

15. Persuasion in Early Modern English medical recipes

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1 INTRODUCTION

- (1) But Galen is flat against this preposterous custome of drinking thus fasting; averring, that to drink strong drink fasting, is very hurtfull for the nerves and nervous parts, and withall, hasteneth and procureth to the body many dangerous diseases, as Epilepsie, Apoplexie, and many others. It is therefore farre better for thy health to eat a little before thou drinke. (Hart, *Klinike, Or the Diet of the Diseased*, 1633: 113)

Persuasive passages appealing to reason like in (1), characterize Early Modern English medical texts, especially in the more theoretical sub-genres of the medical register, like treatises on specific topics and textbooks.¹ Persuasion, i.e. linguistic behaviour that aims at changing or strengthening the audience's thinking or behaviour (Virtanen & Halmari 2005: 3), is a common textual feature that is prominently present in the more practically-oriented medical genres. Even recipes, which are often studied as specimens of instructive texts, attest to persuasion, e.g. in the form of efficacy phrases (Jones 1998; Mäkinen 2011).

¹ This article adopts the categories of *Early Modern English Medical Texts* corpus (EMEMT).

The study of persuasion in texts focuses on the means and strategies to alter the audience's attitude and on bringing about a change in the minds text recipients. Students of historical texts are in the unfortunate position that the effect of persuasion in the audience, the perlocutionary effect, is usually beyond the researcher's reach (Jucker 1997). Nevertheless, the ways in which authors attempt to persuade the audience can be studied with some certainty also in texts without access to the audience reactions or responses (Virtanen & Halmari 2005: 7).

There are no texts with a persuasive function only, nor are there texts that would not be persuasive. Thus, persuasion in itself is often implicit, and it can never be associated exclusively with linguistic phenomena (Östman 2005: 191). Persuasion is also affected by the situation, and that the experience of persuasion is created jointly by the author and the audience, implying that it is not only a linguistic phenomenon (Virtanen & Halmari 2005: 4). The ubiquitousness of persuasion is also manifested in the fact that there are no genre labels that would identify persuasive texts. Even if persuasion is a communicative function, and communicative functions are often the means to identify text functions and genres (Swales 1990), persuasion does not distinguish them from one another.

This chapter draws on investigations on emotive features in scientific writing (Taavitsainen 1994), discourse structure in early medical texts (Taavitsainen & Pahta 1997), metadiscursive practices in early English medicine (Taavitsainen 2000), text type features of Middle English recipes, including evidentials (Taavitsainen 2001a, 2001b), promises in Middle English recipes (Alonso-Almeida & Cabrera-Abreu 2002), transferring classical discourse conventions into the vernacular (Taavitsainen 2004), metadiscourse in Middle English recipes (Quintana-Toledo 2009), interpersonal

reference, authorities, and Classical terminology in medical recipes (Marttila 2011), and efficacy phrases (Mäkinen 2011), as well as a case study of persuasion in one medical preface (Mäkinen 2021). It complements the prior research on Early Modern medical recipes² by investigating persuasion in Early Modern English recipes in the genres outside recipe collections and *materia medica* literature.

An earlier study has investigated the use of efficacy phrases as a persuasive element in Early Modern recipe collections (Mäkinen 2011), but recipes carry also other persuasive elements. Using the *Early Modern English Medical Texts* (EMEMT) corpus, the present analysis looks into ways how persuasion is interlaced with the informative and instructive contents of recipes, combining the Aristotelian concepts *ethos*, *pathos* and *logos* with a survey of modern metadiscourse practices (Hyland 2005, 2009, 2017). The approach has been applied earlier on a medieval medical preface (Mäkinen 2021), and the method provides a useful linguistic inventory in the form of metadiscourse items as expressed in the three elusive rhetorical strands, thus identifying quantifiable linguistic items that can be reanalyzed with respect to the rhetorical concepts.

2 BACKGROUND

2.1 *Historical setting of medicine in England until 1700*

Medieval medicine in Classical and vernacular languages had been text-centred: ancient authorities – Galen, Aristotle, Ibn Sina, Haly Abbas etc. – were the canon of the science,

² The studies on persuasion that have informed the current chapter are Kuna (2014), which investigates the illness conceptions in Hungarian recipes, and Mäkinen (2011), which studies the types and distribution of efficacy phrases in English recipes (category 3) in EMEMT.

and new texts were either translations, copies, or compilations of the Greek and Latin originals, at times disseminated also through Arabic authors' texts (Talbot 1967: 36, 44; Siraisi 1990). In England and in Europe, empiricism and first-person observation began to win ground around and especially after 1550, spelling a departure from the Galenic world view and medicine, even if the ancient authorities were not forgotten immediately.

