A corpus-based study of abbreviations in early English medical writing

Javier Calle-Martín
University of Málaga / Spain

Abstract – The Early Middle English period witnessed the massive borrowing and adoption of the Latin system of abbreviations in England. Mediaeval writers appropriated those symbols that were directly transferable from Latin exemplars, especially suspensions and brevigraphs, while contractions and superior letters were incorporated somewhat later. The existing accounts of abbreviations in handwritten documents are fragmentary as they offer the picture of the literary compositions of the period, which have been traditionally taken as the source of evidence for handbooks on palaeography. In addition to this, most of these accounts are limited to the description of their use and typology in independent witnesses, being in many cases impossible to extrapolate the results beyond the practice of individual scribes. The present paper takes that step beyond individuality and pursues the study of abbreviations from a variationist perspective with the following objectives: a) to analyse the use and distribution of abbreviations in Late Middle English and Early Modern English (1350–1700), and b) to evaluate the relevance of these abbreviations across different text types of medical writing. The data used as source of evidence come from *The Málaga Corpus of Early English Scientific Prose*, both the Late Middle English and the Early Modern English components (1350–1500 and 1500–1700, respectively).

Keywords – abbreviations; brevigraphs; contractions; Early Modern English; Late Middle English; superior letters; suspensions

1. INTRODUCTION[1]

The use of abbreviations was scarce among Anglo-Saxon scribes. Even though most Anglo-Saxon writings stand out for the complete absence of abbreviations, some of them are claimed to be timid attempts in the adoption of some of the Latin conventions into the vernacular.[2] The Anglo-Saxon version of the *Apollonius of Tyre*, for instance, housed in

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[2] The Anglo-Saxon minuscule contains fewer abbreviations because it is not a cursive script. The French-speaking administrators who arrived after the Conquest started to write faster and, as a result, appropriated

MS Corpus Christi College 201 from the middle of the eleventh century, features a restricted number of abbreviations, limited to the sporadic use of the 'tilde' —a straight horizontal stroke of varying length— as a representative of the vowel *e*, the consonant *m* or the group *er*, as shown in the opening sentence of the text reproduced below, in italics for accuracy.

(1) An antiochia þare ceastre wæs su*m* cyningc Antiochus g*e*haten. aft*er* þæs cyninges naman wæs seo ceastre antiochia g*e*ciged. […] (*AoT*, MS CCC 210, f. 131).

The eleventh century was crucial in the development of the Latin system of abbreviations in England. Hector (1958: 29) argues that "by the date of the Norman Conquest of England the conventions which characterise medieval practice were firmly established wherever Latin was written." The borrowing and adoption of Latin abbreviations was massive at this early stage to the extent that the system reached elaborate and complex proportions requiring the readers' familiarity with these conventions for a proper understanding of the texts. This was, however, the effervescence of the early years and the number and complexity of the abbreviations soon decreased returning to "orderly and manageable proportions" (Petti 1977: 22).

The quick adoption of abbreviations in Latin documents favoured their incorporation to English writings since there were not many literate people in England after the Conquest and those penmen who copied Latin texts were also responsible for the rendering of the vernacular. Mediaeval writers appropriated those symbols which were directly transferable from Latin exemplars, mostly suspensions and brevigraphs, and later contractions and superior letters. The transfer was almost overnight, not only in terms of the rules but also in terms of the signs, and the English documents from the twelfth century already exhibited the inventory and number of abbreviations of a Latin composition (Hector 1958: 29).

After this sudden rise, the fifteenth century marks off "a general diminution in the employment of abbreviations and a return to the more moderate use typical of the twelfth century" (Derolez 2003: 187). There was a pattern of gradual reduction of abbreviations in the vernacular, "becoming more abundant in drafts than in formal copies" (Petti 1977:

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a higher number of abbreviations. In addition to this, unlike their Anglo-Saxon counterparts, they wrote Gothic cursive scripts, whose letters started to be joined up, with the only exception of the formata grade.

22) and, in many cases, this practice can be defined as sporadic among sixteenth-century penmen in the Renaissance.

This historical overview is, however, fragmentary since it offers the picture of the literary compositions of the period, which have been traditionally taken as the source of evidence for handbooks on palaeography. One can barely extrapolate these trends to all the written documents of the Renaissance and, more importantly, across the different text types of a particular genre. Even though this reduction can be taken to be commonplace in many sixteenth- and seventeenth-century literary pieces, it cannot be applied to every handwritten document of the period, the exceptions becoming as frequent as the rule itself, especially as far as legal and scientific writings are concerned. For instance, Glasgow University Library, *MS Hunter 3*, is a case in hand, housing a collection of 68 Elizabethan privy seal warrants for the period 1558–1575 composed under the protection of the Elizabethan courtly tradition, offering a unitary picture of the Elizabethan attitude towards abbreviations (Calle-Martín and Miranda-García 2008). Glasgow University Library, *MS Hunter 135*, in turn, contains, among others, a sixteenth-century collection of medical recipes entitled *Medica Quaedam* where its anonymous author deals with the remedies for the healing of everyday illnesses (Romero-Barranco 2017). The number and repertoire of abbreviations in these two texts are not superficial and considerably outnumber those in a formal literary composition of the time, the latter in particular.

