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“My own sex, I hope, will excuse me”: Gender Performativity Theory and Modal Verbs in the *Corpus of English Philosophy Texts*

“My own sex, I hope, will excuse me”: teoría performativa de género y verbos modales en el *Corpus of English Philosophy Texts*

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Gender is a social construction that determines how we behave and, consequently, how we communicate. Even though scientific writing is characterized by its objectivity, it is undeniable that authors use some strategies, consciously or unconsciously, that express their attitude towards their texts. Such strategies include, among others, the use of modal verbs. This paper analyses their use, modality and meaning in eighteenth-century English scientific writing and establishes a comparison between male and female philosophy texts to discover to what extent women contribute to or react against the canon. The data for this small-scale study are taken from the *Coruña Corpus of English Scientific Writing*, in particular, from the *Corpus of English Philosophy Texts*. Quantitative and qualitative techniques have been considered for the analysis.

Keywords: *corpus linguistics; gender performativity; modal verbs; scientific writing; eighteenth century*

El género es una construcción social que determina cómo nos comportamos y, consecuentemente, cómo nos comunicamos. Aunque el discurso científico se caracteriza por su objetividad, es innegable que los autores usan ciertas estrategias, consciente o inconscientemente, que expresan su actitud hacia sus textos. Dichas estrategias incluyen, entre otras, el empleo de verbos modales. Por tanto, en este artículo se analiza su uso, modalidad y significado en textos científicos ingleses del siglo XVIII. Además, se establece una comparación entre cómo los usaban los hombres y las mujeres filósofas del momento con el fin de descubrir hasta qué punto las mujeres contribuían a o reaccionaban frente al canon establecido. Los datos para el microanálisis han sido extraídos del *Coruña Corpus of English Scientific Writing*, en particular, del *Corpus of English Philosophy Texts*. Cabe señalar que se han aplicado técnicas tanto cuantitativas como cualitativas en el estudio.

Palabras clave: *lingüística de corpus; performatividad de género; verbos modales; discurso científico; siglo XVIII*

1. INTRODUCTION

This paper complements previous research into the late Modern English scientific uses of modal verbs (Crespo, 2016; Moskowich & Crespo, 2019; Puente & Monaco, 2016) and discusses how female and male philosophers performed their gender through language; in particular, through the use and meaning of modal verbs. The sort of modals used by men and women will be compared on a quantitative and qualitative level.

For this purpose, scientific texts have been taken from one of the sub-corpora of the *Coruña Corpus of English Scientific Writing* (henceforth, *Coruña Corpus* or *CC*). Specifically, in this micro-analysis, four samples of the *Corpus of English Philosophy Texts (CEPhiT)*; Moskowich, Camiña, Lareo & Crespo, 2016) have been selected according to different parameters, among which the time span or the sex of the authors can be found.

Scientific writing has been traditionally defined in terms of its objectivity. In fact, Atkinson (1999) reveals that there was a tendency from author-centred to object-centred kind of writing in the *Transactions of the Royal Society* between 1675 and 1975. However, authors had to argue in defence of their opinion, especially women, whose marginality during the eighteenth century should be reflected in how they write science. Actually, the “expression of uncertainty is favoured” in appropriate women’s speech (Lakoff, 1973: 45). This is the reason why in my initial hypothesis I considered that women would be more prone to the use of modal verbs with extrinsic modality; that is, to the use of modals with meanings related to the notions of possibility, necessity and prediction (Quirk, Greenbaum, Leech & Svartvik, 1985: 219).

In what follows, Section 2 introduces a brief overview of the historical context for the texts under study and the theoretical framework that constitutes the basis for this analysis. Section 3 reviews the concepts of modality and modal verbs according, especially, to Quirk et al. (1985). In Section 4 the corpus material and methodology selected for analysis are presented, while Section 5 covers the analysis of the data. Finally, concluding remarks are offered in Section 6.

2. THEORETICAL FRAMEWORK

Following Butler’s claims in the twentieth century that gender is “in no way a stable identity or locus of agency from which various acts proceed; rather, it is an identity tenuously constituted in time” (1988: 519), it can be affirmed that gender is an elaborate social performance; that is to say, it is a social construction that determines the way in which we behave.¹ It is not only through the performance, but also through the repetition of the aforesaid acts—interiorized to such an extent that they are seen as natural—that the binary opposition between ‘man’ (masculinity) and ‘woman’ (femininity) is shaped.² As women, we are supposed to be feminine and, as men, we are supposed to be masculine. In fact, “those who fail to do their gender right are regularly punished” (Butler, 1988: 522).

Thus, gender is “instituted through the stylization of the body and, hence, must be understood as the mundane way in which bodily gestures, movements, and enactments of various kinds constitute the illusion of an abiding gendered self” (Butler, 1988: 519).

¹ Of course, this construction is influenced by the context/ideology of the period and evolves through time. For instance, in the late eighteenth century the ideal of female beauty was one of extreme thinness, paleness and languor (Lareo, 2011: 45). This was the physical archetype that women should strive to achieve. By performing different acts – which, of course, had terrible consequences not only for their body but also for their mind – they would become the weak sex, thus contributing to the performance of their gender.

² The natural differences between both sexes are not denied; what is stated is that gender is a historical construction, a cultural sign.

