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## UNVEILING MODAL VERB PATTERNS: A COMPARATIVE STUDY OF PAKISTANI AND NATIVE WRITERS' LITERATURE REVIEWS

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### **Abstract**

*Modal verbs express different shades of meaning indicating a writer's attitude, such as likelihood, obligation, probability, and possibility (Quirk, 1985). This study analyzes the modal verbs' role in the interpersonal function of language (Halliday & Matthiessen, 2014) in the literature review section of a research article. It examines the expression of judgment or attitude in the literature review sections of research articles written by Pakistani and Native writers, focusing on epistemic, dynamic, and deontic modal verbs within Halliday & Matthiessen's framework of Systemic Functional Grammar. The researchers constructed a corpus of 40 research articles, 20 of each writer for analysis. The frequency and semantic meanings of modal verbs were explored in different contexts of the literature review section. Findings revealed that Pakistani writers predominantly used epistemic and deontic modal verbs, while both groups used dynamic modal verbs equally. However, Pakistani writers tend to lack an effective academic writing tone for the literature review section compared to Native writers. The study highlights the importance of English language learners developing a strong understanding of modal verbs to enhance pragmatic competence besides semantic meanings to express nuanced shades of attitudes in their written text.*

**Keywords:** modal verbs, epistemic, deontic, dynamic, Pakistani writers & non-Pakistani writers, literature review section.

### **1. Introduction**

Modal verbs are crucial in shaping interpersonal communication and enabling speakers to negotiate meaning in a given context (Halliday, 2014). The study of modal verb has a rich and varied history drawing from various linguistic perspectives. Effectively using modal verbs in academic writing is crucial for clearly conveying an author's stance, emotions, and judgments, while also minimizing the risk of offending readers (Almeida & Pastor, 2017). Mastery of

modal verbs not only strengthens the pragmatic aspect of writing (Hyland, 1994; Myers, 1989) but also allows scholars to express their research findings with precision (Yang, 2018). Moreover, it showcases advanced linguistic and pragmatic proficiency (Chen, 2010), making the writing more compelling and authoritative. Several studies have highlighted the importance of different linguistic strategies like modality employed by writers from different backgrounds in conveying semantic meanings in different genres.

Syed Imran Ali and Amjad Saleem (2023) conducted a study on the use of modal verbs in Covid-19-related editorials from Pakistani newspapers, "The Dawn" and "The News." They analyzed modal verbs using Halliday's Systemic Functional Grammar. They found that Pakistani newspaper editors employ various linguistic tools to convey their viewpoints, with possibility, prediction, and necessity being the main areas of focus. Similarly, Saba Sadia and Mamuna Ghani (2019) published research focusing on modal verbs, their functions, and their influence on readers' perspectives. They analyzed a corpus of editorials from two Pakistani newspapers and found that Pakistani editors employed more predictive modal verbs. Nath & Minth (2020) analyzed modality use in Applied Linguistics research articles (RAs) from a comparative perspective. The study examines a corpus of 30 research articles published in English for Specific Purposes and Vietnamese National University Journal of Foreign Studies between 2017 and 2019. The findings indicate that modality expressions are present in all research articles, with international writers using slightly more modal verbs than Vietnamese researchers. The distribution of modal verbs across different sections of the Research Articles is similar between the two groups. The Conclusion section had the highest frequency.

The researchers studied many native and non-native writers' research articles that focused on identifying modal verbs in different genres. The comparative analyses of modal verb usage between Native and non-native research article writers are left unexplored. This work aims to provide instructive insight for Pakistani writers to deploy modality to maintain the academic tone and proper use of modal verbs in the literature review sections of their research articles by comparing Native and non-native writers' use of modal verbs in research articles. For this purpose, the researcher compared the literature review sections of the articles written by Pakistani and Native writers to explore the differences in usage.

## 1.2 Purpose of Study

The main purpose of this corpus-based study is to explore how modal verbs are used to construct semantic meanings in Pakistani and non-Pakistani academic writing skills. Researchers have used Halliday's and colleagues' Theory of Modality in the framework of systematic functional Grammar. The kinds of modal verbs are identified and classified to count the frequency of each modal verb type to assess the difference between modal verbs in academic text constructed by Pakistani and non-Pakistani writers.

