogative almost universally recommended by a number of prescriptive grammarians such as, for instance, Charles Butler’s *The English Grammar*, arguing that “many single words, of de sam’ sort, coming togeder, ar distinguished by commas” (1633, p. 59). This same point is proposed in both Robert Lowth’s *A Short Introduction to English Grammar* (1774) and in William Fowler’s *English Grammar: The English Language in Its Elements and Forms* (1850), recommending that “two nouns,

¹The term *serial comma* has been systematically adopted in the present paper as it is the label which has always been used by publishing houses other than Oxford, even in England and elsewhere in the world. In fact, it is the standard terminology for Cambridge University Press along with the *Chicago Manual of Style* (17th ed., 2017), *Editing Canadian English* (2nd ed., 2020) and the *Australian Government Style Manual* (6th ed., 2002), among others. In our opinion, the labels *Oxford comma* (from Oxford University Press) and *Harvard comma* (from Harvard University Press) would have been anachronistic in their application to early Modern English as they were originally coined in the **twentieth** century. The former, for instance, dates back to the 1970s.

or two adjectives, connected by a single copulative or disjunctive, are not separated by a point: but when there are more than two, or where the conjunction is understood, they must be distinguished by a comma" (Lowth, 1774, p. 148).²

95 Since then, the use of that serial comma has been the subject of much debate in many grammar and usage books. The dilemma was more of a linguistic than of a geographic preference in the course of the twentieth century. The defenders of the use of this symbol, on the one hand, based their arguments on the need to set up boundaries between the series of elements in lists including three or more elements and, in the case of omission, there was more licence in combination with the conjunction *or* rather than with the conjunction *and*. Their detractors, on the other, believed that its omission was recommended on the assumption "that the word *and* took its place and that the use of both the comma and the word *and* was redundant" (McCutcheon, 1940, pp. 250–251). In themselves, these two attitudes towards the phenomenon arise from their different interpretation of punctuation, whether grammatical or rhetorical. While a rhetorical interpretation inserts a comma between all the members in the series, as shown in (1), grammatical punctuation does not permit its inclusion between conjoined phrases:

(1) you could win a free trip around the world, or a brand new Alfa Romeo (Baron 2001, p. 23)

110 It is therefore assumed that Present-day British English punctuation is essentially grammatical and signals the structural relationship between the sentence constituents in order to yield syntactic sense. It was in the early eighteenth century, according to Baron (2001, p. 16), when the transition from a rhetorical to a grammatical interpretation took place in English for the expression of logical relationships. Curiously enough, many symbols were adapted to the requirements of grammatical punctuation, with the only exception being the serial comma which remained impervious to this trend over the centuries until its eventual disappearance in the twentieth century, as argued later in this article. In Smith's words, "certain rules for punctuation have been prescribed and codified since the eighteenth century in (e.g.) printers' manuals or school textbooks, and are with a few exceptions (e.g. the 'Oxford comma') widely accepted as 'correct'" (Smith, 2020b, p. 146).

125 The issue is today addressed from the standpoint of diatopic variation, generally omitted in British English and regarded as standard in American English (Baker, 2017, p. 35). Setting aside these major preferences, the deployment or omission of this mark is associated with other factors. On linguistic grounds, it is more strongly recommended in cases of a wrongful interpretation of the utterance, in statements like *I prefer tea, bread and butter, and cake* to avoid the false association of *cake* with the previous items in the series (Burchfield, 1996, p. 162; Heatwole, 2008, pp. 161–162). In some other cases, on the other hand, the choice depends on the particular requirements of publishing houses, which give authors instructions as to its inclusion or exclusion in the writing of formal academic prose (Huddleston & Pullum, 2002). Apart from these prerogatives, the use of this symbol in these contexts is ultimately dependent upon the writer's choice.

²Robertson's *An Essay on Punctuation* recommends this same practice in the following terms: "three or more substantives, in the same case, and in immediate succession, are separated by commas. The reason is, each word exhibits a distinct picture, which should be distinguished from the rest in writing and reading, as it is in nature" (1785, p. 19; see also Ash, 1785, p. 169; Harrison, 1794, p. 103; Murray, 1795, p. 161; Wilson, 1844, pp. 24–25). For a more complete description of the phenomenon in prescriptive grammars, see Medina-Sánchez (2015).

The present paper therefore traces the early history of the serial comma in the history of English until its eventual decline in the course of the **twentieth** century. In light of this, the study pursues the following objectives: (a) to analyze the use and distribution of the serial comma in the period 1500–1999; (b) to evaluate the distribution of this mark of punctuation in the two types of writing, i.e. handwriting and printing, and the level of variation across text types; and (c) to ascertain whether the number of elements in the series participates in its deployment.

2. Methodology

The data used as sources of evidence come from The Málaga Corpus of Early English Scientific Prose (MCEESP), the corpus of Early English Medical Writing (CEEM) and A Representative Corpus of Historical English Registers (ARCHER 3.2.). The early Modern English³ and late Modern English⁴ components of the MCEESP are used as source material for the period 1500–1900. The first component houses approximately 1.5 million words in its current version and consists of a collection of semi-diplomatic editions of hitherto unedited scientific handwritten documents. The principles of a semi-diplomatic transcription have been adopted for the whole set of treatises, meaning that the manuscripts have been transcribed according to the same principles, ensuring absolute comparability when it comes to orthographic elements like abbreviations, punctuation and spelling, among others.⁵ The second component, on the other hand, comprises approximately 3 million words and consists of a set of printed scientific texts belonging to the **eighteenth** and **nineteenth** centuries. These handwritten and printed documents are the input for the compilation of the **normalized** and POS-tagged versions of the corpus, which has been automatically annotated with the Constituent Likelihood Word-tagging System (CLAWS), developed by the UCREL team at the University of Lancaster (Garside & Smith, 1997). Both components contain medical material portraying the three branches of scientific writing, namely, **specialized** treatises, surgical treatises and recipe collections.