Moreover, gender includes words: our agency and identity are also built upon a linguistic discourse. As a matter of fact, different recent investigations, such as the one presented in the article *Linguistic Origins of Gender Equality and Women's Rights*, demonstrate that “the feature of a language [...] can perpetuate popular attitudes and beliefs about gender inequality” (Liu, Shair, Vance & Csata, 2018: 82). Therefore, following the ideas exposed in the Sapir-Whorf hypothesis, it can be accepted that it “is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection” (Sapir, 1929: 209). In other words, there is more than the mere utilitarian aim of communicating when we speak or write. When using language, we are transforming ourselves and transforming the reality around us. We are revealing things about ourselves although we are not conscious of it. As a result, languages are intimately connected with the way of life and thinking of their speakers, so much so that they not only shape but also construct reality.

Notwithstanding the aforementioned, women, even those who fit in the canon established for ‘woman’ and consequently are considered agents in possession of an ‘I’, are relegated to a secondary role. That being so, the traditionally accepted role of women was “confined to the household where they would be daughters, sisters, wives, or mothers” (Puente & Monaco, 2016: 147); in sum, as women *per se*, they were invisible. Going back in time, it can be seen how these ideas were stronger and generally accepted. Thus, during the eighteenth century, female education was restricted and only “girls who were raised in cultured families could in some cases receive private tuition” (Puente & Monaco, 2016: 147). Of course, the presence of females in universities was also inconceivable. The effects of this were seen in the fact that science was an activity reserved for men;³ although there were some female scientists, their work was only accepted in the private sphere (Hunter & Hutton, 1997: 103).

In this way, those women who wanted to devote their life to knowledge had to face numerous obstacles. Broadly speaking, being a woman implied sacrificing their own self. On the contrary, when men performed their gender, they received social recognition and were independent and respected.⁴ Then, what kind of relation is there between female scientists and language in this context? Is this different from the relation that is established between male authors and their use of language?

As already mentioned, in this micro-analysis I will try to ascertain whether my initial hypothesis can be confirmed; that is to say, whether women were more tentative in their claims than men when writing on philosophical topics or not. In order to do this, I will use four texts from the *Corpus of English Philosophy Texts*: two of them were written by George Cheyne and Alexander Crombie, and the remaining ones by Mary Astell and Mary Wollstonecraft, two female authors that left us an inestimable legacy. The fact that language, gender and context are indissociable notions leads us to briefly explain the authors’ background. For this purpose, I will follow the information compiled in the metadata files of *CEPhiT*.

Mary Astell was born in 1666. Her family was reasonably wealthy and well-known in the coal industry and her early education was overseen by her uncle, a clergyman and scholar who exposed her to platonic philosophy. She moved to London in her early 20s, where she struggled to make a living as a writer. Nevertheless, in her writings, among which it can be found *Reflections upon Marriage*, Astell exhorts women to treat their education seriously.⁵

³ “Women’s exclusion from scientific knowledge runs parallel to the process of the institutionalization of science which developed between the last part of the seventeenth century and throughout most of the eighteenth century” (Crespo, 2016: 56).

⁴ The word *man* has traditionally been associated with humanness itself (Butler, 1988: 523).

⁵ As previously mentioned, women were traditionally considered the “weak sex”. This categorization influenced the assessment of their abilities, both physically and intellectually speaking (Lareo, 2011: 44). As a consequence, except for some cases, the education of women during the eighteenth century was deficient.

Precisely because of her ideas, she has been considered by many a pioneer of feminism. On her part, Mary Wollstonecraft (1759) also belonged to a family with a comfortable lifestyle. However, while her brother was raised and educated as a gentleman, she attended school for only a short period, just long enough to learn how to read and write. In this way, she was forced to acquire the remainder of her amazing knowledge on her own. Until she decided to try her luck as a professional writer, she took the kind of occupations that were accessible to women, yet, in 1792 she published her magnum opus, *Vindication of the Rights of Women*, in which she supports female equality.

George Cheyne was born in 1671. His parents wanted him to become a minister of the church, but he chose to study medicine instead. He moved to London in 1701 after receiving his degree, and in 1702 he was chosen as a fellow of the Royal Society. Cheyne wrote *Philosophical Principles of Natural Religion* (1705) in an effort to use Newtonian natural philosophy to prove the existence of God. As for Alexander Crombie, he was born in 1760. He obtained his MA in 1778 and his LLD in 1794 at Marischal College. Despite having a preaching license, he was never ordained and spent most of his life teaching. In fact, he led an academy in Aberdeen before moving to London and opening a private school. In his first masterpiece, *An Essay on Philosophical Necessity* (1793), he explains how reading Priestley's writings led to his conversion from libertarianism to necessitarianism.

The reasons for the selection of these samples are presented in Section 4. Notwithstanding this and despite the obvious differences in what regards the topic of their writings, women, possibly because of their condition as such, were involved in fighting for their rights. Men, however, focused on topics that had nothing to do with the situation of women. In addition, male authors studied with the support of their families, who wanted to provide them with a promising future. Female authors, on the other hand, faced numerous difficulties and inequalities. Their sex and consequently the performance of their gender influenced their life, that is, their context. As stated, I will try to ascertain whether women – for the mere fact of being women – are more tentative than men in their claims when writing on philosophical topics. In order to do this, I will delve into their use of modal verbs and modality.

