

A Study on the Metaphor Judgement and Comprehension of EFL in Chinese Universities—Taking Senior English Major Students as Example

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ABSTRACT: Metaphor comprehension remains a central concern in linguistic research. This study investigates metaphor judgment and comprehension among senior English majors from five types of Chinese universities—Project 985, Project 211, language-featured, normal, and basic public institutions—to examine the effects of institutional type and English proficiency. A total of 50 participants (5 males and 5 females per university) who had passed TEM-4 were recruited. A mixed-methods design was employed: quantitative data were collected using a metaphor comprehension questionnaire adapted from Xu (2013), and qualitative data were obtained through semi-structured interviews with high- and low-scoring groups (one male and one female each). Pearson correlation and regression analyses revealed three major findings. First, the overall metaphor judgment and comprehension ability of senior English majors reached a qualified level, accompanied by adequate listening, speaking, reading, and writing skills. Second, English proficiency significantly influenced both metaphor judgment and comprehension, with high-proficiency learners outperforming low-proficiency learners; however, performance on individual metaphor items was comparable. Third, gender emerged as a contributing factor,

with males generally outperforming females, though the gender gap was negligible in basic public universities. Implications for EFL teaching and directions for future research are discussed.

Keywords: *Metaphor judgement and comprehension, English proficiency, Gender differences, EFL teaching.*

1. Introduction

For more than 2,000 years, the Aristotelian school has always regarded metaphor as a tool of poetic function and rhetoric devices. Nowadays, linguistic scholars tend to consider that metaphor is a kind of way to comprehend and experience the things from one to the next. However, this is a philosophical phenomenon, not just a language phenomenon. As we all know, Lakoff and Johnson (1980) believe that the common conceptual system in which we think and act is essentially metaphorical. Metaphor phenomenon is ubiquitous in our daily life. Foreign language learners are destined to face various metaphors in the target language which is essential for them to understand. What's more, metaphor judgement and comprehension ability is an indispensable part of language proficiency, and it is considered to be the important part to successfully gain foreign language learning. However, the lack of judgement and comprehension ability will cause language learners to not be able to use the second language correctly and natively, not behaving as a native speaker. Therefore, it is no doubt that the cultivation of metaphor judgement and comprehension ability and the mastery of metaphor in the target language become the final aim of second language learners.

Under the background and the trend of metaphors, this paper aims to find out whether English proficiency and gender have impact on the metaphor judgement and metaphor comprehension. First of all, about English proficiency, previous studies have not reached a consensus on the definition of English proficiency. Our research adopts the professional English proficiency test, that is, the TEM-4. Compared with other English proficiency tests, TEM-4 has a wide audience and it is authoritative. By the way, we will detailed explore the correlation among English proficiency, gender, and metaphor judgement and metaphor comprehension ability in order to clarify current controversial issues. At the same time, through qualitative and quantitative analysis, some of the findings of previous

research can be tested, and practical suggestions can be put forward for improving EFL teaching.

2. Literature review

2.1 Relevant studies at home

Shuai and Yan (2019) proposed in Study on English Majors Metaphorical Comprehension Ability that the metaphor comprehension ability of subjects with high language proficiency behaves basically higher than that of subjects with low language ability, but they make little difference in metaphor behavior. These subjects this paper uses low-level subjects (freshman of English majors) and high-level subjects (junior English majors who have passed the TEM-4 exam). They have two different group in the metaphorical test, the comparison group (freshman English majors) and the experimental group (junior English majors who have passed the TEM-4 exam) respectively, and the paper concluded that there is a positive correlation between metaphor judgement and metaphor interpretation.

Wang and Zhang (2014) used a combination of qualitative analysis and quantitative analysis in on the Correlation Between Metaphoric English Competence and English Proficiency of English Majors, that is, a combination of metaphor test and interviews. The subjects used junior English major females, by the Pearson Correlation methods in SPSS 26.0 to analyze the scores of English metaphor ability test and TEM-4 test scores, and found that the two are positively correlated.

Liu and Zhu (2014) mentioned in Empirical Study on Metaphorical Competence between Male and Female non-English Majors. Sixty-eight non-English major undergraduates from Anhui University were selected as subjects. The subjects' English proficiency was defined by Anhui University, The second-level English Proficiency Test, and the Metaphorical Competence Test, which uses Littlemore's, Metaphorical Competence Test (MCT) as a research tool (The original French version test is translated into Chinese version). The data used SPSS 26.0 for descriptive statistical analysis and independent sample t-test. The research found that male and female subjects had lower levels of metaphorical ability development. The two groups of subjects differed slightly in the judgement and output of metaphors, but the differences in the ability to interpret metaphors were more significant.

