THE FUNCTION OF MODAL VERBS IN TECHNICAL INSTRUCTIVE TEXTS WRITTEN BY WOMEN IN LATE MODERN ENGLISH

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Abstract

This paper examines the interpersonal functions of modal periphrases in technical instructive texts written by women during the eighteenth and nineteenth centuries, drawing on data from the *Corpus of Women's Instructive Texts in English* (CoWITE). Using a systemic functional linguistics approach, the study explores both modal forms and their discourse values, with a focus on the diachronic development of modalisation and modulation systems. Quantitative findings reveal stable modal usage across both centuries, but with a notable redistribution of core modal verbs. The qualitative analysis identifies a shift from prescriptive, high-deontic structures typical of the eighteenth century (*must*, *will*) to more consultative, evaluative, and negotiable strategies in the nineteenth century (*should*, *may*, *can*, *might*). This evolution points to a transformation in how authority is conveyed and how readers are constructed as active participants in the text. The study demonstrates that modality functions as a central rhetorical tool in shaping female authorial ethos and managing interpersonal relationships in instructional discourse. Future research should explore other instructive genres, comparative analysis with male-authored texts, and multimodal perspectives.

Keywords: modality, instructive discourse, systemic functional linguistics, women's writing, CoWITE, Late Modern English.

LA FUNCIÓN DE LAS PERÍFRASIS MODALES EN TEXTOS TÉCNICOS INSTRUCTIVOS ESCRITOS POR MUJERES EN EL INGLÉS MODERNO TARDÍO

Resumen

Este trabajo analiza las funciones interpersonales de las perífrasis modales en textos técnicos instructivos escritos por mujeres en los siglos XVIII y XIX, con base en los datos del *Corpus of Women's Instructive Texts in English* (CoWITE). Desde una perspectiva de la lingüística sistémico-funcional, se examinan tanto las formas modales como sus valores discursivos, centrándose en la evolución diacrónica de los sistemas de modalización y modulación. Los resultados cuantitativos revelan un uso constante de la modalidad a lo largo de ambos siglos, aunque con una redistribución significativa de los verbos modales. El análisis cualitativo muestra un desplazamiento desde estructuras prescriptivas con fuerte carga deóntica, propias del siglo XVIII (*must*, *will*), hacia estrategias más consultivas, evaluativas y negociadas en el siglo XIX (*should*, *may*, *can*, *might*). Esta evolución sugiere un cambio en las formas de autoridad y en la configuración del lector como agente activo dentro del texto. El estudio demuestra que la modalidad actúa como herramienta retórica central para la construcción del ethos autoral femenino y la gestión de la relación interpersonal con el lector. Se proponen futuras líneas de investigación centradas en otros géneros instructivos, en el contraste con textos escritos por hombres y en el análisis multimodal del discurso.

Palabras clave: modalidad, discurso instructivo, lingüística sistémico-funcional, escritura femenina, CoWITE, inglés moderno tardío.

1. INTRODUCTION

This study examines the interpersonal function of modal verbs in technical instructive texts written by women during the Late Modern English period, specifically between the eighteenth and nineteenth centuries. The research focuses on the system of MODALITY as it is realised through core modal verbs within female-authored technical discourse, with particular attention to domestic-use recipe texts. This perspective offers an innovative and underexplored approach within linguistic studies of specialised discourse. The modal structures under analysis are framed within the broader category of evaluative language, as proposed by Martin (2000) and further developed by Neupane Bastola and Hu (2021). The recipes selected for analysis not only serve as instructive texts but also reflect innovation in culinary and therapeutic practices, as well as a notable degree of expertise and competence on the part of the authors (*cf.* Taavitsainen 2011). Contemporary sources are provided to support this claim (*cf.* Taavitsainen 2001; Alonso-Almeida 2013, 2024; De la Cruz-Cabanillas 2017; Álvarez-Gil 2024).

From a methodological perspective, the study relies on corpus analysis tools for data retrieval and contextualisation. This approach enables a detailed examination of the social and cultural dimensions underlying the use of evaluative language in recipe writing (Thompson & Hunston 2000; Gu 2016; Hood 2019; Fuoli 2018). The theoretical framework is grounded in Systemic Functional Linguistics (SFL), which views linguistic choice as a means of establishing social relations (Eggins 2004; Fontaine *et al.*, 2012; Halliday & Matthiessen 2014). SFL provides the foundation for a systematic analysis of modality as a grammatical system tied to the interpersonal function of language, which expresses the speaker's attitude and degree of certainty, obligation, or necessity. Within this system, modality is divided into modalisation (linked to probability and frequency) and modulation (related to obligation and inclination). The analysis of these modal forms will help identify potential stylistic patterns (Hyland 2005; Kadooka 2021), and explore how these patterns may have been shaped by the gender of the authors, whose discursive limitations may have evolved over time. While the diachronic development of modal verbs in this type of writing has been previously studied (*cf.* Alonso-Almeida, submitted), the present work distinguishes itself by focusing specifically on the communicative functions of these forms and how such functions contribute to the construction of interpersonal meaning. This methodological approach, inspired by the work of Hiltunen and Taavitsainen (2022), combines corpus-based linguistic analysis with sociohistorical contextualisation, thereby enabling a more comprehensive interpretation of the data. Preliminary findings are expected to reveal commonalities in the use of evaluative

devices, which may shed light on the interaction between interpersonal meaning and contextual factors (*cf.* Arús-Hita 2021).