By the seventeenth century Galenism had been challenged and rejected by Paracelsian and Helmontian medicines that promoted chemical remedies, partly due to advances in chemistry (Wear 2000: 39, 353). However, extract from *Pharmacopaeia Londinensis* shows that the competing medical schools co-existed and were accepted by the medical audience for a time:

- (2) We here present the World with a Translation of the London Dispensatory, lately Reformed by the Fellows now living, of the Colledge of Physicians: **being a Compendious Collection of the choicest Medicaments, whether Gallenical or Chymical yet known or in Request.** (*Pharmacopaeia Londinensis*, Preface, 1678; emphasis mine)

The Galenic discipline still retained some support until the turn of seventeenth and eighteenth century, i.e. the paradigm shift in the natural sciences was taking place very slowly. Looking at medical practice itself, very little changed from a practitioner's, let alone from a patient's point-of-view between 1500 and 1700 (Wear 1998 [1992]: 296).

2.2 Theoretical background

The Classical modes of persuasion – ethos, pathos, and logos – appeal to the audience through the character of the author (convincing the audience about author’s value as a source of knowledge), through the audience’s emotions, and through logical reasoning, respectively. Persuasive discourse is aimed at (re)producing, reinforcing, and transmitting ideologies (Chaemsaitong 2011; Jucker 1997). The focus in persuasion is on the speaker/author and their attempts to prompt an action, an emotion, or a resolve in the audience (Kinneavy 1971: 21). Persuasion is thus a communicative purpose, which is, according to Swales (1990: 58), the basis for defining a genre. Nevertheless, persuasion is never the only purpose of any text, or in other words, persuasion is never overt in texts, albeit in some genres it can be more obvious than in others (Östman 2005: 200). The implicitness of persuasion leads to two conclusions: no linguistic feature is only persuasive, and any linguistic feature that can be identified as persuasive is always a member of another functional category as well. Therefore, persuasive linguistic features will always carry multiple functions. This conclusion concurs with the idea of multiple agendas of texts, persuasion being one of them.

As neither persuasion nor the Classical rhetorical concepts can be mapped to precise linguistic features, the linguistic study of persuasion presents a challenge. Therefore, help is sought in metadiscourse analysis. Metadiscourse comprises all the linguistic means used by an author to comment on a text, guide the readers to navigate through the text, and create a relationship with them. Metadiscourse consists of “comments about the evolving text rather than about the subject matter. [...] These comments have two main functions: textual and interpersonal” (Taavitsainen 2000: 193). Hyland (1998, 2005, 2009, 2017) has identified metadiscourse inventories of linguistic features that either facilitate the audience’s process of reading, or that create a relationship

between the author and the audience, explicitly or implicitly (Quintana-Toledo 2009: 21). These inventories have inspired the research aims of study.

This chapter remaps metadiscourse items onto rhetorical concepts as a means to triangulate the linguistic data, as this may give us new insights into the concept of persuasion. Remapping metadiscourse items provides a normalized method to observe persuasion in texts, irrespective of the texts analysed. It is acknowledged that the study of persuasion in modern genres has ventured beyond Classical rhetorics lately (e.g. the rhetorical move analysis of research articles; cf. Nwogu 1997, Swales 2004), or even attempted departing from it and its terminology (New Rhetoric, cf. Perelman 1979, Ritivoi 2008). Nevertheless, the current approach provides a new way to look at existing analyses within Classical rhetorics, creating more “resolution” by adding the metadiscourse apparatus.

3 METHOD

Ethos is concerned with the credibility of authors as the source of knowledge and how they appear to the audience. In the case of medieval medicine, the author’s credibility was in the use of the ancient sources, in a manner that was deemed correct. *Logos*, on the other hand, is the appeal through the audience’s sense of reason. Nevertheless, in the case of early scientific writing, a lot rested on the repetition of the ancient authors’ ideas and words, i.e. *logos* in the literal sense of the word. Thus, there is a reason to argue that *logos* functions on two different levels of persuasion, the appeals through reason, but also through the character of the author, who appears as the steadfast preserver of the ancient

learning. Which one applies in each case depends on the disciplinary underpinnings of the text at hand: is it Galenic or Paracelsian/Helmontian?

Even if we cannot map the rhetorical facets to precise linguistic phenomena, we can analyse linguistic phenomena and reanalyse them with respect to the Aristotelian concepts. Metadiscourse items capture the majority of the passages that contain persuasive elements in recipes, and the kind of persuasion that takes place outside metadiscourse is mainly connected to the professionalism of authors and their meticulousness in the repetition of the expected recipe structure. The position of metadiscourse items seems to be culturally or contextually conditioned: e.g. Kuna (2014: 56) notes that the persuasive sections in Early Modern Hungarian recipes are often situated towards the end of recipes. In the current material, metadiscourse items are found both at the beginning, with or after the purpose of the text, and at the end of recipes, but especially attitude markers and boosters may occur also within the recipe, in the preparation and administration of the medicine.