## 1.3 Research Objectives

The main objective of this study is to

- examine modal verbs in constructing intended semantic meanings and academic tone in the literature review section of Pakistani and Native writers' research articles.

## 1.4 Research Question

- a. Describe the Pakistani and Native writers' frequency of different modal verb types used in the literature review section.
- b. Why did Pakistani and Native writers employ different modal verbs in the literature review section?

Modal verb use enhances language by allowing speakers to express diverse perspectives. This capability encourages writers to communicate more effectively and helps readers decode various viewpoints in conversation. This study aims to improve the understanding of modal verb usage and to contribute to establishing the required academic tone in the literature review section of a research article. In this work, the researchers made Pakistani and native literature reviews' corpus, 20 articles each. It employed a diagnostic design with quantitative and qualitative methods. Firstly, it explored frequencies of different modal verbs used by Pakistani and Native writers. Secondly, the justified reasons behind the use of different modal verbs.

## Literature Review

As essential components of English grammar, modal verbs serve various communication functions, ranging from expressing abilities and possibilities to indicating obligations and predictions. This work examined how modal verbs are used to construct intended semantic meanings and academic tone in the literature review sections of research articles by Pakistani

and native English writers. This section reviews recent studies that examine the usage and functions of modal verbs across different genres and contexts, particularly in Pakistani newspapers and academic writing.

Saba Sadia and Mamuna Ghani (2019) investigated the use and functions of modal verbs in editorial writing. Their study focused on editorials from two Pakistani newspapers, "The Dawn" and "The News," revealing that prediction modal verbs such as "will" and "would" are frequently employed to influence reader opinions. Additionally, obligation modal verbs like "should" are often used in sections providing solutions, indicating a role in shaping reader perceptions. The study concluded that "The Dawn" tends to offer more genuine information compared to "The News." In another 2019 study, Edina Rizvic-Eminovic and Đelaludina Šukalić analyzed primary English modal verbs in spoken and academic genres. They found significant differences in modal verb usage between these genres, with academic texts showing a higher frequency of certain modal verbs, such as "may" (37.93% in academic texts vs. 16.68% in spoken discourse). Their research emphasized the influence of genre-specific factors on modal verb frequency and distribution, suggesting the need for a comprehensive comparative study to further understand these dynamics. Muhammad Ahmad, M. A. Mehmood, Muhammad Ilyas, and A. R. Siddique (2019) examined modal verb usage as stance markers in Pakistani newspapers, analyzing a corpus of 1,000 editorials from "The News," "The Dawn," "The Frontier," and "The Express Tribune." Their findings indicated that modal verbs are predominantly used to express possibilities, predictions, and necessities, serving as primary tools for editorialists to influence reader opinions. In a 2020 study, Muhammad Ahmad, Muhammad Asim Mahmood, and Ammara Farukh explored the use of modal verbs in editorials from "The Daily Dawn" and "The Daily News." They found that prediction modal verbs are the most commonly used, often blending news with personal opinions to potentially bias readers' viewpoints. The study highlighted the significant role of modal verbs in shaping editorial content and influencing public opinion in Pakistani newspapers. Kenneth Odhiambo and Silas Owala (2020) analyzed the frequency of modal verbs in COVID-19-related articles from the "Daily Nation" newspaper. Their study identified six types of modal verbs, with prediction modals like "will" being the most frequently used (28.9%). Other common modal verbs included "may" (13.3%) for ability and possibility, and "can" and "should" (both 11.8%) for

ability, possibility, and obligation. This analysis demonstrated the varied functions of modal verbs, particularly in conveying obligation, intention, and prediction. Yuni Siregar, Arsen Nahum Pasaribu, and Erika Sinambela (2021) examined high school students' perspectives on future learning during the COVID-19 pandemic through dialogue texts. Using Halliday and colleagues' model of mood and modality, they found a predominant use of declarative mood (80.74%) and median degree probability "will"(47%), indicating a moderate certainty and implicit objective stance. The study concluded that students often reflect doubt in their expressions, suggesting a need for more straightforward communication.

