



Punctuation in Early Modern Texts: The English Translation of Rembert Dodoens' Herbal in Handwriting and Printing

La puntuación en textos del período moderno temprano: la traducción en inglés del herbario de Rembert Dodoens en la escritura a mano y en la impresión

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Abstract: The present paper analyses the punctuation of a handwritten and a printed version of a distinguished herbal from the Early Modern period—that is—the English translation of Rembert Dodoens' *A Nieuwe Herball or Historie of Plants*. The paper aims to contribute to the dissemination of knowledge on the use and distribution of punctuation in Early Modern English texts of a diverse typology, as well as to provide fresh observations as regards the historical linguistic comparison between scribes and printers' writing practices. All this considered, it pursues the following objectives: to undertake (i) a quantitative survey of the various punctuation marks occurring in the texts; (ii) a qualitative examination of these at macro- and micro-textual levels; and (iii) an evaluation of the similarities and differences between the manuscript and the printed versions.

Keywords: Punctuation; Early Modern English; herbal; handwriting; printing.

Summary: Introduction. The Text: An Overview of its Historical Background and Contents. Methodology. Analysis. Summary of Findings and Conclusion.

Resumen: El presente artículo analiza la puntuación de una versión manuscrita y de otra impresa de un prestigioso herbario del inglés moderno temprano, a saber, la traducción de *A Nieuwe Herball or Historie of Plants* de Rembert Dodoens. El artículo pretende contribuir a la difusión del conocimiento sobre el uso y distribución de la puntuación en textos históricos de diversa tipología

escritos en inglés, así como proporcionar nuevas percepciones en lo que respecta a la comparación lingüística histórica entre las prácticas de escritura de los escribas y de los impresores. Se persiguen, por tanto, los siguientes objetivos: (i) un estudio cuantitativo de los signos de puntuación utilizados en los textos; (ii) un análisis cualitativo de estos a nivel macrotextual y microtextual; y (iii) una evaluación de las similitudes y diferencias entre las versiones manuscrita e impresa.

Palabras clave: Puntuación; inglés moderno temprano; herbario; escritura a mano; impresión.

Sumario: Introducción. El texto: Un resumen de su contexto histórico y descripción de los contenidos. Metodología. Análisis. Recapitulación y conclusión.

INTRODUCTION

The study of English historical punctuation has received in the last thirty years a notable volume of academic consideration—“mainly from different Spanish universities” (Calle-Martín and Esteban-Segura, “The Egiptians” 68–69)—possibly impelled by its direct association with orthography, and the standardisation process it underwent for more than two centuries (see Scragg 52–81; Blake 9–15; Salmon 15–53; Moessner 700–02). Such a significant degree of scholarly attention also resides on the importance that the chronological diffusion and functionality of the phenomenon has within the present-day punctuation paradigm. As it occurs with other language levels such as morphology and phonology, the current mechanism of punctuation is the outcome of a continuous variation process over many centuries, which has influenced the visual appearance of the symbols, as well as their usages (Crystal 278).

The first traces of punctuation dates to the third century BC, when Aristophanes of Byzantium started to implement certain punctuation marks in those places of the written text in which traditionally no separation was provided.¹ This allowed readers to discern the specific moments wherein pauses were required for a correct oration of a document, as the practice of reading aloud in public—regarded as an elite and specialised task—was commonplace at the time. To ensure it, Aristophanes split the text into the Greek units *periodus*, *komma*, and *kolon*,² each of these respectively represented by a raised, medial, and

¹ The ancient writing system is denominated *scriptura continua* or, as Clemens and Graham (83) also note, “*scriptio continua*.”

² Note that Thaisen (14) represents the units with the grapheme <k> to avoid any erroneous interpretation with our present-day *comma* and *colon*.

lowered point, which served to indicate a specific pause-type. (Thaisen 14; Parkes 1; Crystal 278). According to Denholm-Young,

[t]he [*komma*] is a pause when the hearer still expects something; the [*kolon*], a pause when the hearer does not necessarily expect anything, but when something may still follow, i.e. when the sense is complete but the sentence is not concluded. The [*periodus*] is the point at which the speaker or writer concludes the sentence. (77)

Aristophanes' punctuation units survived for approximately eight centuries, until the era of Isidore of Seville, who also "recommended their use, now under the Latin names *distinciones* or *positurae*" (Thaisen 14). The first of these systems remained in use up to the twelfth century, whilst the second prevailed throughout an extended portion of the medieval period, with a series of innovations that supposed a drastic change as to the way the phenomenon was employed (Clemens and Graham 82–83).

Once Middle English started to give way to Early Modern English, the qualitative uses of punctuation began to progressively experience some modifications as a consequence of the rise of silent reading praxes, which were established as general rule in libraries after the introduction of printing enabled the production of multiple copies of a same text. Silent reading permitted the individual examination of a text at the expense of the traditional practice of reading aloud, thus helping to introduce an array of norms concerning the functions of punctuation marks that eventually came to be part of later English grammars (Medina-Sánchez and Rodríguez-Álvarez 101). As shown by Rodríguez-Álvarez, the phenomenon became a matter of paramount concern in most Early Modern English books designed for the study and learning of the language, where authorities such as John Hart, Richard Mulcaster and Edmund Coote—among many others—instructed a number of conventions for punctuating which were "devised to convey sense to the students' reading and writing" ("Teaching Punctuation" 46).

Even though discourse-based punctuation (see Thaisen) was still in use in the sixteenth and the seventeenth centuries, the system was steadily replaced by grammatical punctuation, with most authors devoted to reproducing punctuation symbols as a means to signal the various syntactic relationships between a text's sentences, clauses, and/or phrases (Calle-Martín and Esteban-Segura, "New Insights" 4). The period also sees an ongoing standardisation of the phenomenon characterised by the

disappearance of such classical devices as the *punctus elevatus* from the English repertory (see Petti 26; also Clemens and Graham 85),³ the incorporation of new ones—comprising the comma, the apostrophe, the semicolon, the question mark and the exclamation mark (Tannenbaum 140–48; Dawson and Kennedy-Skipton 18; Hector 45–49; Petti 26–28; Jenkinson 153–55)—and the final stabilisation of these in terms of their shapes and “the functions attributed to them” (Calle-Martín and Criado-Peña 166).

