

Economics vs. Management: An Analysis of Stance Nouns in the Noun That Pattern

Hong, Ling

Center for Linguistics and Applied Linguistics,
Guangdong University of Foreign Studies, Guangzhou, Guangdong, PRC

ABSTRACT

English for academic purposes (EAP) has been a hot topic in applied linguistics research in the past three decades. In recent years, many researchers have begun to pay close attention to the study of disciplinary English. The present study attempts to explore the similarities and differences between economics and management, by utilizing English research articles in the two disciplines as corpus data, and by analyzing the employment of stance nouns in the pattern of “noun + *that*”. The analysis results show that economics and management have a lot in common in research objects, research subjects and ways of knowledge construction, and the two disciplines show certain similarities in the distribution of Noun *that* pattern. However, the more frequent use of the stance nouns in the semantic group of possibility, evidence and opinion in economics research articles indicates that economics relies more on objective experimental evidence, discovery, and scientific statistical methods to construct knowledge than management does. The results of this study can provide insightful implications for the teaching of economic/management English.

Keywords: stance nouns, noun *that* pattern, disciplinary variation, economics, management

INTRODUCTION

In recent years, with the development of English for specific purposes (ESP) and English for academic purposes (EAP), increasing number of researchers have begun to show great interest to the study of disciplinary English as a research field straddling linguistics and another specific discipline. Thus, disciplinary discourse studies have gradually become a hot topic [1-3]. Set against the background of the internationalization of higher education in China, the study of disciplinary English is very necessary. Then, the present study attempts to analyze the similarities and differences between economics and management by taking stance nouns in the pattern Noun *that* as an example.

Stance nouns have been demonstrated to be very important linguistic resources in academic arguments. Through the utilization of this category of nouns, propositions can be endowed with certain cognitive status (*this reflects a **fact** that the interactions between companies and customers are likely to be mediated by technology*), and information can be packaged to move the argument forward (*Many people believe that ... The **viewpoint** deserves deep consideration*). This linguistic resource has been examined from various perspectives, resulting in different terms, including signaling nouns [4] and shell nouns [5], among many others.

Specifically, stance nouns come from Hunston's Status-Value-Relevance (SVR) model. This model is primarily proposed to elucidate the function of evaluation in discourse [6]. The status function of evaluation primarily reflects the degree of congruence between the proposition stated and the real world [7], manifesting the language user's judgment on the cognitive state of a proposition. There are numerous resources that manifest the status function, such as expressions related to the source of the proposition, modal verbs, projecting verbs, etc., with stance nouns probably being the most crucial. In academic context, academicians often use stance nouns to evaluate the cognitive status of propositions and to construct disciplinary knowledge.

When considering economics and management, their close relationship can be initially manifested through their definitions. Economics is "the study of how individuals and societies choose to use the scarce resources that nature and previous generations have provided" [8], while management can be defined as "the art of getting things done through people in organization" [9]. Additionally, the relationship between the two disciplines can be predicted from the academic groupings to which they belong. Following the categorization by Becher & Trowler [10], management belongs to the soft-applied science, of which the characteristics are marked by strong practicality, know-how through soft knowledge, a focus on optimizing professional or semi-professional practices, great dependence on extensive use of case studies and case law to construct knowledge, and ultimately resulting in protocols or procedures. However, when it comes to economics, there seems to be no consensus in its categorizing. In China, economics is commonly classified as a social science. Differently, economics spans soft/hard and pure/applied sciences, encompassing characteristics from all four categorizations according to Becher & Trowler. Thus, it can be understood that economics shares some similarities with management in certain aspects, but there are also significant differences between them, as they belong to different disciplinary categories [2].

The differences and similarities between economics and management can, to some extent, be illuminated through the utilization of corpora and the corresponding corpus analysis techniques. In this study, corpus analysis of stance nouns in the pattern of Noun *that* were employed to provide a preliminary exploration of disciplinary variations.

RESEARCH METHOD

Research Questions

To address the issue mentioned above, the present research aims to answer the following two questions.