The early Modern English (EMEMT) (Taavitsainen & Tyrkkö, 2010) and late Modern English (LMEMT) (Taavitsainen & Pahta, 2019) components of the CEEM were used as data sources for the period 1500–1800. Each corpus contains 2 million words and represents the entire range of printed medical writing in the period. The corpus is divided into theoretical treatises, surgical and anatomical treatises and remedies (Marttila, 2010, pp. 102–103; Pahta & Ratia, 2010, pp. 73–74; Taavitsainen & Tyrkkö, 2010, pp. 65–66; Tyrkkö, 2010, pp. 119–120). It is compiled from printed editions which were keyed-in from facsimiles and originals, and therefore stands for faithful instances of the printing practices of punctuation at the time. The EMEMT corpus covers the **sixteenth** and **seventeenth** centuries whilst the LMEMT corpus covers the **eighteenth** century.

The third source of information is ARCHER 3.2., “a multi-genre historical corpus of [3.3] million words of British and American English covering the period 1650–1999” (Yañez-

³The Málaga Corpus of Early Modern English Scientific Prose.

⁴The Málaga Corpus of Late Modern English Scientific Prose.

⁵General datings are provided for the manuscripts which, for convenience, were converted into approximate pseudo-precise datings for the purposes of the visual data exploration. Thus, the **sixteenth** century has been interpreted as the middle of that century and represented as 1550.

Bouza, 2011, p. 205). It represents a wide range of register diversity that encompasses material from 12 different text types, including personal styles of communication, fiction prose, popular and specialist exposition and scientific prose (Yañez-Bouza, 2011, p. 207). The present study, however, is only based on the British English material from the twentieth century insofar as earlier historical periods are exclusively concerned with scientific writing.

The retrieval of the instances from the MCEESP and CEEM was carried out by means of *AntConc* 3.2.4 (Anthony, 2014) and the instances from ARCHER were searched through CQPweb software (Hardie, 2012). The process was straightforward insofar as it required the searching of all the occurrences of the conjunctions *and* and *or*, both with and without the serial comma, from the plain text versions of the corpora, as shown in (2)–(3), respectively.⁶

- (2) Frequently a great number of small pimples appear on the neck, breast, **and** hands, which are sensibly swelled (Every Man His Own Physician)
- (3) The urine is pale and made often and suddenly, the pulse is low, quick **and** unequal (Every Man His Own Physician)

Disambiguation, however, was needed to discard those instances beyond the scope of the present research, especially the cases in which the conjunctions are used at sentential and at clausal levels, as illustrated in (4)–(5):

- (4) After it is half stilled, that which remains in the Stil may be strained through a linnen cloath, **and** by evaporation reduced to the thicknesse of Honey (London Dispensatory).
- (5) There is one of the Eyes more visible **or** as I may say, carries a truer Ray (MS Hunter 92).

The study is based on a set of handwritten and printed texts from the period 1500–1999 and analyzes the distribution of the serial comma both over time and across text types. As far as the early and late Modern English datasets are concerned, there is not a characteristic practice distinguishing theoretical and surgical treatises in terms of punctuation, a fact which justifies our decision to classify them under the same category, hence distinguishing between theoretical treatises and remedy books, the former taken as the most academic register and the latter as a less formal one. All in all, the present work relies on a total of 11,956 instances of the serial comma, which have been used for the input of the analysis.

⁶The present paper is concerned with the contexts in which this mark of punctuation is likely to appear in the history of English, which explains our decision to include the sequences of two items in a series. This decision does not blur the actual rise and fall of the phenomenon in English nor affect the tendencies over the centuries as the data provide the percentages of the use and omission of the comma in terms of the number of elements in the series. When it comes to the omission of the comma, the process consisted in the manual disambiguation of all the instances in which the conjunctions *and* and *or* appear to list items in a series, regardless of a nominal, adjectival or verbal phrase.