Sawsan Qasim (2022) explored modal expressions in language and philosophy, focusing on likelihood, desirability, and authorization. Using Halliday's systemic functional grammar, the study highlighted how modal adverbs, auxiliary verbs, and adjectives convey different degrees of certainty and judgment, adapting social semiotics to describe portrayals of genuine or imaginary objects in various sign systems. Misbah Obaid and Farzana Masroor (2023) analyzed modal tendencies in Economics PhD thesis writing, finding that "can" was the most frequently occurring modal verb, followed by "may." Their study underscored the important role of modal verbs in economic research discourse. Syed Imran Ali and Amjad Saleem (2023) examined modal verbs in editorials related to COVID-19 from "The Dawn" and "The News." Using Halliday's Systematic Functional Grammar, they found that editors employed various linguistic techniques to express possibility, prediction, and necessity. The study highlighted the primary areas where modal verbs were used to convey editorial stances on the pandemic.

These studies collectively underscore the importance of modal verbs in different genres and contexts, revealing their role in shaping discourse and influencing reader perceptions. They also highlight the need for further comparative research to deepen the understanding of modal verb usage across various linguistic and cultural settings. To address this issue, this study compared the literature review section of Pakistani and Native researchers regarding modal verb use.

### **3. Methodology**

The researchers compared modal verbs used in Pakistani and Native researchers' literature review sections. They used diagnostic design. Diagnostic design is used to analyze and identify factors contributing to a particular matter (Kumar, 2011). This study employed mixed method approach for analyzing modal verb use strategies. Qualitative analysis provided frequency and

type distribution of modal verbs. However qualitative analysis helped to interpret the reason behind nuances of modal verb usage. Researchers used Halliday’s theoretical framework of modality for a rigorous and systematic approach to identifying types of modal verbs at the clause level and their roles in the construction of semantic meanings, academic tone, and dialogic space in the literature review section. This study emphasized three main types of modal verbs i.e., epistemic, deontic, and dynamic. The researchers developed a corpus of 40 literature reviews of research articles of Pakistani and non-Pakistani writers, 20 of each. Next, the clauses of the literature review section were segmented to take out frequencies of epistemic, deontic, and dynamic modal verbs. Researchers provided descriptive analysis of modal verbs used in those literature reviews. Lastly, researchers analyzed the usage of modal verbs in the given data to explore the reasons for the differences between Pakistani and Native writers.

#### 4. Analysis & Discussion

In this research work, the researchers analyzed the use of modal verbs in Pakistani and Native writers' literature reviews section of research articles to investigate the difference in the construction of ideas, stance, tone, and dialogic space. Table 4.1 shows a comparative analysis of Pakistani and Native writers’ literature review sections.

Table: 4.1

Comparative Analysis of Pakistani and non-Pakistani research articles’ literature reviews.

Sr. #	Pakistani writers			Native writers	
	Types of Modal	TOTAL	%	Frequency Types	%
1.	Epistemic	48	53.333	30	46.875
2.	Deontic	10	11.111	2	3.125
3.	Dynamic	32	35.556	32	50
	Total	90		64	

#### 4.1 Descriptive Analysis

There were 45 modal verbs present in the literature review section of Pakistani writers’ research articles. Out of 45, 24 modal verbs were epistemic (53.33%), 5 were deontic modal verbs (11.11%) and 16 were dynamic modal verbs (35.55%) present in the Pakistani literature review

section. Similarly, Native writers used 32 modal verbs in total. Out of 32, 15 were epistemic modal verbs (46.87%) 01 was a deontic modal verb (3.12%), and 16 were dynamic modal verbs (50%).

Pakistani writers predominantly use the epistemic modal verbs “can,” “may,” “will,” and “would.” Among these, “can” is the most frequent, occurring 8 times, and “may” appears twice. The least used are “will” and “would,” with “will” being used 15 times to express certainty. Deontic modals “must” and “should” appear 3 and 2 times, respectively. Dynamic modal verbs “can” and “could” are also used, with “can” appearing 15 times.

Native writers employ epistemic modal verbs like “can,” “may,” “could,” “might,” “will,” and “would” to indicate possibility, with “may” being the most frequent (8 times). “Could” appears 6 times, while “can,” “will,” and “would” each appear 4 times, and “might” appears twice. The deontic modal “must” is used to express certainty. In dynamic modal verbs, “can” is most frequently used (9 times), followed by “will” (8 times) and “could” (once).