As mentioned before, historical punctuation has been broadly treated in the academic literature since the last decade of the twentieth century and, above all, in the 2000s and 2010s, as demonstrated by the increasing number of publications addressing the theme (see Parkes; Rodríguez-Álvarez, “The Role of Punctuation”; Alonso-Almeida; Marqués-Aguado, “Old English Punctuation Revisited”; Calle-Martín and Miranda-García; de la Cruz-Cabanillas, “Punctuation Practice”, to cite just a few). Between 2019 and 2024, an important number of works have considered punctuation with regards to its quantitative distribution and its linguistic functions in different early English text-types, with a special emphasis on medical/scientific prose (see Honkapohja; Romero-Barranco; Criado-Peña; Thaisen) and legal compositions (see Calle-Martín), although documents of a different nature have also been recently surveyed (see Calle-Martín and Thaisen). Other studies, however, have accounted for the chronological evolution and the uses of certain punctuation devices—including commas, hyphens, parentheses, and exclamation marks—⁴ as well as for the philological connections between punctuation and historical pragmatics in several pieces (see Smith, “From ‘Secreit’”; González-Díaz; Calle-Martín and Romero-Barranco).⁵

In line with those investigations focusing on specific types of historical English documents, this paper aims to analyse the punctuation

³ Also known as *inverted semicolon* (:), the *punctus elevatus* is a “sophisticated” mark of punctuation employed throughout the medieval period to indicate a short length pause (Derolez 185; Petti 26).

⁴ Some examples of these studies include, among others, Smitterberg, Calle-Martín and Criado-Peña, Sánchez-Stockhammer, Moore, and Claridge.

⁵ According to Smith (“From ‘Secreit’” 237), the recent interest in the historical development of the phenomenon and its association with pragmatics is grounded on the fact that “punctuation is a vector of meaning in the complex, historically situated communicative relationships that exist between readers, copyists (whether scribes or printers), editors, and authors.”

of a prestigious herbal from the Early Modern period: the translation of Rembert Dodoens' *A Nieuwe Herball or Historie of Plants* (see Dodoens), first published in English in 1578. The choice of such a piece not only stems from the importance it had at the time of publication, but also from the fact that a substantial part of it has been preserved in handwriting in Glasgow University Library, MS Ferguson 7 (ff. 23r–48v; 59r) (F7 for short). According to De la Cruz-Cabanillas, “little has been published concerning punctuation variants in different copies of the same text” (“Is Punctuation Comparable” 12), especially when it comes to pieces available in both handwritten and printed format (see Lorente-Sánchez, “Punctuation Practice” 62). This considered, apart from contributing to the dissemination of knowledge on the use and distribution of punctuation in Early Modern English texts of a diverse typology, this work seeks to provide fresh observations towards the historical linguistic comparison between scribes and printers’ writing practices. The paper intends to accomplish the following objectives: to produce (i) a quantitative survey of the various punctuation marks occurring in the texts; (ii) a qualitative examination of these at macro- and micro-textual levels (see Romero-Barranco 63); and (iii) an evaluation of the similarities and differences between the manuscript and the printed versions.

The article is divided into four sections; section 1 presents a historical overview of the text as to its origin and its subsequent development in Early Modern English, together with a summary of the contents included in the printed and the handwritten volumes; the methodological procedure followed in the gathering of data is offered in section 2; section 3 then covers the analysis of the phenomenon in terms of the quantitative distribution of the various symbols of punctuation and its qualitative usages at four different text-levels; lastly, the closing section supplies a summary of the results and draws a conclusion.

1. THE TEXT: AN OVERVIEW OF ITS HISTORICAL BACKGROUND AND CONTENTS

The Early Modern English period is characterised—among other things—by a notable thriving attraction towards medical literature motivated by the radical decline of reader illiteracy but, above all, by the impact of the press as for its propagation, both in terms of the form wherein it is presented and of the quantity of works spread (see Taavitsainen et al.; Nurmi). Though not the most common text-type of a medical nature at the time, especially

when compared with others such as recipe books, the sixteenth and the seventeenth centuries experienced a prolific boost in the amount of edited herbals, which could “range from pocket-sized, unillustrated octavos to huge folios filled with costly woodcuts” (Neville 30).

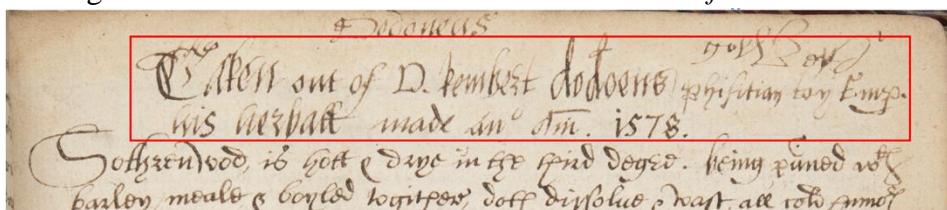
Such an increase might have found part of its motivation in the influence exerted by the Continent in those days, where the popularity of these compositions and the number of authors devoted to arranging them were increasing extraordinarily (Arber 52–145). The history of the English printed herbal extends from the beginning of 1525 until 1640, two moments where the first and the last print occurrence of this text-type take place. The former emerged as an anonymous publication entitled the *Little Herball*, whereas the latter was developed by the London apothecary John Parkinson under the abbreviated Latin title *Theatrum Botanicvm* (Neville 30; see also Parkinson). Between them, a remarkable quantity of botanical works—along with their corresponding editions—were issued in the country. These encompassed volumes such as William Turner’s *A New Herball* (1568) and John Gerard’s *The Herball or Generall Historie of Plantes* (1597) (Arber 119–38), pieces by high-esteemed figures among which the English translation of Dodoens’ text is also found.

A *Nieuwe Herball or Historie of Plants* came to light in England in 1578 through a translation from a 1557 French version of the material undertaken by the botanist Henry Lyte (1529?–1607), who is likewise remembered for writing the so-called *The Light of Britayne; a Recorde of the honorable Originall and Antiquitie of Britaine*, released in 1588 (Lee 364–65). However, the history of this specific herbal goes back twenty-four years before the appearance of the earliest English edition, as it is in 1554 Antwerp when the original text, rendered in Flemish, is printed under the single-word title *Cruydtboeck*. This primary version reached a noteworthy degree of reputation among the majority of experts on medicinal plants of the era, to such an extent that almost a decade after its materialisation, a variety of printed editions in different languages were released, including the above-mentioned French translation (Arber 82; Lorente-Sánchez, “Dodoens’ Herbal”).