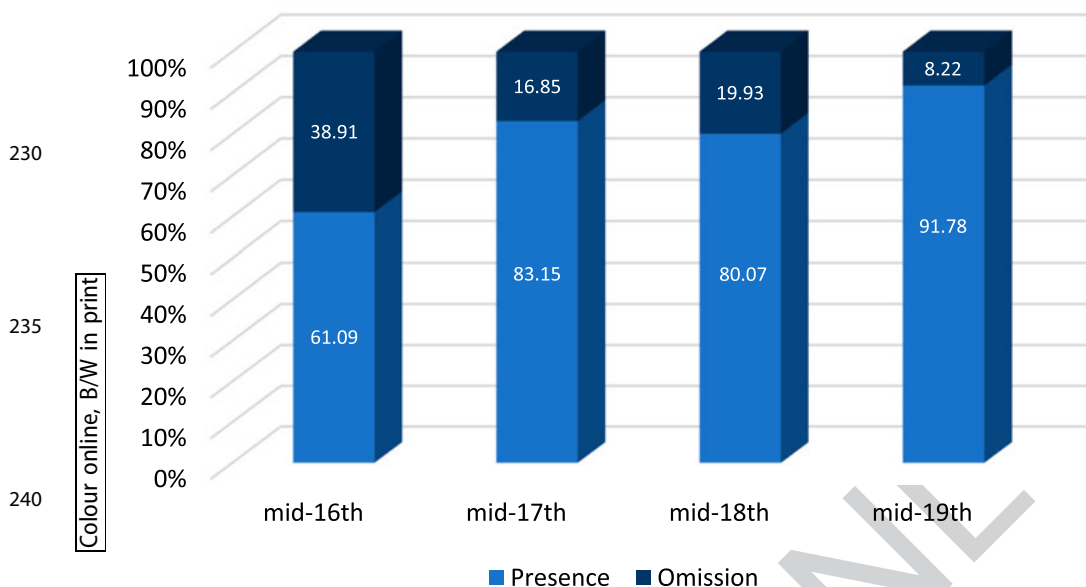



Figure 1 Distribution of the serial comma over time (%) 

3. Analysis

3.1 The serial comma over time

This section explores the development of the serial comma in the period 1500–1900, a period characterized by writers' and printers' progressive commitment to the use of this mark of punctuation, especially from the second half of the seventeenth century. Initially it was as a result of the decisive contribution of the printing press and later as a result of prescriptivist claims in favour of its employment.

Figure 1 shows the distribution of the comma regardless of the written medium (handwritten or printed) or the typology of text type in the scientific domain.⁷ The results tentatively point to early Modern English as a key period in the development of the English repertoire of punctuation, with a proliferation of the comma towards the beginning of the seventeenth century. Even though the data already confirm an overwhelming preference for this symbol in the sixteenth century with a rate of presence of 61.09%, it is not until the following century when its use significantly increases amounting to 83.15% of instances. This positive attitude towards the need of this mark is also observed throughout the late Modern English period, where its use presents a rate of 80.07% and 91.78% in the eighteenth and nineteenth centuries, respectively. Interestingly enough, the phenomenon is found to rise more conspicuously towards the middle of the nineteenth century, especially when compared with the standard distribution of the previous centuries. This may be associated with the impetus received from prescriptive grammarians, who systematically claimed a need for the comma regardless of whether it was an ambiguous statement or not, along with the impulse from other prestigious publications such as the

⁷For accuracy, the percentages have been calculated considering the total number of utterances in which the comma is likely to appear, regardless of its presence or omission.

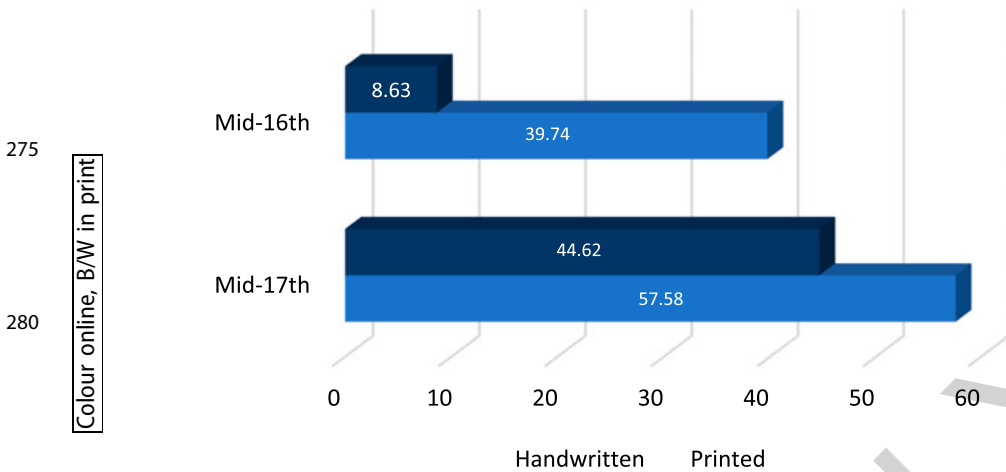


Figure 2 Distribution of the serial comma in early Modern English handwritten and printed texts (%).

Oxford English Dictionary and *The Encyclopedia Britannica*, which were both in favour of the deployment of this symbol.

Figure 2 reproduces the distribution of the serial comma in light of the evidence provided by the handwritten and printed sources in early Modern English to discern whether printers actively contributed to its dissemination. As far as the sixteenth century is concerned, it is found to be erratically distributed in the two types of documents. This was the century in which the comma was incorporated into the English inventory of marks of punctuation and, at this early stage, it agglutinated a number of functions, both at sentence and at clause level, this overlapping being crucial to calls for some sort of specialization.⁸ This is particularly the case at hand with significant differences in the distribution of handwritten and printed documents. In the former, its omission predominates with a percentage of 91.37%, which sharply contrasts with the cases of the scribal inclusion of this mark, amounting to 8.63%. Printed documents, in turn, show a wider adoption of the comma with a rate of 39.74% in comparison with the other 60.26% where it is omitted. Even though it is still early in the period to propose any kind of normalization, it is evident that printers were already reconsidering the alternative rendering of these units and were pioneering the adoption of a symbol of punctuation in these contexts.

