An Interdisciplinary Study of Different Pragmatic "We" in Academic Discourse: A Case Study of Linguistics and Economics

Zhou Yaru and Zhang Yi

Abstract—**Based on Systematic Functional Grammar and Hyland's pragmatic classification of "we", with the help of AntConc and Log-likelihood and Chi-square Calculator 1.0, the present study combines qualitative and quantitative research designs to compare and analyze the similarities and differences of different pragmatic functions of "we" in Linguistic and Economic academic discourse. The result shows that there are significant differences in the use of "we" between the academic discourse of the two disciplines ($P < 0.001$). In addition to the most frequently used pragmatic function of "we," the other four functions are more frequently used in the academic discourse of Linguistics. The study suggests that this result may be affected by the stylistic characteristics of the discipline, and hopes to provide some enlightenment for the understanding and writing of academic discourse in Linguistics and Economics.**

Index Terms—**Personal pronoun we, linguistics academic discourse, economics academic discourse, pragmatic function.**

I. INTRODUCTION

It can be seen from the study of academic works since the 20th century that, with the rapid development of science and technology, and new research fields that continue to emerge, the characteristics of contemporary academic works have also changed [1]. Different from the previous simple data presentation, scholars pay more attention to the identity display and interaction with readers in academic discourse [2]. The academic discourse abandons the objective and monotonous text style and language features of the past and adopts the subjective and interactive way of expression [3]. As the most significant expression of self-promotion, the first-person pronouns, especially "we" are increasingly used in academic writing [4]. In the view of pragmatics, Hyland [5] pointed out that the first-person pronoun is one of the most prominent and important ways to construct the identity of the author [6]. Accordingly, studies showed that the use of first-person pronouns can highlight the author's point of view, emphasize the author's contribution, and convey the author's self-confidence and authority. Therefore, it can build a credible author identity in line with the discipline group. Hence, the first-person pronoun has rich pragmatic value.

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Related to the pragmatic function of "we", scholars conducted several interdisciplinary studies on different disciplines. However, those comparative studies are always between the disciplines in natural science [6]-[9]. Seldom research is concerned with the disciplines of social science [10], like Linguistics and Economics. Therefore, studying the use of the first-person pronoun "we" in academic discourse of Linguistics and Economics can give some enlightenment to understand and master the ways and means of constructing the author's identity in this kind of academic discourse.

II. RESEARCH METHODOLOGY

A. Research Design

Based on Systematic Functional Grammar and Hyland's pragmatic classification of "we", with the help of AntConc and Log-likelihood and Chi-square Calculator 1.0, the present study combines qualitative and quantitative research design to compare and analyze the similarities and differences of different pragmatic functions of "we" in Linguistic and Economic academic discourse. This paper selects 60 academic discourses published in the past three years from 2017 to 2019 as a corpus. Linguistic academic discourse is selected from the Linguistic journal "The Modern Language Journal", and Economic academic discourse is selected from the Economic journal "The Journal of Finance".

TABLE I: SIZE OF CORPUS

	Linguistics	Economics	Total
Articles	30	30	60
Token	355975	533117	889092

In Table I, the corpus consists of 30 articles from Linguistics and 30 from Economics, from 2017 to 2019, 10 articles are selected from two disciplines each year. Among them, the number of Linguistic characters is 355975, and the number of Economic characters is 533117. The total word capacity of the two corpora is 889092.

The first step is to make statistics and classification of "we" in the academic discourse of two disciplines. Then, according to the statistical data obtained in the first step, the present study analyzes the frequency of "we" in the academic discourse of two disciplines. Finally, the study summarizes the similarities and differences between the two disciplines in the use of "we" in academic discourse

B. Operational Definition

From the perspective of pragmatics, Hyland divides it into five categories: explaining a procedure, stating results or

claims, elaborating an argument, stating a goal or purpose, and expressing self-benefits. The specific meanings are as follows.

Hyland defines explaining a procedure as "a similar metatextual dimension" which is used to describe the research procedures used and also to reflect the lower level of personal exposure.

1) Example 1

We next analyze the FTT's impact on different trader types using a data set that groups market participants into three distinct categories according to their speed (Economics 2).

Hyland acknowledges that the "we" with the function of "stating results or claims" is the "most self-assertive, and consequently potentially the most face-threatening use". In academic discourse, this usage most obviously shows that the author of academic discourse chooses to declare their existence where they claim knowledge.