The esteem of the *Cruydtboeck* was also extrapolated to the English printed translation, not only for the prestige brought from the original document, but also for its extraordinary layout in opposition to other contemporaneous specimens of the kind. This great appreciation is reflected in the development of three further editions after the 1578 release, two of them published before the end of the century, in 1586 and 1595,

and the other in 1619 (see Barlow 141; Lorente-Sánchez, “*Rams Little Dodeon*”). In handwritten format, by contrast, the volume has not been as acclaimed as the printed book insomuch that, up until the present day, it has uniquely been identified in *F7*. This witness stands as one of the 113 seventeenth-century representatives of Professor John Ferguson’s medical collection of historical manuscripts (see Glasgow University Library), which comprises a segment of the Archives and Special Collections section of the University of Glasgow Library.⁶ As illustrated in Fig. 1, *F7* features a set of plant portrayals manually reproduced and customised from Henry Lyte’s 1578 version, since the following lines may be read at the beginning of the treatise: “Taken out of Doctor. Rembert dodoens phisitian to þe Emperour. his herball made anno domini. 1578.” In light of this, both the manuscript text and the earliest English edition (hereafter *PH1578*)⁷ are employed as sources of evidence for the scrutiny of punctuation in Early Modern English handwriting and printing (see section 2).

Fig. 1: First folio of *A Nieuwe Herball or Historie of Plants* in *F7*⁸



As might be assumed from a herbal, the two versions of the piece supply us with minute depictions of numerous healing plants and herbs, covering information such as the sorts of subspecies identified within the same genus, their appellatives in several European and classical languages, their nature, the location where these grow, and their medicinal properties

⁶ See the University of Glasgow’s archives and special collections www.gla.ac.uk/myglasgow/archivespecialcollections/.

⁷ The letters of this label stand for ‘Printed Herbal’, whereas the number corresponds to the date of publication of the piece.

⁸ All the images of *F7* reproduced in the article come from *The Málaga Corpus of Early Modern English Scientific Prose (MCEMESP)* (Calle-Martín et al.). Courtesy of University of Glasgow Archives and Special Collections, MS Ferguson 7 (ff. 23r, 25r, 32r, 35v and 47v), the images became part of the *MCEMESP* in 2019 after the compilers paid the required fee and obtained the corresponding permission for their online publication. The said department has the ownership of the manuscript.

and hazards (Lorente-Sánchez, *The Secrets* 7). Nevertheless, when it comes to the quantity of material, the handwritten document concerns only part of the printed volume, given that, “out of the 571 plants with their diverse subspecies described in the original, only 198 are recorded in [F7], that is, approximately 35% of the total held in the English printed edition” (Lorente-Sánchez, “Dodoens’ Herbal”).

Divided into six books as the initial 1554 Flemish version, *PH1578* presents a relatively balanced distribution in terms of the extent of descriptions from the different parts of the collection, which incorporate diverse topics of discussion ranging from simple contrasts between herbs to sketches of their respective parts. Even though the copyist of *F7* assembles fragments of all the books, as shown in Table 1, he displays an apparent preference for those of the first, followed at a considerable distance by those of the third, second, and fourth, and then by those of the fifth and sixth (Lorente-Sánchez, “Dodoens’ Herbal”).

Table 1. Figure of plant characterisations in the six books of the printed edition and the manuscript

Book	Topic	<i>PH1578</i>	<i>F7</i>
<i>First</i>	Differences and lively description of sundry sorts of herbs and plants.	103	61
<i>Second</i>	Differences and descriptions of pleasant- and sweet-smelling flowers.	117	35
<i>Third</i>	Descriptions of medicinal roots and herbs that purge the body, and of noisome weeds and dangerous plants.	94	36
<i>Fourth</i>	Descriptions of corns, grains, legumes, thistles and such like.	82	27
<i>Fifth</i>	Descriptions of herbs, roots and fruits which are daily used in meats.	81	21
<i>Sixth</i>	Descriptions of trees, shrubs, bushes and other plants of woody substance, together with their fruits, rosins, gums and liquors.	94	18
	Total	571	198

Source: Lorente-Sánchez, “Dodoens’ Herbal”

2. METHODOLOGY

From a methodological point of view, my analysis of punctuation is based on the manual semi-diplomatic transcriptions of the texts (Petti 34–35), where the contents of these, punctuation included, have been reproduced in the same form as they are in the original to conduct an accurate analysis, and thus a correct interpretation of the data.⁹ The transcriptions have then been scrutinised by means of Laurence Anthony's *AntConc*, a free corpus software which has given me the chance to search for the various punctuation marks employed in the versions, as well as to export the gathered occurrences to an external .xlsx file for an eventual classification of both the quantity and the qualitative uses of these in the documents.

The retrieval of instances has finally reported 11,718 symbols of punctuation, 3,269 of which are from *F7* and 8,449 from the printed counterpart. Although the study has exclusively focused on those parts of the piece that are contained within the manuscript for a suitable scrutiny of the phenomenon, the number of words differs between the versions. The manuscript consists of 18,165 words, whilst *PH1578* contains 37,936. Consequently, the figures have been normalised to 10,000 units to make the results comparable. After such a process, the normalised frequencies amount to 1,799.61 and 2,227.17 occurrences, respectively. This confirms that punctuation is more recurrent in the printed edition than in the handwritten document.

Table 2. Overall distribution of punctuation in the manuscript and the printed versions of the herbal (normalised frequencies)

Text version	<i>F7</i>	<i>PH1578</i>
Punctuation	1,799.61	2,227.17

⁹ Editorial intervention has been preserved to a minimum insofar as the unique modifications carried out reside on the different abbreviations attested in the documents. These have been widened and the omitted units have been supplied in italics (e.g. *w^c*, *w^t* and *þ^t* have been reproduced as *which*, *with* and *þat*, respectively) (see Petti 35). This allows for a better comprehension of the text, especially by any reader unacquainted with the basic notions of historical palaeography (see Miranda-García et al.; Calle-Martín et al.). At the same time, it offers the possibility to vouch for those instances wherein certain punctuation devices display some functions at the phrase level (see section 3.2.2.3).