English language proficiency affects its metaphor understanding and judgement strategy, Xu (2013) analyzed the reasons for the differences in metaphorical ability levels in Metaphor comprehension by Chinese learners of English. Through the form of quantitative research (Test 2: English Language Proficiency and Metaphor Understanding Test), and subjects were divided into three categories. The first category is English major junior students, the second category is non-English major freshmen, the third category is English native language students. This paper deems that the third category of subjects as the control group, and the first and second categories of students ' comparison of metaphor understanding. It concludes that the learner's English language level affects his metaphor comprehension ability, and interacts with the metaphor type: the metaphor type affects the understanding of the English learner. When the metaphor form and concept are the same between English and Chinese, the metaphor is the easiest to understand. The proportion of positive transfer of Chinese cultural knowledge is the highest, but metaphors with the same form and different concepts are the most difficult to understand, and the proportion of negative transfer of Chinese cultural knowledge is the highest. The data show that the metaphor understanding ability of high-level learners is significantly higher than that of low-level learners. This may indicate that the level of intermediary and weighting depends not only on the level of the foreign language, but also on the characteristics of the words and concepts being tested. But in the paper, the questionnaire has an imbalance between male and female subjects, whether there is speech between men and women. Understanding the difference is an issue to be explored, and in this research, some important issue will be solved.

2.2 Relevant studies abroad

In "The Acquisition of Metaphorical Expressions by Jordanian EFL Learners: A Cognitive Approach", Aseel Z. and Jihad H. (2017) explored the comprehension and expression of metaphors by EFL learners in Jordanian universities, and whether the native language (JSA) has a metaphorical transfer to the second language. The metaphor content is divided into 6 categories for testing according to types. Based on this test model, the author crosses multiple choice tests to assess the subjects' cognition of metaphor expressions, and designs related tests to measure the subjects ' English proficiency and the ability of metaphorical

expression. This study can help EFL learners master the metaphorical expression in English.

Processing of idioms by L2 learners of English by Cooper (1999). This study investigated the processing strategies on-line made by a set of nonnative English subjects who were asked to answer the meanings of idioms they shown in a specific context. The research data were selected by the think-aloud way. Meanwhile, the subjects were allowed to express their thoughts procedure in the same time of answering the idioms paper. Finally the analysis from the research revealed that most of the subjects engaged in a literal understanding approach to comprehend the basic idiom, adopting kinds of strategies through trial-and-error to understand the meanings of the idioms wants to express. Idioms from L1 acquisition did not apply well to the comprehension of idioms by the L2 learners. Some practical suggestions derived from the findings are also included in this paper.

EFL Students, Difficulties in Metaphor Comprehension: A Case from Korean College Students by Kim Y. J. (2017) said: Metaphors are usually considered as “Cultural Dependent ” and it may cause more difficulties for learners, especially who from different country, cultural backgrounds. They need to share knowledge to fully understand them. Based on this hypothesis point, this research aims to study the learners use to explain L2 metaphors and the struggle of Korean college students in L2 comprehension. Through qualitative analysis, this research attempts to determine what makes it easy or difficult for subjects to comprehend metaphors. After finishing the questionnaire and reading task, subjects were asked how they responded to the reading task, and then conducted a post-reading interview. The research results show that in order to infer the meaning of metaphors, Korean college students have studied syntactic structure, metaphoric images, literal translation and grammatical structure. In addition, culture and background are factors that affect the relative difficulty of the participants in understanding the metaphors in the reading task. Vocabulary knowledge also appears as another important factor that affects comprehension. It serves as both a reminder and a hindrance when subjects explain metaphors. In the teaching level, teachers are strongly recommended to focus on metaphors that are easy to imagine. Then, you can use complementary memory-assisting materials or teaching methods.