The present paper evaluates the use of abbreviations in Late Middle English and Early Modern English medical writing both over time and across text types. With respect to chronology, the study analyses the evidence found in texts written in the period 1350–1700 to provide a historical outline over 350 years. The phenomenon is also surveyed from the perspective of text-type variation. Scientific writing has been traditionally classified into 'theoretical texts', 'surgical texts' and 'remedies' (Voigts 1982; also Taavitsainen and Tyrkkö 2010).[3] Remedies can be traced back to the Old English period and consist of treatments for ailments written by non-practitioners based on "adaptation and accretion" (Voigts and McVaugh 1984: 21), ultimately devised for the use of laymen and academic physicians. Theoretical and surgical treatises, in turn, were new in the Middle English period and belonged to the learned tradition, being mostly translations of

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[3] This threefold distinction has been questioned by Alonso-Almeida and Carroll (2004: 31), who suggest classifying medical material in terms of its contents, distinguishing: 1) theory-only books, 2) theory-practice books and 3) practice-only books.

learned Latin medicine with an academic origin, designed for physicians of the highest class, surgeons and barber surgeons. In view of this, theoretical treatises are considered the most academic text type while remedies portray the language used by lay people, as they were mostly collections of recipes stored for their use at home. Surgical treatises, in turn, would fall in-between the above-mentioned classes (Pahta and Taavitsainen 2004: 7).

The vernacularisation of these types of texts is also found to develop at a different pace. The conventions of specialised discourse were new in Middle English, based on Greco-Roman models as a result of the transfer of the Latin scientific writing into the vernacular (Voigts 1984: 315–336). The tradition of remedies was long, mostly based on the conventions already established in Old English, and the texts were written with a great deal of freedom (Taavitsainen and Pahta 1998: 159). The research hypothesis is that the use of abbreviations is going to vary across the different types of medical writing, assuming a higher number and variety of them in learned scientific compositions as a result of the physicians and surgeons' acquaintance with the Latin methods of abbreviation. This argument would imply the existence of a more constrained use of abbreviations in recipe collections in view of the more limited access of non-practitioners and laymen to the Latin conventions of scientific writing.

In a recent publication, Smith (2019) discusses the use of the -Vs abbreviation in Older Scots manuscripts arguing that one of the factors deciding whether a scribe picks this abbreviation is how easily it connects to the preceding letter, thus establishing a connection between the type of script and the level of cursiveness. On another note, Smith (2020) states that punctuation served to control a text's reception and to aid the reader to such extent that a practised reader would surely need less punctuation. Along these lines, abbreviations would inversely align with punctuation insofar as they would characterise a text which was quickly written. Even though cursiveness and the inherent formality of the text are decisive factors influencing the role of abbreviations in a text, the present paper is not concerned with the script in which the manuscripts are executed nor with how cursive the hand is. Formality is taken to be a possible factor contributing to the spread of abbreviations, but exclusively understood as an inherent property of the different text types, that is, the work's nature as a learned or less learned text which best explains the frequency of abbreviations in scribal copies of scientific texts.

The existing accounts of abbreviations in many handbooks are almost exclusively concerned with the description of the typology of abbreviations in independent witnesses, avoiding any attempt to extrapolate the results beyond the practice of individual scribes. The present paper takes that step beyond individuality and pursues the study of abbreviations from a variationist perspective both over time and across text types with the following objectives: a) to analyse the use and distribution of abbreviations in Late Middle English and Early Modern English (1350–1700); and b) to evaluate the impact of these abbreviations across different text types of medical writing.

2. ABBREVIATIONS IN HANDWRITTEN DOCUMENTS

Manuscript abbreviations are traditionally classified in terms of four different categories: 'contractions', 'suspensions', 'brevigraphs' and 'superior letters'. This classification is, in my opinion, not entirely satisfactory, especially as regards the difference between contractions and suspensions, since the same mark of abbreviation, the tilde, is used in both cases as a substitute for the letters *m*, *n*, *u*, *i*, *e*, regardless of its position. However, this fourfold classification is almost universally adopted in most of the sources and, for convenience, it has also been followed in the present paper to provide a fine-grained analysis of the phenomenon both in medial and final position of a word.