3. MODALITY AND MODAL VERBS

The outburst of the scientific revolution took place in the early years of the eighteenth century (coinciding with the publication of Astell's and Cheyne's works).⁶ Consequently, the English language of the period “evolved to meet the needs of scientific method and of scientific argument and theory” (Halliday, 2004: 178), thus deriving in the birth of scientific English.⁷ In this way, gentlemen such as Francis Bacon and Robert Boyle contributed to its standardization by proposing models based on principles such as lack of assertiveness and simplicity of form (Puente & Monaco, 2016: 146). The scientific method and, accordingly, scientific English were linked to the notion of objectivity and to the importance of its replicability. Yet, Philosophy is an abstract and theoretical science, so it was not enough for authors to present their works, they also needed to convince their audience by “making use of linguistic elements that act as rhetorical mechanisms of persuasion and argumentation in a more or less explicit way” (Crespo, 2011: 202). Taking this into consideration, my hypothesis argues that precisely

⁶ This was brought about, mainly, by the change from medieval scholasticism – “the paradigm of knowledge imposed by the Church” (Puente & Monaco, 2016: 145) – to rationalism and empiricism, two methods that questioned the canon used so far.

⁷ According to Halliday (2004), the birth of scientific English is to be found in the language used by Isaac Newton in his work *Treatise on Opticks* (1704).

because of their context, female and male philosophers used different strategies when writing science and this can be seen in their use of different modal verbs.

Modality is a complex system that is “concerned with such semantic notions as ‘possibility’, ‘probability’, ‘necessity’, ‘obligation’, ‘permission’, ‘intention’ and ‘ability’” (Aarts, 2011: 275). In other words, the meanings related to modality “[...] reflect the speaker’s judgment of the likelihood of the proposition it expresses being true” (Quirk et al., 1985: 219).⁸ It may be said, therefore, that it is a vague notion that is associated with the speaker’s “opinion or attitude towards the proposition that the sentence expresses or the situation that the proposition describes” (Lyons, 1977: 452). As the definition is so open, it is an arduous task to identify the basic features of the system. In fact, modality is not expressed in all languages in the same way; what is more, although it is usually connected to the verb or verb phrase, “[there is no] obvious reason why it should be, apart from the fact that the verb is the most central part of the sentence” (Palmer, 1986: 45). In English, it is expressed, syntactically speaking, by diverse items, from the use of the past tense form of modal verbs to subjunctive clauses, modal verbs, marginal modals, modal idioms, lexical modality, and hedges (Aarts, 2011: 277-311). The decision of analysing central modal verbs (Biber, Johansson, Leech, Conrad & Finegan, 2021: 75; Huddleston, 1984: 164-165) and the meanings they convey depending on their type of modality – as displayed in Table 1 below – is due to the fact that they are the elements of language that best convey the meaning of modality and their mitigating power has been considered by many in academic discourse (Gotti & Dossena, 2001, among others).

Table 1: Modality and meaning of modal verbs (according to Quirk et al., 1985 & Biber et al., 2021)

	Extrinsic Modality	Intrinsic Modality
Can / Could	Possibility / Ability	Permission
May / Might	Possibility	Permission
Must	Logical Necessity	Obligation
Shall	Prediction	Volition
Should	Tentative Inference	Obligation
Will / Would	Prediction	Volition

Several linguists, such as Huddleston (1984), Palmer (1986, 1990) and Biber et al. (2021), among others, have developed their theories on modality, thus establishing various categorizations and using different terminologies. In addition, different scholars (Denison, 2014; Fischer, 2004; Lightfoot, 1974, etc.) have focused their research on a historical approach to an explanation of the evolution of syntax, in general, and of modal verbs, in particular. However, as stated in the previous sections, I have resorted to Quirk et al. in this analysis, since, even though there is a gap of two hundred years between the eighteenth and the twentieth centuries, the meanings of modal verbs in present-day English “do not differ extensively from the ones to be found in the late Modern English period” (Moskowich & Crespo, 2019: 57). That being so, intrinsic modality involves “some kind of human control over events” whereas extrinsic modality entails “human judgement of what is or is not likely to happen” (Quirk et al., 1985: 219). Generally speaking, while the former makes the meaning stronger, the latter attenuates the illocutionary force of utterances. This is the reason why my hypothesis is that women would use a greater number of modal verbs expressing extrinsic modality; their objective would be to mitigate the strength of their discourse, which in the selected samples is,

⁸ Following Palmer’s ideas (1986: 14), it is reckoned that there is a difference between modality, on the one hand, and proposition, on the other.

in addition, characterized by their revolutionary topic. In other words, the impact caused in society by the topics expressed would be softened by the way in which women presented them.

Before moving on to the analysis *per se*, it should be noted that there is no univocal relation between modals and their uses, as seen in examples (1) and (2). Furthermore, in some cases, the intrinsic and extrinsic senses are neutralized and combined, as in (3).