#### 4.2 Comparative Analysis

This analysis aims to identify how Pakistani writers and Native writers used modal verbs to construct semantic meaning and academic tone in their literature review section. There is a difference in the usage percentage of epistemic, deontic, and dynamic modal verbs in the literature review section of Pakistani and Native writers. Figure 4.2 shows the difference between Pakistani and non-Pakistani writers' modal verb usage.

Figure: 4.1

*Differences in Modal Verb Usage of Pakistani & Native in Literature Review Section*

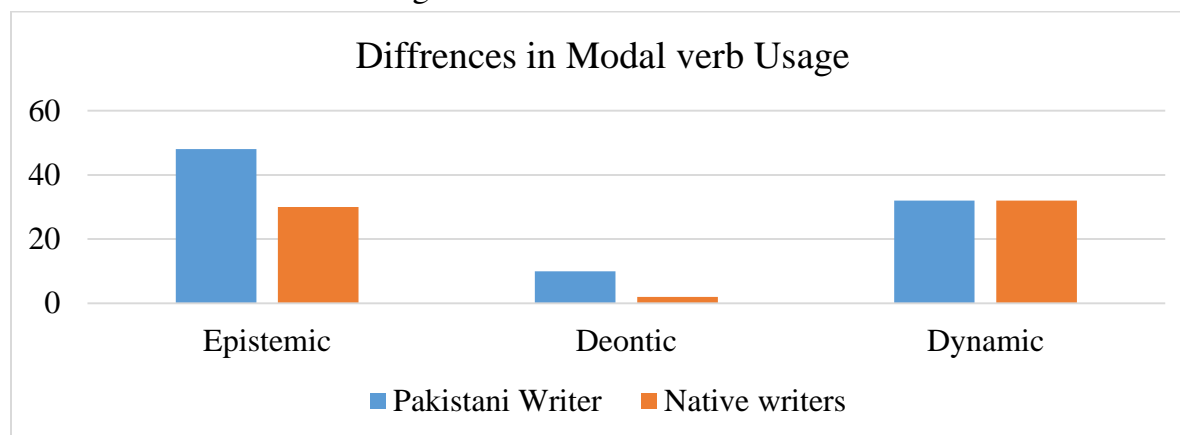


Figure 4.1 clearly illustrates the use of modal verbs by Pakistani and native writers in their literature review sections. Pakistani writers employed epistemic modal verbs more frequently than deontic and dynamic modal verbs. Both groups of writers used dynamic modal verbs more often than deontic modal verbs. Additionally, both Pakistani and native writers employed epistemic modal verbs more in their literature review sections. Epistemic modal verbs are used to express certainty and possibility. Both writers used the modal verb “will” most abundantly to express certainty in their texts. In the literature review section, “will” occurred 14 times in Pakistani and 4 times in Native writers’ texts.

Native writers use "will" less frequently in literature review sections than Pakistani writers due to varying academic writing conventions, cultural norms, and educational backgrounds. Native academic writing values caution and tentativeness, favoring modal verbs like "may" and "might" to suggest possibilities and probabilities, which helps maintain a formal and balanced tone. Additionally, cultural norms encourage indirectness and modesty, with a common use of hedging to avoid making definitive statements. Conversely, Pakistani writers are often trained to emphasize clarity and assertiveness, leading to a higher frequency of "will." Cultural preferences for direct expression and the influence of native languages, where assertive language is typical, also contribute to this difference.

Pakistani writers usually chose “will” modals to make their statements more confident and forceful. In academic writing, the modal verb “will” is preferred more than other modal verbs. This preference may lead to unsuitable or misuse of the modal verb “will” (IOSR Journals, 2021). “Will” is the foremost modal verb because it is frequently used in teaching material for future predictions, which makes it the most utilized modal verb. Hence, a writer feels comfortable and confident while using “will” in their writings above other modal verbs such as “might” and “could” which are also used to express certainty (Zhang; Andrew & Cheung, 2022) Next in epistemic modal verbs, which show the semantic meaning of possibility, the “can” modal verb is most frequently used by Pakistani writers while the Native writers used “could” predominantly in their writings. It is because of communication style, cultural context, educational influence, exposure, sociological factors, linguistics norms, and preferences. Firstly, Pakistani writers use “can” often in their writing because of the socio-political environment in Pakistan. In Pakistan's socio-political environment, people preferred assertiveness, confidence,