Contraction is the omission of one or more letters from the middle of a word. Its use is limited to the tittle or the tilde as a substitute for the letters *m*, *n*, *u* and *i*, the latter exclusively in the *-ion* suffix (Tannenbaum 1930: 120). Examples abound in different environments like *wōbe* 'wo*m*be', *oynemēt* 'oyneme*nt*', *coryāndre* 'corya*u*ndre' or *coccōn* 'cocc*i*on'.

Suspension, also termed 'curtailment', is the omission of one or more letters at the end of a word (Tannenbaum 1930: 124). It is a frequent method of abbreviation consisting of the use of the tilde as an equivalent of the letters *m* and *n*, as in *hē* 'he*m*', *epaticū* 'epaticu*m*' or *medicī* 'medici*n*'. Otiose strokes (marks added to a letter that have no linguistic meaning) are then avoided in the analysis, together with the consonants *n*, *g* and *r* with an ascender from the body of the letter, as in *payn*, *stynking* and *sor*; the serif of the letter *h* in the consonantal groups *th* and *gh* as in *deth* and *cowgh*; or the crossed double *l* as in *skill*.

Superior letters, in turn, consist of the raised position of one or more letters of a word, as a kind of superscript. Cappelli (1990[1899]) gives numerous examples of Latin abbreviations in the form of superscript letters in texts not produced in England. English documents, however, are prone to the use of these superior letters in three native words, such as $þ^t$ 'þat', w^t 'with' and w^t *oute(n)* 'withoute(n)'. The use of a superior letter, however, does not always convey an actual abbreviation, being rather a matter of habit, as in the determiner $þ^e$ 'þe' or ordinal numbers like x^e, xi^e, xii^e, etc.

Brevigraphs involve the use of some special signs, mostly borrowed from Latinate texts, to contract a number of frequently-occurring syllables, particularly at the beginning and at the end of a word. Medial positions, albeit sporadically found, become less frequent from the fifteenth century. The brevigraphs listed below are consistently used in vernacular writing from a very early date:[4]

1. The cluster *es/ys*, abbreviated by means of a curved ascending stroke over the last letter of the word, both in the stem or as an indication of the plural morpheme as in *þ* 'þys', *crop* 'crop*es*', *water* 'water*ys*', etc.

2. The cluster *us*, abbreviated by means of a graph resembling the letter *q* "written above the line and just to the right of the letter preceding it" (Tannenbaum 1930: 127). This abbreviation is exclusively found word-finally when the scribe recurs to using Latinate terms, as in the case of *liuid⁹* 'liuid*us*'. This abbreviation coincides with the *con* brevigraph, even though the former holds a final and supra-linear position (Petti 1977: 24).

3. The cluster *er*, represented by means of an ascending flourished stroke, curved leftwards and placed over the preceding letter, as in *man* 'man*er*', *sylu* 'sylu*er*', etc. The flourish was likely to be modified "in various ways in ordinary penmanship" (Tannenbaum 1930: 126); in some cases it was so small that it may be mistaken for meaningless or ornamental curls.

4. The cluster *ur*, conveyed through the use of a superscript letter *a* or a superscript *2*, a symbol with a widespread use in vernacular compositions, as in *vnd^a* 'vnd*ur*', *colo^a* 'col*our*', etc.

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[4] This section reproduces the most frequent abbreviation symbols in vernacular documents. An exhaustive description of the inventory of abbreviations in English documents is offered in the traditional paleography handbooks such as Tannenbaum (1930), Johnston (1945), Denholm-Young (1954), Hector (1958), Petti (1977), Clemens and Graham (2007), among others. De la Cruz-Cabanillas and Diego-Rodríguez's (2018) study on mediaeval medical manuscripts is especially recommended.

5. The other elements of the 'p-compendia' (see Hector 1958: 39), that is, *par* and *pre*, are abbreviated with the letter *p* holding a straight bar through the stem, an abbreviation which is particularly productive in the case of Latinate derivatives, as in *pte* 'p*ar*te', *pve* 'p*re*ve', etc. The cluster *pre* is also represented by means of an ascending flourished stroke, which may also stand for the group *er*, as in *pep* 'pep*er*', *plaist* 'plaist*er*', etc.

6. The cluster *pro* is rendered with the use of a curved stroke through the descender of the letter *p*, which moves from left to right counter-clockwise without a pen-lift (Tannenbaum 1930: 128), as in *pfitabel* 'p*ro*fitabel'.