The seventeenth century, in turn, presents the adoption of a more standard rationale of punctuation where the use of the comma is progressively deployed in both kinds of writing. Following the trend initiated in the previous century, the rise is more significant in the case of printed documents where its presence already outnumbers its omission with a rate of 57.58% and 42.42%, respectively. An increase is also observed in the case of handwritten texts with a general consensus on its need among the scribes of the period. Printers were much concerned with the employment of a standard pattern of punctuation at all levels and, in the case of the serial comma, they seem to concur on its convenience irrespective of the ambiguity of the statement inasmuch as its use already outnumbered its omission towards the middle of the seventeenth century.

⁸This is also shown in its role as a link between main and subordinate clauses, irrespective of whether a nominal, adjectival or adverbial clause is involved (Calle-Martín & Esteban-Segura, 2018).

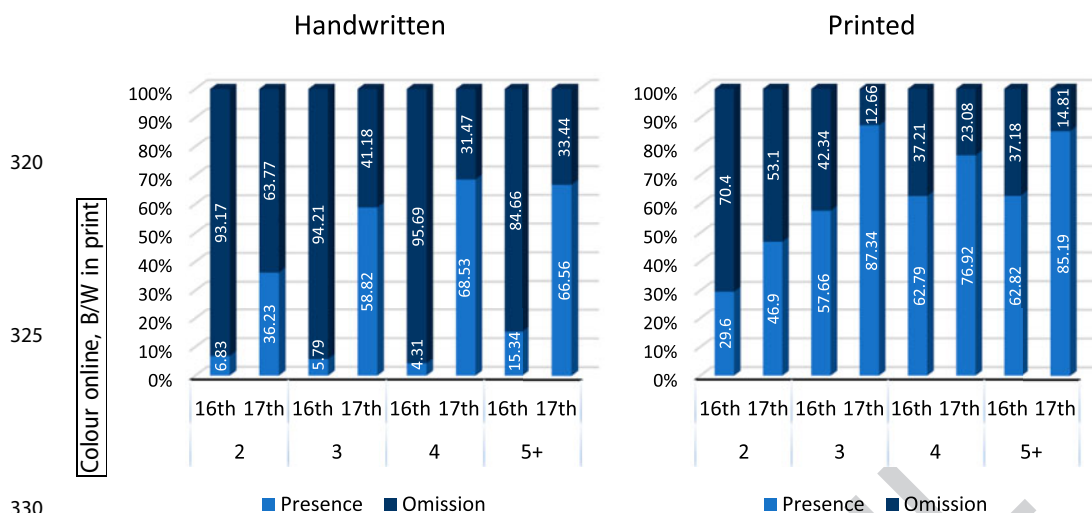



Figure 3 Distribution of the serial comma in early Modern English according to the number of constituents (%) 

3.2 The serial comma according to the number of constituents

The presence of three or more elements in the series of a list is a *sine qua non* condition for the use of the serial comma in Present-day English. This however was not always the case in early English. The point here is therefore to ascertain whether the number of constituents included in the series of a list is a determining factor which participated in the rise of this mark of punctuation in the period. For the purpose, the occurrences have been classified into four main categories in view of the quantity of these items, distinguishing phrases of two elements (2), of three elements (3), of four elements (4) and of five or more elements (5+), as presented in [Figure 3](#).

The results indicate a general tendency towards the use of this symbol when the list includes three or more elements in the series. Still, the distribution of this practice is not uniform across the two types of writing. Considering that the comma was introduced into the English system of punctuation in the [sixteenth](#) century, at this early stage, it was often erratically employed for a wide array of purposes, in manuscript texts in particular. As shown, its use does not vary significantly as the number of items increases, with a rate of 6.83%, 5.79% and 4.31% in contexts of two, three and four elements, respectively, with the exception of those cases in which five or more items are involved (15.34%). A different state of affairs is found in the print dataset. Printers were already committed to the use of a more conventional practice by the mid-[sixteenth](#) century to the extent that its frequency in three-item lists (57.66%) almost doubles the rate when it separates two elements (29.6%), hence pointing to a level of [specialization](#) not witnessed in the handwritten material of the period.

The uniformity of this trend is particularly noteworthy in the [seventeenth](#) century. The findings confirm the establishment of a more standard rationale of punctuation in the period, and they also serve as evidence of the pioneering role of printers in the process of [specialization](#) of the serial comma in early Modern English. A vast increase in its presence is observed in both the handwritten and printed sources, especially when it is used