(1) Rousseau declares that a woman should never, for a moment, feel herself independent (Wollstonecraft, 1792: 47) → Obligation

(2) Were the will determined by the motives intrinsically strongest, we should be unerringly virtuous (Crombie, 1793: 17) → Tentative Inference

(3) What shadow of a Pretence can a Woman have for admitting an intimacy with a Man whose Principles are known to be Loose and his Practices Licentious? (Astell, 1700: 80)

a. What shadow of a Pretence is a woman allowed to have...? → Permission

b. What shadow of a Pretence is it possible for a woman to have...? → Possibility

In the following pages, I will describe the *Corpus of English Philosophy Texts*, in general, and present, in detail, the samples that will be under examination.

4. CORPUS MATERIAL AND METHODOLOGY

This study uses the *Coruña Corpus of English Scientific Writing*, a resource created to facilitate the study of the development of English scientific writing during the late Modern English period. Specifically, the *Coruña Corpus* “[...] contains samples of texts published between 1700 and 1900 which correspond to different scientific discipline[s]” (Crespo & Moskowich, 2015: 87). The material used for this analysis is part of the *Corpus of English Philosophy Texts (CEPhiT)*. I have selected four samples, so the resulting subcorpus under study is composed of 40,218 words. Details are shown in Table 2 below:

Table 2: *Corpus material*

Author	Year	Title	Genre	No. of words
Mary Astell	1700	<i>Some Reflections upon Marriage</i>	Essay	10079
George Cheyne	1705	<i>Philosophical Principles of Natural Religion</i>	Treatise	10060
Mary Wollstonecraft	1792	<i>Vindication of the Rights of Women</i>	Treatise	10053
Alexander Crombie	1793	<i>An Essay on Philosophical Necessity</i>	Essay	10026

CEPhiT follows the same compilation principles and structure of the *Coruña Corpus*; that is, it contains two ca. 10,000-word samples per decade; the fragments are part of the first edition of the work or of editions published within a 30-year lapse, and they constitute original texts (no translations are included). In addition, the extracts belong to different parts of the pieces and authors are not repeated to avoid linguistic idiosyncrasies. Each text is accompanied by a metadata file, in which information about the author (age, sex, place of education, etc.) and the text (genre, contribution to the author’s career and so on) is included. With all this in mind, the corpus was designed to adhere to the principles of representativeness and balance so that the limited presence of women is just a reflection of the reality of the period.

The selection of the texts for this analysis responds to different factors. To begin with, *CEPhiT* contains a large number of samples of female authorship, although they only represent 8% of the words in *CEPhiT* (Crespo & Moskowich, 2015: 92). In particular, it comprises

Astell’s and Wollstonecraft’s texts, which deal with the vindication of women’s rights before the beginning of the suffragist movement. These samples are a perfect fit for this study as they are impregnated with the fighting spirit of their writers, who claimed women’s rights, and therefore are constructing or reconstructing their gender.

Modern philosophers seemed to prefer two genres: treatises and essays—both formal genres. In fact, the proportion of words per genre in the eighteenth-century philosophy texts demonstrates that treatises occupy 65% and essays 30% of the total in *CEPhiT* (Crespo & Moskowich, 2015: 90). It seems reasonable, then, to include the text-types that best represent the tendency of the discipline in this micro-analysis.

In addition, in order to ensure uniformity, the samples have been carefully chosen according to the time span represented. As shown in Table 2, Astell’s and Cheyne’s samples belong to the first decade of the eighteenth century, whereas Crombie’s and Wollstonecraft’s were published in the last one.

Finally, to reinforce what has been highlighted in previous sections, for this particular study, the context surrounding the authors has been taken into consideration. Both women were educated in England and both men, in Scotland.⁹ As previously advanced, their background is completely different. Mary Astell belonged to a family of considerable wealth and was educated by her uncle. Mary Wollstonecraft, on her part, acquired all her knowledge by herself, since her family only educated her brother as a gentleman. Be that as it may, both were educated in the privacy of their homes. When the focus changes to the male philosophers: Cheyne studied medicine and Crombie obtained his Master of Arts in 1778 (Moskowich, Camiña, Lareo & Crespo, 2016). This is possibly the cause of the differences in the way they performed their gender and, consequently, the differences in the way they wrote science.

To examine modal verbs in the selected philosophy texts, I have resorted mainly to quantitative techniques. However, I have also used qualitative methods to interpret data. All the modal verbs have been searched for using the *Coruña Corpus Tool* (henceforth *CCT*) (Barsaglini & Valcarce, 2020; Parapar & Moskowich, 2007). Table 3 below shows the forms searched for in this analysis and their frequency of occurrence:

Table 3: Distribution of types and tokens in the selected samples

Modal	Type	Token
Can	Can	155
	Cannot	52
	Can’t	5
Could	Could	33
	Cou’d ¹⁰	54
May	May	137
Might	Might	31
Must	Must	115
Shall	Shall	34
Should	Should	62
	Shou’d	48
Will	Will	141
	Won’t	2
Would	Would	68
	Wou’d	49

⁹ The geographical distribution per words in *CEPhiT* points out that the percentage of philosophers who received formal education in England amounts to 45%, while those who learned to write in Scotland represent a 40% (Crespo & Moskowich, 2015: 93). In order for this study to be significant, it was necessary to carefully choose the texts according to the parameters mentioned in comparison with the general corpus.

¹⁰ The fact that the forms “cou’d”, “shou’d” and “wou’d” appear in the samples written by Astell (1700) and Cheyne (1705) is a sign of the process of standardization; while the spelling patterns are more or less established in eModE, the use of the apostrophe for contractions was not consistent until the late Modern English period.