Gender and Developmental Aspects of Metaphor and Metonymy Comprehension Processes from Petra Zelenayová(2018), it acclaimed that it is consistent with the theoretical findings, to confirm that the metaphor and metonymy understanding in the sample of Slovak children has changed, and to track gender as an excellent place. Using tools constructed by the author composed of 8 metaphors and 8 metonymies, the understanding of metaphors and metonymy was measured. Interviewees were provided with multiple choice options to choose the correct metaphor or metonymy. The sample included 120 elementary school students from the Košice region. For the purpose of age assessment, two age groups were created based on the primary school grade, namely the fourth grade (9-10 years old) and the eighth grade (13-14 years old). This research results show that both metaphor understanding and metonymy understanding change significantly with age. In the given tasks, the scores of the eighth graders are significantly better than those of the fourth graders. It also found that there are statistically significant differences between genders. In terms of metaphor understanding and metonymy understanding, girls score significantly higher than boys. The understanding of metaphor and metonymy has made significant progress in time, which is presumably consistent with the development of other cognitive processes. Gender differences can be explained in part by the advantages of women in the speech process claimed by some studies. We see that the limitation of our research lies in capturing a relatively narrow age range. Because only a few researchers have solved this problem, our research aims to contribute to the knowledge of figurative language development. The prospect of future research is to explore the given themes at various stages of development in order to gain a complex understanding of the development of metaphors and metonymy in the Slovak population, and to better explain gender differences.

2.3 Limitations of previous relevant studies

In the above literature review, we can find that native speakers tend to understand metaphors automatically and unconsciously. The theory of metaphor judgement and comprehension ability cannot be directly applied to foreign language learners. The judgement and comprehension ability of foreign language learners is analytical. Some scholars believe that EFL may not be able to directly understand metaphors. The literal meaning is very important for EFL and will be processed first using this method. If they are confused by the original context, learners will always use strategies to infer the

meaning of the metaphor. The results of this study enrich and supplement this view. We found that for subjects with lower English proficiency, the literal meaning must first be translated, which is the basis for them to further infer the metaphorical meaning.

Also in the previous studies, the issue of whether English proficiency has a significant impact on the ability to understand metaphors has not yet reached the same conclusion. The results of this study support the views of some scholars. The conclusion of this study is that English proficiency will significantly affect the ability to understand metaphors. The reason lies in the definition of English proficiency. This article believes that English proficiency includes not only pure language knowledge, but also concepts and cultural knowledge of the target language. Therefore, the advanced English learners in this study were selected from those who not only performed better in the written test, but also studied in English-speaking countries for more than two years. This breaks the convention that the tool for testing English proficiency is limited to one test. The methodological implications can be drawn from the above findings, that is, the methodological tools used to distinguish between advanced learners and low-level learners need to be more comprehensive, rather than single and absolute.

3. Research Methodology

3.1 Research questions

The research will answer the three questions as follow:

RQ1: What is the current status of metaphor judgement and comprehension ability of senior English majors in domestic universities?

RQ2: How does metaphor judgement and comprehension ability relate to their own English proficiency?

RQ3: Does gender have a significant impact on learners ' ability to understand metaphors? What is the relationship between the two?

3.2 Subjects (Participants)

In order to control the rationality of the questionnaire data, the subjects contained in this study were senior English major students from Project 985 University (Northeastern University), Project 211 University (Chang'an University), Language-featured University

(Guangdong University of Foreign Studies), and Normal colleges (Yunnan Normal University), and Basic public university (Ningxia Institute of Science and Technology). There are 5 universities in total. From the geographical location, these subjects from different universities basically cover the domestic, basically drawn the different English proficiency and metaphor judgement and comprehension ability of students in each region randomly.

About the English proficiency, these participants of the five universities are rated qualified, and the qualified standard is to pass the TEM-4 (score ≥ 60 points, it aims to satisfy the requirement of students' integrated ability of using various basic skills and their mastery of English knowledge such as pronunciation, vocabulary, grammar, and discourse), this part ensures that the subjects are qualified in English at the same time they are tested for effective metaphor judgement and comprehension test data.

About the gender-selecting, due to the large gap in the foreign language school, as we can see 7 for female per 1 male, this study selected 10 subjects (5 males and 5 females) from each of the five universities, for a total of 50 subjects (25 males and 25 females). The subjects selected are all physically and mentally healthy and have not participated in professional metaphor-related training.

3.3 Instruments

3.3.1 Questionnaire

3.3.1.1 Questionnaire design

The questionnaire includes two parts. The first part is subjects' basic information, such as name, gender, TEM-4 scores and so on, and the second part is Metaphor Judgement and Comprehension Test. The former is used to measure their English proficiency, and the latter is used to test the metaphoric ability of subjects.

In MCT, it consists of 30 sentences containing three kinds of English metaphors and designed to test the subject's ability to find and judge metaphors. We ask the participants to finish the MCT within 60 mins, and retrieve the questionnaire by wjx. Then, based on the results, we select two high-score participants and two low-score participants for interviews, including 1 male and 1 female in the same group. Interview topics are all around about the questions involved in the questionnaire, it aims to understand the participant's metaphor judgement and comprehension.

