A Study on Modality System in English Academic Writings' Discussions from the Perspective of Interpersonal Meaning

Zhao Yue

College of International Studies, Xi'an International Studies University, Xi'an, 710100, China

Abstract: The postgraduates have been afflicted with writing the "discussion" part in English academic writing, which cannot be distinguished from the "result" part. While previous studies place premium on the writing of "abstract" and "introduction" part, scant attention has been paid to "discussion", let alone the use of modality system in it. To fill this lacuna, this investigation gives sufficient weight to the use of modality system in the "discussion" from the perspective of interpersonal meaning, which help improve academic writings. The academic interaction between authors and target readers is manifested through interpersonal meaning, which also can be revealed in terms of modal expressions. The present study collected 10 thesis papers written by postgraduates majoring in foreign linguistics and applied linguistics, which underscore the teaching practice in applied linguistics. The analysis of modality system includes type, value, and polarity. The findings indicate that postgraduates are inclined to use finite modal operators to express their own judgments and attitudes. Moreover, low value and median value modal verbs are used frequently in the "discussion". The modalization is more frequently used than modulation. Furthermore, authors are more likely to use positive forms while negative forms are used to describe results. The investigation provides implications for further analysis of modality system in academic discourse, ranging from orientation, voice to tense.

1. Introduction

With job prospects dimming, an increasing number of graduates gravitate to go further study, pursuing graduate study. Accordingly, priority should be given to how to manage to graduate. Frankly speaking, English majors have enjoyed a growing appeal when undergraduates choose to further study, especially foreign linguistics and applied linguistics. As for those students major in English, learning how to write English academic writings should come top of the list. In addition, there exist a host of problems in academic writings, among which "discussion" is substantial for students to write. Although some studies have explored English majors' academic writing, ranging from abstract to introduction, there is a dearth of recent research focusing on discussion part (e.g., Li, 2021[1]; Li & Gao, 2023[2]). Furthermore, while a host of studies have yielded valuable implications for English academic writing of non-English majors, but largely neglected specific English majors' thesis writing, despite their importance for whether graduate students could have

academic achievements or graduate smoothly (e.g., Gao & Yang, 2018[3]; Qi, 2021[4]; Chang & Sun, 2022[5]). To fill this lacuna, this investigation attaches great emphasis to postgraduates academic writing especially students major in foreign linguistics and applied linguistics. Most importantly, previous studies lay emphasis on certain aspects of modality system, like modal verbs, quite a limited literature interpreted a comprehensive modality system (e.g., Hu, 2012[6]; Han, 2012[7]). To fill the above-mentioned gaps, this study intends to apply a comparatively general modality system in order to analyze the "discussion" part more clearly.

1.1 Research Questions

Guided by Halliday's Systematic Functional Linguistics, this study aims to find out:
(1) How are the three perspectives of modality system, type, value and polarity used in the "discussion" of English academic writing?
(2) What are the characteristics of modal expressions showing in the "discussion" of English academic writing and how is the interpersonal meaning realized through modality system?
(3) How postgraduates majoring in foreign linguistics and applied linguistics improve their "discussion" in thesis writing by means of modality system?

1.2 Research Design

This investigation delves into the "discussion" of English academic writing, especially Chinese postgraduates majoring in foreign linguistics and applied linguistics in foreign language universities. This study collected English academic writing ranging from first-rate universities to major universities. The data collection stems from thesis writing on China HowNet, including 10 original English writings randomly from China HowNet. Subsequently, the present study mainly focuses on applied linguistics, which sets store on specific practice of teaching and learning of English. Therefore, the researcher conducted the data collection by means of judgmental sampling, which are not random enough to some extent. On top of that, all sample range from 2015-2023, the time span can ensure that the investigation would not be influenced by short period.

2. Distributions of Modal Expressions in the "Discussion" part

Generally speaking, modality system can be realized by means of a host of linguistic forms, ranging from finite modal operator, modal verbs, modal adverbs, the expansion of predicator and interpersonal metaphor. The following table manifests the frequency and proportion of modal expressions in the "discussion" part.

Table 1: Distribution of Modality Expressions

Modal Expression	Frequency	Percentage (%)
Finite Modal Operator	395	64.65
Modal Adjuncts	208	34.02
The Expansion of Predicator	8	1.31
Total Number	611	100

In light of Table 1, it is apparent that postgraduates use finite modal operator mostly in the "discussion" part of thesis papers, which play an irreplaceable role in academic discourse and express interpersonal meaning. Modal adjuncts account for 34.02%, following as the second.