Building on this approach, the study seeks to address the following research questions:

1. What interpersonal functions do modal verbs serve in technical instructive texts written by women during the Late Modern English period?
2. In what ways are these modal structures used to construct authority, manage obligation, or convey degrees of certainty within instructive interaction?
3. What functional differences can be observed between the eighteenth and nineteenth centuries in the use of these modal forms?
4. How can these modal functions be interpreted in light of the social and gender constraints that shaped women's authorship in each period?

Within the framework of SFL, interpersonal meaning is articulated through two core grammatical systems: MOOD and MODALITY. These systems help us understand how speakers and writers establish social relationships through language, either by adopting a particular stance toward propositional content or by modulating the degree of commitment to what is expressed. The MOOD system refers to the grammatical structures that enable basic discourse functions, such as statements, questions, and commands. As Li (2023) notes, mood constitutes a clause-level grammatical category that realises core communicative functions through constructions such as declaratives or interrogatives. These forms regulate interaction between speaker and addressee, and are particularly relevant in instructive texts, where the transmission of knowledge must be balanced with guidance on action (Quiroz 2018).

MODALITY, in contrast, expresses the degree of certainty, possibility, obligation, or willingness with which a proposition or proposal is presented. It functions as a semantic space between the poles of absolute affirmation and negation, allowing the speaker to introduce evaluation, judgment, or attitude towards the content of the message (Halliday & Matthiessen 2014). In this sense, modality operates as a form of interpersonal deixis, situating the speaker in relation to the validity or urgency of what is being said (Halliday & Hasan 1985 [1989]). SFL distinguishes two main subtypes of modality: modalisation, which applies to propositions and conveys degrees of probability and frequency, and modulation, which applies to proposals and involves notions of obligation and inclination. This classification does not exactly overlap with Palmer's (2001) categories of epistemic and deontic modality, though there is partial correspondence: epistemic meaning relates to modalisation, while deontic meanings aligns with modulation. In the Hallidayan tradition, both are represented along a scale of high, medium, and low values, depending on the level of commitment expressed (Halliday & Matthiessen 2014, 686-695).

In English, MODALITY is primarily realised through core modal verbs (*can, could, may, might, must, shall, should, will, would*) (Denison 1993), as well as through peripheral forms (*need, dare, have to, ought to*), which extend the repertoire of interpersonal meanings. These forms combine with modal adjuncts (*probably, certainly*), projecting verbs (*I believe, I suppose*), and relational constructions (*It is*

necessary that...), generating both congruent and metaphorical realisations of modality (Thompson 2014; Hao 2020). The choice between explicit and implicit, subjective and objective forms (Lluch 2022) is not merely stylistic, it actively contributes to the construction of a discursive voice and the negotiation of authority, especially in contexts where the speaker must carefully manage their stance. A critical dimension in this framework is polarity, which is closely linked to the finite element of the clause. The placement of negation can alter the evaluative load of a statement, particularly in metaphorical expressions such as *I don't think they should leave*, as opposed to the congruent equivalent *I think they shouldn't leave*. These shifts in grammatical structure introduce evaluative nuances that are relevant to a functional analysis of modality (He, 2021; Halliday & Matthiessen, 2014).

From the perspective of specialised discourse studies, MODALITY has been identified as a central resource for expressing judgment, attitude, and commitment in instructive texts, especially in those produced by women in the eighteenth and nineteenth centuries. The work of Taavitsainen (2001), Alonso-Almeida (2013, 2024), and De la Cruz-Cabanillas (2017) has highlighted how women writers employ modal strategies to mitigate imposition, legitimise the knowledge they convey, and project authority while avoiding direct confrontation with the social expectations of their time. These studies show that the use of modal verbs in medical and culinary recipes constitutes a key discursive mechanism for negotiating the relationship between expert knowledge and interpersonal relations. More recently, research has advanced on the diachronic patterns of modal verb usage in instructive texts written by women, focusing on their distribution, frequency, and evolution throughout the Late Modern English period (Alonso-Almeida 2025, forthcoming). However, the functional dimension of these structures, that is, the specific ways in which modal verbs contribute to the construction of interpersonal meaning in women's technical instructive discourse, has received comparatively less attention. This study positions itself within this underexplored area, offering a detailed analysis of the functional value of modal verbs in instructive texts written by women in the eighteenth and nineteenth centuries. Using a corpus-based approach within the theoretical framework of SFL, it examines how female authors manage relations of power, commitment, and guidance through modal choices, thereby revealing both individual discursive strategies and social constraints tied to gender and historical context.

The structure of the article is as follows: Section 2 explores the concepts of modalisation and modulation in relation to interpersonal meaning, focusing on how these linguistic choices reflect the authors' perspective. Section 3 introduces the corpus and outlines the methodology, including the criteria for text selection and the analytical strategies employed. Section 4 presents and discusses the findings, organised according to the modal categories identified. Finally, Section 5 offers the main conclusions drawn from the analysis, highlighting their implications for the study of specialised discourse from a gender-sensitive perspective.