3.3.1.2 Metaphor corpus selecting

The test corpus all come from Xu's, but the test model takes example by Xu and Jeanette Littlemore (2001). Because the questionnaire was designed by Xu's (2013) Metaphor Comprehension by Chinese Learners of English. Without replacing the target corpus, we use other example sentences in the official metaphor dictionary and complete the quantitative data collection. The reliability and validity of the questionnaire were basically the same as the original questionnaire.

The corpus is collected from dictionary as follows: (1) *Collins COBUILD Metaphor*, by Alice Deignan. Beijing: Foreign Languages Press; Hong Kong: The Commercial Press, 2001; (2) *A Comparative Dictionary of English-Chinese Conceptual Metaphor Usage*, by Su Lichang. Tianjin: Nankai University Press, 2009; (3) *Idioms Organiser---Organised by Metaphor, Topic and Key Word*. Jon Wright. I England: Language Teaching Publications, 2000. Also, we have divided the types of metaphors in MCT: (1) Same form and same concept. For example: "pour cold water on" has the same meaning as "pour cold water on" in Chinese, and the metaphorical concept in English is also the same, both means "not encourage"; (2) The form is the same, but the concept is different. For example: "pull my leg" in English means "make fun and joke", while in Chinese it means "pull the legs"; (3) The form is different, but the concept is the same. For example, "in the bag" is similar to the Chinese meaning of "successful victory". It means success is expected, but the literal translation of the two is different.

3.3.2 TEM-4 score

For participants' English proficiency, we collect their Test for English Major band 4 (TEM-4) score, at the same time, dividing them according to the level of Pass (60-69), Merit (70-79), Distinction (≥ 80). This research uses the scores of TEM-4, compared with the IELTS, TOEFL and CET-4 and CET-6, TEM-4 can be used for reference which has an extensive reference, a wide audience, and carry much conviction.

3.3.3 Interview

In order to get more details about the metaphor ability and the relevance of its English proficiency, we will conduct a second test—interviews, on the two high group and two low groups in the test, covering both the high group and the low group in TEM-4. The question

of the interview appears semi-open questions. The questions will be around: “*You’re understanding and views on the metaphor test and why you have such an understanding of this metaphor.*” The interview will be recorded throughout the interview process. After the interview, the record will be transcribed in the form of text for experimental analysis.

3.4 Data collection and analysis

We designed the questionnaire in wjx app. Because the data collecting process is convenient, and the test we designed is judgement and comprehension related, that means the first step all of the subjects should recognize the metaphor and then they explain the metaphor’s meaning. With the help of *wenjuanxing* app, we can design a pop-up interface in order to achieve subjects ’judgement and comprehension.

In the meantime, SPSS 26.0 is used to analyze data. To find out whether the two groups with different English proficiency show a significant difference in metaphor comprehension competence, Pearson Correlation is employed. Afterwards, Regression Model to analysis whether gender with different English proficiency will cause different metaphor comprehension. Also, we combined with the interview and the data. English proficiency is treated as the between-subject variable and the strategy type as the within-subject variable.

4. Results and discussion

4.1 Results and discussion English proficiency and metaphor judgement and comprehension ability

Scatter Plot / Metaphor Score (with English Proficiency in Project 985 University)

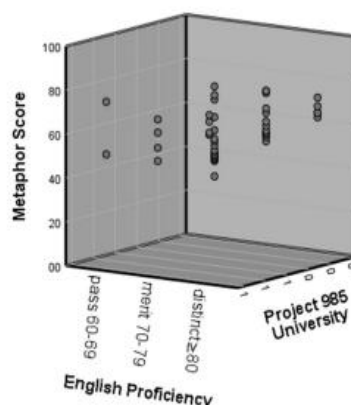


Figure 1.1 Scatter plot of metaphor score and English proficiency in Project 985 University

Scatter Plot / Metaphor Score (with English Proficiency in Project 211 University)

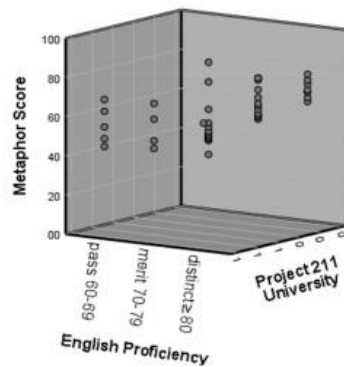


Figure 1.2 Scatter plot of metaphor score and English proficiency in Project 211 University

Scatter Plot / Metaphor Score (with English Proficiency in Language-Featured University)