3. Interpersonal Meaning of Types of Modality

According to Halliday (1994)[8], modality system can be divided into modalization and modulation, which can convey different functions of language. On the one hand, modalization has to do with the validity and reliability of ones' attitude towards something, which can be further classified into probability and usuality, while modulation can be divided into willingness and obligation. On the other hand, modalization can be realized by means of finite modal operators (will, can, must. etc.), modal adjuncts (possibly, certainly. etc.) or the combination of both. The modulation can be represented through finite modal operators, modal adverbs and expansion of predicators (be supposed to). As is revealed in the following figure, the detailed use of distinct types of modal expressions is presented in terms of quantitative analysis. According to the data collection, it is obvious that the finite modal operator accounts for the largest proportion, which is the primary way to convey interpersonal meaning in the "discussion" part. And the finite modal operator accounts for 93.76%, taking the largest proportion, which conform with the standpoints of systemic functional grammar.

4. Interpersonal Meaning of Values of Modality

According to Systemic-Functional grammar, interpersonal meaning can be represented by values of modality. The speakers convey their attitudes and judgments towards issues in terms of distinct scales and degrees. Halliday divides values of modality system into low, median and high value.

In terms of data collection, we can see that postgraduates use more low value and median value modal expressions in the "discussion" part of their thesis papers, while the high value modal verbs are used less in English academic writing. All in all, authors avoid using high value modal expressions seem to be a safer choice to interpret findings in the "discussion" part, leaving enough space for readers to maintain their own viewpoints.

4.1 Low Value of Modality

The academic discourse should take the acceptability into consideration for the sake of making target readers acknowledge what the authors have investigated. Accordingly, authors should make the "discussion" part more objective and scientific. Subsequently, the distinct frequencies of low value modal expressions in postgraduates' thesis papers are revealed in the following table.

Table 2: The Frequency of Low Value

Finite Modal Operator	Frequency	Percentage (%)
Can	80	29.30
Could	59	21.61
Have to	1	0.37
May	71	26.01
Might	62	22.71
dare	/	/
Total number	273	100

In terms of the Table 2, "can" and "may" account for the majority proportion, while "have to" and "dare" account for the least proportion. Postgraduates use low value verbs frequently, with the largest number of 273 low value finite modal operators.

When it comes to the writing of "discussion" part, the detailed and in-depth interpretation should come top of the list. The "discussion" part is not merely the description and illustration of statistical data, but attaching emphasis to the critical interpretation of the results. In addition, highlighting the

innovation of the research so that readers can have an in-depth understanding of their findings, especially how the researcher fill the research gap of previous studies. In this case, priority should be given to convince the readers towards the findings, and make the interpretations of findings more accessible to readers. On the score of the innovation of postgraduates' thesis papers, they need to mend the research gap in previous studies. Accordingly, the authors would like to use low value finite modal operators which can satisfy the need of maintaining objectivity and scientificity. Furthermore, in the "discussion" part, the authors should interpret the results on the basis of experimental data and their own judgments towards the findings. The low value modal expressions also contribute to the less modal responsibility, which indicates the "discussion" of results is not absolutely right and may change as time goes by.

(1)The concept of language proficiency can be generally understood as an individual's ability to use an acquired language, and the pragmatic knowledge of conventional expressions is unarguably a small but indispensable component of it.

The above example is the definition of language proficiency in terms of authors' own viewpoints, which uses the low value modal verb "can". The use of "can" manifests authors rigorous academic style. Since the definition of the language proficiency is not totally the reference one, and it is mainly with regard to author's own standpoint, hence the author use low value modal verb in order to make the interpretation more accessible to readers.

4.2 Median Value of Modality

In light of what have mentioned before, it is predicable that the authors also would like to use median value of modal expressions compared with high value modal expressions. In this sense, the median value is similar to low value finite modal operators which are used widely for the sake of making the "discussion" part more accessible to readers. The following figure will give a detailed statistics of the use of median value finite modal operators in the "discussion".

Table 3: The Frequency of Median Value

Finite Modal Operator	Frequency	Proportion (%)
Will	31	31.63
Would	38	38.78
Should	29	27.55
Should not	/	/
Shall	/	/
Total number	98	100

In terms of the Table 3, the total number of median value finite modal operators is also large in the "discussion". The median value modal expressions provide more space to negotiate information with readers, avoiding to put the interpretation into extreme circumstances.

(1)However, it should be noted that these changes generated by moving into a new context don't have a direct impact on learner's English learning motivation.

The use of "should" represents authors' objective suggestions towards the influence of changes on learners' English learning motivation. The gentle and humble attitude can make the target readers more readily to accept the findings. The author tries to deal with the relationship with readers, hence avoids the extreme expressions, which make the interpretation more accessible to reader. On the whole, the use of median value help authors better convince the target readers.