3. ANALYSIS

This section addresses the quantitative diffusion of the different punctuation symbols in the texts and their linguistic functions at macro- and micro-textual levels. It is, therefore, organised into two sub-sections. Section 3.1 identifies the marks employed across the versions and explores their incidences to ascertain whether there is variation between the handwritten and the printed copies. Section 3.2, in turn, analyses the symbols according to their uses, examining their similarities and/or disparities as regards to their functionality within the texts' arrangement (section 3.2.1), and regarding their language operability at the sentence, clause, and phrase levels (section 3.2.2).¹⁰

3.1 Quantitative Analysis

The inventory of punctuation marks available for Early Modern English scribes and editors is abundant to say the least, particularly when compared to those observed in Old and Middle English texts. According to Tannenbaum (140), the symbols available to writers come to at least fourteen different types, a number which is without doubt many more than those discernible in earlier documents (Derolez 185–86; Clemens and Graham 84–86). Tannenbaum does, however, remark that the use of a limited number of these is “very erratic even in the first quarter of the seventeenth century.” As expected of two samples of written material from the Early Modern era, *F7* and *PH1578* accommodate an important array of devices, consisting of the following: (i) the period; (ii) the comma; (iii) the virgule; (iv) the colon; (v) the semicolon; (vi) the hyphen; (vii) the parenthesis; (viii) accents; (ix) the apostrophe; (x) the caret; and (xi) line-filers. Table 3 exhibits the frequencies of appearance of these symbols in the documents object of research. A test of significance of the overall figures carried out via the t-test shows that the variation between the Early Modern English handwritten and printed representatives is not statistically significant (t-score = 0.63; p-level = 53.87%). Nevertheless, a detailed look at the distribution of the various marks in each document denotes that

¹⁰ This is the same rationale adopted by a number of studies on the use and distribution of punctuation in texts from different stages of the history of English (see Marqués-Aguado, “Old English” 54; “Punctuation Practice” 56–57; Calle-Martín and Miranda-García 360–61; Romero-Barranco 62–63; Criado-Peña 84; Lorente-Sánchez, “Punctuation Practice” 62, etc.).

there are differences between the printed book and the manuscript copy with respect to their punctuation practices, both on quantitative and qualitative grounds.

Table 3. Distribution of punctuation marks in the manuscript and the printed versions of the herbal (normalised frequencies)

	<i>F7</i>	<i>PH1578</i>
Period (.)	799.89	400.67
Comma (,)	821.36	1,224.96
Virgule (/)	3.3	13.18
Colon (:)	38.54	301.56
Semicolon (;)	8.81	0.79
Hyphen (–)	24.77	157.37
Parenthesis [()]	8.81	9.49
Accents (´)	10.46	116.25
Apostrophe (')	-	2.9
Caret	4.4	-
Line-fillers	79.27	-

As may be attested, the comma is the most common punctuation symbol in both the handwritten and the printed formats, especially in the latter, where its incidence compared with that of the second most recurrent symbol—the period—is more than triple (1,224.96 and 400.67 instances, that is, 55% and 17.99%, respectively).¹¹ In handwriting, however, the difference between the two marks is slight insomuch that the comma is reported to occur in 821.36 cases (45.64%), whilst the period is attested in 799.89 occasions (44.45%). *F7* and *PH1578* coincide in that, in proportion to commas and periods, the rest of the symbols fall markedly behind in quantitative terms, although with a variable diffusion as well, which eventually corroborates the existence of evident punctuation contrasts between the versions.

Although the two texts share a large number of the symbols enumerated above, *PH1578* displays a greater preference for their usage in view that the majority of punctuation marks are more regularly seen in printing. The only exceptions are the period and the semicolon, the recurrences of which are substantially more prominent in the handwritten

¹¹ Percentages in this section represent the rate of occurrence within each text of the different marks in proportion to the totality of instances of punctuation.

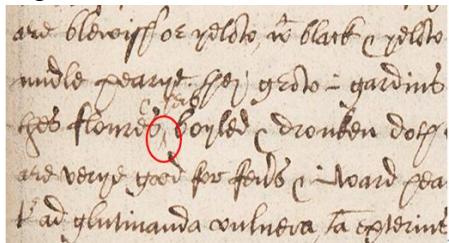
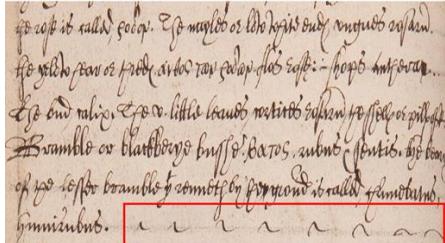
volume. First, the prevalence of the period in this medium (799.89 instances in *F7* vs 400.67 in *PH1578*) is grounded on the scribal habit towards continuously employing it for a clausal purpose (see section 3.2.2.2), more specifically as an enumerator of items in a series, as exemplified in (1).¹²

(1) Mulleyne or high taper. φλοιος. Verbascum. lychnitis. picnitis. tapsus barbatus. candela regis. The white male mullein, hath great, broad, longe, white softe *and* wollie leaues, from the lowest *parte vpward* . . . (*F7*, f. 29v)

Second, the regularity of the semicolon in the handwritten manuscript may be based on its apparent recent nature at the time in which the volume was written. Even though this mark “makes a very public appearance at the end of the fifteenth century in the humanist circle surrounding Aldus Manutius the elder” (Parkes 49), it is seldom applied in England until approximately the last two decades of the sixteenth century (Petti 26). The semicolon appears to gain some ground from that moment onwards; hence its use in *F7* could stem from the point that the treatise was composed in the early seventeenth century (see Lorente-Sánchez, “Dodoens’ Herbal”), a time when such a means of punctuation seems to experience a flourishing in handwriting (see Lorente-Sánchez, “Punctuation Practice” 77).

The analysis also shows some variation between the documents when seeing that certain symbols are observed to occur in one of the versions, but are unattested in the other. On the one hand, while non-existent in the printed piece, the caret and line-fillers are witnessed in *F7* on 4.4 and 79.27 occasions. Always placed under the writing lines and rendered as a sort of small triangle without a base (Fig. 2), the caret is used to denote “[t]he insertion of an extra word or words between the lines” that the scribe should have initially neglected to include when undertaking his task (Tannenbaum 147). Line-fillers, in turn, are curly horizontal lines of diverse lengths (Fig. 3) situated in empty spaces at the end of the lines to impede any posterior incorporation of undesired material (Petti 28; Derolez 186).

¹² In this specific case, the scribe uses the period to enumerate several names of the herb mullein.

Fig. 2. Caret in folio 32r of *F7*Fig. 3. Line-filler in folio 47v of *F7*

On the other hand, the apostrophe is uniquely viewed in *PH1578* (2.9 instances), in passages where the French name of a specific plant is provided, as in (2a). By contrast, it is completely overlooked in the handwritten counterpart, since the scribe seems to only be keen on reproducing the English, Latin, and—in a fewer number of cases—Greek names of an array of the medicinal plants depicted in the original, as in (2b).