7. The cluster *con*, usually in initial position, takes the form of a q-like *us*-abbreviation (Tannenbaum 1930: 128), which is the typical form of this brevigraph throughout the latter part of the fifteenth century, as in *9ceiued* '*con*ceiued'.

8. The q-contraction, chiefly in Latin documents, responds to a number of different forms depending on the particular meaning of the abbreviation. One of the most common uses is for the rendering of the syllable *qua*, often written *q^a* with a tilde through the *a*, as in *q^{a}rteyn* 'qu*a*rteyn'.

3. METHODOLOGY

The data used as source of evidence come from *The Málaga Corpus of Early English Scientific Prose*, both the Late Middle English and the Early Modern English components (1350–1500 and 1500–1700, respectively).[5] *The Málaga Corpus of Late Middle English Scientific Prose* is a one-million-word corpus of late mediaeval science, mostly medical texts. Compiled on the basis of transcriptions of Late Middle English scientific texts, the corpus is lemmatised and annotated so that the user may search for the occurrence of particular items, both word- and lemma-based, context included. *The Málaga Corpus of Early Modern English Scientific Prose*, in turn, houses one million words in its current version, which have been automatically annotated with the *Constituent Likelihood Word-tagging System* (CLAWS), developed by the UCREL team at the University of Lancaster

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[5] See http://hunter.uma.es and https://modernmss.uma.es, respectively.

(Garside and Smith 1997).[6] The tagset includes more than 160 tags together with specific labels for the different marks of punctuation.

This corpus material is the result of a research project based at the University of Málaga in collaboration with the Universities of Murcia, Oviedo, Glasgow, Oslo and Adam Mickiewicz. The aim of the project is twofold: 1) the preparation of semi-diplomatic editions to be freely offered online along with high-resolution images of the original manuscripts; and 2) the compilation of a normalised and POS-tagged corpus from this material. 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. The corpus contains transcribed handwritten material portraying the three branches of scientific writing, namely, specialised treatises, surgical treatises and recipe collections. It provides general datings 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.[7]

The retrieval of the instances was carried out by means of *AntConc* 3.2.4 (Anthony 2014) using the .html files containing the electronic editions published online. Semi-diplomatic editions are offered to provide an accurate rendering of the scribal language where capitalisation, punctuation, spelling and line division are preserved as in the original. As far as abbreviations are concerned, they are expanded in italics to mark editorial intervention by the transcriber. The process was straightforward insofar as it required the retrieval of any sequence in italics with the prompt *<i>*</i>*, which automatically generated all the instances irrespective of their initial, medial or final position.

The study is based on a set of theoretical treatises and recipe collections from the mid-fifteenth, mid-sixteenth and mid-seventeenth centuries and analyses the distribution

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[6] Based upon Present-day English, it does not include the large amount of spelling variants and the archaic/obsolete words of early English. The spelling variation naturally poses a problem when automatically POS-tagging the text, where the accuracy of CLAWS decreases. To solve this shortcoming, a normalisation process with the tool VARD was necessary before the actual CLAWS annotation, which yields two corpus files, the normalised corpus and the annotated corpus (Baron and Rayson 2008: 5; 2009: 1–25; Romero-Barranco 2020: 108–112).

[7] Precise datings are impossible with manuscripts and they have been generally taken as examples of the middle of that century.

of abbreviations in handwritten medical texts both over time and across text types. There is not, however, a characteristic practice distinguishing theoretical and surgical treatises in terms of abbreviations, a fact which justifies our decision to deal with theoretical treatises and remedy books, the former taken as the most academic register and the latter as a less formal one. Table 1 shows the material used for each sub-period together with the corresponding text type. The corpus has eventually yielded a total of 10,315 instances of abbreviations: 2,014 in the fifteenth century data, 5,026 in the sixteenth century and the remaining 3,275 in the seventeenth century.

Period	Manuscript	Text type
Mid-fifteenth century	*MS Hunter 404*, ff. 1r–44r, *Leechbook Recipes*	Remedy
	MS Hunter 95, ff. 34r–73v, *Chauliac's Surgery*	Theoretical
Mid-sixteenth century	*MS Hunter 135*, ff. 74r–121v, *Medica quaedam*	Remedy
	MS Rylands 1310, ff. 1r–21r, *Treatise on Urines*	Theoretical
Mid-seventeenth century	*MS Hunter 487*, ff. 1–63, *Medical Receipts*	Remedy
	MS Hunter 92, ff. 1r–25v, *The Anatomy of the Eye*	Theoretical

Table 1: Sample data

4. ANALYSIS

This section analyses the distribution of abbreviations both over time and across text types. The diachronic study, on the one hand, evaluates the frequency of abbreviations considering the phenomenon as a whole and in terms of the typology of abbreviation to determine whether there are particular preferences over time. Text-type variation, on the other, views the distribution of the different types of abbreviations across the two text-types, namely, theoretical treatises and remedies, to discern whether the formality of the text contributes to the use of abbreviations in handwritten documents.