2. METHODOLOGY

The methodology is grounded in the framework of Systemic Functional Linguistics (SFL), specifically within the interpersonal function of language, and aims to examine the discursive role of modal verbs in technical instructive texts written by women during the Late Modern English period. Unlike previous studies focused on the frequency or distribution of modal verbs (Alonso-Almeida 2025, submitted), the present study centres on the functional values that these elements acquire in instructive discourse, with particular attention to their orientation (objective/subjective), modal value (high, medium, or low), polarity, and type (modalisation or modulation).

The textual base for this study is the *Corpus of Women's Instructive Texts in English* (CoWITE), specifically the subcorpora corresponding to the eighteenth (CoWITE18, Alonso-Almeida *et al.*, 2025a) and nineteenth (CoWITE19, Alonso-Almeida *et al.*, 2025b) centuries, which together comprise over 500,000 tokens evenly distributed across decades. All texts were authored by British or American women and belong to the instructive genre, primarily consisting of medical, culinary, and domestic care recipes. The texts have been part-of-speech tagged and processed using the DiCoS-LA tool to facilitate the identification of modal structures and their immediate context. In order to carry out a functional analysis, data on the form and frequency of modal verbs from each corpus compilation, as reported in Alonso-Almeida (2025, forthcoming), were required.

The analysis was conducted in two complementary phases:

(a) Data extraction and normalisation: All core modal verbs (*can, could, may, might, must, shall, should, will, would*) were identified in both subcorpora, and their frequencies were normalised to a base of 10,000 words. This enabled the comparison of trends across centuries and among the texts analysed. The overall mean for the eighteenth century was 10.67 (SD = 17.33), while for the nineteenth century it rose to 13.02 (SD = 13.76), with no statistically significant differences at the global level (ANOVA: p = 0.73; Kruskal-Wallis: p = 0.37). Nevertheless, relevant qualitative changes were observed in modal values and functions.

(b) Functional classification of modal verbs: Based on the parameters proposed by Halliday and Matthiessen (2014) and Martin and White (2005), each occurrence was classified according to:

- Type of modality: modalisation (probability/usuality) or modulation (obligation/inclination).
- Modal value: high, medium, or low.
- Orientation: subjective or objective.
- Realisation: explicit (e.g., *must*, *should*) or implicit (e.g., *I believe*, *probably*).
- Pragmatic function: assertion, suggestion, recommendation, warning, among others.
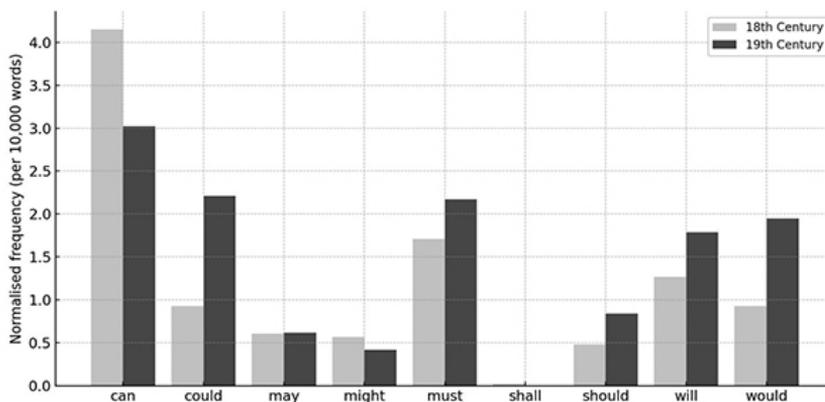
Figure 1. Normalised frequency of modal verbs in technical instructive
texts written by women (18th and 19th centuries).

The analysis was complemented by a qualitative examination of representative excerpts that illustrate the various meanings conveyed by the modal verbs identified. Particular attention was given to the textual context and to the interpersonal positioning adopted by the authors through their modal choices. This approach draws on works such as those by Hiltunen and Taavitsainen (2022) and Arús-Hita (2021), which combine linguistic analysis with sociohistorical contextualisation. The methodology not only allows for the tracing of modal patterns from a diachronic perspective, but also sheds light on how women writers of instructive texts construct authority, modulate commitment, and manage their relationship with the reader. The value of a functional approach lies in its focus on the discursive effects of modal forms, offering a more nuanced understanding of the role they play in the evolution of instructive discourse from a gendered perspective.

3. RESULTS. FREQUENCY AND USAGE DATA

Before moving on to the functional analysis of modal verbs, it is useful to provide a quantitative overview to contextualise their use and identify potential diachronic trends. This section examines the relative frequencies (per 10,000 words) of the nine core English modal verbs in the eighteenth-century subcorpus (CoWITE18) and the nineteenth-century subcorpus (CoWITE19), both of which are managed and accessed through DiCoS-LA (dicos-la.com), which stands for *Discourse, Communication & Society Language Analyser*. Figure 1 presents a comparison of these forms based on normalised data.