- (2) a) This herbe is called in shops Artemisia, *and* of some Mater herbarum: in Spanish Artemya: in English Mugworte: in French Armoysie, l'herbe S. Ian: in high Douch Beyfuszm *and* S. Iohans gurtel: in base Almaigne Byuoet . . . (*PH1578*, p. 16)
- b) “Mugwort, artemesia, mater herbarum, called of ould παρθενις mugwort pownd with oile . . .” (*F7*, 23r)

3.2 Qualitative Analysis¹³

3.2.1 Punctuation at Macro-Textual Level

Punctuation performs a limited set of macro-textual purposes in the two documents object of study. This means that there are cases in the pieces in which certain punctuation symbols, rather than effecting grammatical functions, are employed as devices contributing to a better organisation and structure of the text throughout the pages. These uses are confined to

¹³ Accents, apostrophes, carets, and line-filler have been disregarded in this part of the analysis insofar as these marks do not perform any linguistic functions in the texts, neither at a macro-level nor at a micro-level. Therefore, the figure of punctuation marks under examination has been reduced at this point to 1,650.43 instances in *F7* and 1,950.13 in *PH1578*.

mark out the end of paragraphs, as in (3), and to denote the end of section headings, as in (4).¹⁴

(3) It hath diuers small woddye braunches somtymes trayling alongst þe ground, *and* sometymes growing vpright of a foote *and* half longe sett full of small leaues, much like to þe leaues of garden tyme but much larger. the floures grow about þe top of the stalkes like to crownes or garlandes, after the manner of horehound floures, most commonly of a purple red colour, *and* somtymes (but very seldom) as white as snowe. the roote is hard *and* of a woddy substaunce with many thredye stringes, it groweth in vntilled *and* stony places, by the hye way sides *and* in the borders of fieldes. *calidus. siccus. 3. gradu.* it floureth from after may tyll the end of sommer, (F7, f. 35r)

(4) Of wilde or common Camomill.

The first kinde of wilde Camomill is now called Chamæmelum album: in Shoppes Chamomilla, whereas it is aptly vsed for Leucanthemum: in English common Camomill: in Italian Camamilla. in Spanish Macella, Manzanilla. in French Camomille vulgaire: in high Douch Chamill. Albeit this is not the right Camomill. Wherefore we call it Chamæmelum syluestre, that is to say, wilde Camomill. (PH1578, p. 184)

The data in Table 4 reveal that punctuation is more recurrently used at the macro-textual level in the manuscript version, with a total of 171.76 attested cases, than in the printed equivalent, amounting to 102.54 occurrences. Despite this overall distribution, PH1578 demonstrates a higher degree of standardisation than F7. Similar to present-day writing, the printed version only makes use of the period to operate the distinct macro-linguistic functions. However, whilst a clear preference for the period is also noted in the handwritten text, F7 provides us with some instances in which the comma and, to a lesser extent, the virgule are likewise employed to such ends. The presence of these symbols in identical contexts was routine in many Early Modern English manuscripts, where they could take “the place of any punctuation mark (a period, an

¹⁴ Apart from these two major goals, punctuation also acts at macro-level to indicate lacunae. This use, however, is sporadic in the pieces since it is only seen once on folio 35r of F7, where it is marked off by means of the virgule.

exclamation mark, an interrogation point) the writer may happen to think he needs" (Tannenbaum 140).¹⁵

Table 4. Functions and distribution of punctuation at macro-textual level in *F7* and *PH1578* (normalised frequencies)

	<i>F7</i>		<i>PH1578</i>
End of paragraph	.	,	/
End of paragraph	77.62	0.55	0.55
End of section heading	73.77	18.72	0.55
Total		171.76	49.56
			102.54

3.2.2 Punctuation at Micro-Textual Level

This section considers the linguistic functionality of punctuation in the texts from a micro-textual viewpoint, assessing it in terms of its miscellaneous uses within sentences, clauses, and phrases. To this purpose, it has been structured into three minor sub-sections, each of them corresponding to a particular level.

3.2.2.1 Punctuation at Sentence Level

First, punctuation conducts seven linguistic functions aimed at associating textual material at the level of the sentence, namely, (i) to introduce sequential markers, as in (5); (ii) to introduce coordinate sentences, as in (6); (iii) to supply readers with explanatory comments or additional information, as in (7); (iv) to mark off the beginning of new sense-units, as in (8); (v) to introduce non-finite verb forms, as in (9); (vi) to divide the different parts of a same section, as in (10); and (vii) to precede paraphrased quotations, as in (11).

(5) . . . they geue him straight wayes to drinke a dram of the powther of this rote with wyne in winter and in somer with the distilled water of scabiosa, carduus benedictus or Rosewater, then they bring him to bed and couer him well, tylly he haue swett well . . . (*F7*, f. 42r)

¹⁵ Note that Tannenbaum (140) only refers here to commas, without making any mention to other marks. Virgules have been added to this interpretation because these symbols were, functionally speaking, 'long commas' in early English writing that began to be obliterated as soon as 'regular commas' commenced to be used among scriveners and printers (see Petti 26).

(6) . . . the floures dronke *with* honyed water openeth the liuer, and are verie good against the iaundise. this seed is somewhat hurtfull to the stomach, therefore . . . (F7, f. 24v)

(7) The flower of wheaten meale boyled with hony and water, or with Oyle and water, dissolueth all tumours, or swellinges. The same layde vpon with vineger and hony (called Oximel) doth clelse and take away all spottes and lentilles from of the face (PH1578, p. 453)

(8) . . . the raw leaues punde are very good to be laid vpon spreading sores, *and* be naughtye scurf *which* causeth þe hear to fall. The broth of beetes scoureth away the scurvie scales nyttes and lyce of the head being washed therwithall . . . (F7, f. 43v)

(9) . . . The stalke is smooth, rounde, holowe, and ioynte, of the length of a man or more, with spokie rundels or tuffetes, at the top of the stalkes: bearing a yellow flower, and a round, flat, broade, seede . . . (PH1578, p. 294)

(10) Mulleyne or high taper . . . tapsus barbatus. candela regis. The white male mulleyn hath great, broad . . . like a wax candle or taper. The white female mulleyn, hath white leaues frised *with* a softe woll . . . parted in vj little leaues. The third, being the white female mulleyn with yellow floures . . . (F7, f. 29v)

(11) Mugworte as Plinie saith, had this name of Artemesia Queene of Halicarnassus and wife of Mausolus king of Carie, who chose this herbe and gaue it her name, for before . . . (PH1578, p. 16)

Table 5 shows the distribution of the different punctuation marks in line with the sentential functions they carry out across the versions. The results report again that the phenomenon is more frequent in the handwritten piece than in the printed edition (725.02 vs 614.45 occurrences, respectively). As might be expected, the survey also shows certain disparities between the texts apropos of the inventory of symbols employed at this level and, more importantly, the linguistic roles some of them accomplish depending on the format.