Figure 1 shows the distribution of abbreviations in the three periods under scrutiny, where the figures have been normalised by 10,000 words. As initially predicted, there is a progressive decline in the use of abbreviations in the transition from Late Middle English to Early Modern English, which becomes more significant towards the end of the period. The fifteenth century shows the highest number of abbreviations (normalised

frequency 560.66), the moment in which the inventory and frequency of these abbreviations reached their climax after their borrowing into English in the course of the twelfth and the thirteenth centuries. The Early Modern period, however, shows normalised frequencies of 538.36 and 523.68 in the sixteenth and seventeenth centuries, respectively, which confirms a gradual decline, not only in terms of the frequency of abbreviations, but also in terms of a more constrained inventory.
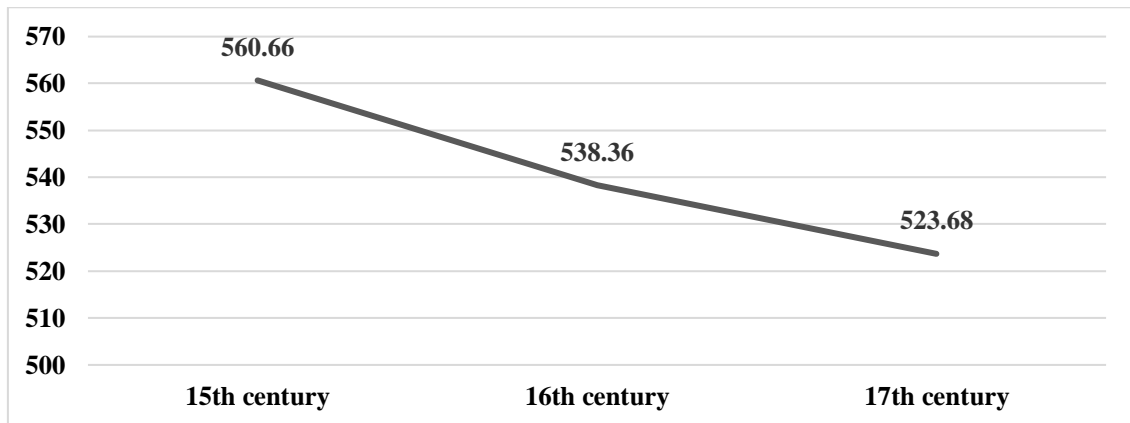

Figure 1: Normalised frequencies of abbreviations over time

The on-going diminution in the use of abbreviations is surely associated with the decline of a particular type of abbreviation. Figure 2 reproduces the development of the phenomenon in terms of the four types of abbreviations: brevigraphs, contractions, suspensions and superior letters.
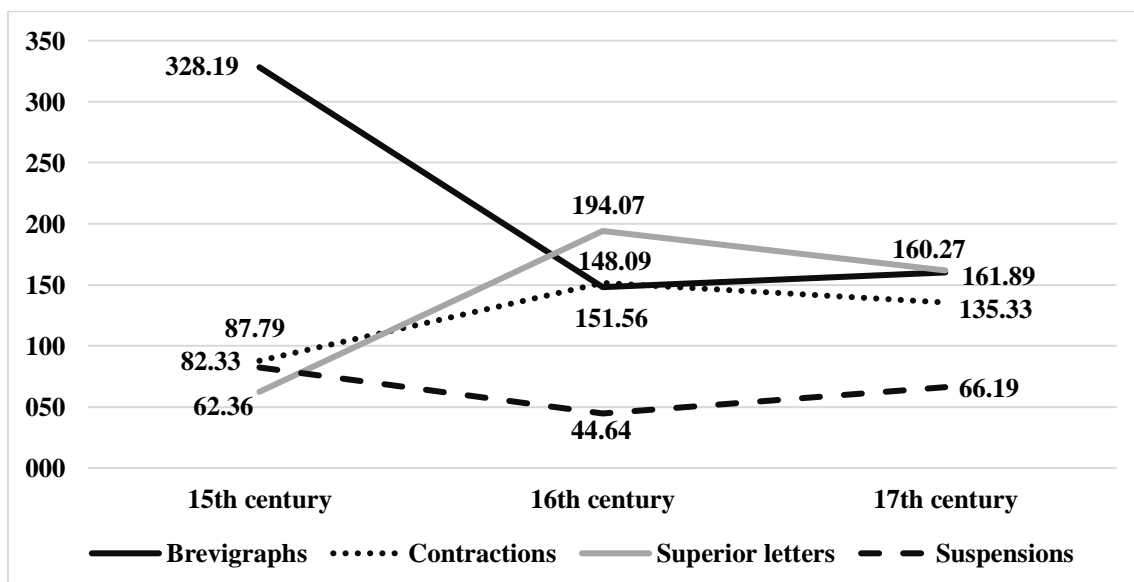