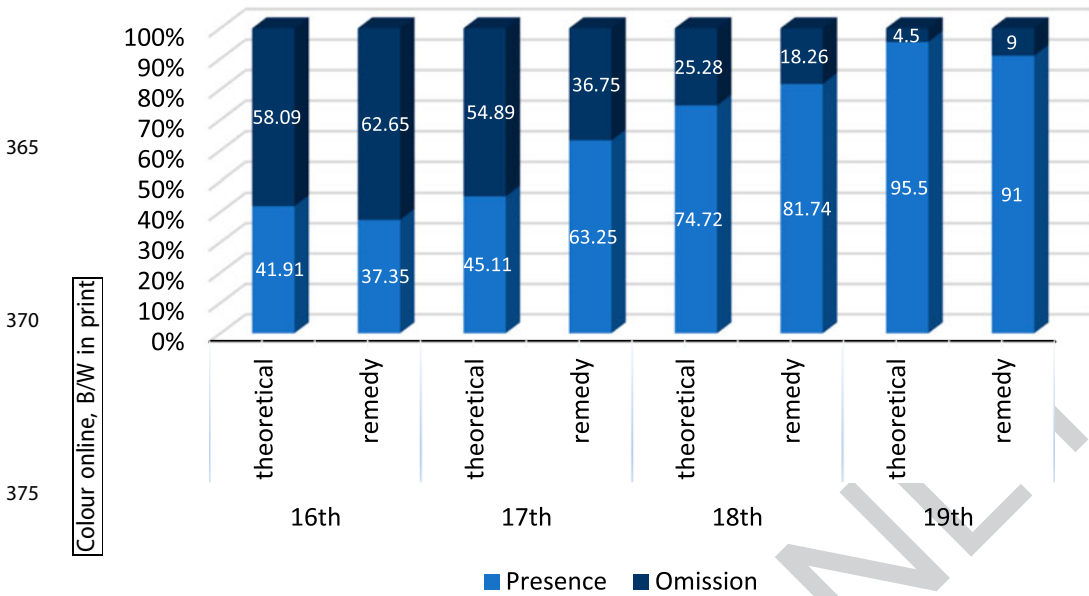


Figure 4 Distribution of the serial comma across text types (%)

to mark off boundaries in a list of three or more items. Following the practice adopted in the previous century, this is especially true for printed documents where the presence of the comma substantially outnumbers the instances where it is omitted (87.34% vs. 12.66% for three-item lists, respectively). This mark notably diffuses in lists containing more than three elements, as it amounts to 76.92% with four items and 85.19% with five or more items, a practice which is in line with the increasing need of compositors for the expression of grammatical boundaries of clauses.

3.3 The serial comma across text types

This section delves into the distribution of the serial comma across two types of medical texts, i.e. theoretical treatises and remedy books. They are different insofar as they represent two kinds of literacies. The former is taken as a representation of cultural literacy, which was restricted to those with leisure and educational purposes, notably university-trained physicians, and transmitted the top medical knowledge of the period, mostly from Latin originals. Remedy books, on the other hand, belong to functional literacy, which was aimed at members of any household who sought help to maintain or restore their health condition, and transmitted popular knowledge and skills in the form of collections of medical recipes (Jones, 2011, p. 32).

Figure 4 illustrates the distribution of the serial comma across these text types in the period 1500–1900. Linguistically speaking, theoretical treatises are normally deemed as more complex than recipe collections given their academic nature. In this vein, Romero-Barranco (2020) evaluated the level of linguistic complexity of the two scientific text types under analysis. The results obtained endorse this tenet since those features related to reduced linguistic complexity (i.e. pro-verb *do*, pronoun *it*, demonstrative pronouns and clausal coordination) are preferred in remedy books, whereas a higher

presence of the features associated with increased complexity (i.e. nominalizations, phrasal coordination, lexical specificity, passive constructions and subordination, among others) is witnessed in theoretical treatises.⁹

410 Interestingly enough, the data suggest that the **seventeenth** century marks off the beginning of the standard use of the comma in both types of texts. Following our conclusions from the historical account of the phenomenon, the **sixteenth** century stands out as a transitional period where its omission predominates both in theoretical and remedy books with a rate of 58.09% and 62.65%, respectively. The next century, however, witnesses the proliferation of this symbol, which diffuses more widely in
415 remedy books (63.25%) than in theoretical treatises (45.11%), a fact that can be explained if text structure is considered. Collections of medical recipes consist of instructions to be followed for the preparation of remedies, and all of them share a common pattern together with a number of textual and linguistic characteristics. In line with this, Criado-Peña (2021) **recognizes** five different stages within this type of recipe.¹⁰ Among
420 them, the second step contains the enumeration of ingredients that need to be employed for the preparation of a particular remedy, where the conjunction *and* is used to separate the different elements in the series.¹¹ The informal nature of remedy books along with the preconceived textual **organization** of the recipes are therefore closely linked to the dominant role of the conjunction in this text type. The recurrent use of *and* in remedies may
425 have therefore led to the employment of a comma as a way of establishing boundaries so as to avoid any possible ambiguity.

The late Modern English period, in turn, witnesses the systematic diffusion of this symbol, even though evolving at a different rate in each century. In the **eighteenth** century, the employment of this mark reaches 74.72% and 81.74% in theoretical treatises and recipe collections, respectively, where again the latter are more sensible to its use. In
430 the **nineteenth** century, however, the rate of presence rises to the extent that it already outnumbers 90% of the instances in both types of documents, and the difference between theoretical treatises and remedy books is now faded with a similar distribution in both types of texts (95.5% in the former and 91% in the latter).

3.4 *The serial comma in the **twentieth** century*

440 Whilst the **nineteenth** century is **characterized** by being a period of “moral and ethical philology” (Finegan, 1998, p. 586), the **twentieth** century marks off the transition to a greater flexibility in the usage of the English language. Such flexibility resulted in linguistic choices governed by individual taste in lieu of the application of strict grammatical rules (Chafe, 1987, p. 49). Historically speaking, punctuation was originally rhetorical

⁹A further categorization of discourse complexity is found in Biber’s study where he associates 33 linguistic features with either reduced or increased complexity (Biber, 1992, p. 140).