2) Example 2

We claim that there should not be a unique aspectual classification to demonstrate that the use of grammatical aspects is biased by the inherent aspect (Linguistic 17).

For the pragmatic function of "elaborating an argument", Hyland claims that it is a function used to "set out a line of reasoning". "The professional academics chose to stake their commitments to their arguments with the use of 'we'."

3) Example 3

We argue that style shifts between value and growth stocks might be motivated in part by the time-variation in income hedging opportunities. (Economics 27).

According to Hyland, the "we" with the pragmatic function of "s stating a goal or purpose" is to state the discoursal purposes of the academic author "in order to signal their intentions and provide an overt structure for their texts."

4) Example 4

We will present and discuss how the teacher tried to realize the clear-cut language ideology of the target preschool to promote L1 He brewusing children's progress in Arabic as a minority language in two main sections (Linguistic 4).

"We" with the function of "expressing self-benefits" is a "personal statement". It is usually a presentation of the personal gains of the author of an academic paper from other authors or his/her own research. See the following example for details.

5) Example 5

We thank Dan Burnside, Ronald Goettler, Ron Kaniel, Fabio Moneta, and Jonathan Reuter, participants at the Boston College seminar and Telfer Conference, as well as Editor Stefan Nagel, an anonymous associate editor, and two referees for their helpful comments (Economics 28).

III. SIMILARITIES

The frequency order of the five pragmatic functions of "we" is the same in the academic discourses of Linguistics and Economics.

In Hyland's [11] earlier study, he gave a use frequency

order of five pragmatic functions of "we". From high to low, the sequence is explaining a procedure, stating results or claims, elaborating an argument, stating a goal or purpose, and expressing self-benefits. In the same way, the corpus of the two disciplines studied in this study also shows such features. The specific data of its different pragmatic functions in the academic discourse of Linguistics and Economics is shown in Table II.

TABLE II: "WE" WITH DIFFERENT PRAGMATIC FUNCTIONS IN ACADEMIC DISCOURSE OF TWO DISCIPLINES

	Linguistics		Economics	
	Occurrence	Frequency	Occurrence	Frequency
Explaining a Procedure	349	46.04%	2806	64.65%
Stating Results /Claims	223	29.42%	1055	24.31%
Elaborating an Argument	86	11.35%	288	6.64%
Stating a Goal / Purpose	59	7.78%	127	2.93%
Expressing Self-BENEFITS	41	5.41%	64	1.47%
TOTAL	758	100%	4340	100%

In Linguistic academic discourses, the order of the five pragmatic functions of "we" conforms to the order of Hyland's research article on the pragmatic functions of self-reference. These five types of pragmatic functions are used from high to low in order: explaining a procedure, stating results or claims, elaborating an argument, stating a goal or purpose, and expressing self-benefits. More specifically, in 758 times of "we", 349 times played the role of explaining a procedure, accounting for 46.04% of the total times, 223 times played the role of stating results or claims, accounting for 29.42% of the total times, 86 times played the role of elaborating an argument, accounting for 11.35% of the total times, 59 times played the role of stating a goal or purpose, accounting for 7.78% of the total times, 41 times played the role of expressing self-benefits, accounting for 5.41% of the total times.

From the data, we can see that Linguistic academic discourse writers are most commonly used to explain processes and state results when they use "we". However, the frequency of "we" is low when expressing purpose and self. This study suggests that when describing objective facts, academic discourse writers tend to use "we" to enhance the objectivity of the study. When expressing some subjective content, academic discourse writers tend to avoid using words with strong personal feelings to reduce the impact of such content on the objective and scientific nature of academic articles.

Similarly, the frequency of pragmatic functions in Economic academic discourses is consistent with Hyland's [8] earlier research. The specific data in this study are: "we" appears 4340 times in 30 Economic academic discourses. Among them, 2806 reflect the function of explaining a procedure, accounting for 64.65% of the total number of times, 1055 reflect the function of stating results or claims, accounting for 24.31% of the total number of times, 288 reflect the function of elaborating an argument, accounting for 6.64% of the total number of times, 127 reflect the function of stating a goal or purpose, accounting for 2.93% of

the total, and 64 reflect the function of expressing self-benefits, accounting for 1.47% of the total.