- 1) What are some similarities and differences in the distribution of stance nouns in the pattern of Noun *that* in economics and management research articles?
- 2) What are the similarities and differences in the functions realized by the stance nouns in the Noun *that* pattern, which further the similarities and differences in the knowledge construction in the two disciplines?

Corpus Data

To answer the two questions, the research utilized the two sub-corpora in the corpus Beijing Collection of Academic Research Essays (Beijing CARE), which was built by Prof. Wei Naixing [11]. The information of the corpora is presented in Table 1.

Table 1: Corpus information for economics and management

Sub-corpus	No. of texts	Tokens	Types	TTR	STTR
Economics	122	982,515	23,892	2.53	35.74
Management	149	994,428	22,907	2.39	36.03

Date Processing

The corpus data were processed as follows. Firstly, retrieve the pattern “*_NN* that_CST” in the annotated corpora with WordSmith Tools 5.0. to obtain the *Noun* that patterns. Then, sift the concordances that do not satisfy the criteria, such as *that*-clauses as modifier and *that*-clauses as subject. Thirdly, identify the stance nouns in the two sub-corpora and categorize them into different semantic groups. Finally, employ chi-square tests to assess the differences in the use of different groups of stance nouns. Normally, statistically significant differences are considered when $p < 0.05$.

RESULTS AND DISCUSSION

The Distribution of Stance Nouns

Based on the previously mentioned procedures, 1207 concordances of *Noun* that patterns were extracted in economics, and in management, there were 959 concordances. These concordances involve 93 and 112 stances nouns in the two sub-corpora respectively. Notably, there were 67 stance nouns that were common to both disciplines, indicating great similarity between economics and management. The information is summarized in Table 2, and Table 3 lists the stance nouns in the *Noun that* pattern in economics and management, which are classified by shared nouns and specific nouns in each sub-corpus.

Table 2 Distribution of Noun that patterns

	Economics	Management
Frequency	1207	959
Standardized freq.	1228	964
Type	93	112
Type/frequency	0.077	0.117

Table 3: Stances nouns in the Noun *that* pattern in sub-corpora of economics and management

Sub-corpus	Specific stance nouns	Shared stance nouns
Economics	accident, addition, advantage, allegation, anticipation, basis, constraint, cue, debate, discovery, discussion, drawback, generalization, hint, inference, irony, perspective, position, practice, problem, proclamation, rationale, report, solution, suspicion, theory	agreement, alternative, argument, assertion, assumption, assurance, belief, case, chance, claim, coincidence, comfort, concern, conclusion, condition, consensus, contention, conviction, criticism, degree, doubt, effect, event, evidence, exception, expectation, explanation, extent, fact, feeling, finding, hope, hypothesis, idea, implication, impression, indication, interpretation, insistence, intuition, likelihood, notion, observation, perception, point, possibility,
Management	acceptance, anxiety, assessment, attribution, awareness, complaint,	

	confidence, confirmation, danger, estimate, estimation, faith, fear, ground(s), guarantee, importance, indicator, information, insight, knowledge, limitation, logic, occasion, objective, opinion, picture, promise, prospect, reasoning, reassurance, recommendation, reminder, restriction, scandal, scenario, sign, speculation, stand, statement, statistics, stigma, surprise, theme, thesis, viewpoint	prediction, premise, probability, proposal, proposition, question, reality, realization, reason, recognition, requirement, result, risk, sense, signal, stereotype, suggestion, support, understanding, view, wisdom
--	---	--

As indicated in Table 2, in general, the use of Noun *that* patterns are higher in economics at a frequency of 1228 concordances per million words, while in management, the frequency is approximately three-quarters of that in economics, at 964 per million words. This difference is statistically significant ($X^2=31.50$, $df=1$, $p < 0.001$). However, the type/frequency ratio for Noun *that* patterns in management is higher than that in economics, with values of 0.117 and 0.077, respectively. This indicates that management scholars employ a more diverse and extensive range of stance nouns, whereas economics scholars tend to use a limited set of high-frequency stance nouns, demonstrating a higher degree of conventionality in their language use.