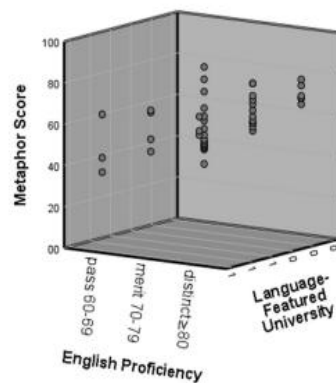


Figure 1.3 Scatter plot of metaphor score and English proficiency in Language-Featured University

Scatter Plot / Metaphor Score (with English Proficiency in Normal and Basic Public University)

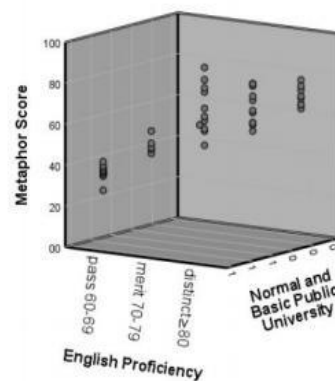


Figure 1.4 Scatter plot of metaphor score and English proficiency in Basic Public University

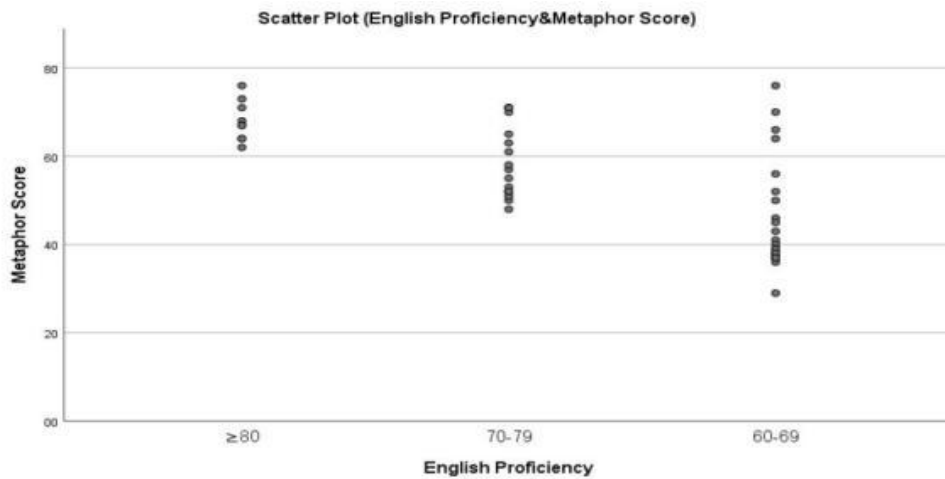


Figure 1.5 Scatter plot of different English proficiency

We move on to the first two research questions: “*What about the metaphor judgement and comprehension ability of senior English majors?*” and “*What is the correlation with their own English proficiency?*” We want to find out whether the two figures will appear different in both English proficiency and metaphor judgement and comprehension ability, we adopt the mean value of the five kinds of universities and different gender, also using Pearson Correlation method from SPSS which was employed in the test. The result is shown above in Figure 1.1, Figure 1.2, Figure 1.3, Figure 1.4 and Figure 1.5.

Table 1.1 Descriptive statistics of English proficiency and metaphor score

Descriptive Statistics			
	Mean	Std. Deviation	N
English proficiency	1.70	.763	50
Metaphor score	54.08	13.266	50

Table 1.2 Pearson Correlation of English proficiency and metaphor score

Correlations			
		English proficiency	Metaphor score
English proficiency	Pearson Correlation	1	.668**
	Sig. (2-tailed)		.000
	N	50	50
Metaphor score	Pearson Correlation	.668**	1
	Sig. (2-tailed)	.000	
	N	50	50

** . Correlation is significant at the 0.01 level (2-tailed).

We can see the data in Table 1.1 and Table 1.2 detail information of the subjects, the average score of all universities students' metaphor judgement and comprehension ability score is 54.08 (the total score is 90). Due to the different level of universities, the differences in the results reflected by the subjects are also different. The mean value of subject in Project 985 University, Project 211 University, Language-featured university and Normal colleges and Basic-public university are 65.8, 58.4, 59.5, and 43.35 respectively. It is not difficult to see that the performance of students in Project 985 university in metaphor judgement and comprehension ability is better than that of students in any other universities. From this side, $P < 0.05$, Pearson Correlation is 0.668, which also can be indicated that English proficiency and metaphor judgement and comprehension ability are strongly correlated and conform to a normal distribution.