The metadiscourse classes annotated in the text and examined are (see Hyland 2005: 50–4):

- Attitude markers
- Boosters or emphatics
- Transition markers
- Endophoric markers
- Engagement markers
- Evidentials
- Code glosses

- Hedges
- Modal verbs
- Efficacy phrases (not included in Hyland's metadiscourse inventory)

These classes are not tied to specific linguistic features. According to Hyland (2005: 37), the text-producing communities' practices and contexts must be the starting points in the analysis of metadiscourse, therefore also in this study the analysis begins with a qualitative element which then identifies the relevant linguistic phenomena.

The one item studied beyond Hyland's metadiscourse classes, efficacy phrases, vouch for the beneficial outcome of the therapy (Jones 1998; Mäkinen 2011). This item may overlap with the metadiscourse classes studied, and this is duly noted in the analysis.

In the reanalysis of the metadiscourse class, the relevant questions per each item are:

Does the class reflect the rhetorical concepts?

Does the class reflect more than one of the rhetorical concepts?

The reanalysed linguistic features provide a closed set of items, which makes it easier to replicate the study. Compared to qualitative rhetorical analyses, the current method thus improves the reproducibility of research and standardization of the premises.

The analysis also provides a quantitative overview of the trends in medical recipes in different genres over the sixteenth and seventeenth centuries. The unit of analysis in the overview is a recipe, and the presence or absence of a metadiscourse class is treated as a binary variable. In other words, the number of different metadiscourse classes is

normalised per recipe, answering the question: *What per cent of metadiscourse classes are attested in this recipe?* The percentages are then summed for all the recipes in a given genre and period and divided by the number of the recipes. The result – the mean of percentages – gives us an idea of the variety of metadiscourse classes used in a given period and genre. This is a necessary approach as often metadiscourse items are multi-word items, and therefore normalization per word count is challenging and does not provide a reliable point of comparison. Also, recipes are of different length, and usually the more metadiscourse items a recipe attests to, the longer they are, which makes normalisation per word count even more challenging. Using the recipe as the unit of analysis provides us an idea of what kind of variety is normal in a recipe in a given medical genre. As this study focuses on the attestation of metadiscourse items in recipes, it is not interested in the intensity of persuasion that they carry.

The data was collected from *Early Modern English Medical Texts* (1500–1700), a 2-million-word multi-genre corpus. The focus was on recipes in texts that are not identified as recipe collections as such, i.e. excluding the corpus category 3.³ The recipes were collected manually from the texts in the categories of general treatises and textbooks (category 1), treatises on specific topics (category 2), regimens and health guides (category 4), surgical and anatomical treatises (category 5), and *Philosophical*

³ Recipe collections and *materia medica* (category 3 in EMENT) are a genre that is well studied, also partly with respect to the current research problem (e.g. Mäkinen 2011). The number of recipes they contain is also enormous compared to the number of recipes elsewhere, thus they will require a study of their own. Therefore, category 3 was excluded from the current study.

Transactions (category 6).⁴ The collected sample of recipes comprises 95,400 words in 48 texts.⁵ The total number of recipes analysed is 963.

Extraction of recipes excluded any other instructive passages with therapeutic purposes. In other words, only items that 1) state the (medical) purpose, 2) the ingredients, and 3) contain an instance of the imperative verb phrase *take* (or one of its synonyms) qualified as recipes in this study. These recipes were annotated for the metadiscourse items in focus by first generating a unquified wordlist of all the recipes, and then tagging the potentially metadiscourse-relevant words by a find-and-replace command. After this,

⁴ EMENT Appendix is not in the scope of this study.

⁵ The texts that have provided recipe samples to this study are (the text identifications listed here are the short titles used in EMENT: 292–343):

1525 *Handy warke of surgery*; 1525 *Seynge of uryns*; 1528 *Secrete of secretes*; 1539 *Myrrou or glasse of helth, plague*; 1540 *Byrth of mankynde*; 1546 *Boke of chyldren*; 1547 *Breuiary of helthe*; 1552 *Against sweatynge sicknesse*; 1562 *Bulleins bulwarke*; 1563 *Enchiridion of chirurgerie*; 1574 *Oleum magistrale*; 1575 *Treatise of chyurgerie*; 1578 *Poore mans iewel*; 1584 *Vertue of nitre*; 1585 *Mithridatium*; 1596 *Booke of obseruations*; 1596 *Lves venerea*; 1596 *Key of philosophie*; 1602 *Cure of struma*; 1603 *Treatise of the plague*; 1604 *Complexions castle*; 1612 *Childbirth*; 1612 *Nvrsing of children*; 1612 *Whole art of chyrvrgerie*; 1616 *Preseruation of eyesight*; 1617 *Svrgions mate*; 1631 *Planetary ovres*; 1632 *Praxis medicinae*; 1636 *Certain necessary directions*; 1652 *Discourse of the secrets*; 1653 *De morbis puerorum*; 1662 *Sixth book of practical physic*; 1665 *Food and physic*; 1665 *Directions for the plague*; 1672 *Philosophical Transactions 7, 4098–5001*; 1676 *Of wounds*; 1682 *English remedy*; 1685 *Smallpox*; 1687 *Philosophical Transactions 16, 298 and 408–410*; 1691 *Plain and easie method*; 1693 *Marrow of chirurgery*; 1695 *Storehouse of physical practice*; 1695 *Compleat method of curing*; 1696 *Miscellania, tract 1*; 1697 *Continuation of the account of distempers*; 1697 *Art and nature*; 1698 *Physico-medical essay concerning alkaly and acid*; 1698 *Novum lumen chirurgicum*

the resulting text files were proofread, any overlapping tags or errors were cleaned out, and missing tags were added.