The average occurrence of modal verbs in the eighteenth century is 10.67 (SD = 17.33), while in the nineteenth century it rises slightly to 13.02 (SD = 13.76).
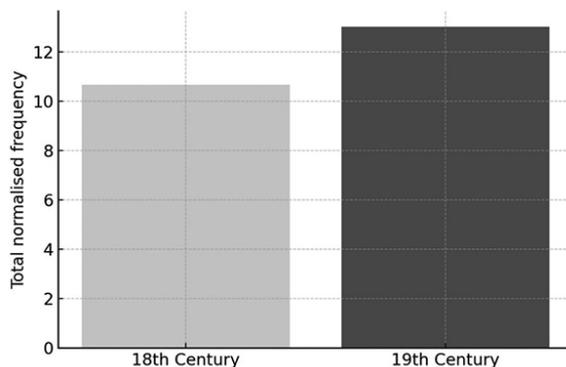
Figure 2. Total normalised frequency of modal forms by century.

Although statistical tests do not reveal significant differences between centuries (p = 0.73; Kruskal-Wallis p = 0.37), notable variations can be observed in the distribution of individual forms.

The verb *can* is the most frequent in both periods, although its frequency declines from the eighteenth century (4.15) to the nineteenth (3.02), which may indicate a shift in strategies for expressing possibility or ability. In contrast, *could*, its past tense counterpart, increases in use (from 0.93 to 2.21), possibly serving as a marker of politeness or mitigation, as documented in other varieties of Late Modern English. The verb *must*, which expresses high-value obligation, also rises significantly (from 1.71 to 2.17), suggesting a strengthening of directive language in the nineteenth century. A similar pattern is seen with *should* (from 0.48 to 0.84), a modulating form that enables the speaker to advise or recommend without imposing.

Meanwhile, *will* and *would* show a notable increase in the nineteenth century (from 1.27 to 1.79 and from 0.93 to 1.95, respectively), which may reflect a greater projection towards the hypothetical or conditional, consistent with a more elaborated, reader-oriented modality. In contrast, forms such as *may* and *might*, typically associated with low probability or weak epistemic meaning, remain stable or show a slight decline. This behaviour may point to a shift toward more explicit modal forms or objective expressions of modalisation that enhance the author's authority. Finally, the use of *shall*, common in legal or highly prescriptive registers, is virtually residual in both periods and disappears entirely in the nineteenth century.

As shown in Figure 2, the total frequency of modal forms increases slightly but consistently from one period to the next.

The analysis of modal meanings, illustrated in Figure 3, reveals a more marked evolution. Modalisation, associated with the evaluation of truth or habituality in propositions, shows a moderate increase (from 5.62 to 6.13). However, the most notable growth is observed in the use of modulation, which rises from 5.05 in the eighteenth century to 6.89 in the nineteenth. This shift points to a strengthening
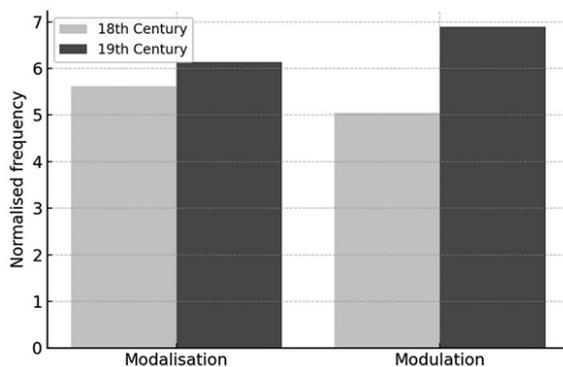
Figure 3. Distribution of modal meanings in the 18th and 19th centuries.

of the directive component of discourse, with a greater focus on suggesting, recommending, or even instructing the reader to take action.

These quantitative results suggest a possible shift in the way women writers of Late Modern English constructed interpersonal relationships within instructive discourse. The following sections examine in detail the specific functions of these modal verbs, focusing on their modal value, orientation, and pragmatic role within the text.

4. DISCUSSION. FUNCTIONS OF MODAL VERBS

In eighteenth-century instructive texts written by women, modality plays a central role as a linguistic strategy for constructing authority, conveying expert knowledge, and establishing hierarchical interpersonal relationships with the reader. During this period, instructive discourse is marked by a strongly prescriptive orientation, in which the categorical imposition of obligations and the confident assertion of certainties are achieved through modal forms with high deontic and epistemic force. This pattern reflects not only the rhetorical conventions of the genre but also the discursive positioning that women writers had to negotiate within a restrictive social framework, one in which female authority had to be carefully asserted and legitimised through language. From a SFL perspective, this construction of authority is realised through a preference for structures within the modulation: obligation system, typically with objective orientation and high modal value (Halliday & Matthiessen 2014). The verb *must*, in particular, stands at the core of this discursive strategy. Its use is both systematic and dense, and in many cases, it appears in declarative clauses with explicit modality, rather than in more direct imperative forms. This is not a trivial choice: by encoding obligation as a necessity rather than as a personal command, the text reinforces the idea that the instructions are universal, inescapable, and detached from the speaker's personal will, as in the following example:

(1) But beware put no Liquor in your Venson when you have Bread Crust *you must beat* the Beefe suit in flatt peeces, and lay over —your Venson (Fuller 1712).