4.2 Results and discussion of interview

We have selected four subjects, two groups of high and low scores, respectively 1 male and 1 female in the two groups, to attend the questionnaire interview. Here are the details about the subjects in the following Table 2.1

Table 2.1 Detail information of the subjects

Name	English proficiency	Metaphor score
Subject 1 Wang	High	High
Subject 2 Zhang	High	Low
Subject 3 Wen	Low	High
Subject 4 Li	Low	Low

There are three questions in the interview, similar to the classification of metaphors. Two metaphor phrases of the same classification are chose in the interview. The first question is about “How do you understand ‘lost heart’ and ‘playing with fire’ in the metaphor questionnaire?” Subject 1 Wang from the high English proficiency group said: *This is very simple for us to understand. First of all, when I saw it, I knew that rhetoric device was used here. Whether it is expressed in English or Chinese, the literal translation of the two language has similar meaning, and the meaning of the two phrases which want to convey to us is “bad mood; upset” and “do dangerous things” respectively.* Subject 2 Zhang of the same group said: *These two expressions are little differences between English and*

Chinese, they are very vivid. we can understand “lost heart” literally, isn’t it just want to express that something makes me sad, right? And the second phrase “play with fire”, this phrase is much more vivid and easy to understand. When we were little child, our parents always taught us not to play with fire. It is very dangerous and you will get burnt. Naturally, “play with fire ” means to do dangerous thing. Comparing the answers of high English proficiency group, the low English proficiency group Subject 3 Wen and Subject 4 Li answered like this: *To be honest, I am very familiar with both two expressions. We can also get the answer if we translate them directly. When I see these two sentences, two vivid scenes seem to come into my eyes. They are not difficult for us to understand.*

The second question is “How do you understand ‘pigheaded’ and ‘move heaven and earth’ in the metaphor questionnaire and which metaphor strategies you used to analysis this metaphor phrase.” When analyzing these two sets of metaphors, Subject 1 Wang and Subject 2 Zhang used literal translation and other methods to understand these two metaphor phrase. Wang and Zhang said that *when I saw the phrase “pigheaded”, it immediately showed a picture in my mind, a pig-like head, and when I analyzed the context, I naturally thought this phrase use to describe people or things is stupid (or behave stupidly), which is not much different from our Chinese expression. Also it is very vivid in both Chinese and English cultures. In addition, let us imagine such a picture: “A little pig, who has no worries, just eating and sleeping.” I am not sure about the second metaphor phrase: “move heaven and earth”. First of all, we may not have learned all metaphors, so in some cases we have to use literal translation, Chinese and English background information, syntactic analysis, etc. To analyze the metaphor problems we need to solve. When I saw this metaphor, I was also puzzled by what this metaphor meant to express. Moving from heaven to earth, does it mean moving from dream to reality? I am confused about this. I checked the dictionary and I realized that this metaphor was trying to express “make a lot of effort ”. Compared with the two subjects from the high English proficiency group, the answers of the two subjects from low English proficiency group were different; the first was Subject 3 Wen said that *he has seen similar expressions in foreign journals, especially the expression “move heaven and earth ”. It is actually very simple to explain in Chinese. From the perspective of Chinese understanding, it is difficult and incredible to go from the earth to the heaven, vice versa. The literal translation of pigheaded can almost guess that the answer is someone stupid, and they have similar**

expressions. Finally, Subject 4 Li said that *he was not very familiar with the second expression. After referring to the dictionary, I realized that I wanted to express that it was difficult to do something.*

The last question is *“Which part of the 30 questions do you think is the most difficult to answer, or more difficult to understand?”* Whether high English proficiency group and low English proficiency group, compared with other parts, the problem of this interval is not well understood. After I interviewed them this question, I distributed the answers to the test papers and told them about their test conditions. Ask them to refer to the answers, and then ask you what is the most incomprehensible part of the whole paper? Subject 1 Wang and Subject 2 Zhang, from the high English proficiency group. Subject 1 Wang said *The company had promised to cap its increases for the next two years to 2 million below the maximum. I not understand what it meant. “Cap” is a metaphor. It means to set an upper limit. If it means to set an upper limit.* Subject 2 Zhang mentioned *“beat around the brush”*, and he understood it as the Chinese word *“beat around the brush”*, thinking that beating the bushes is to draw the snake out of the hole. However, the original meaning of this sentence is to go in circles, *“Beat around the brush”* is a metaphor. It means to avoid speaking directly about the unpleasant side of the thing or in order not to upset the other people.