¹⁰Criado-Peña (2021) considers medical recipes as containing the following five stages: (a) title; (b) ingredients; (c) preparation; (d) application; and (e) efficacy phrase. The last two constituents, however, are regarded as optional and therefore, they are occasionally omitted. The different steps within medical recipes have been extensively discussed in the literature and other scholars have previously treated them differently in terms of the terminology used and the stages included during the process (see Alonso-Almeida, 2013; Carroll, 2006; Mäkinen, 2011; Marqués-Aguado, 2018; Marttila, 2014).

¹¹This coordinator is also employed to connect the different steps within the recipes resulting in a more widespread use of clausal coordination in remedy books, thus indicating a lower degree of linguistic complexity (Romero-Barranco, 2020, p. 57; see also Biber, 1992, p. 140).

insofar as its ultimate function was to mark breath pauses in a text to be read aloud. The move towards a grammatically-based model was initiated after the introduction of the printing press in England with “the emergence of a silent reading among a significant proportion of the literate populace” (Baron, 2001, p. 25) and, as a result, marks of punctuation “gradually favoured a grammatical over a rhetorical function” (Blake, 1996, p. 207).¹² The Chicago Manual of Style (1982, p. 132) distinguishes between a ‘close’ and ‘open’ system according to the appropriate amount of punctuation used in a text:

The tendency to use all the punctuation that the grammatical structure of the material suggests is referred to as close punctuation. It is a practice that was more common in the past, and though it may be helpful when the writing is elaborate, it can, when misused, produce an uninviting choppiness. There is a tendency today, on the other hand, to punctuate only when necessary to prevent misreading. Most contemporary writers and editors lean toward this open style of punctuation yet preserve a measure of subjectivity and discretion.

In this vein, the present study considers the employment of the serial comma to fall under the criteria of close punctuation, whilst the omission of this mark would be regarded as a typical feature of an open style of punctuation. As previously discussed, its use disseminated in early Modern English with the printing press as the leading force behind this diffusion, and it has been on the rise since then, even though its omission has now become the standard practice in Present-day British English. This section explores the development of this mark of punctuation over the twentieth century in order to identify the moment of its decline and the factors which might have contributed to this change of attitude. For the purpose, the analysis extends beyond the domain of scientific writing, and thus a wider range of text types are explored, namely advertising, diaries, drama, fiction, journals, legal texts, letters, medicine, news and science. This material will allow for the evaluation of any possible extralinguistic conditioning factor(s) as well as for the study of the phenomenon from the viewpoint of textual variation.

Figure 5 reproduces the development of the serial comma over the twentieth century divided into subperiods of 10 years. The results suggest a significant shift in attitude from the middle of the century onwards. More specifically, its employment in these contexts declines drastically after the period 1940–1949 to the extent that its rate of omission exceeds that of its presence, representing 75.86% and 24.14%, respectively. The data thus confirm the findings discussed in previous literature. Bauer (1994, pp. 133–134) analyzed the use of the serial comma in 30 books, 15 published ca. 1900 and 15 produced ca. 1990, noting that in the first dataset only one author used it inconsistently while the rest included this mark as a device to avoid ambiguity in lists of three or more items. A different picture is observed in the latter dataset insofar as only five authors made use of the comma systematically, whereas four of them omitted it consistently and the other six showed an inconsistent use of this mark in their texts.

In light of this, it seems evident that a process of simplification of the use of the comma was taking place throughout the twentieth century, although it was not until the last two decades when this practice became the standard in British English, with rates of omission as high as 95.92% in the period 1980–1989 and 92.31% in the period 1990–1999. Ubushaeva and Ubushaeva (2017, p. 62) regard this trend as a characteristic feature of the late twentieth century considering that the writer “tries to get rid of ‘unnecessary’ commas

¹²Contemporary writers therefore no longer make use of these symbols for oral purposes and consequently “the heavy-handed manner of earlier times is no longer acceptable” (Cronnell, 1980, p. 4).

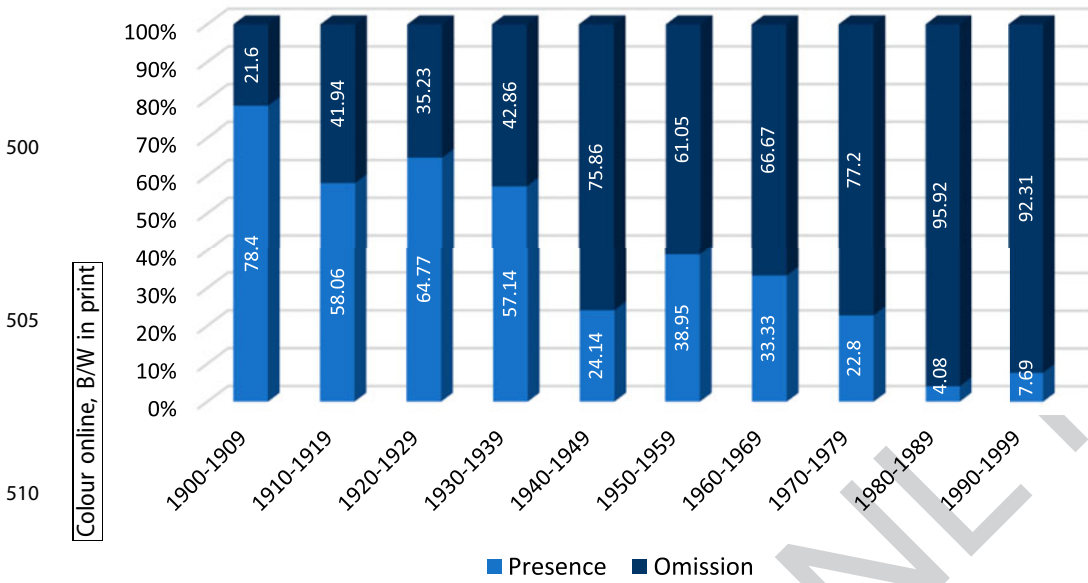


Figure 5 Distribution of the serial comma over the twentieth century in ARCHER 3.2 (%)