Figure 2: Normalised frequencies of the typology of abbreviations over time

As shown, there is a consistent reduction of brevigraphs since the normalised frequency in the fifteenth century is 328.19, and 148.09 and 161.89 in the sixteenth and seventeenth

centuries, respectively. Despite their high-frequency, brevigraphs such as those belonging to the -r group *-er*, *-re*, *-or*, *-ur* and the -s group *-es*, *-is*, *-us* are found to have a wide distribution in the three periods, the other brevigraphs were drastically ruled out in the transition to the Early Modern English period, Latinate symbols also included. This decline in the use of brevigraphs is accompanied by the spread of superior letters, which tripled their frequency during the first half of the sixteenth century, with just a normalised frequency of 62.36 in Late Middle English documents, and of 148.09 and 161.89 in the sixteenth and the seventeenth centuries. This is explained in view of the high frequency of certain function words like *that*, *with* and *without*, which represent more than 95 per cent of all instances in the corpus. When it comes to contractions and suspensions, two different trends of development are observed: 1) suspensions are observed to lose ground over time with a more limited distribution in Early Modern English, and 2) contractions become more frequent, rising from 87.79 in the fifteenth century to 151.56 in the sixteenth century. If compared with the Late Middle English distribution, omissions in medial position are considerably more frequent than those in final position already in the sixteenth century, a fact plausibly associated with the scribe's concern to secure a better understanding of the word, since suspensions often require the omission of a letter and of an entire syllable, as in 'emposty*m*' (*MS Rylands 1310*, f. 19r), tog*ether* (*MS Hunter 487*, p. 50), 'emp*lastrum*' (*MS Hunter 92*, f. 6r), 'sc*abious*' (*MS Hunter 487*, p. 50), etc.

The diachronic development across text-types also corroborates the same state of affairs. Figure 3 presents the distribution of the four types of abbreviations in theoretical treatises and remedies.
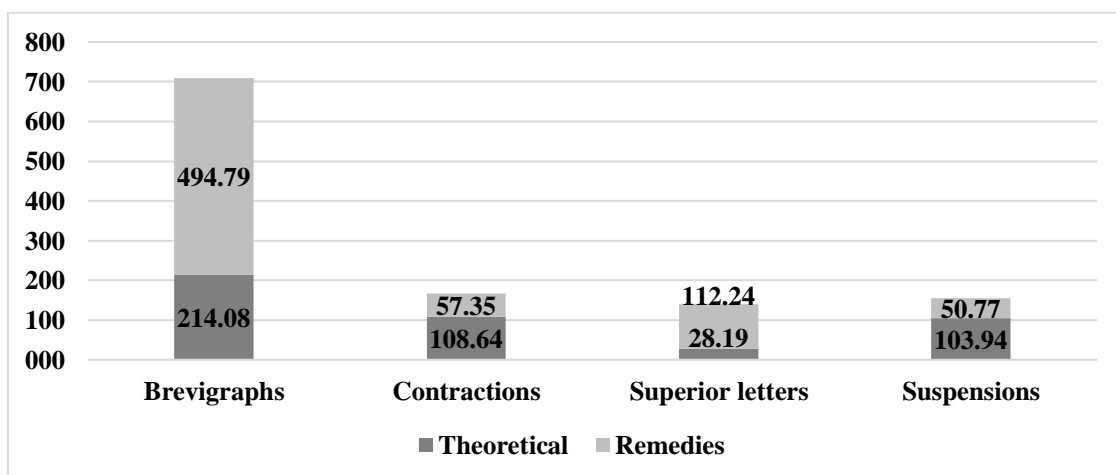

Figure 3: Normalised distribution of abbreviations across text types in the fifteenth century

Contrary to what was initially expected, the fifteenth century is a crucial period in which penmen appropriated these abbreviations massively, and later replicated them in their own compositions irrespective of the particularities of the text type. Even though it is hard to make any kind of generalisation in the period, the data allow us to gather two scribal attitudes. Brevigraphs and superior letters, on the one hand, present a wider distribution in remedies than in theoretical treatises which, in principle, contradicts our initial hypothesis of a higher frequency of abbreviation symbols in documents especially designed for a learned readership. Brevigraphs, for instance, show a normalised frequency of 214.08 in theoretical treatises and of 494.79 in remedies. This is a significant difference since the frequency in remedies doubles that of theoretical compositions. Contractions and suspensions, on the other hand, are more frequently witnessed in theoretical treatises than in remedy collections, the latter amounting to half of the instances in both cases. In my opinion, there is not, in fact, any convincing explanation for the rather chaotic use of abbreviations across text types in the fifteenth century when the borrowing of abbreviations was reaching its peak among English penmen.