These structures construct a deontic modality in which the author acts as a mediator of knowledge that transcends her individual authority. The responsibility for the mandate does not rest with her as a personal agent of authority, but rather with the inherent necessity of the procedure itself. Interpersonally, this allows for a form of depersonalised authority, which legitimises the discourse without threatening the social sensitivities of the time regarding female voices. Alongside *must*, the use of *will* in these texts also reveals a predominantly modulatory function, albeit with distinct characteristics. While *will* is typically classified as a marker of predictive epistemic modality, in eighteenth-century instructive discourse it acquires a use closer to modulation: it serves to express procedural inevitability. Rather than merely projecting a future possibility, *will* in this context functions as a guarantee of the outcome, provided the reader follows the procedure correctly:

(2) Soe lett it stand 9 dayes, but stir it with a stick 3 or 4 times a day; for it *will* work upwards, soe strain it through a hair sine, and putt it into little runletts, when it hath stood 2 or 3 dayes, bottle it in little glass bottle, and putt into euery bottle a little lump of sugar (Fitzgerald 1703).

Here, *will* functions as a causal warning: the negative outcome of an incorrect action is presented as a certain fact. The modality expressed is objective and the modal value is high. Unlike *must*, which imposes a course of action, *will* outlines the consequences of deviating from the norm. Authority, in this case, is constructed not through direct imposition but through the inevitable exposure of adverse effects. This strategy reinforces the author's ethos as someone who understands the practical and functional consequences of each procedural step, thereby consolidating her credibility. This pattern reflects a rigid procedural conception in which strict adherence to the instructions is presented as a sine qua non condition for achieving the desired results. There is no room for negotiation or individual interpretation. The reader's agency is restricted to faithfully executing the recommendations. The resulting interpersonal tenor is asymmetrical: The writer holds expert knowledge, while the reader is positioned as an obedient executor.

This framework is reinforced by the relative absence of modal forms with low or medium value (*might*, *could*), as well as by the scarcity of subjective epistemic markers (*I think*, *perhaps*). In eighteenth-century texts, there is no evident strategy aimed at mitigation or at opening the discourse to alternatives. Modality, far from introducing openness or contingency, functions instead as a mechanism of interpretive closure. The occasional presence of conditional structures does not alter this trend. In the few instances where expressions such as *if you do not...* are used, they do not function as dialogic openings but rather as reinforcements of obligation: conditionality serves to underscore the negative consequences of failing to follow the instructions, thereby reaffirming the authority of the writer's voice.

A telling example appears in the following clause:

(3) Then take a little cream, the yolks of two eggs, a lump of butter, a little juice of lemon, and shred parsley; put them all together in a stewpan, and shake them over the fire till they are as white as cream; but do not let the mixture boil, for it *will* curdle if it does (Taylor, 1795).

Here, the negative imperative followed by a warning using *will* creates an implicit coercive sequence, where the undesirable consequence compels the reader to comply with the instruction.

(4) They be well drained before you fry them for soups; *if you do not take care* of this, your soups *will* taste greasy and disagreeable (Shackleford 1767).

Constructions like these demonstrate how eighteenth-century women writers employed modal resources to construct authority based not merely on imposition but on demonstrable expertise. In this sense, modality serves to naturalise the obligatory character of the action, shifting the focus away from the author's will and toward the procedural logic of the text itself. Another key aspect is the relationship between MODALITY and negation. In the eighteenth-century texts analysed, negation is frequently associated with deontic modality. Examples such as *must not* or *shall not* are used to prohibit certain actions, establishing clear behavioural boundaries for the reader. However, these negative forms are less frequent than affirmative ones, indicating an overall preference for assertive rather than restrictive formulations. Still, when negation is used, it reinforces a categorical and non-negotiable form of authority:

(5) You *must not* cork up the Bottles in 3 Months, but cover them with Paper (Smith 1728).

In contrast, forms such as *cannot* or *may not*, which in other genres may indicate inherent limitations or denial of permission, are either absent or appear with diminished force. Their scarcity aligns with the overall lack of negotiation in this discourse type. The orientation is toward imposing what must be done, not toward suggesting what may or may not be permitted. From a rhetorical perspective, this use of strong modality in the eighteenth century responds to the communicative needs of women writers positioning themselves as experts in the domestic or therapeutic spheres. The choice of strong modal verbs functions as a strategy of legitimisation, enabling these women to assert their voices without directly assuming authority, a stance that could have been socially problematic. Instead of saying *I order you to do this*, they say *You must do this*, transferring the force of the command to the procedure itself. In this context, the function of MODALITY goes beyond its logical or grammatical dimension and becomes a key tool in shaping the interpersonal relationship the author constructs with the reader. In terms of discourse genre, the eighteenth-century female instructive text relies on MODALITY as a form of covert authority, a type of authority that does not shout or impose overtly, but that nonetheless organises the text through unavoidable formulations.

This character becomes even more evident when compared to the scarce use of modal verbs such as *may* or *might*, which could have opened the discourse to possibility, suggestion, or interpretation. Their near absence in many texts from the corpus suggests that, at this stage, there was no deliberate strategy of negotiation with the reader. Knowledge is presented as closed, complete, and final. To instruct, in this context, is to prescribe, not to engage in dialogue. In short, the modal functionality of eighteenth-century women's instructive texts is built upon a foundation of strong modulation, with objective orientation, high modal value, and little variability. The verbs *must* and *will* articulate a discourse of authority that is presented as impersonal and procedural, while the absence of modals associated with possibility or permission limits the openness of the discourse. This pattern responds both to the conventions of the genre and to the social and ideological conditions surrounding women's writing at the time.