The distribution type/token is balanced between both sexes. In fact, it only varies with the modals “can” and “will”, since women use 3 types and 106 tokens, in the first case and 2 types and 94 tokens, in the second. It must be noted, however, that this is because Mary Astell uses the contracted forms “can’t” and “won’t”. As a consequence, for the purpose of the study, this will be considered an idiosyncrasy of the author.

After the search was finished, the modals were stored and organized in databases. They were also carefully examined to exclude those tokens that did not fit into the selected lexical category. This manual disambiguation permitted, for instance, to disregard the form “will” when it functions as a noun in texts as illustrated in examples (4) and (5):

(4) Because he was made to be a Slave to his Will, and has no higher end than to Serve and Obey him? (Astell, 1700: 49)

(5) What then sets this will in motion? (Crombie, 1793: 8)

Once the process of manual disambiguation finished, the total number of tokens was 986. After the general findings, I will consider the sex variable, so, in Section 5, the female use of modal verbs will be compared and contrasted with overall numbers and figures corresponding to male writings.

5. ANALYSIS OF DATA

Since the difference in the number of words among the four samples is minimal, frequencies will not be normalized. As already mentioned, in a total of 40,218 words 986 tokens have been found. They are distributed as shown in Figure 1:

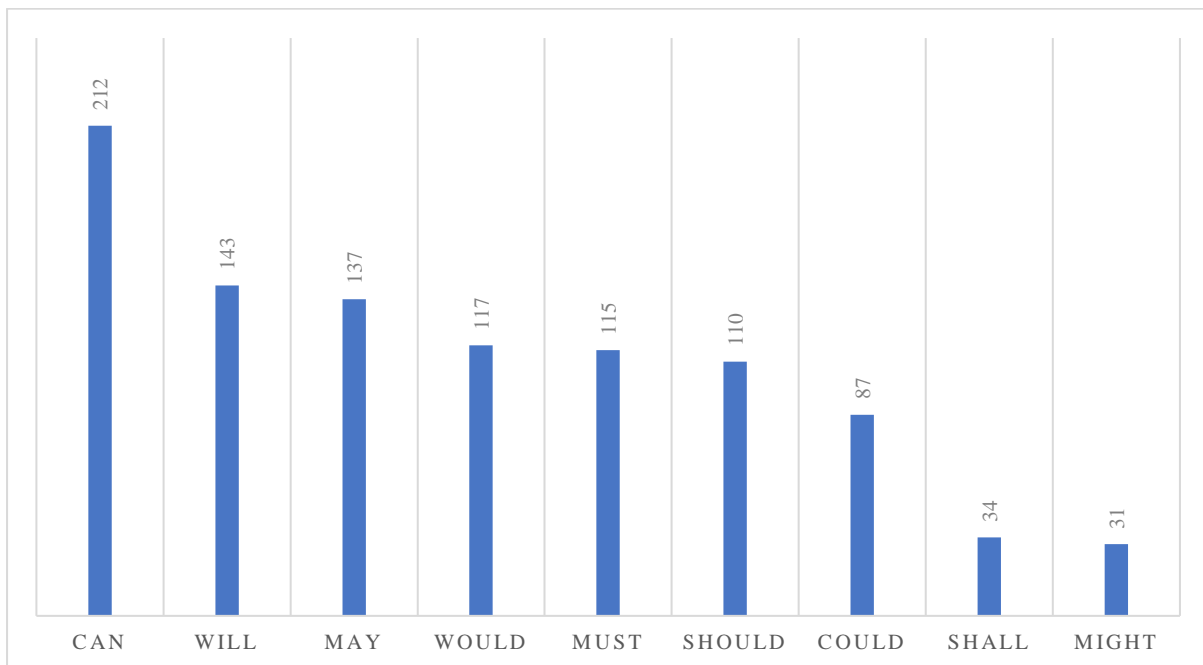


Figure 1: Distribution of modal verbs

The graph shows that “can” is by far the most popular modal verb with 212 occurrences, while “shall” (34) and “might” (31) are the least popular ones. This may be because “shall” is

only used under certain restricted circumstances¹¹ and shares part of its meaning with “will”. The same happens with “might”, whose meaning overlaps, to a certain extent – “might” is more tentative than “may” –, with that of “may”. Quirk et al. (1985) associate “could”, “might” and “would” with tentativeness and politeness. Therefore, given my initial assumption, it is striking to see that they are used so little.

If the general results are compared with how the male and female authors under study use modal verbs, it can be seen that their preferences differ in some cases (Figure 2):