4.3 High Value of Modality

With the overall consideration, postgraduates usually avoid to use high value finite modal

operators, except for some universally acknowledged truth. The following table will give a detailed description of the frequencies of high value modal.

Table 4: The Frequency of High Value

Finite Modal Operator	Frequency	Percentage (%)
Cannot	7	29.17
May not	7	29.17
Ought to	/	/
Need	5	20.83
Had to	4	16.67
Must	1	4.17
Total number	24	100

From the above Table 4, we can see that the high value modal operator "cannot" and "may not" account for the largest proportion. On the whole, the author uses less high value modal adverbs on account the extreme attitude.

(1) To put it in another way, she didn't take the initiative in English learning and regarded it as something she must achieve.

In the above example, the author uses the high value modal verb "must", providing detailed analysis of the participants. The author uses the high value modal verb "must" to indicate the participant's high degree of motivation. This investigation was conducted by means of interviews and participant observation. Accordingly, the above analysis is on the basis of the interview towards the participant, which is the first-hand authentic data. In this case, the research data is more scientific and authentic that is of reliable and valid. On account of the first-hand data, the author has the confidence to use high value modal verb to convince the target reader.

5. Interpersonal Meaning of Polarity of Modality

According to Halliday (2000), polarity refers to both the positive and negative perspective. Polarity manifests the objectivity to much degree, not merely depending on the authors' own subjective judgments. Among the "discussion" part in ten thesis papers, the modality expressions occur 626 times, among which positive forms account for 76.84%, while the negative forms occur 145 times, accounting for 23.16%. It is obvious the positive form accounts for the overwhelming majority, while the negative form takes the less proportion. However, we can see that the amounts of negative forms also is a large part. The following will illustration several examples of negative forms in the "discussion" part.

(1) The two reasons discussed above may lead to the result of no significant difference in use of this structure between Chinese English majors and native speakers.

The use of negative forms is not out of author's own judgments and attitudes, but is on the basis of in-depth experimental data and collection. In other words, the use of negative forms is mainly with respect to the essential description of findings. What matters most is that the writing of "discussion" part should not merely the description and summary of the "results", which is not the substantial task of "discussion" part. On the flip side, the author should give sufficient weight to the in-depth interpretation of findings, especially authors' own critical thinking and judgments towards the "results". Nevertheless, the authors also should mention the substantial findings in the "results" part. That's may be the reason why postgraduates use multitudes of negative forms in the "discussion" part.

6. Conclusion

This investigation mainly focuses on the use of modality system in the "discussion". Firstly, modalization is preferred than modulation in the "discussion" part, which involves probability and usuality. The frequent use of finite modal operators help express authors' own attitudes and judgments towards the results. Secondly, the study found that the use of low value and median value is more common in English academic writing. The use of low and median value just hits the spot, helping the authors maintain a humble attitude to interpret findings for readers, helping the interpretation be acknowledged by the readers. Lastly, the polarity of modality system is also used in "discussion". Nevertheless, there also exist several limitations. Firstly, the investigation is devoid of large amounts of samples. The corpus is limited, merely restricted within ten thesis papers. Moreover, the study only underscores the specific teaching in applied linguistics. The judgmental sampling may also subjective to some extent.

References

[1] Li Xiaohong. (2021). Functional features of phrase frame in academic English writing: a comparative study based on Chinese and English doctoral thesis introduction corpus. Foreign language audio-visual teaching (1), 98-104+16.

[2] Li Li & Gao Xuyang. (2023). Research on the intervention model of English education master's thesis introduction writing from the perspective of dynamic evaluation. Journal of PLA Foreign Languages Institute (3), 26-34.

[3] Gao Jun & Yang Lu. (2018). A study on the use of lexical chunks in English for academic Purposes for science and engineering postgraduates. Foreign Language (6), 77-85.

[4] Qi Xi. (2021). Academic writing course design for EFL undergraduates based on academic writing constructs. Foreign Language (1), 122-130.

[5] Chang Junyue & Sun Youzhong. (2022). The understanding and thinking about the diversified requirements of National standard graduation thesis for foreign language majors. Chinese University Teaching (5), 33-37.

[6] Hu Chunyu. (2012). A multi-dimensional study on the production of compulsory modal words in Chinese English learners. Foreign language teaching and research (1), 80-94+159.

[7] Han Kaihua. (2012). The re-interpretation of I Have a Dream from the perspective of modality theory. Foreign Language Teaching (4), 49-52.

[8] Halliday, M.A.K. (1994).An introduction to functional grammar (2ⁿᵈ ed.) London: Edward Arnold.