4 ANALYSIS

This section will present the observed metadiscourse categories and analyse them with respect to the Aristotelian categories (4.1), and present a quantitative overview of the observations, commenting on the emerging trends in the data (4.2).

4.1 *Inventory of metadiscourse items and their relevance in persuasion*

4.1.1 *Attitude markers*

Attitude markers express the author's stance to and evaluation of the propositional knowledge:

(3) In this disease we will **rather** vse pills then Electuaries (1632 *Praxis medicinae*)

(4) Or this, which I did learne of an old Parisian Priest, **who vaunteth himselfe to be very expert** in healing any kind of burning (1612 *Whole art of chyrvrgerie*)

Like evidentials (see below), attitude markers occur either at the beginning of a recipe, before the list of ingredients, or at the end, where a commentary on a recipe's desired effect may take place (as in efficacy phrases). Attitude markers are often accompanied by a booster which emphasizes the stance expressed by the attitude marker (e.g. the word *very* in [4]). Rhetorically, the majority of attitude markers defend the

position adopted or praise the sources used and the medicines described. Therefore, they point towards logos by indicating the quality of the premises, or towards pathos by conveying to the readers that they are an audience to a high-quality exposition and exquisite remedies.

4.1.2 *Boosters*

Boosters or **emphatics** emphasize the certainty or force of a proposition, or evaluate the topic at hand:

(5) A **Never failing** Remedy for the Bite of a Mad Dog (1687 *Philosophical Transactions* 16, 408–10)

As previously mentioned, boosters occur frequently with attitude markers. As the author is the origin of any attitude expressions, boosters augment and enhance the audience's perception of the author: therefore the relevant mode of persuasion is ethos.

4.1.3 *Transitions*

Transition markers label stages in text, or sequence it, often in the order of series of actions which would be typical of recipes. Common items in recipes are *then* (marking a new phase in the recipe procedure), *item*, *or*, and *and* in (6)–(9); the first two invariably mark the beginning of a new recipe, and *and* often introduces the progress of the recipe preparation. A less common item is *hereafter*, functioning as a frame marker for topic shift (10):

- (6) & set them in freshe grese to putrifie, **then** frye them and strayne them (1546 *Boke of chyl dren*)
- (7) **Item** take of myrrhe/ castorium/ and storax/ of eche one dram~/ (1540 *Byrth of mankynde*)
- (8) **or** take Myrrh, Galbanum, Ammoniac (1691 *Plain and easie method*)
- (9) +R. Water Cresses, Sorrell, and Wormewood, of each one handfull, bruise them well, **and** broyle them in three quarts of Whey or new milke, **and** adde thereto a little suger and saffron, **and** let the sicke drinke thereof as often as hee will. (1617 *Svrgions mate*)
- (10) but then it is good to fortifie each Dose, by some drops of the Essence or Tincture whereof we shall speak **hereafter**. (1682 *English remedy*)

Transitions are somewhat neutral as regards the rhetorical modes, yet they are not rhetorically unimportant. Itemisation and frame marking are a sign of an organised mind, clear argumentation, and care for the reception of the text and the quality of the end product. Therefore, all the three modes of persuasion are activated in and by transition markers.

4.1.4 Endophoric markers

Endophoric references retrieve text and meanings from other *loci* in the current text; they may also refer to the whole work, beyond the current passage. **Anaphoric references** usually reactivate an earlier passage in the audience's minds, thus providing the reference with its meaning. In the current material, they often refer to the ingredients of the recipes, or to an instructive or theoretical passage earlier in the text:

(11) But if any of the great vaines be wou~ded, then **the cure aforesaid** is not sufficient. (1563 *Enchiridion of chirurgerie*)

(12) TAke tosted Nitre (which is **the seconde way of preparinge spoken of**) (1584 *Vertue of nitre*)

Cataphoric references usually introduce a new recipe:

(13) you shall doe in **thys maner**. Take Sanguinis draconis (1563 *Enchiridion of chirurgerie*)

Endophoric references are ubiquitous in the material, especially in the form of anaphoric references to the ingredients of the current recipe. For this reason they were eventually ignored in the quantitative treatment of the data; nevertheless, even if they are not discussed in this paper, they are virtually everywhere.

4.1.5 *Engagement markers*

Self-references signal the authorial presence in the text: the author is accessible to the reader and more intimately present:

(14) because **I** am of opinion that they might have been cured by the Method (1695
Compleat method of curing)

Self-references include all the cases of first person singular pronouns, but also any noun phrases used to refer to the author. The uses of inclusive and authorial *we* are treated separately below.