Semantic Distribution of Stance Nouns

Following the approaches in previous studies [12, 13], the stance nouns extracted in economics and management sub-corpora were semantically categorized, as presented in Table 4.

Table 4: Semantic distribution of Noun *that* patterns

Semantic group	Economics			Management		
	Freq.	Standard freq.	Percentage (%)	Freq.	Standard freq.	Percentage (%)
Evidence	437	445	36.24	351	353	36.66
Opinion	411	418	34.04	341	343	35.62
Manner	110	112	9.12	84	84	8.72
Verbal	51	52	4.23	66	66	6.85
Possibility	140	142	11.56	74	74	7.68
Attitude	58	59	4.81	43	43	4.47

It is observable from Table 4 that there is a certain degree of similarity in the semantic distribution of stance nouns in the two disciplines. In economics, the ranking in the proportions of each semantic group is: Evidence, Opinion, Possibility, Manner, Attitude, and Verbal, while in management, the ranking is: Evidence, Opinion, Manner, Possibility, Verbal, and Attitude. In both disciplines, Evidence and Opinion semantic groups appear frequently. The nouns in the Evidence group present research findings, evidence, observations, or experimental discoveries, while the nouns in the Opinion group express mental states or cognitive processes. The high frequency of nouns in these two semantic groups is relatively easy to understand, as presenting or discussing research results, findings, and evidence is an important process in knowledge construction.

On the other hand, there are differences in the semantic distribution. The differences in the Evidence ($X^2=19.57$, $df=1$, $p < 0.001$), Opinion ($X^2=7.39$, $df=1$, $p < 0.01$), and Possibility ($X^2=21.16$, $df=1$, $p < 0.001$) semantic groups between the two disciplines are statistically significant, while there are no significant differences in the Manner, Verbal, and Attitude semantic groups. In the following analysis, more detail will be provided concerning the Possibility group, which shows the greatest difference, the Evidence group, which has a significant difference and the highest frequency, as well as the Opinion group.

Possibility Group:

Among all the semantic groups, the Possibility group can reflect the modality of propositions most directly, with the most direct relevance to the parameter of certainty/uncertainty proposed by Hunston [6]. The nouns in this group not only indicate the degree of certainty of a proposition but also encompass the responsibility the author assumes for its truthfulness. Although these nouns express uncertainty, they also, to a certain extent, reflect the rigor in argument. Many same nouns to express possibility are employed by both economists and management scholars, but the former use these nouns more frequently, especially the nouns such as “likelihood”, “probability” and “possibility”. This suggests that economists are more likely to use such nouns to assess the possibility of propositions.

Evidence Group:

The nouns of the Evidence group appear the most frequently in both disciplines. In scientific argumentation, scholars rely on facts, evidence, and discoveries to construct knowledge and enhance the credibility and persuasiveness of their research [3]. Therefore, as mentioned earlier, it is easy to understand why this semantic group has the highest frequency. By using nouns in this group, evidence and discoveries from experimental research can be “packaged” into nouns like “evidence” and “fact” for further reasoning and argumentation. Economics uses this semantic group more frequently than management, indicating that economics relies more on objective evidence to construct knowledge. Additionally, Table 4 also indicates that economists use fewer nouns to express evidence compared to scholars in management. This suggests that economists tend to reuse certain nouns to express evidence, while management scholars demonstrate more diversity in their expression of evidence.

Opinion Group:

The case of the Opinion group is similar to that of the Evidence group: in economics, the frequency of Noun *that* patterns is higher than that in management, but the number of opinion-related stance nouns used is lower in economic. Therefore, we can draw a similar inference: economists demonstrate a higher degree of conventionality in using stance nouns that express opinions, tending to concentrate on using a few nouns to “package” points of view, such as “hypothesis” and “idea”. In contrast, management scholars use a more diverse range of nouns to attribute a certain viewpoint or stance, such as “picture”, “stand”, “reminder”, and others. Taking “hypothesis” for example: in economics, the pattern “hypothesis/hypotheses that” appeared 84 times, while in management, it appeared 35 times ($X^2=20.77$, $df=1$, $p < 0.001$), indicating a significant difference. It can be inferred that economists are more inclined to attribute a certain hypothesis or viewpoint as “hypothesis” and then test and experiment to ultimately verify whether the viewpoint is valid, often using statistical methods. This also reflects the difference in the research method between economics and management.