From the data, we can see that Economic academic discourse writers are most commonly used to explain process and state results when using "we". The frequency of such pragmatic function "we" is even close to 90%. The sum of the remaining three pragmatic functions "we" is only about 10%. The present study believes that this kind of phenomenon is due to its disciplinary characteristics. After observing the academic discourse of economics, it can be found that most of the academic discourse of this discipline involves a lot of calculation, reasoning, and chart analysis. At this point, "we" is used to link such processes. However, the content of expressing the author's opinions is short, and the use of "we" is relatively reduced.

IV. DIFFERENCES

Firstly, "we" with the pragmatic function of explaining a procedure is used more frequently in the academic discourse of Economics.

In the corpus we studied, although "explaining a procedure" is the most frequently used pragmatic function of "we", its specific usage is still quite different between the two disciplines. The specific data is shown in Table III.

TABLE III: "WE" WITH FUNCTION OF EXPLAINING A PROCEDURE IN ACADEMIC DISCOURSE OF TWO DISCIPLINES

	Explaining a Procedure	Total "WE"	Chi-square Value	P-value
Linguistics	349	758		
			-93.98	0.000
Economics	2806	4340		

Of the 758 "we" in academic discourses of Linguistics, 349 "we" have the pragmatic function of explaining a procedure. There are 2806 out of 4340 "we" in the academic discourse of Economics. The chi-square value between them is -93.98<0, and the p-value is 0.000<0.001.

Therefore, we can know that there are obvious differences in the use of "we" with the pragmatic function of "explaining a procedure" in academic discourses on Linguistics and Economics. Specifically, the pragmatic function of explaining a procedure of "we" is more frequently used in economic academic discourse.

Secondly, "we" with the pragmatic function of stating results or claims is used more frequently in academic discourse of Linguistics.

As the second most frequently used pragmatic function, stating results or claims is the most confident and threatening self-reference of the author [11]. Similarly, the frequency of its use is quite different in the academic discourses of Linguistics and Economics.

As shown in Table IV, 223 of the 758 "we" in Linguistic academic discourses have the pragmatic function of stating result or claims, while 1055 of the 4340 "we" in economics. The chi-square value of the pragmatic function "we" between the two disciplines is 8.70>0, P: 0.003<0.01.

TABLE IV: "WE" WITH FUNCTION OF STATING RESULTS OR CLAIM IN ACADEMIC DISCOURSE OF TWO DISCIPLINES

	Stating Results or Claims	Total "WE"	Chi-square Value	P-value
Linguistics	223	758		
			8.70	0.003
Economics	1055	4340		

Thus, the pragmatic function of stating results or claims of "we' is also quite different in the use of academic discourses in Linguistics and Economics. It is more frequently used in Linguistic academic discourses.

Thirdly, "we" with the pragmatic function of elaborating an argument is used more frequently in the academic discourse of linguistics.

As the title shows, "we" with the pragmatic function of elaborating an argument is used more in academic discourse of Linguistics. The occurrence of this pragmatic function of "we" in the academic discourse of two disciplines is as shown in Table V.

TABLE V: "WE" WITH FUNCTION OF ELABORATING AN ARGUMENT IN ACADEMIC DISCOURSE OF TWO DISCIPLINES

	Elaborating an Argument	Total "WE"	Chi-square Value	P-value
Linguistics	86	758		
			20.36	0.000
Economics	288	4340		

Among the 758 "we" in Linguistic academic discourses, 86 have the pragmatic function of elaborating an argument. Among the 4340 "we" in Economic academic discourse, 288 "we" have this pragmatic function. The chi-square value of the two is 20.36>0, and the p-value is 0.000<.0001.

Hence, the difference between "we" with the pragmatic function of elaborating an argument in academic discourses between Linguistics and Economics is significant. It is more frequently used in the academic discourse of Linguistics.

Fourthly, "we" with the pragmatic function of stating a goal or purpose is used more frequently in academic discourse of Linguistics.

As for the pragmatic function of stating a goal or purpose of "we", the present thesis also makes a comparison between its use in academic discourses of Linguistics and Economics. The specific data are as Table VI shows.