In contrast, the modal landscape of nineteenth-century women's instructive texts reveals a significant shift from the patterns observed in the previous century. Although the overall frequency of modal verbs remains relatively stable, there is a notable functional redistribution. This transformation affects the type of modality employed (with a shift from modulation to modalisation), the discursive orientation (from impersonal authority to reader engagement), and the interpersonal relationship established between writer and reader. In SFL terms, the nineteenth century is marked by an opening toward consultative modal structures, with an increase in forms of softened obligation, permission, and contingent probability. This change reflects a dual evolution: on the one hand, the transformation of the conventions of instructive genres, which are now more oriented toward explanation and guidance; and on the other, the development of a female discursive style that incorporates strategies of politeness, involvement, and guidance rather than direct imposition (cf. Martin & White 2005; Thompson 2014).

One of the key forms in this transition is *should*, which emerges as a prominent marker of modulation: obligation with medium modal value and either subjective or objective orientation, depending on the context. Unlike *must*, which frames an action as necessary, *should* frames it as advisable. This form allows the author to present her instructions as best practices, desirable, but not mandatory:

(6) Take out your guts and tripe clean, and the other entrails, and lay your callipash in water while you prepare your callipee, *which should be done* as follows: cut off all superfluous bits for your soup, and trim it neatly (Cole 1789).

Its pragmatic value is twofold: on the one hand, it maintains the prescriptive nature of the text; on the other, it softens the force of the directive, allowing for a more symmetrical relationship between writer and reader. From an interpersonal perspective, *should* helps construct a voice that is both expert and accessible, one that guides without imposing. The use of *should* is also often accompanied by procedural justifications. Authors frequently explain why something «should» be done in a particular way, appealing to the logic of desirable outcomes. This type of reasoning strengthens the function of MODALITY as a rhetorical tool for persuasion, not simply command.

Another form that gains ground in the nineteenth century is *may*, primarily associated with modulation: permission, though it can also function within modalisation: probability. In both cases, its modal value tends to be medium or low, and its orientation is generally objective. This represents a notable shift from the eighteenth century, where its presence was almost negligible:

(7) When the soup begins to boil throw in one tablespoonful of salt, to allow the scum to rise; skim it well, then add the vegetables and bunch of herbs; boil it gently three hours, *if liked, the meat may be cut off all in one piece*, tied up with string, fried in the dripping and cooked as a joint in the soup (Clarke 1885).

In the instructive context, *may* introduces the possibility or authorisation to carry out an action. Its inclusion signals a transfer of agency to the reader, who now appears as a subject capable of choosing among alternatives. This discursive strategy contributes to a participatory modality, in which the reader is no longer merely an executor of orders but also an interpretive agent in the process. The inclusion of conditional structures, often with *may*, further supports this dialogic orientation. Clauses such as *if liked, the meat may be cut off all in one piece* allow the reader to adapt the procedure to their own circumstances or preferences. From the perspective of interpersonal modality, these forms mark a rupture with the inescapability of eighteenth-century directives and a transition toward procedural negotiation.

The modal verb *can* also becomes more prominent in the nineteenth century, primarily in its value as a marker of modulation: ability or inherent possibility. In these contexts, *can* does not impose an action but instead informs the reader of its feasibility. Thus, it functions as an indicator of potential rather than of obligation or permission:

(8) And you can add on it rice, barley, or vermicelli, whichever is the most approved (Cust 1853).
(9) Any kind of game can be used, or the remains of cold game (Maude 1897).

In this case, the reader is presented as someone capable of performing an action, but not as someone compelled to do so. This form is especially useful when the procedure allows for variation or adaptation. From the perspective of authorial voice, *can* makes it possible to maintain control over the discourse without resorting to imperatives or direct impositions.

The use of *will* marks a shift toward modulation: necessity, as illustrated in (10) and (11), where the outcomes of a particular action are anticipated.

(10) Make a good smoke every morning, and be careful not to have a blaze; the smoke-house should stand alone, for any additional heat *will* spoil the meat (Randolph 1824).
(11) She must desist, as the remedy *will* not suit her constitution, and ill consequences might possibly ensue (A Lady of Distinction 1830).

In example (11), *might* is additionally used as a tentative warning, signalling modulation: probability. It suggests a cautious evaluation of the outcome, with low modal value and subjective orientation within the broader context of *will*. This form reflects a less committed epistemic stance, in which the writer anticipates possible, but not certain, consequences. Such a strategy introduces an evaluative dimension into the text. Rather than dictating what will happen if the instructions are not followed, the author presents outcomes that the reader may take into consideration. This use exemplifies a less hierarchical modality, one that aligns more closely with a relationship between equals. The overall result is a greater functional diversity in the use of modal verbs in the nineteenth century, which often coexist and overlap within a single text. It is not uncommon to find *must* alongside *should* and *may* in the same recipe or manual, forming a gradation of modal force according to the communicative goal. This combination creates what may be described as a hybrid strategy of authority, in which categorical commands are combined with reasoned recommendations and consultative suggestions.