Table 5: Functions and distribution of punctuation at sentential level in *F7* and *PHI578*
(normalised frequencies)

	<i>F7</i>				<i>PHI578</i>			
	,	:	;	()	,	:	()	/
Sequential marker	1.65	6.61	0.55	-	2.11	2.37	2.11	-
Coordinate sentence	9.36	94.14	3.85	2.2	-	3.43	104.91	8.17
Explanatory comment	6.06	61.66	1.65	-	8.81	1.1	1.58	79.08
New sense-unit	289.57	133.77	19.82	4.95	-	234.34	55.62	25.31
Non-finite form of verb	0.55	40.74	-	-	-	0.26	51.67	0.79
Separate parts of section	36.88	-	-	-	-	25.04	-	-
Quotation	-	1.1	-	-	-	-	4.22	-
Total					725.02			614.45

Although both documents make use of the same four symbols—the period, the comma, the colon, and the parenthesis—, the manuscript additionally turns to the semicolon and the virgule to achieve a confined handful of purposes, namely, the introduction of new sense-units (4.95 instances of the semicolon), coordinate sentences (2.2 instances of the semicolon), and explanatory comments to the readers (1.1 occurrences of the virgule). On the other hand, it seems that the absence of semicolons and virgules for these purposes in the printed text is correlated with the overwhelming prevalence of other symbols, i.e. the period and the comma, as illustrated in (12) and (13). The first device presents a rate of 74.32% of the whole occurrences where punctuation introduces new sense-units in *PH1578*. The second, in turn, is employed in 90.04% and 84.04% of the occasions to coordinate sentences and to provide readers with further explanations, respectively.

(12) a) Pondeweede, hath long round *and* knotty branches. The leaues grow vpon smal short stems, and are large great *and* flat, layde and carried vpon the water, somewhat like to great Plantayne, but . . . (*PH1578*, p. 104)

b) Pondeweед, hath long round *and* knottie braunches; the leaues grow vpon small short stems, and are large great *and* flatt, laid *and* caried vpon be water somewhat like to great plantayn, but . . . (*F7*, 28v)

(13) a) The same floures boyled with their herbe or plante, and giuen to be dronken, doth clense the lunges and breast, and are very good for feuers, and inward inflammations or heates. (*PH1578*, p. 149)

b) . . . they grow in gardins *and* cornfeldes, they are temperate. thes floures */and* herb\ boyled *and* dronken doth clense the lunges *and* brest; and are verye good for feuers and inward heates. (*F7*, 32r)

Interestingly, some other differences are also discerned regarding these three mentioned sentential uses and the introduction of sequential markers. As far as the last function is concerned, *F7* manifests an apparent tendency towards rendering commas to precede units such as “then” or “afterwards” (75%),¹⁶ while in *PH1578* there is no clear preference for an exclusive

¹⁶ In this part of the analysis, percentages represent the rate of occurrence within each text of the different punctuation devices in proportion to the totality of instances of every individual linguistic function. In the specific case at hand, for instance, 75% denotes the

punctuation device, given that commas present almost a similar frequency to periods and colons (that is, 36%, 32%, and 32%, respectively). When it comes to new sense-units, even if the period is the mark that predominates in the two versions, the manuscript is also prone to using the comma to such an end (see Lorente-Sánchez, “Punctuation Practice” 68), with a figure of 133.77 occurrences (30.19%), more than doubling that of the printed volume, which is restricted to 55.62 (17.64%). Another difference in this context lies within colons, displaying a higher distribution in *PH1578* (25.31 occurrences, i.e. 8.03%) compared with the handwritten copy (19.82 instances, i.e. 4.47%).

As for coordination, whereas commas stand out both in *F7* and *PH1578*, the manuscript shows a major inclination towards periods as opposed to the printed text (8.54% vs 2.94%, respectively), where colons are more favoured than in the handwritten piece (7.01% in *PH1578* vs 3.52% in *F7*). Finally, most symbols, namely the comma, the colon, and the parenthesis, are more frequently employed in printing for the provision of explanatory comments, with the only exception being the period, which is repeated more in handwriting.

3.2.2.2 Punctuation at Clause Level

At clausal level, punctuation performs the following uses: (i) to enumerate items in a sequence, as in (14); (ii) to separate short units in a series comprising internal punctuation, as in (15); (iii) to associate the clause constituents, as in (16); (iv) to introduce coordinate phrases, with listed elements in particular, as in (17); (v) to introduce appositional phrases, as in (18); and (vi) to link main and subordinate clauses, as in (19).

(14) The Great Tornesoll. heliotropium magnum. verrucaria maior. herba cancri. herba solaris. scorpionis herba. siccus. et calidus. 3º gradu. It hath straight round stalkes, couered with a white hearye cotton . . . (*F7*, f. 26r).

(15) This herbe is called in Greeke ἀχίλλεια: in Latine Achillea, and Achillea sideritis, of Apuleius Myriophyllum, Myriomorphos, Chiliophyllum, Stratoticon, Heracleon, Chrysitis, Supercilium Veneris, Acron syluaticum, Militaris, and of some Diodela: in Shoppes at this present Millefolium: in Italian Millefoglio: in Spanish Yerua Milloyas: in English also Milfoyle,

rate of appearance where commas are employed to introduce sequential markers with respect to the whole figure of occurrences in which this function is observed.

Yerrow, and Schaffrip, and Tausenblaet: in base Almaigne, Geruwe. (*PH1578*, p. 144).

(16) The stalkes be rounde, smooth, and holow, at the toppe whereof: groweth the yellow flower with the three leaues hanging downewardes, like to be garden flower Deluce, *and* three mounting vpwardes . . . (*PH1578*, p. 199).

(17) The polished barke of the chesnut boyled *and* dronken stoppeth the laske, bloodye flix, and all other yssue of bloode ~ ~ (*F7*, f. 48v).

(18) . . . the high Germaynes do make of it *Flos tinctorius, that is to say be flower to staine*, or dye withal, *and* do terme it in their language, Ferbblumen . . . (*PH1578*, p. 667).

(19) . . . for it dryeth *and* strenghteth the stomack, *and* stirreth vp appetite. It is good for corrupt sores and stinking mouthes, yf one wash with be decoction therof. (*F7*, f. 42v).