TABLE VI: "WE" WITH FUNCTION OF STATING A GOAL OR PURPOSE IN ACADEMIC DISCOURSE OF TWO DISCIPLINE

	Stating a Goal or Purpose	Total "WE"	Chi-square Value	P-value
Linguistics	59	758		
			41.94	0.000
Economics	127	4340		

Among the 758 "we" in Linguistic academic discourses, 59 "we" play a pragmatic role in stating a goal or purpose. Among the 4340 "we" in Economics, there are 127 "we" with this function. By calculation, the chi-square value between the two is 41.93>0, P-value is 0.000<0.001.

Thereupon then, the present study argues that there are significant differences in the use of "we" with the pragmatic function of stating a goal or purpose in academic discourses

of Linguistics and Economics. Specifically, "we" with the pragmatic function of stating a goal or purpose is more frequently used in Linguistic academic discourse.

Fifthly, "we" with the pragmatic function of expressing self-benefits is used more frequently in academic discourse of Linguistics.

As the pragmatic function with the lowest frequency of use of "we" in academic discourses of Linguistics and Economics, the specific use of expressing self-benefits in the two disciplines is also quite different. The frequency of its occurrence in the two academic discourses is shown in Table VII.

TABLE VII: "WE" WITH FUNCTION OF EXPRESSING SELF-BENEFITS IN ACADEMIC DISCOURSE OF TWO DISCIPLINES

	Expressing Self-benefits	Total "WE"	Chi-square Value	P-value
Linguistics	41	758	47.58	0.000
Economics	64	4340		

In the academic discourse of Linguistics, 41 "we" in 758 represent the pragmatic function of expressing self-benefits. Among the 4340 "we" in Economics, there are 64 "we" with this pragmatic function. The chi-square value between the two is 47.58>0, the *P*-value is 0.000<0.001.

It can be seen from the data that there are great differences in the use of "we" with the function of expressing self-benefit in academic discourses of Linguistics and Economics. "We", which is expressed as a pragmatic function of expressing self-benefit, is more common in Linguistic academic discourse.

By the way, according to the use of "we" in the corpus, although the use of "we" in the two disciplines shows great differences in semantic and pragmatic perspectives. However, its main contributions to context building are almost the same.

V. REASONS FOR SIMILARITIES AND DIFFERENCES

Through observation and analysis, this study finds that there are similarities and differences in the application of the personal pronoun "we" in the two disciplines. The reasons for these similarities and differences are as follows.

There are two reasons for the similarity. Firstly, it is due to the characteristics of academic discourse. As mentioned earlier in this paper, most academic discourse aims to demonstrate ideas and share findings in all disciplines. Secondly, it is limited by the semantic meaning and pragmatic function of "we". Under the premise of writing academic discourses with the same background and purpose as just mentioned, no matter what semantic or pragmatic functions, "we" has its specific usage in specific discourse links, such as acknowledgment, demonstration, the establishment of prestige, and improvement of credibility, etc.

For the reasons of the differences, this study believes that the main reason lies in the differences between the two disciplines. Different knowledge categories and even different disciplines have their own unique language phenomenon. Among them, Linguistics belongs to the Humanities. Humanities play a fundamental role in the development of other disciplines, which makes Linguistics more cautious in the use of language. As a Social discipline, Economics studies various social phenomena and their development laws. There are difficulties in quantification, mainly through logical reasoning. The research process contains a large number of researchers' judgments, which is subjective. Therefore, these differences will have a certain impact on the use of personal pronouns.

V. CONCLUSION

The present study is a comparative study of the use of the first-person pronoun "we" between Linguistic and Economics academic discourse. Although from the order of the frequency of the five pragmatic situations of "we", the two disciplines are similar. Analyzing the use of each pragmatic "we", the two disciplines also reflect obvious differences.

This research calls upon more and more researchers to focus on the comparison between different disciplines. The first-person pronoun comparison between two disciplines is not only about the use of first-person, but also indicates both disciplines' English education.

Due to the limitation of time and literature resources, this paper selects one journal from each of the two disciplines for comparison. Future research should continue to expand the corpus capacity in terms of quantity and type, to improve its representativeness to the subject field. Besides, the comparative study of pragmatics and context is not deep enough. Future research should continue to delve more into these aspects, and further integrate the related concepts of personal pronouns.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Zhou Yaru makes the main contribution to this paper. She conducted this work and wrote the article; Professor Zhang Yi helped to revise and perfect the paper. All authors had approved the final version.

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