(12) The fish *must* be put into the water while cold, and set to do very gently, or the outside *will* break before the inner part be done. The fish plate on which it is done, *may* be drawn up to see if it be ready –it *will* leave the bone when it is. It *should* be then immediately taken out of the water or it *will* be woolly. The fish-plate *should* be set crossways over the kettle, to keep hot for serving, and a clean cloth *should* cover the fish to prevent its losing its colour (Rundell 1806).

This evolution responds to multiple factors: on the one hand, the rise in literacy and the changing nature of the target readership; on the other, the consolidation of the instructive genre as a legitimate vehicle for female authorship; and finally, the emergence of a rhetorical style that combines expertise and courtesy, authoritative command and sensitivity to the reader. From an interpersonal perspective, what we observe is a shift from the asymmetrical, authoritarian tenor of the eighteenth century toward a more symmetrical, consultative, and collaborative tenor. The reader is no longer merely an executor of instructions, but also an interpreter of the text, someone with the ability to make decisions and adapt procedures. In this context, modality no longer functions solely as a mechanism of imposition, but as a form of shared commitment between writer and reader. This change is also reflected in the use of negation. While the eighteenth century favoured strong prohibitive forms such as *must not* or *shall not*, the nineteenth century introduces milder restrictions through forms such as *may not* or *cannot*, often framed with justifications or conditional nuances. These forms do not impose; they guide. They orient the reader toward best practices without excluding alternative approaches.

(13) It must be broiled on a very clear fire, that it *may not* taste of smoke; and not too near, that it *may not* be scorched (Rundell 1806).
(14) When the horns *cannot* be conveniently used, the powder may be heated over the fire in a clean Earthen vessel; & when hot, applied without any

Muslins, on each side the greasy spot, & a weight laid on it to increase its effect (Bird 1825).

Taken together, the use of modal verbs in the nineteenth century reflects a shift in modal orientation: from certainty to probability, from obligation to recommendation, from command to guidance. This is not only a linguistic shift, but also a cultural and discursive one, one that transforms the way in which female writing, authority, and readership are constructed and negotiated.

Table 1 presents a summary of the functions performed by modal verbs in CoWITE18 and CoWITE19:

TABLE 1. SUMMARY OF THE FUNCTIONS OF MODAL VERBS IN CoWITE18 AND CoWITE19					
Modal verb	Type of modality (SFL)	Modal Value	Orientation	18th Century (Discursive function)	19th Century (Discursive function)
must	Modulation: obligation	High	Objective	Categorical imposition of procedural obligation	Strong obligation still present, but less frequent
will	Modulation: obligation	High	Objective	Inevitable causality; procedural sequencing	Marker of logical consequence; procedural commitment
should	Modulation: obligation (mitigated)	Medium	Subjective / Objective	Rarely used; marginal function	Reasoned recommendation; consultative guidance
may	Modulation: permission / Modalisation: probability	Medium / Low	Objective	Virtually absent	Permission; interpretive openness; procedural variability
can	Modulation: ability / inherent possibility	Medium	Objective	Occasional; limited to physical capacity	Reader's ability; condition for alternatives
might	Modalisation: probability	Low	Subjective	Very infrequent	Contingency; epistemic warning
shall	Modulation: obligation	High	Objective	Direct normative imposition	Marked decline
cannot	Modulation: ability (negated)	Medium	Objective	Marker of inherent impossibility	Impossibility based on material conditions
may not	Modulation: permission (negated)	Low	Objective	Not attested or marginal	Mild prohibition or preventive condition

The functional analysis of modal verbs in instructive texts written by women between the eighteenth and nineteenth centuries reveals a profound transformation in how the interpersonal relationship between writer and reader is configured. Far from being limited to a grammatical dimension, MODALITY functions as a structuring axis of instructive discourse, shaping not only how procedural content is conveyed, but also how authority is constructed, authorial voice is projected, and the reader's agency is negotiated. In the eighteenth century, the predominance of forms such as *must* and *will* reflects a prescriptive and categorical type of modality, with a high
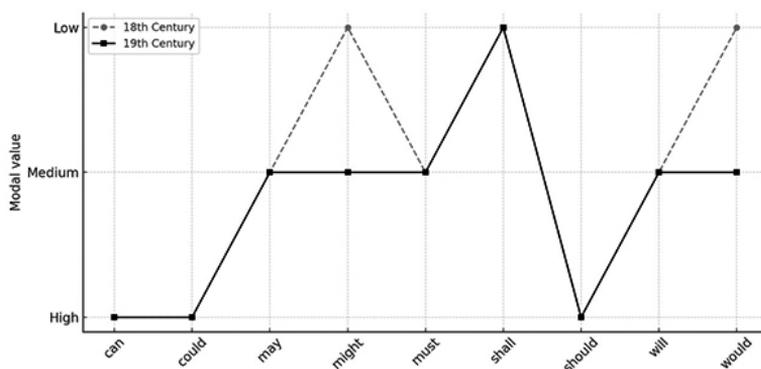
Figure 4. Evolution of the modal value of key modal verbs
in women's instructive texts (18th-19th centuries).

degree of obligation and an objective orientation. These choices establish an asymmetrical discursive tenor, in which the female writer presents herself as a mediator of indisputable knowledge, and the reader as a passive executor. The female voice is legitimised within the text not through negotiation, but through structures that project inescapable necessity and inevitable consequences.