Reader references address and engage the audience directly. Co-occurrence with self-references or inclusive *we* can be seen as an attempt to establish common ground or rapport with the audience:

(15) IF the wounde be great in the fleshe [...] **you** shall beginne **your** cure (1563
Enchiridion of chirurgerie)

Inclusive and authorial *we* are used, but not often. The inclusive use seems to occur in recipe procedures, as is exemplified here:

(16) Sometimes also, if the Disease run out to a length, **we** add Guaiacum (1676 *Of wounds*)

The authorial *we* provides an author-reference, in plural, even if the texts referred to in this study never have multiple authors. With reference to the information conveyed to the audience, the verb *speak* seems to be the preferred verb:

(17) hitherto **we** haue spoken of the Similer disease, now **we** will speake of organically
(1616 *Preseruation of eiesight*)

The last case of engagement markers is metadiscursive **imperatives** (i.e. imperatives other than the recipe-defining *take* or its synonyms), often in the preparative procedure or administration of the medicine. The most common of these by far is *let*:

(18) stop this Vessel close, and **let** it stand three Days and three Nights (1696
Miscellania, tract 1)

Engagement markers reanalysed with respect to Aristotelian rhetorical concepts point at ethos and pathos: they create the positive image of the author and the audience. The author appears as one with the authority to convey the valuable and often protected information about medical recipes to the audience (appeal through ethos), but often also as one that can count the audience among his/her peers. This aims at creating rapport with the intended readers, and it is therefore an appeal to the audience's emotions, i.e. pathos.

4.1.6 *Evidential markers*

Evidentials index, refer to, and assess sources of knowledge outside the current text, even if the last function is almost reduced to mere praise of the sources used. Evidentials identify the sources and relate the author's attitude towards the named sources:

(19) **Risius writeth in his great booke of Distillations** (1596 *Key of philosophie*)

The evidentials do not always refer as explicitly to the sources of information, and therefore they may require the shared knowledge of the medical practitioners and apothecaries to be understood (20):

(20) This remedy is set down by **Galen** (1603 *Treatise of the plague*)

(21) A soueraine and excellent Remedie taken out of **Alexis**. (1603 *Treatise of the plague*)

Evidentials can usually be found at the end of a recipe, after information on the administration of the medicine, where also efficacy phrases often can be found. Another common location is the rubric of the recipe (21), which can extend over several lines like an introduction. Evidentials attest to the learnedness of the author and also support the claims made within the prevailing theoretical framework. The use of them, therefore, point towards ethos in the modes of persuasion, but also towards logos, both in the rhetorical and literal sense of the word (cf. the discussion in section 3).

4.1.7 Code glosses

Code glosses explain terms or passages in a language other than English. This is a telling sign of the author's consideration of the audience and their familiarity with medical terminology and foreign languages:

(22) into a certain kind of Vessels we call Lacteal **or milky Veins** (1698 *Novum lumen chirurgicum*)

Even if glosses often explain or even translate terms, they are also used for other purposes, like in (23). It is a passage in which one would expect a gloss, but which seems to be used to maintain the secrets of the trade, still ensuring that the intended audience receives the correct sense of the term (technically this is not a gloss, but it fits the function of the category):

(23) mixe them with pix Liquida (**it is not Tarre: you cosen, doe know the right pix LIquida**) (1584 *Vertue of nitre*)

At times code glosses resemble lists of alternatives for an effective ingredient. In (24), it would be impossible to know whether a gloss or an alternative is intended without the shared expert knowledge (it is a case of a gloss):

(24) poulder of Yreos roote, and Galanga roote, and **Lazer or Assa dulcis** (1584 *Vertue of nitre*)

In the light of these examples, code glosses are used to help the reader but also to indicate the superior position of the author, emphasising their authority and therefore pointing towards ethos. Nevertheless, some glosses or explanations of terms are not helpful in deciphering the referent of the term, or at least they require initiation in the tradition of the discipline. Therefore, they are inclusive for the readers who are familiar with the terms and exclusive for others. Among the former the *loci* can invoke a sense of belonging among the intended audience, i.e. they point towards pathos.

4.1.8 Hedges

Hedges dilute the author's commitment to the claim, or define requisite conditions that need to prevail in order to make the claim true. In recipes, hedges often condition the outcome of the therapy:

(25) This will Effect the Cure in a few Days, **provided** the Humours be not too Venemous, and the Parties keep themselves Temperate (1696 *Miscellania, tract 1*)

(26) **Some** find benefit by Shaving the Head, and by applying to the forepart of it a Plaister (1695 *Storehouse of physical practice*)

In the current recipes, hedges are relatively uncommon. They lessen authors' certainty, but they also safeguard their face. This is the case in (26): not all will find help in this remedy, but it is not unheard of. This makes the author appear more reasonable

and well-informed in his or her claims, and therefore, the main mode of persuasion in hedges is ethos.