The sixteenth century, however, stands out as a transitional period characterised by the progressive re-structuring of abbreviation symbols when it comes to their effect across texts. Figure 4 shows their distribution in the sixteenth century after the decisive contribution of Early Modern English penmen to the topic.
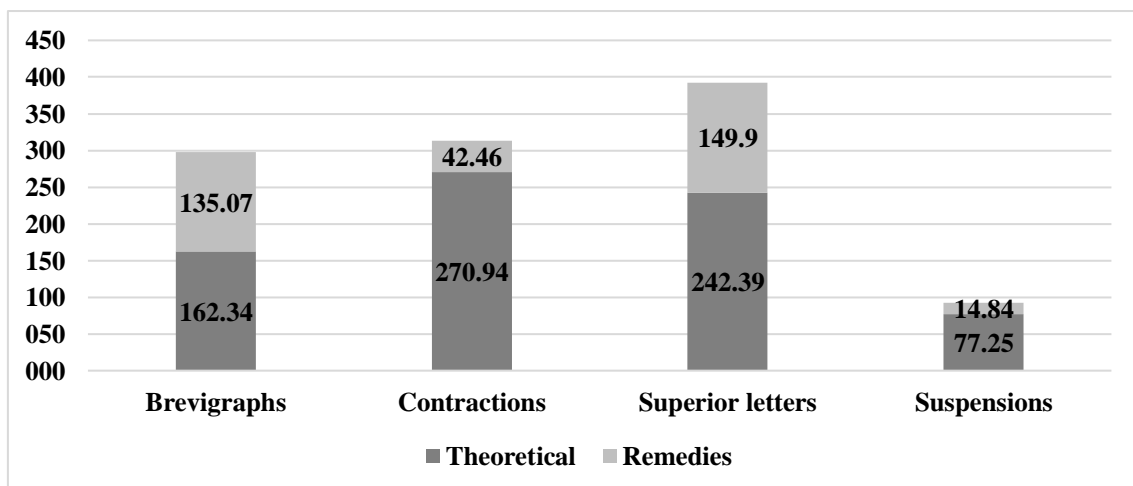

Figure 4: Normalised distribution of abbreviations across text types in the sixteenth century

The phenomenon shows symptoms of regularisation according to which scribes become progressively more conscious of the intrinsic relationship between abbreviations and the idiosyncrasy of the text. In view of this, the data confirm a wider distribution of abbreviations in theoretical compositions, regardless of the type of abbreviation. There

are, however, certain particularities. Firstly, superior letters are preferred in both text types, a fact surely associated with the use of this type of abbreviation with high-frequency function words. Secondly, contractions and suspensions lose ground in remedies, especially in comparison with superior letters, as a result of the moderate use of the tilde both in medial and final positions of a word. Thirdly, even though brevigraphs are still relatively common in both kinds of writing, it is worth mentioning that, if compared with their frequency one century earlier, they show similar frequencies in theoretical treatises (214.08 and 162.34 in the fifteenth and the sixteenth centuries, respectively) while they exhibit a drastic decline in remedy collections (494.79 vs. 137.07). This fact tentatively points to the progressive avoidance of this type of abbreviation in the less formal type of writing.