By contrast, the nineteenth century brings about a reconfiguration of this model. Although strong modulation is not entirely abandoned, female instructive discourse increasingly incorporates lower-value modal forms with consultative or epistemic orientation: *should*, *may*, *can*, and *might* emerge as markers of a new communicative strategy based on recommendation, possibility, and conditional evaluation. This shift entails a transformation in the role of the reader, who ceases to be a subordinate agent and becomes an interpretive collaborator in the instructional process.

In systemic-functional terms, this change can be understood as a movement from categorical deontic modulation toward more open forms of evaluative modalisation and mitigated modulation. This transition is intricately linked to the development of a more complex female authorial ethos, one that combines expert knowledge, communicative politeness, and attentiveness to reader agency. The result is a more dialogic, flexible, and negotiated discourse, shaped not only by generic evolution but also by broader cultural shifts concerning women's roles, education, and authorship. Modal verbs, in this light, are not merely grammatical structures but serve as indices of discursive positioning and markers of social transformation. The shift from *must* to *should*, from *shall* to *may*, from imposition to possibility, demonstrates how women writers of the period adapted their linguistic strategies to new contexts of legitimacy, participation, and authority in the public sphere of writing.

The figure 4 presents a comparative overview of the evolution in modal value (high, medium, low) assigned to the most frequent modal verbs in technical instructive texts written by women between the eighteenth and nineteenth centuries. The vertical axis represents modal value according to the systemic-functional

classification (Halliday & Matthiessen 2014), while the horizontal axis displays the modal verbs analysed. As shown, the modal evolution reveals a clear trend toward the diversification of functions and the attenuation of discursive commitment. While eighteenth-century texts are characterised by categorical deontic modality articulated through *must*, *will*, and *shall*, the nineteenth century introduces a broader range of interpersonal nuances, marked by increased use of *should*, *may*, *can*, and *might*. This redistribution of modal value reflects a transformation in the strategies of authority employed by women writers, who shift from issuing directives to negotiating recommendations, aligning with greater sensitivity toward reader agency and evolving approaches to written pedagogy. The figure offers a visual summary of this shift from a vertical, prescriptive modality to a more horizontal, inclusive modality oriented toward interpretive cooperation.

5. CONCLUSIONS

This study has shown that modal verbs are a central resource for constructing interpersonal relationships in technical instructive texts written by women during the Late Modern English period. Based on the functional analysis of central modal verbs in the CoWITE corpus, it has been demonstrated that modality is not merely a marker of certainty or obligation, but also a strategic means of shaping authorial ethos, legitimising the knowledge conveyed, and managing the reader's agency. One of the most significant findings is the reorientation of female instructive discourse from a categorical and prescriptive modality in the eighteenth century, dominated by forms such as *must* and *will*, to a more consultative and evaluative modality in the nineteenth century, represented by *should*, *may*, *can*, and *might*. This shift reflects not only a grammatical or stylistic evolution, but also a deeper discursive transformation tied to the broader social context and to women's progressive integration into the public sphere of written authorship. From a functional perspective, it may be said that eighteenth-century women writers projected authority through procedural impersonality and causal inevitability, whereas nineteenth-century writers began to combine obligation with suggestion, and command with explanation. This modal hybridisation enabled greater interpretive openness, marking a shift in the reader's role, from passive executor to active and reflective participant. The result is a more dialogic and negotiated type of discourse, in which knowledge is not imposed but shared, and where authority is constructed through competence, courtesy, and pedagogical intent.

These observations also point to several recommendations for future research. First, it would be valuable to extend the analysis to other female instructive genres, such as conduct manuals, educational treatises, or specialised correspondence, in order to determine whether the modal evolution identified here holds true across different text types. Second, a comparative analysis with texts written by men during the same period and with similar communicative purposes would help to more precisely assess the influence of gender in modalisation and modulation strategies. It would also be worthwhile to incorporate a multimodal or paratextual dimension into

the analysis, such as illustrations, diagrams, or headings, to explore how instructions are reinforced or nuanced visually. Finally, the application of more advanced natural language processing (NLP) tools could enhance the identification of implicit or metaphorical modal patterns, thereby broadening the scope of functional analysis.

Among the limitations of this study is its reliance on a specialised corpus centred on recipes, which restricts the generalisability of the findings to other genres. Additionally, although contextual and historical factors have been considered, the analysis has not systematically accounted for variables such as the authors' educational level, social class, or status, all of which may have influenced modal choices. It should also be noted that, while corpus tagging has greatly facilitated the identification of structures, automatic annotation may have overlooked or misclassified certain complex or ambiguous modal forms. Taken as a whole, this study demonstrates that modal choices in instructive texts written by women are neither neutral nor random, but respond to specific discursive needs and to complex social constraints. MODALITY, in this sense, emerges as a mirror of the evolving female voice in technical discourse, a privileged indicator of how women writers negotiated their authority, their knowledge, and their relationship with the reader across two centuries of cultural transformation.

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