4.1.9 Modals

Modal verbs are only one aspect of modality; the other manifestations of modality, like adjectives and adverbs expressing e.g. necessity or possibility have been categorised under attitude markers in this study. Modal verbs are used for several purposes, e.g. marking obligation:

(27) both the Letting of Blood and Purging **must** be reiterated (1695 *Compleat method of curing*)

(28) And to the wounded bone you **shall** vse Vnguentum aureum (1563 *Enchiridion of chirurgerie*)

They can signal possibility, permission, or even recommendation:

(29) They that are of a weak Constitution **may** take a Scruple or half a Dram of Salt of Vitriol [...] (1695 *Storehouse of physical practice*)

(30) TAke the purest Storax that you **can** get (1596 *Key of philosophie*)

Modal verbs are fairly frequent in efficacy phrases, where they signal the commitment of the treatment to a positive outcome or refer to the inevitability of the event of healing:

(31) and he **shall** be healed (1697 *Art and nature*)

Modality in Early Modern medical recipes is a complex issue and requires a study of its own. An overview of the modal auxiliary types in Early Modern medical texts (also in recipes partly coinciding with the current data) has been provided by Hiltunen & Tyrkkö (2011: 53–4), and modality specifically in medical recipes has also been commented by Kopaczyk (2013: 282–3), and more recently by Alonso-Almeida & Álvarez-Gil (2020). Nevertheless, modality as such is not the scope of this paper; rather, modal verbs are studied here due to their link to persuasion: authors use modal verbs to signal specific senses of verbs and to modify the audience’s perception of them and also the propositional content of the text. The facets of persuasion at play are therefore ethos and logos.

4.1.10 *Efficacy phrases*

Efficacy phrases may describe the outcome of a therapy, i.e. they can describe the medicine’s future effect, or make a promise of it, provided that the conditions set in the recipe are fulfilled. Efficacy phrases can also be realised as a stock phrase, often in Latin, noting the end result or that the medicine is tried and tested. They occur both at the beginning, like in (32), and at the end of recipes in (33)–(35):

(32) **An experiment often approued of Rasis** for the vomyte of chyldren. (1546 *Boke of chyldren*)

(33) yee shall mingle the powder of blacke Hellebore; put it in the eares, **and it cureth those infirmities.** (1631 *Planetary ovres*)

(34) Then boyle all together to a consistence. **Et fiat Cataplasma.** (1602 *Cure of struma*)

(35) and give two drachmes thereof to bee drunke in red wine, or Pome-Citerne water. **Probatum est.** (1631 *Planetary ovres*)

The different proof phrases may mean that the author of the text has actually tried and tested the recipe in practice (Mäkinen 2011: 180), but they may also be a reference to ancient and medieval medical authorities and the scholastic tradition (Jones 1998). Rhetorically efficacy phrases indicate the soundness of the sources (ancient authorities) or the first-hand experience of current author, and therefore, they are manifestations of logos and ethos.

4.2 *Quantitative observations on metadiscourse items in recipes*

The current section will move on from the relevance of metadiscourse items in the study of persuasion pointed out in section 4.1 and elaborate the notion by quantified observations of the items.

Figure 15.1 provides an overview of the development of metadiscourse classes, including modal verbs, and efficacy phrases, in medical recipes outside recipe collections and *materia medica* literature in the sixteenth and seventeenth centuries. The figure comprises of all 963 recipes analysed. For Figure 1, the texts of each EMEMT category were merged for each century. Note that recipes are not present in all categories studied in the sixteenth and seventeenth centuries, and in particular that recipes cannot be found in all categories in equal quantities.⁶

<INSERT Figure 15.1 here>

Figure 15.1 Variety of persuasion: percentage of available persuasion indicators / recipe

Legend: C16 = sixteenth century, C17 = seventeenth century

Cat1 = General treatises and textbooks; Cat2 = Treatises on specific topics; Cat4 = Regimens and health guides; Cat5 = Surgery and anatomy texts; Cat6 = *Philosophical Transactions*

Figure 15.1 illustrates the variety⁷ of persuasion in medical recipes as expressed through metadiscourse items: the higher the percentage, the more metadiscourse classes have been in used in the recipes of a genre. As was seen in section 4.1, metadiscourse features, modal verbs and efficacy phrases are relevant to persuasion and they can be reanalysed according to the three classical persuasive strands. Therefore, the presence of

⁶ This is not a fault in the corpus: after all, it was not designed to be representative of recipes in all categories.

⁷ Variety in Figure 1 is presented by the percentage: as indicated in section 3, the percentage indicates what portion of the available metadiscourse classes were in use in the recipes of a genre.

a metadiscourse item in a recipe is also a marker of persuasion, or to paraphrase that, persuasion in medical recipes often takes place in elements that can be identified as metadiscourse items.