Overall, it has been observed that research articles in economics and management share certain similarities in the distribution of stance nouns in various semantic groups, both frequently using the Evidence and Opinion groups. The driving force behind this similarity could be the commonalities between the two disciplines. However, economics more frequently assesses the possibility of propositions through stance nouns and Noun *that* patterns, presenting research facts and evidence as the basis for further argumentation. It is also inferable that economics, compared to management, tends to construct disciplinary knowledge through more objective research methods.

CONCLUSION

This present research adopted a corpus-based approach to examine the similarities and differences between economics and management, focusing on the analysis of stance nouns in Noun *that* patterns. Generally, there are many similarities in the method of knowledge construction in economics and management, which is a significant factor leading to the similarity in the distribution of Noun *that* patterns in the research articles in both disciplines. Both economics and management rely on objective experimental evidence, findings, and scientific statistical methods to construct knowledge. However, the study reveals a quantitative disparity in the extent of reliance on this methodological approach between the two: economics relies more heavily on objective facts, evidence, and scientific statistical methods to build knowledge. This is a substantial difference between economics and management, manifested in economists' higher frequent use of stance nouns in the Possibility, Evidence, and Opinion semantic groups. In research articles, economists tend to utilize Noun *that* patterns more frequently than management scholars. However, the variety of stance nouns used in management is greater, indicating a higher degree of conventionality in economic but a diversity in management.

The findings of this study have implications for academic English writing, especially in economics and management. In academic English teaching, it is essential to emphasize the importance of stance nouns, guiding students to recognize their pivotal role in expressing viewpoints, evaluating propositions, and constructing knowledge. Gradually, students should be trained to employ these stance nouns effectively in academic writing. In the teaching of specialized English such as economic or management English, it is advisable to integrate corpus-assisted teaching, and structure teaching and learning activities around discipline-specific stance nouns, which is beneficial to enhance students' understanding and mastery of epistemological aspects within the discipline.

References

- [1] 蔡基刚&廖雷朝. (2010). 学术英语还是专业英语——我国大学 ESP 教学重新定位思考. 《外语教学》第 6 期: 47-50, 73.
- [2] 彭宣维. (2019). 学科英语研究——高水平英语教育问题与对策述要. 《外语教学》第 2 期: 1-7.
- [3] Hyland, K. (2004). *Disciplinary Discourses: Social Interactions in Academic Writing*. Ann Arbor: University of Michigan Press.
- [4] Flowerdew, J. (2003). Signalling nouns in discourse. *English for Specific Purposes* 22, 329-346.
- [5] Schmid, H. J. (2000). *English Abstract Nouns as Conceptual Shells*. Berlin: Mouton de Gruyter.

- [6] Hunston, S. (1989). *Evaluation in Experimental Research Articles*. PhD thesis, Birmingham University.
- [7] Hunston, S. (2008). The evaluation of status in multi-modal texts. *Functions of Language* 15 (1): 64-83.
- [8] Case, K. et al. (2020). *Principles of Economic* (13th ed). London: Peason.
- [9] Hill, C. & McShane, S. *Principles of Management*. New York: McGraw-Hill/Irwin.
- [10] Becher, T., & Trowler, P. R. (2001). *Academic Tribes and Territories: Intellectual Enquiry and the Culture of Disciplines* (2nd ed.). Buckingham: Society for Research into Higher Education & Open University Press.
- [11] 卫乃兴&王冰昕. (2020). 学术英语语料库 Beijing CARE 简介. 《语料库语言学》第 1 期: 72-77.
- [12] 王冰昕&卫乃兴. (2020). 语料库驱动的中西学者论文事态名词研究——以 N that 型式为例. 《解放军外国语学院学报》第 5 期: 20-28.
- [13] Charles, M. (2007). Argument or evidence? Disciplinary variation in the use of the Noun that pattern in stance construction. *English for Specific Purposes* 26: 203-218.