provided that the omission of them does not cause ambiguity in the understanding of the intentions of the author". Hence, the steady decrease in the employment of this mark may have been influenced by subjectivity and individual choice, and the natural development of punctuation "in times of language economy" (Bergien, 1996, p. 473) appears to have cleared the way for the change from a close to an open style of punctuation.

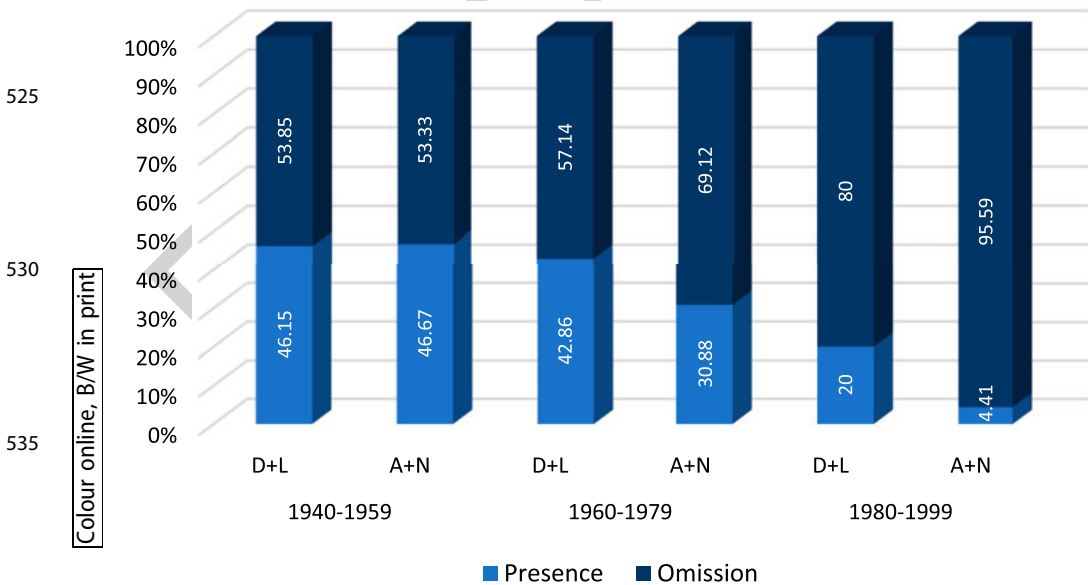


Figure 6 Distribution of the serial comma across text types in the period 1940-1999 in ARCHER 3.2 (%).

Figure 6 focuses on the period 1940–1999 so as to ascertain whether or not the change in attitude towards the use of the comma is related to text typology. Four different text types have been analyzed and further categorized into two groups: (a) diaries and letters, representing a non-scholarly and personal style of writing; and (b) advertising and newspapers, taken as a representation of the language reflected by the mass media. This choice is made based on the tenet that the rapid growth of the popular press in the late nineteenth and early twentieth centuries, together with other factors such as the invention of a number of technological devices (i.e. the telegraph, the radio and the television), reshaped the way of communication and may have therefore propelled certain changes that took place during the twentieth century (Baron, 2001, p. 52). At the time, no other printed medium had such a wide reading public as newspapers and “since the language used in the newspapers reflect language use in the society where it appears, it must be assumed that linguistic change in newspaper language mirrors linguistic change in society” (Westin, 2002, p. 165).

The results displayed in Figure 6 show a similar distribution of the serial comma in the first 20 years, indicating a slight preference for the omission of this symbol in both groups of texts. The data also show a steady increase in favour of its absence during the second half of the century, especially in advertising and newspapers, in such a way that the employment of this mark before the conjunctions *and/or* in potentially ambiguous contexts drops from 30.88% in 1960–1979 to 4.41% in the last decade of the century. The decreasing use of the comma can be closely associated with the on-going process of simplification of punctuation at the time, hence corroborating a drift from a heavy style of punctuation into a lighter one. The prerogative that writers should use as few marks of punctuation as necessary circulated in the course of the twentieth century and, by the end of the century, “‘heavy’ punctuation was out and ‘light’ was in” (Baron, 2001, p. 54). It has been debated that some of the factors contributing to this phenomenon were the expansion of the popular press, a growing readership and the use of shorter sentences (Baron, 2001, p. 54). The employment of simpler and shorter sentences, in turn, is frequently regarded as a feature of linguistic informality and the so-called ‘colloquialization’¹³ of the written language. In her study of the language of some English up-market newspaper editorials¹⁴, Westin (2002, p. 160) noted that it became more informal as well as more compact and precise during the twentieth century, thus reducing the frequency of complex sentences. As sentences become shorter and fewer instances of subordination are found, their degree of ambiguity also declines and, as a consequence, the use of the comma may no longer be required, at least in certain contexts. In this fashion, the expansion of the mass media can be seen to have had a major influence upon the development of an open style of punctuation which resulted in the omission of the serial comma. Bearing in mind the correlation between the language used in the media and that used in society, it is hardly surprising that this trend in favour of the simplification of this symbol is also manifested in more personal styles such as diaries and letters after 1960, although to a lesser extent.