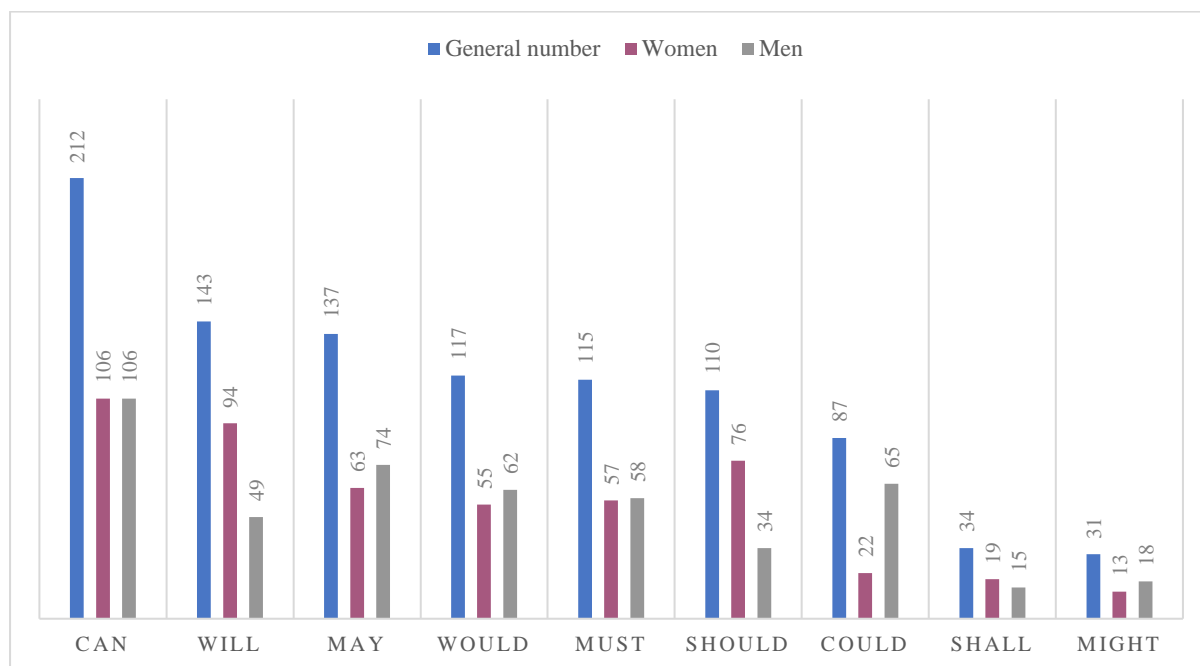


Figure 2: Female vs. male distribution of modal verbs

The distribution of the modals “can” and “must” is balanced between both sexes. Male authors prefer to use “may” (74), “would” (62) and “might” (18), although the difference is almost imperceptible. As for “shall” (19), there is also a small variation in its use, since it is preferred by women. Notwithstanding this, it is worth mentioning that the modals “will”, “should” and “could” illustrate the greatest differences between sexes. Female authors have a preference for the first two types, while males favour the use of “could”, which, as has been advanced, adds a note of tentativeness in polite requests and in expressing tentative opinions (Quirk et al., 1985: 233).

Focusing the analysis now on the meaning and, consequently, the modality associated with the previous modals, it can be appreciated that there is a general tendency in the use of extrinsic modality, since it represents more than three-quarters of the total (80.93%). Nevertheless, if both sexes are compared, the results obtained reveal some remarkable data because females are more prone to the use of modals with intrinsic modality than men (Figure 3):

¹¹ It usually occurs with 1st person subjects. In legal or semi-legal discourse, “shall” can also be used with 3rd person subjects in constitutions, regulations, etc. On rare occasions, “shall” appears with 2nd and 3rd person subjects, either to grant a favour or to give orders (Huddleston, 1984: 175; Quirk et al., 1985: 229-231).

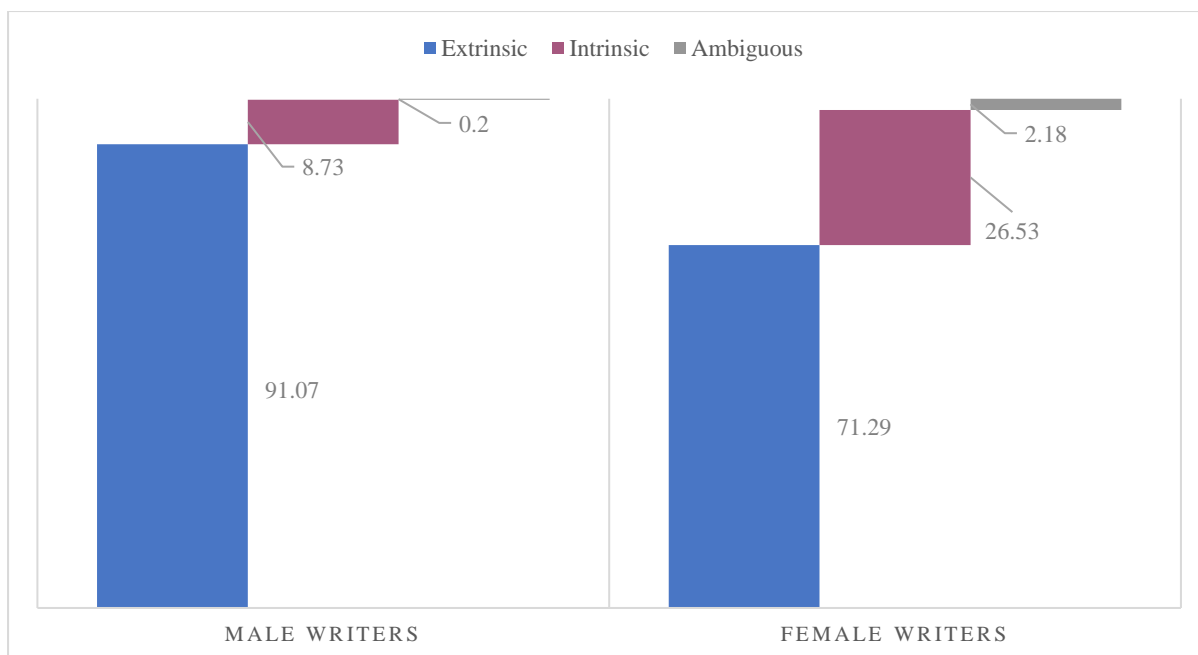


Figure 3: Comparison of modality in male and female philosophy writings

Interestingly, as the figure illustrates, male and female preferences revolve around extrinsic modality. However, female writers are more likely to include a higher percentage of verbs with intrinsic modality – 26.53% in women’s writings versus 8.73% in men’s writings.