Table 6 reproduces the distribution of punctuation in the two versions in reference to the above clausal functions, where, overall and contrary to the other linguistic levels already explored, the printed herbal far and away outnumbers the manuscript (1,218.08 vs 642.13 occurrences, respectively). This prevalence of punctuation in *PH1578* is largely—yet not solely—based on the prominent bias of the printer towards employing colons as separators of units containing internal punctuation (254.64 instances) and commas as predecessors of coordinate phrases (281.79 instances).

Table 6: Functions and distribution of punctuation at clausal level in *F7* and *PH1578*
(normalised frequencies)

	<i>F7</i>						<i>PH1578</i>					
Enumerate items	150.84	,	/	:	;	—	·	386.7	12.92	4.74	;	0.53
Internal punctuation	11.56	200.94	-	11.01	1.65	0.55	11.86	386.7	41.12	-	254.64	-
Associate clause constituents	1.65	5.51	-	0.79	-	-	4.22	63.26	-	0.26	-	-
Coordinate phrase	-	68.81	-	-	-	-	0.26	-	-	0.26	-	-
Appositional phrase	-	95.79	-	-	-	-	281.79	-	-	-	-	-
Link main and subordinate clause	-	2.75	-	-	-	-	-	29.52	-	1.32	0.26	-
Total	-	90.28	-	-	-	-	-	124.68	-	-	-	-
							642.13					1.218.08

As far as internal punctuation is concerned, the printer is prone to include the different names of the accounted plants in a number of languages; not only English, but also others such as Greek, Latin, Italian, Spanish, and German, as shown in (15). In a large number of cases, a plant contains at least two names in a specific language, which are generally enumerated through commas, so the printer tends to provide colons (84.88%) to separate them from those pertaining to a different language. The scribe, however, is more reluctant to apply this practice, as its incidence in *F7* is negligible compared with the primary printed version. As previously mentioned, he appears to be uniquely captivated by the English and some classical names of certain herbs, and thus avoids a regular usage of this clausal function inasmuch as it might have been redundant for him. Even in those limited cases where this use emerges, he generally turns to the period (11.56 instances, that is, 61.76%).

Apropos of coordinate phrases, their introduction is systematically accomplished in both *PH1578* and *F7* through the use of commas, albeit with a different diffusion, the former summing an aggregate almost three times higher than the latter. The lower occurrence in the manuscript dwells in an evident scribal boundedness to ignore their usage when writing the text. As illustrated in (20), the copyist refrains from including these punctuation devices for the purpose in an important quantity of fragments wherein the printer renders them in the original.

(20) a) “. . . Moreouer it taketh away the Payne *and* heate of all woundes inflamed, vlcers, and Phlegmons being applied thereto.” (*PH1578*, p. 139)

b) “. . . moreouer it taketh away the payn *and* heat of all woundes inflamed vlcers and phlegmons being applied thereto.” (*F7*, 31v)

Together with this, there is a pair of differences between the versions that are worth mentioning as for the way several elements are enumerated in a series. To start with, while the comma is the predominant mark of punctuation in the printed book (386.7 instances, i.e., 92.79%), its leading character in the handwritten treatise (200.94 instances, i.e. 55.05%) is relatively shared with the period, which displays a figure of 150.84 occurrences (i.e. 41.33%). The notable regularity of the period in this environment may be explained by the scribe’s tendency to employ it in order to differentiate the names that a medical herb possesses in diverse

languages (see examples 1 and 12), as opposed to other forms of enumeration seen throughout the text, where items are almost systematically separated from each other by means of commas (e.g. “parietarie is singular against cholerick inflammations, ignis sacer, spreading and runing sores, burninges and all hott vlcers,” f. 25v). Despite irregular in printing, this tendency is not at all surprising among Early Modern English manuscripts as, apart from its more ordinary functions, the period could also do “service as a type of comma” until at least the first two decades and a half of the seventeenth century (Petti 25; Lorente-Sánchez, “Punctuation Practice” 70).

On the other hand, the data likewise indicate that there is a specific symbol used in *PH1578* which is absent in *F7*, that is, the virgule. Found on 12.92 occasions, this means of punctuation is always located in some section titles of the printed edition and applied as a divider of the main names of certain herbs depicted in it (e.g., “Of great Pellitorie of Spayne / Imperatoria / or Masterwort,” p. 299).¹⁷

3.2.2.3 Punctuation at Phrase Level

Punctuation is lastly noticed to carry out a couple of aims at phrasal level. These encompass the indication of abbreviations, as shown in Fig. 4, and the circumscription of numerals, as illustrated in Fig. 5. In these particular cases, the period stands as the unique symbol of punctuation, with none of the other marks from the complete inventory employed for any of the two usages. Nevertheless, this device exhibits a dissimilar distribution across the text-formats. As reproduced in Table 7, its frequency of appearance in *F7* outnumbers its occurrence in *PH1578* for both the totality and the individual phrasal functions. This picture, among others, may also come

¹⁷ It should be noted that in just a raw instance (i.e. 0.55 normalised occurrences), the hyphen also operates in *F7* at the clause level to separate an item from the rest in a sequence of enumerated elements (e.g. “Water betonye. brown wort- Scrophularia maior. ficaria. millemoria. ferraria,” f. 25r). This example, however, seems to have emerged here by mere accident, since the scribe normally employs other marks when it comes to enumerating. Except for such instance, the hyphen does not run any linguistic function in the texts, as it is in most cases intended to signal the specific places wherein words are split at the end of the line and, less frequently, to join some compounds (e.g., “tooth-ache” *PH1578*, p. 32) (see Petti 27). As may be seen in Table 3 (section 3.1), this punctuation mark is more regular in *PH1578*, with a total of 157.37 occurrences, an incidence substantially larger than that of *F7*, with 24.77 instances.

to justify the noteworthy degree of occurrence of the period in the manuscript compared with the printed edition.