From the overall interview, the performance of the two groups was generally similar. But there are still some differences in performance between the high and low English proficiency groups in the metaphor test, the analysis methods they used to deal with the metaphors are roughly the same: literal translation, Chinese and English culture background, syntactic analysis or daily learning, etc. However, for analyzing the two groups, there are still differences in the process, and the high English proficiency group prefers to use their language and cultural background and syntactic analysis.

The subjects in the high English proficiency group mentioned: *When I saw these two metaphors, the picture represented by the metaphor was immediately brought into my mind, because some metaphors have already adhered to the rules and been regulated into our daily expressions.* This phenomenon is actually related to the subjects' English proficiency. High English proficiency subjects have learned a lot of English cultural background knowledge in the four years of English major learning. In the daily teaching of

the university, the training program of the college also requires teachers not only to cultivate students' English language ability, but also strengthen students' cross-cultural training to achieve cultural-immersion teaching, which has a positive impact on the improvement of English proficiency and metaphor ability.

On the other hand, the difference between the two groups is still very large. We are observing the metaphor test, it is found that the performance of the first two parts in the high English proficiency group and the low English proficiency group is equal, but there is a gap in the performance of the third part. The related reasons are analyzed for the following reasons: First, in terms of English proficiency, we selected subjects basically reached the professional level of English, that is, passed TEM-4, but for English proficiency, in the Project 985 University, the subjects of the outstanding level (distinction) accounted for 40% of the total project 985 University subjects; compared with ordinary colleges and universities, more than 35 percentage points (distinction level subjects in normal colleges and universities accounted for 5% of the total subjects), this set of data can show that English proficiency has a positive impact on metaphor understanding. Secondly, due to the limitation of English proficiency, the subjects adopt different strategies to analyze and process metaphors with different results. For example, in the interviews involving "lost heart " and "playing with fire " and "pigheaded " and "move heaven and earth ", the performance of high grouping and low grouping in the two metaphors is roughly the same. The first group of metaphors has equivalent meanings in Chinese and English translations, which is what we call literal translation. The second group of metaphors overlaps in Chinese and English expressions, but they are similar in form. For example, we often say "deep water ", and the equivalent meaning in Chinese is also in deep water. Both have the same metaphorical meaning.

4.3 Results and discussion of gender differences in English proficiency and metaphor judgement and comprehension ability

First, we can see the descriptive statistical analysis of the metaphorical ability of the male and female groups. It can be seen from the above Table 3.1 to Table 3.7 that both male and female students have a low level of metaphoric ability development, and the level of ability to recognize, interpret and produce metaphors is relatively unbalanced. The two groups of subjects had better metaphor judgement ability, but showed great deficiencies in

interpreting metaphors. Females have better metaphor judgement ability, followed by metaphor production ability, while metaphor explanation ability is relatively weak. In addition, the female group has relatively small internal differences in metaphor judgement and interpretation capabilities, while the internal differences in metaphor output are more significant. The metaphor judgement ability of the boys' group is equivalent to that of the girls group, but the internal difference is relatively significant. In addition, the metaphorical interpretation and productivity scores of the boys' group are lower than those of the girls group, but the internal difference between the two scores is relatively small.

Table 3.1 Classification of the subjects and log likelihood and R square

Classification Table^{a,b}

	Observed	Predicted		Percentage Correct	
		Gender			
		Male	Female		
Step 0	Gender	Male	23	0	.0
		Female	0	27	100.0
	Overall Percentage				54.0

a. Constant is included in the model.

b. The cut value is .500

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	67.025 ^a	.039	.052

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Table 3.2 Variables in the equation of English proficiency and metaphor score

Variables in the Equation						
		B	S.E.	Wald	df	Sig.
Step 1 ^a	English Proficiency	.719	.533	1.819	1	.177
	Metaphor Score	-.023	.030	.577	1	.447
	Constant	.175	1.232	.020	1	.887

a. Variable(s) entered on step 1: English Proficiency, Metaphor Score.