As for male authors, in the total of 481 modal verb forms used by Cheyne and Crombie, 91.07% correspond to extrinsic modality. In addition, more than half of these verbs have a meaning associated with possibility (59.59%) and a relevant 24.89%, with prediction. It appears, therefore, that men are inclined to attenuate their utterances by using predictive strategies that create a sense of uncertainty in their discourse as shown in examples (6) and (7):

(6) For these Atoms cou'd not¹² move all with the same degree of Obliquity to one another, for that wou'd be making 'em all converge to a point, and fo nothing but one great solid Sphere cou'd be (Cheyne, 1705: 9)

(7) The state of the question may be illustrated by the following example (Crombie, 1793: 5)

Men performed their gender, but they were in such a privileged position that they minimized the illocutionary force of their discourse so that, on the one hand, they did not assume full responsibility over what they were saying and, on the other, they introduced their theories to readers in a gentler way.

With regard to Astell’s and Wollstonecraft’s samples, in the total of 505 modal verb forms recorded just over 70% are used with an extrinsic meaning as can be observed in examples (8) and (9) below:

(8) But how can a Man respect his Wife when he has a contemptible Opinion of her and her Sex? (Astell, 1700: 49)

(9) Society, therefore, as it becomes more enlightened, should be very careful not to establish bodies of men who mult necessarily be made foolish or vicious by the very constitution of their profession (Wollstonecraft, 1792: 29)

¹² Ability sense.

The form “must” in example 9 illustrates logical necessity that could be reinterpreted as “it is essential for men to be made...”. Following Quirk et al., in this example “must” expresses root necessity; that is to say, there is no implication of human control in the action. In this way, this meaning is differentiated from the sense of obligation. While other linguists such as Palmer (1986; 1990) or Huddleston and Pullum (2002) distinguish three types of modality – epistemic, deontic and dynamic –, Quirk et al. regard the “root epistemic distinction as a subcategorization of extrinsic modality” (1985: 220).

Although it is true that women have a preference for extrinsic modality, they use a relevant proportion of modals with an intrinsic sense (26.53%). This provides evidence that my initial hypothesis could not be further from the truth; in other words, women resort to modal verbs with the meaning of permission, obligation and volition more than initially expected. On closer inspection, it is worth noting that the forms that they use most are “must” and “should”, which have very strong meanings. The modal “must” appears 57 times in female writings and “should”, 76. Maybe, these two female writers resorted to these strategies to show their power and to reinforce the validity of their arguments.