Fig. 4. Instances of punctuation used at phrasal level to indicate abbreviations (F7, f. 25r)

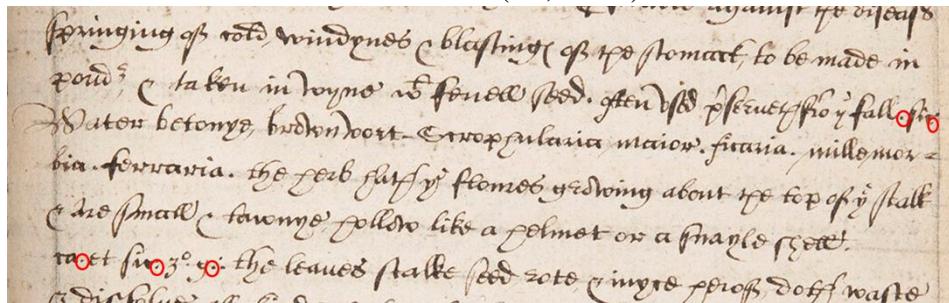


Fig. 5 Instances of punctuation used at phrasal level to circumscribe numbers (*F7, f. 35v*)

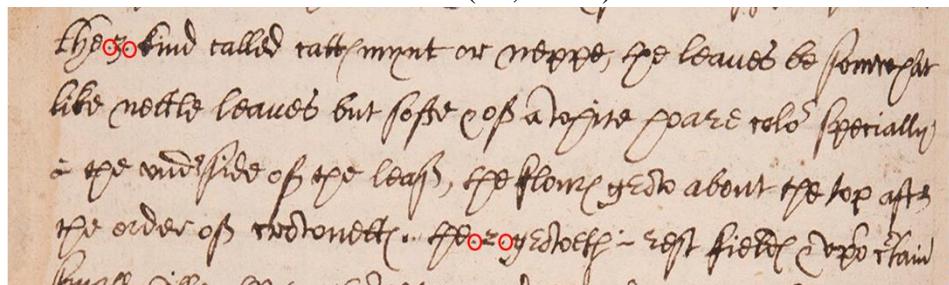


Table 7. Functions and distribution of punctuation at phrasal level in *F7* and *PH1578* (normalised frequencies)

	<i>F7</i>	<i>PH1578</i>
Abbreviations	75.97	7.12
Numerals	35.78	7.91
Total	111.75	15.03

SUMMARY OF FINDINGS AND CONCLUSION

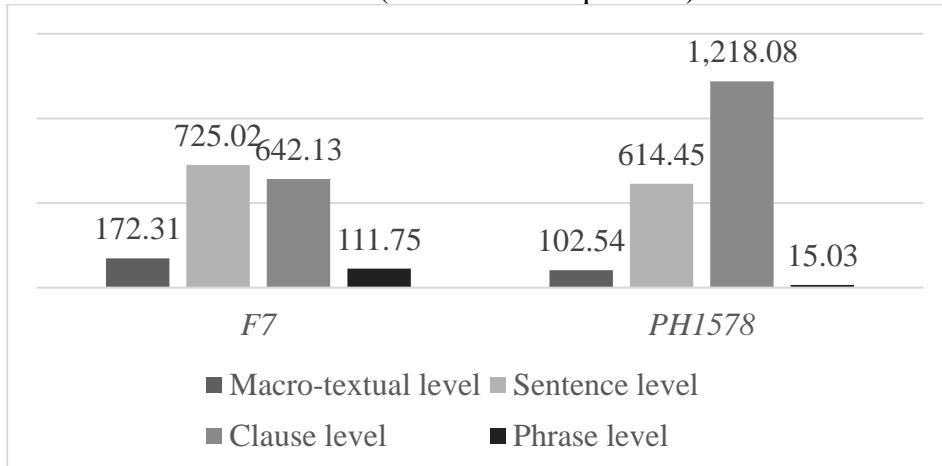
The present paper has analysed historical punctuation in handwritten and printed texts from the Early Modern English period, providing a particular consideration to its quantitative distribution and its qualitative usages at

macro- and micro-linguistic levels. To such a goal, it has focused on the examination of both the English 1578 printed translation of Rembert Dodoens' *A Nieuwe Herball or Historie of Plants* and a manuscript version of this, which has survived up to the present-day in Glasgow University Library, MS Ferguson 7 (ff. 23r–48v; 59r). On the whole, the analysis has permitted me to assess a number of similarities and differences between the two pieces.

Quantitatively speaking, the phenomenon is more regularly observed in the printed version in light of a major occurrence of most punctuation devices in comparison with the manuscript, with the unique exceptions of the period and the semicolon. The study has also revealed some contrasts between the documents to the view that some specific marks such as the caret, line-fillers, and the apostrophe are non-existent in a particular text-type, although they appear in the other. The first two are uniquely attested in the handwritten version, where they are respectively employed to indicate the incorporation of some word(s) in the writing lines and to fill up those vacant areas at the end of these. The third, on the contrary, is only seen in the printed document as an aid to reproduce the French names of some herbs.

On qualitative grounds, the results indicate that punctuation operates mainly at sentence level in the manuscript, whereas it predominates at clause level in the printed book, as summarised in Fig. 6. The data also show that the role of punctuation diffuses more frequently at phrase and macro-textual levels in handwriting in comparison to printing. In addition to this, there are some differences respecting the manner diverse sub-functions are accomplished across the pieces, which arise as a result of a kind of linguistic adaptation of punctuation taking place when the scribe copies the original printed edition in his treatise.

Fig. 6: Distribution of punctuation at the different levels in *F7* and *PH1578* (normalised frequencies)



At macro-textual level, the phenomenon presents a higher degree of variation in the handwritten texts. While in printing the period is the mark *par excellence* to denote the end of paragraphs and section titles, in handwriting the comma and the virgule are likewise found for these functions.

At sentence level, some variation is observed apropos of the introduction of sequential markers, the use of coordination, the marking off the beginning of new sense-units, and the introduction of explanatory comments. As far as sequential markers are concerned, the comma is more numerous than the rest of marks in *F7*, whilst in *PH1578* it presents a balanced distribution together with the period and the colon. Regarding the rest of sentential uses, the printed edition denotes some preference for the colon, though other devices are salient in each specific case, whereas in the handwritten volume the period normally stands as the favoured mark.

At clausal level, the major distinction between the versions is based on the way in which some marks split units in a series including internal punctuation. In the printed book, the colon is the preferred symbol, while in *F7* the period is again the most recurrent device. Apart from this, another difference is witnessed as for the enumeration of items. Although the comma is almost the only mark of punctuation employed in *PH1578*, the scribe also tends to share its use—once more—with the period.

Finally, at phrasal level, the phenomenon is used to abbreviate and circumscribe numbers. Both functions are more recurrent in the

manuscript, with the period being the only chosen means of punctuation to accomplish them.

All in all, this work has demonstrated that there are still some consistent patterns towards the use of punctuation in handwritten and printed documents from the Early Modern English period; those manually produced stand in a less advanced stage of regularisation, as the phenomenon seems to be somewhat contingent on the peculiar writing procedures of each scribe. This conclusion, however, is just based on the evidence gathered for the present study, hence should not be assumed to correspond to the overall picture of other individual texts and, as such, of the entire historical era. More research on the usage and distribution of the phenomenon in documents from the period of both the same and a varied typology is required, as it would undoubtedly help elucidate this question, at least in part.

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