Figure 15.1 shows that categories 2 and 5 (Treatises on specific topics and Surgery and anatomy texts, respectively) maintain their level of using persuasive elements in comparison between the centuries. For categories 1 and 6 (General treatises and textbooks; *Philosophical Transactions*) we have no points of comparison in the sixteenth century, as the text samples in category 1 do not carry any recipes prior to 1600, and the category of *Philosophical Transactions* did not exist before the latter half of the seventeenth century. Category 4 (Regimens and health guides) is the only one that shows clear evolution in the variety of persuasion within recipes, with an increase from c. 12% of available items to c. 17%. The increased variety also implies increase in the length of recipes. Unfortunately the development in category 4 would need to be corroborated with more data, as there are only two texts in the sixteenth century and one in the seventeenth century with recipes.

Secondly, differences between the categories can be observed regarding the frequency of metadiscourse classes. The scarcity of metadiscourse in category 1 is especially striking, as is the towering column of recipes in *Philosophical Transactions*. The latter must be left with just one comment: the category comprises the total of six recipes, and therefore would need more data to be reliable. However, the lack of persuasive elements in category 1 indicates that the recipes in the category merely contain the purpose, ingredients, and procedure (possibly also administration), but no exposition which would argue for the ingredients, the medicine, or the outcome of the therapy. In the current material, the number of metadiscourse classes directly correlates with the length

of persuasive passages in recipes, and their absence entails the absence of overtly persuasive text. Nevertheless, one cannot conclude that the texts in category 1 would employ less persuasion than the other categories studied; rather, in the texts of category 1 the persuasive features related to recipes are manifested in the surrounding exposition in which the recipes are embedded.

Figures 15.2–15.5 illustrate the development of metadiscourse items in categories 1, 2, 4, and 5; *Philosophical Transactions* have been left out as a category, as the recipes are few, and there is no point of comparison in the sixteenth century. Category 1 is included, in order to provide a fuller view of the situation in the seventeenth century.

<INSERT Figure 15.2 here>

Figure 15.2 Percentage of recipes with attitude, booster, and evidential markers

Legend: C16 = sixteenth century, C17 = seventeenth century

Cat1 = General treatises and textbooks; Cat2 = Treatises on specific topics; Cat4 =

Regimens and health guides; Cat5 = Surgery and anatomy texts

Figure 15.2 presents the development in the use of attitude, booster and evidential markers in recipes from the sixteenth to seventeenth century. In all categories that provide information on both centuries (categories 2, 4, and 5), we can see boosters increasing when moving to the latter part of the period. However, both attitude markers and evidentials either increase or decrease, but never in the same direction in one category. In effect, one could say that there seems to be a negative correlation between the two markers: when attitude markers increase, evidentials decrease, and vice versa. Looking back at the reanalysis of metadiscourse items in section 4.1, an increase in attitude

markers would imply movement towards logos and pathos in persuasion, whereas an increase in evidentials would imply movement towards logos and ethos. If persuasion through the appeal to reason (logos) behaves in the same way in all categories, then an increase in evidentials points towards the appeal through the person of the author (ethos) as the preferred persuasive strategy (category 2), and conversely, appeal to the audience's emotions (pathos) would be marked by increase in attitude markers (categories 4 and 5).

<INSERT Figure 15.3 here>

Figure 15.3 Percentage of recipes with engagement markers, code glosses, and hedges

Legend: C16 = sixteenth century, C17 = seventeenth century

Cat1 = General treatises and textbooks; Cat2 = Treatises on specific topics; Cat4 =
Regimens and health guides; Cat5 = Surgery and anatomy texts

Figure 15.3 presents the development of engagement markers, code glosses, and hedges. Engagement markers seem to increase in categories 2, 4, and 5 towards the end of the period studied. Simultaneously, the use of code glosses is decreasing, and the use of hedges is minutely increasing. As argued in section 4.1, even the minutest changes seem to imply a movement from ethos-focusing persuasion (code glosses) towards ethos and pathos-preferring persuasion (engagement markers and hedges); a shift from a world of discourse where there is no need for hedges to one that creates and uses them. One could also argue that later texts are intended more for colleagues and a professional audience than for an audience that would professionally stand on a lower tier of hierarchy.

<INSERT Figure 15.4 here>

Figure 15.4 Percentage of recipes with modal verbs must, shall (obl.), and may

Legend: C16 = sixteenth century, C17 = seventeenth century

Cat1 = General treatises and textbooks; Cat2 = Treatises on specific topics; Cat4 =
Regimens and health guides; Cat5 = Surgery and anatomy texts

Figure 15.4 shows the development in the use of obligation expressing modal verbs *must* and *shall*, and the modal verb *may*, expressing possibility, permission, recommendation, and (in this material rarely) hedging. *May* seems to be far more common in almost any period and category than *must* and *shall*, and even if categories 2 and 5 show an increase in the use of *must* from the sixteenth to seventeenth century, the total of obligation-expressing modals decreases in all categories towards the end of the period studied. It seems fairly clear that the trend in modality is to move away from deontic modality and towards epistemic modality (this becomes also apparent in Figure 15.5). In terms of persuasion, there is a movement from more authoritarian ethos towards an ethos that can weather failures and discussion or at least can prepare for potentially face-threatening situations by creating a margin for errors through language.