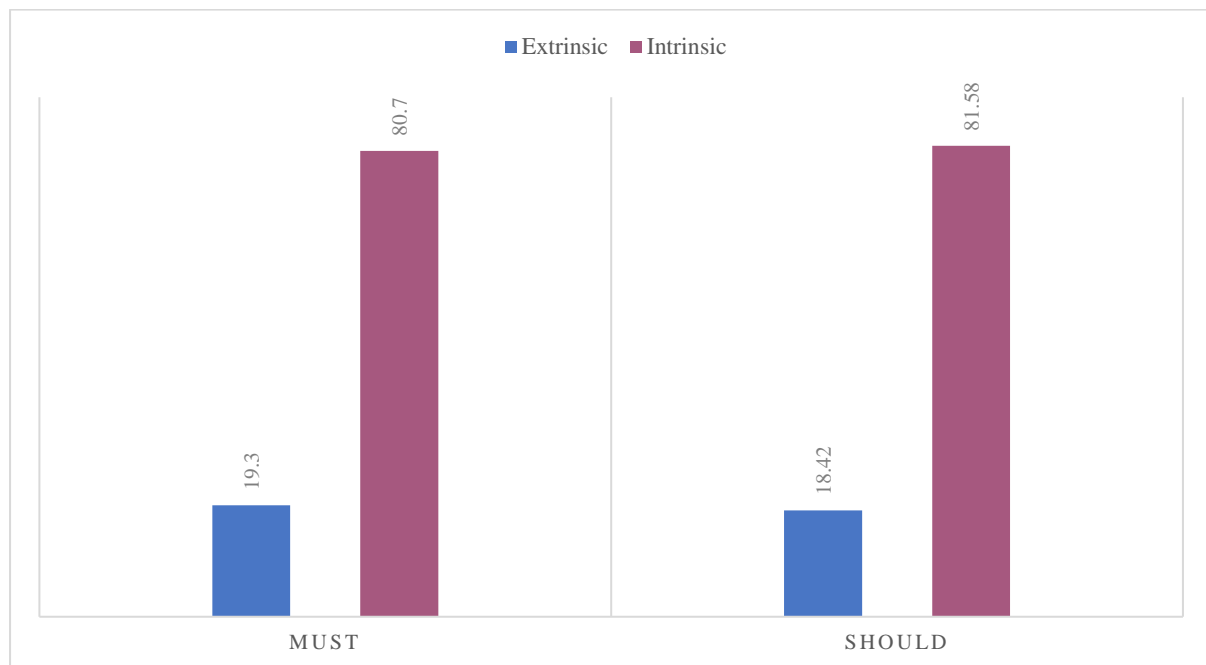


Figure 4: Modality of “must” and “should” in female writings

The graph presents data on how the modality of “must” and “should” in Astell’s and Wollstonecraft’s samples is distributed. As for “must”, 11 occurrences correspond to the extrinsic meaning of logical necessity and the remaining 46 are associated with the meaning of obligation. In other words, there is the implication that a certain form of behaviour is being advocated (Quirk et al., 1985: 225) – see example (10) below. In the case of “should”,¹³ 81.58% of the total are related to the sense of obligation, although the confidence that the recommendation will be carried out is lower, as shown in example (11).

(10) She then who Marrys ought to lay it down for an indisputable Maxim, that her Husband muft govern absolutely and intirely, and that fhe has nothing else to do but to Pleafe and Obey (Astell, 1700: 59)

(11) I own it frequently happens that women who have fostered a romantic unnatural delicacy of feeling, waſte their lives in imagining how happy they ſhould have been with

¹³ Just over 18% are associated with an extrinsic modality and, therefore, with the meaning of tentative inference.

a husband who could love them with a fervid increasing affection every day, and all day (Wollstonecraft, 1792: 63)

In example 10, a certain form of behaviour is being advocated by the speaker with the use of “must”. As for example 11, it is worth noting that “with the perfective aspect, should [...] typically has the stronger implication that the recommendation has not been carried out” (Quirk et al., 1985: 227). By way of explanation, women should have been happy, but they were not.

Special mention deserves the verb “will”. It is widely used by women and, in this case, 15 (15.96%) out of 94 occurrences are associated with the meaning of volition as seen in examples (12) and (13).

(12) He strives to please and to render himself agreeable, or necessary perhaps, and whoever will make it his Business may find ways enough to do it (Astell, 1700: 76)

(13) I hope, that no sensible mother will restrain the natural frankness of youth by infilling such indecent cautions (Wollstonecraft, 1792: 54)

In the preceding examples, the meaning of prediction is combined with one of intention. This is one of the subsenses that Quirk et al. (1985: 229) distinguish within the meaning of volitional “will”. Precisely because of the topic dealt with by Astell and Wollstonecraft in their works, this volitional meaning can be related to their objectives and wishes; that is to say, on the one hand, it is the way in which female authors, consciously or unconsciously, express their power and, on the other hand, this is also what allows us to hear their voices. On the contrary, in Cheyne’s and Crombie’s samples, less than 5% of the occurrences convey this meaning and they are mainly related to the way in which these authors plan to organize their texts (see examples 14 and 15 below).

(14) To establish this truth, I will first enquire into the causes of our actions (Crombie, 1793: 7)

(15) I will now suppose, that motives are opposed to motives, that passion and appetite, interest and duty, prompt to contrary modes of conduct (Crombie, 1793: 16)

Again, this seems to suggest that male writers engage less with their texts than females do.

6. FINAL REMARKS

The results obtained in the present study show that modal verbs are particularly useful for 18th-century authors, as both males and females make extensive use of them. This is clearly due to the fact that “authors always have a voice, to a greater or lesser degree, however necessary or important the description of an object, event, or process might be” (Moskovich & Crespo, 2019: 63). In this way, the analysis partially corroborates the initial hypothesis since, although both male and female philosophy authors were prone to using modal verbs with an extrinsic modality—that is to say, meanings of possibility, necessity, and prediction,—in the case of women, the percentage of verbs with intrinsic modality is much higher than that of men.

The eighteenth century was a time in which women were relegated to the private sphere: they were discriminated in the century of the development of science. However, some female authors, such as Astell and Wollstonecraft, challenged the conception of ‘woman’ by not only publishing their works supporting women’s rights, but also by using a discourse characterized by being far from uncertainty. As has been previously advanced, the initial hypothesis revolved

around the fact that women would use a higher number of modal verbs with extrinsic modality than men since, precisely because of the role that they played in society, the meanings of possibility, necessity and prediction would contribute to the construction and reinforcement of their gender. In other words, the illocutionary force of their statements would be attenuated, and female authors would be less responsible for their work. Yet, although both men and women use a similar number of modal verbs with extrinsic modality, female writers use a wide number of verbs with intrinsic modality expressing volition and obligation; that is, language is used to give and demand actions. Consequently, Astell and Wollstonecraft used language to show their power; they reacted against the canon and inevitably they helped to reconstruct their gender. In the end, they tried to be somebody they were not allowed or supposed to be.

All in all, these results show part of the picture and call for a study including an analysis of other linguistic resources that express modality apart from modal verbs *per se*. Additionally, a diachronic analysis of modality could also shed light on how the role of women has changed and evolved in science, in general, and in philosophy, in particular.

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