Table 3.3 Case processing summary of the subjects (cross gender with two variables)

Case Processing Summary						
Cases						
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
English Proficiency * gender	50	100.0%	0	0.0%	50	100.0%
metaphor score * gender	50	100.0%	0	0.0%	50	100.0%

Table 3.4 Total data English proficiency (cross metaphor score)

English Proficiency * Gender					
			Gender		Total
			Male	Female	
English proficiency	pass(60-69)	Sum	13	11	24
		Percentage in English Proficiency	54.2%	45.8%	100.0%
merit(70-79)	Sum		7	10	17
		Percentage in English Proficiency	41.2%	58.8%	100.0%
distinction(≥80)	Sum		3	6	9
		Percentage in English Proficiency	33.3%	66.7%	100.0%
Total	Sum		23	27	50
		Percentage in English Proficiency	46.0%	54.0%	100.0%

Table 3.5 Gender behavior of the subjects in Mean, N, Std.Deviation, Max, Min

Report			
gender		English proficiency	metaphor score
male	Mean	1.57	53.65
	N	23	23
	Std. Deviation	.728	12.737
	Minimum	pass(60-69)	36
	Maximum	distinction(≥80)	76
female	Mean	1.81	54.44
	N	27	27
	Std. Deviation	.786	13.932
	Minimum	pass(60-69)	29
	Maximum	distinction(≥80)	76
Total	Mean	1.70	54.08
	N	50	50
	Std. Deviation	.763	13.266
	Minimum	pass(60-69)	29
	Maximum	distinction(≥80)	76

5.1 Major findings

This study paper focuses on metaphor judgement and comprehension ability, which is one of the hot topics in linguistics. We use metaphor tests and interviews to explore metaphor judgement and comprehension ability, English proficiency, and gender differences through a combination of quantitative and qualitative analysis. The following are the major findings of this research: First, the metaphor judgement and comprehension ability of senior English majors is acceptable, half of the students basically reach the English major requirements, and have outstanding abilities in listening, speaking, reading, and writing. Second, English proficiency does have a positive impact on metaphor judgement and comprehension ability. In the experiment, subjects with high English proficiency scored higher than subjects with low English proficiency, and subjects with high English proficiency used more analysis strategies when dealing with metaphors than subjects with low English proficiency. Third, gender differences. First, we can see the descriptive statistical analysis of the metaphorical ability of the male and female groups. It can be seen from the above Table 1, Table 2 and Table 3 that both male and female students have a low level of metaphoric ability development, and the level of ability to recognize, interpret and produce metaphors is relatively unbalanced. The two groups of subjects had better metaphor judgement ability, but showed great deficiencies in interpreting metaphors. Females have better metaphor judgement ability, followed by metaphor production ability,

while metaphor explanation ability is relatively weak. In addition, the female group has relatively small internal differences in metaphor judgement and interpretation capabilities, while the internal differences in metaphor output are more significant. The metaphor judgement ability of the boys group is equivalent to that of the girls group, but the internal difference is relatively significant. In addition, the metaphorical interpretation and productivity scores of the boys group are lower than those of the girls group, but the internal difference between the two scores is relatively small.

5.2 Limitations of the research

The first is that the sample size is not large enough. Due to the large gender gap in the School of Foreign Languages, when we collect data, it is difficult to collect the same sum of male subjects and female subjects. Affected by such force majeure factors, it is hard to maintain a balance between male and female subjects in number. Therefore, the sample size of this study only involved 10 subjects (5 males and 5 females) from five different universities, and the second one is number of questionnaires. We use online platform to require them complete the corresponding 30 test questions. Compared with the offline form, online data collection and post-data analysis are convenient, but the subjects may be affected by the test question data, it will cause slight differences between the actual result and the real results feedback in the test, and the effect may not be as good as the offline test. In this circumstance, the data we collected are not much more natural and revealing than offline. The last is the effectiveness of the English proficiency, that is, TEM-4. Hit by the COVID-19 pandemic impact, exams for English majors have been postponed and cancelled, so we did not use TEM-8 score. This has a greater impact on our experimental data collection. However, what we can sure is that, after two years of study, the subjects' English proficiency will be higher than TEM-4.

5.3 Recommendations for future research

In future research, in data collection, we should adopt such as think aloud or speech transcoding to achieve more accurate research data, to record the subjects' thinking process and their thinking process in detail. In addition, in this survey, different types of metaphors may interact with English proficiency on the ability to understand metaphors. This is also an area worth exploring in linguistics.

This study brought us a lot of ideas. English major students not only need to enlarge their own knowledge and cultural attainment, our teachers should learn to teach English culture and conceptual knowledge in the classroom.

As discussed above, due to the lack of cultural and conceptual knowledge behind certain metaphor expressions, for low English proficiency students, what they recognize is the literal meaning, and they can't understand the real meaning behind the metaphor. Likewise, some conventional metaphors are strange to them. In this case, they have to resort to Chinese knowledge, literal translation and mental image strategies. So in our daily teaching, teachers can't only enrich students' English proficiency, but also consciously expound the cultural and conceptual knowledge behind the forms, then they must improve their ability to understand metaphor.

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