and coherence during conversation, which could give rise to the frequent use of “can” (Deborah Tannen, 2005). Secondly, in the educational systems of Pakistan, language teaching framework and learning approaches model usage of “can” over “could” by focusing on quick competence and potential. While Native writers preferred the use of “could” above “can”. Native writers’ academic writing norms encourage careful use of language. Native writers use “could” to describe hypothetical scenarios or possibilities. Its use may have a stronger impact on them. (Holliday, 2007)

Moreover, the Pakistani and Native writers used deontic modal verb “must” more compared to other modal verbs “should”. Pakistani writers used “must” more than Native writers in their texts. It is contributed by different factors: cultural norms, social norms, and socio-political environment. Pakistani culture emphasizes respect for authority, following established protocols, and fulfilling one’s duties. The use of “must” resonates with these principals by conveying a greater sense of duty and obligation. Similarly, the Native cultures emphasize greater value on individualism and personal choice, which may cause minimal use of powerful language. They use modal verbs like “should” or “could” to propose suggestions instead of suggesting requirements. (Geert Hofstede, 2001). Additionally, Pakistan’s English language curriculum may highlight the significance of using “must” to express requirements, indicating a more commanding and authoritative approach to teaching English. On the other hand, Native writers’ educational systems usually foster critical thinking and flexibility in expression, which might direct the writers to use modals such as “should” or “could” that may infer possibility or suggestion instead of obligation (Tariq Rahman, 2008). Moreover, the deontic modal verb, “should” is frequently used by Pakistani writers. The Native writers do not rely on a single modal verb for obligatory tone. They use different modal verbs in their writings. It is because of communication styles, cultural norms, and educational influence. Whereas, Pakistan’s communication style is based on a collectivist culture. It emphasizes community guidance and standards for interaction. Thus Pakistani writers used “should” to express instruction, and advice to enact proper procedures. Meanwhile, Native writers prioritize personal freedom and choices that may lead to minimal use of “should”. (Geert Hofstede, 2001)

Pakistani and Native writers used the dynamic modal verb “can” predominantly in their writings. Compared to Native, Pakistani writers tend to use “can” more often in their writings. It is because of linguistic norms and preferences, sociolinguistic factors, and cultural context. Firstly, English language education in Pakistan might prioritize functional use of language, where “can” is used abundantly to represent Ability and possibility. Contrarily, Native education systems teach a wider range of modal verbs and their uses, causing more varied use of modal verbs such as “could” (Holliday, 2007). Pakistani linguistic landscape, shaped by local languages with structures that naturally conform to “can”, may lead writers to prioritize this modal verb in writing English. Meanwhile, Native writers may be influenced by linguistic norms that promote a more diverse range of modal verbs, allowing for more nuanced expression and precision in expressing the degree of certainty (Braj & Kachru, 1992). Native writers used fewer modal verbs in their literature review section because they want to maintain an academic tone in their writing, epistemic and deontic modal verbs are usually used to express obligation and certainty which might not cooperate with an authoritative and assertive voice which is expected in academic discourse of literature review section (Halliday & Martin, 1993). Moreover, Native writers have a deeper understanding of pragmatic competence, enabling them to convey finer details in their writings, without depending heavily on modal verbs. Pragmatic competence incorporates the ability to use language properly in different contexts. They have a better understanding of language usage in a variety of contexts (Thomas, 1983).

## 5. Conclusion

This study examines the use of modal verbs in literature review sections of research articles by Pakistani and native writers, highlighting how they construct semantic meanings and academic tone. Pakistani writers use epistemic and deontic modals more frequently, particularly "will," due to educational practices and cultural norms that emphasize assertiveness. In contrast, native writers use fewer modal verbs to maintain an academic tone, favoring clarity and precision. Improving understanding and application of modal verbs in different contexts can enhance academic writing of Pakistani writers' English text. However, the study's small sample size suggests the need for larger-scale research for more accurate results.

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