¹³The term was introduced by Christian Mair who described it as “a general societal trend, namely an informalisation of manners and codes of conduct” [...] that took place in the West after World War II (1997, p. 203).

¹⁴The source of evidence of her analysis comes from the *Corpus of English Newspaper Editorials* (CENE), which includes three different newspaper editorials: the *Daily Telegraph*, the *Guardian* and *The Times* (Westin, 2002).

4. Conclusions

The present paper has outlined the historical development of the so-called serial comma in the history of English paying attention to its distribution over time and its variation across handwritten and printed documents and across text types. The number of elements in the series has also been examined to discern whether its dissemination is pioneered by the particularities of the linguistic context. The study has led us to gather the following conclusions.

First, the analysis confirms the deployment of this symbol as a **seventeenth**-century phenomenon in view of its constrained distribution in the previous century. The comma fulfilled a plethora of functions immediately after its incorporation into the English repertory of punctuation in the **sixteenth** century and, as far as the serial comma is concerned, it was still very early to discern any kind of **specialization**, even though printed texts seem to be more concerned with its use. The **seventeenth** century presents the adoption of a more standard rationale of punctuation and the comma is found to be on the rise in both types of writing, although printed texts significantly endorsed its diffusion. The higher preference for this mark in these particular environments is associated with the printers' compromise on its need, a practice which also permeated the scribal conventions of the time. Its use was on the rise throughout the **eighteenth** and **nineteenth** centuries, the latter in particular where the omission became a rule rather than an exception. The wider distribution of this symbol in late Modern English is plausibly connected, on the one hand, with the prescriptive bias of grammarians who systematically recommended it regardless of the existence of ambiguity and, on the other, with the impulse received from prestigious publications such as the *Oxford English Dictionary* and *The Encyclopedia Britannica*, both in favour of its use.

Second, the number of constituents has proved to be a determining factor in its development in the period 1500–1700, especially in contexts including three or more elements in the series. Interestingly enough, the practice also differs in the course of time, with a higher **specialization** in the **seventeenth** century. In itself, the comma is found to be erratically distributed in the **sixteenth** century, in handwritten documents in particular, but it was one century later when it became essential for the expression of grammatical boundaries in both types of documents, especially in the case of printed texts.

Third, the study of the phenomenon across text types also points to the decisive contribution of the printing press as the leading force behind the diffusion of this symbol in the **seventeenth** century. Its employment is more widely disseminated in printed documents, recipe material in particular, while theoretical compositions lag behind. The outstanding role of the comma in remedy books is the result of the intrinsic conventions of this type of writing, **characterized** by the necessary listing of the procedures and ingredients to cure a particular malady, thus leading to a broader presence of items in a series, especially if compared with the formality of academic writing. The late Modern English period is again crucial in the diffusion of this mark considering its steady increase in both types of documents, which had already accommodated it almost entirely towards the middle of the **nineteenth** century.

Fourth, the present study has also confirmed a shift in attitude towards the employment of this symbol from the middle of the **twentieth** century. In line with a change from a close to an open style of punctuation and the on-going simplification of the comma that took place throughout that same century, the findings reveal a drastic fall in its use from the second half of the century to the extent that its omission has

635 already become the standard practice in Present-day British English after 1980. The analysis of different text types has also corroborated the correlation between the expansion of the mass media during the **twentieth** century and the omission of the serial comma. The language used in newspapers favoured stylistic informality leading to a decrease in linguistic complexity and, consequently, to a lower level of ambiguity of texts. This factor, together with the development of a lighter style of punctuation, promoted the omission of this mark of punctuation, a pattern that gradually evolved into the standard in advertising and newspapers during the second half of the **twentieth** century. This practice was also adopted in more personal styles of writing, albeit at a slower pace.

640 The impetus of the serial comma in the history of English is the result of eclectic forces joining their efforts at different times. The first step was taken by the early Modern English printers, who in the **seventeenth** century promoted its use before coordinating conjunctions in the listing of items in a series. The second impulse was by the **eighteenth-** and **nineteenth-**century prescriptive grammarians, who almost in unison advocated the need of the comma in this grammatical environment, and more importantly irrespective of the existence of ambiguity or not. The final step was probably taken by *The Oxford English Dictionary* or *The Encyclopedia Britannica*, which indirectly contributed to the spread of this practice throughout the **nineteenth** and the early **twentieth** century until its eventual decline towards the middle of that same century. Still, the issue is yet open to future variationist approaches in the search for a convincing explanation for the adoption of a rhetorical and a grammatical model of punctuation in American and British English and whether a particular text type pioneered the adoption of this mark of punctuation, on the one hand, and to explore the path followed by the other varieties of English worldwide in their endorsement of the British- or the American-based model, on the other. As of now, concluding that the serial comma declined towards the second half of the **twentieth** century in Present-day British English is a valid argument.

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Data availability statement

665 The data that support the findings of this study were derived from the referenced sources, which are either in the public domain or access is available by permission.

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