Finally, the data for the seventeenth century confirm the tendencies observed in the previous century. Figure 5 presents the frequency of abbreviations across the two text types in the seventeenth century, where it can be gathered that the use of abbreviations complies with the level of formality of the text with an outstanding use of the phenomenon in the learned medical compositions of the time.
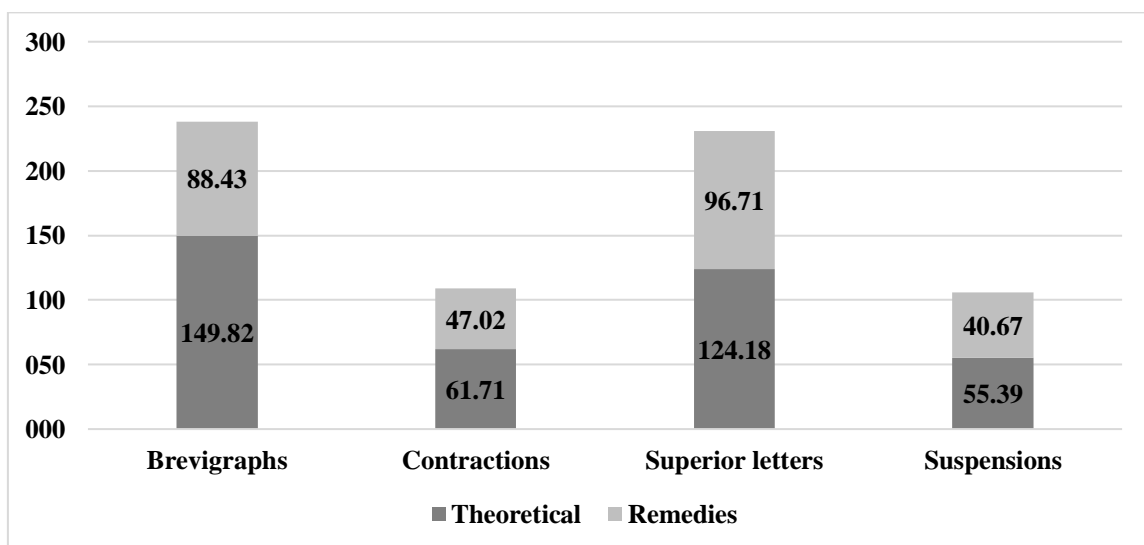

Figure 5: Normalised distribution of abbreviations in the seventeenth century

The Early Modern English period is viewed as a key period in which abbreviations are immersed in a process of regularisation after their recurrent use in the Late Middle Ages. As shown, both superior letters and brevigraphs are the most frequent devices in the two text types, but the following issues stand out. When it comes to remedies, superior letters (96.71) are slightly more frequent than brevigraphs (88.43), a fact perhaps associated with the easier interpretation of the former in this type of medical documents. Theoretical

treatises, in turn, show a higher distribution of brevigraphs (149.82) than superior letters (124.18), making more room for the former in view of the physicians' and barber's likely acquaintance with these Latin resources. Contractions and suspensions, on the other hand, confirm the tendency initiated in the sixteenth century towards their progressive reduction becoming more frequent in the learned compositions, with a normalised frequency of 61.71 (vs. 47.02 in remedies) and 55.39 (vs. 40.67 in remedies) in theoretical treatises.

5. CONCLUSION

The present paper has examined, on the one hand, the use of abbreviations among Late Middle English and Early Modern English penmen from a diachronic perspective and, on the other, their distribution across text types considering the four types of abbreviations. The study has evaluated the quantitative dimension of the phenomenon both in theoretical treatises and remedy books in view of their different level of formality in early English medical writing. The paper pursues the analysis of the phenomenon from the 1350s relying on the evidence provided by a selection of texts taken from the Late Middle English and the Early Modern English components of *The Málaga Corpus of Early English Scientific Prose*.

The first research hypothesis considered the existence of some kind of regularisation in the use of abbreviations over time. The results show that there is an unstable situation in Late Middle English as a result of the massive incorporation of these abbreviation symbols into the English writing system, where brevigraphs systematically predominated. The sixteenth century stands out as a transitional period with a significant reduction in the number of brevigraphs to the extent that they eventually lost the outstanding role of the Middle Ages. This decline goes hand in hand with the spread of other types of devices, superior letters in particular, followed by contractions.

The second hypothesis evaluated the existence of a likely variation across the two text types of medical writing: theoretical treatises and remedy books. The data tentatively confirm a higher number and a greater variety of abbreviations in learned medical compositions as a result of the physicians' and surgeons' familiarity with the full inventory of abbreviation symbols inherited from Latin. Remedy books, in turn, show evidence of a more constrained use of these devices in view of the more limited access of non-practitioners and laymen to the Latin conventions. The seventeenth century, for

instance, exhibits a significant preference for superior letters over brevigraphs in remedies, while theoretical compositions show the opposite with a wider distribution of brevigraphs over superior letters.

In itself, the topic may not be merely a matter of the particular tendencies of a century, but an issue surely affected by other external aspects such as the idiosyncrasy of the scribe, the level of cursiveness of the text or the need to make the most of such an expensive writing material as vellum, which in most cases became decisive factors in the proliferation of the phenomenon in the period. Even though these aspects may have surely participated in the frequency of the phenomenon in a piece of writing, the medical material surveyed in the present study shows that the Early Modern English period, and the sixteenth century in particular, brought some sort of order after the massive adoption of abbreviations in the Middle Ages, both in terms of their number and variety in handwritten documents.

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Corresponding author
Javier Calle-Martín
University of Málaga
Department of English, French and German
Campus de Teatinos
29071 Málaga
Spain
Email: jcalle@uma.es