<INSERT Figure 15.5 here>

Figure 15.5 Percentage of recipes with modal verbs shall (fut.), will (fut.), and efficacy phrases

Legend: C16 = sixteenth century, C17 = seventeenth century

Cat1 = General treatises and textbooks; Cat2 = Treatises on specific topics; Cat4 =
Regimens and health guides; Cat5 = Surgery and anatomy texts

Figure 15.5 gives the development of the modal verbs *shall* and *will* expressing futurity, and the use of efficacy phrases. The modals used to express the commitment of the medicine to its future effect are closely connected with efficacy phrases, thus the inclusion of the three features in Figure 15.5. The presence of efficacy phrases increases in all categories, and so does the total percentage of futurity-expressing modals, even if individual modals may decrease from the sixteenth to seventeenth century. In rhetorical terms we can see the joint effort of appeal through *ethos* and *logos*: in efficacy phrases the author makes a promise about future events, and vouches for the soundness of the evidence.

5 DISCUSSION

The analysis of metadiscourse features in recipes and their reanalysis in rhetorical terms has proved to be a usable method, even if a labour-intensive one. As metadiscourse items are not always single-word items, using normalized frequencies was deemed somewhat misleading. Also, the persuasive effect can never be calculated from individual words or even from singular metadiscourse items. Persuasion is always a coefficient of language use and the cultural context, and thus the current approach may render the persuasive elements into fragments that cannot provide the full picture. Nevertheless, the approach reveals something concrete about the elusive concept of persuasion, and at least it can aid in achieving a closer look at the mechanics of persuasion, if not the full view.

In this study, the presence of metadiscourse features per recipe was recorded, making a recipe the basic unit of analysis. Admittedly, that unit is not uniform across

corpus texts: the more metadiscourse features a recipe carries, the longer and more varied it becomes. The length of recipes is a factor that was not accounted for in the design of the study. Nevertheless, it may bear relevance for similar studies in the future. In this study, the focus was on the number of metadiscourse classes per recipe, and that is directly related to the kind of persuasion a recipe employs. In recipes with more than one metadiscourse class, one could say that the metadiscourse items express the sum of the persuasive intent of the author. For example, attitude markers tend to co-occur with boosters, i.e. the author's evaluative comment is often reinforced by a booster adjusting the force or the degree of the comment. Also, efficacy phrases tend to co-occur with modal verbs expressing future actions. The length of recipes is at play also in cases where mere skeletons of recipes (a list of ingredients and a verb indicating the desired manner of preparation) are embedded in the surrounding exposition, which often contains the persuasive features that we do not see in the recipe itself. This may be a genre-governed feature, but it could also be an authorial preference.

We also see an increase in the diversity of different metadiscourse classes used in the material. The potential reasons for this can be found in the evolving and emerging paradigms of medicine: in the sixteenth century, the evolving science still leaned to some extent on Galenism, whereas Paracelsian ideology and chemical medicines were inventions of the seventeenth century. Nevertheless, we know that for a time in the latter century they coexisted, and the trends observed in a text corpus may reflect exactly this.

In individual EMEMT categories, we can see a development away from one facet of classical rhetoric and movement towards the other facets, and these developments may vary from one category to another. The clearest indicators are the ones related to the use of modal verbs, which seem to imply a movement toward epistemic modality and away

from deontic modality. All these changes seem to be moving the author's self-image towards a less authoritative tone of voice, at least when studying the metadiscourse items and modal verbs. We can also detect genre variation between the different categories of EMEMT, manifested in the ways persuasion is included in or excluded from the recipe text.

6 CONCLUSION

Persuasion is an elusive concept, and it seems that the present attempts to pinpoint persuasion to singular linguistic features can generate new knowledge on the phenomenon, but the prerequisite for that is a fairly cumbersome qualitative analysis. On the other hand, the current study has taught us something about the persuasiveness of metadiscourse items, and how they function as constituents of the persuasive coefficient of a text.

Looking at individual linguistic items creates a somewhat atomised view of persuasion, and in this case the persuasive effect of a whole text is always something else than the sum of its parts. Recipes in longer texts pose additional difficulties. Sometimes it means that recipes are completely drained of the persuasive features, as persuasion itself takes place elsewhere in the text. At other times, it is difficult to draw the line between the recipe and the exposition in which the recipe is embedded. Therefore it is, and should be, a different experience to study recipes in recipe collections than in other medical texts: embedded recipes are never the main item or focus of the text.

In the future, studies of metadiscourse and persuasion in medical recipes could provide comparisons between medical genres, and also between the medical register and

other registers. The qualitative character of many an approach to persuasion is an issue that could be addressed. The current data set also offers further possibilities for studying e.g. the authors' relationship with the audience, and the information accumulated in the study, considering persuasion from multiple angles, should lend itself also to visualizations of the phenomena.

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