### The Relationship Between Language and Thinking from the Perspective of Conceptual Metaphor

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Abstract: There has been a heated debate between the view that language determines thought and the view that thought determines language. An important point of discussion on this issue is that relating to metaphor. Metaphor is a universal phenomenon, not only as a linguistic and rhetorical device but also as a cognitive tool for human beings. While Chinese metaphors are usually short and concise, often conveying meaning in a single word, metaphors in English are usually complex sentences that require the reader to establish a larger context in order to understand them. But they also share many of the same or similar metaphors. English and Chinese, as two languages developed in different cultural contexts, both adopt similar concepts in expressing temperature and use the concept of temperature metaphor to express similar content. The article aims to examine the similarities and differences between the English and Chinese concepts of temperature and to give examples of the similarities and differences between English and Chinese temperature to argue its point. The article also compares the conceptual domain of temperature in English and Chinese and finds that ways of thinking that come from the same bodily experience create similar linguistic expressions, ultimately concluding that thinking significantly influenced language.

**Keywords:** temperature, metaphor, Chinese, English

#### 1. Introduction

For a long time, the relationship between language and thinking has been concerned by the academic circles. Some scholars, such as Qi Rongjun, Wu Tielin and Wang Jingwen, believe that thinking precedes language. Among them, Wu Tielin took that children can distinguish objects before learning language as an example, pointing out that thinking precedes language development and demonstrating his views [1]. Qi Rongjun took the idea of pictures only need image thinking without language as an example, and pointed out that people choose to express thinking in language in order to communicate, so thinking precedes language [2]. Wang Jingwen discusses the origin of thinking and language, stating that thinking precedes language and can exist independently of language [3]. Others argue that language precedes thinking. For example, Cai Chunchi and Wang Dan believe that Asian children perform better in mathematics than Western children because the part of the language structure that handles mathematics is closer to the arithmetic application rule [4]. Wei Bohui takes English speakers thinking in English and Chinese speakers thinking in Chinese as examples, pointing out that the languages of different nationalities influence different ways of thinking [5].

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Although the discussion of the relationship between language and thinking has been fruitless, metaphor provides a new research perspective. In the early 1980s, since Lakoff and Johnson published 'the metaphor we lived by', these two scholars claimed that metaphor exists widely in our lives and ideological activities, and that metaphor has gradually changed from a traditional rhetorical phenomenon to a cultural and psychological phenomenon. The conceptual metaphor holds that the conceptual system in our mind is essentially metaphorically, rooted in people's everyday language and used through other things to understand and experience another thing [6]. Since then, metaphor has not only become a figure of speech, but also a way of thinking. Metaphical thinking directly involves the key characteristics and essential attributes of metaphorical objects, to achieve the understanding and understanding of things.

The relationship between metaphor and metaphor thinking provides a new perspective for us to study the relationship between language and thinking. The differences between languages can reflect the differences in the thinking mode of language users, and gradually penetrate into the life style and behavior mode. The common physiological structure, psychological basis and cognitive ability also create a similar metaphorical expression between different languages. Taking English and Chinese as an example, English and Chinese, as two mature languages under independent cultures, adopted similar concepts in the expression of temperature, and used temperature to express similar content, reflecting the approximate conceptual metaphor system. For example, both Chinese and English use the space domain to describe the temperature domain, thinking that heat is high, cold is low. For example, when expressing the feelings of heat, there is the word 'gao wen' in Chinese, and "high temperature" in English. In addition, the metaphorical projection of temperature in Both Chinese and English is also very similar, such as using temperature to express emotion, preference and popularity, because humans have the same physical feelings under the same situation, thus creating similar metaphorical expression. In addition, the differences in temperature metaphor expression in Chinese and English are mainly reflected in social status and entertainment culture. For example, hot expression is often high social status, while cold expression is low social status, such as 'han suan (poor)', 'zhi shou ke re (influential people)', while there is no such expression in English. Besides, in English, the code expression distance is far, and the warm expression distance is close. Such as the 'get hot on the answers' means the answer is close to the right one. And 'getting colder' means the answer is wrong and far from the right one. However, there is no such expression in Chinese. These differences reflect the different cultural backgrounds and values orientation of China and Britain. In conclusion, this study will start from the conceptual metaphor and demonstrate the importance and role of thinking in language expression by comparing the similarities and differences in temperature expression between English and Chinese, and overturn the view that language determines thinking.

# 2. Comparing the Similarities and Differences between the English and Chinese Concepts of Temperature

Metaphors have long been regarded as a rhetorical device, and in 1980 the University of Chicago Press published 'Metaphors We Live By' by American cognitive linguists G.Lakoff and M.Johnson. The book analyzes the nature, generation, structure, characteristics, and types of metaphors from a cognitive perspective. It explores the cognitive nature of metaphors, analyzes the internal structure of metaphors, points out the systematic nature of metaphors and the coherent relationships between and within systems, and categorizes metaphors, and so on. Recent developments in linguistics have increasingly demonstrated the importance of this book. In contrast to the traditional view of metaphor theory, the book suggests that metaphor is not only rhetorical but also a way of thinking. As the basis for cognition, thought, experience, language, and even behavior, metaphor is the primary and fundamental way in which human beings live. However, as the two languages have developed and

matured under separate cultures, both English and Chinese adopt similar concepts in their representation of temperature.

To better represent the concept of temperature that cannot be observed between them, both English and Chinese have chosen to adopt a vertical concept of space for understanding and to construct a corresponding conceptual domain of temperature. The structural metaphor realized vertical concept and it refers to the metaphorical construction of one concept with another, the superimposition of two concepts, and the use of expressions that speak of one concept to speak of another. Structural metaphors refer to the construction of one concept from another, where the cognitive domains of the two concepts are naturally different, but their structure remains the same and there is a regular correspondence between their constituent parts, and it also expressed both as structural correspondences between related concepts and as the intrusion of characteristic words of known concepts into new concepts. This is the case with the Chinese and English metaphors for temperature [7]. This difference may cause some perceptual distinctions. For example, Chinese people who do not know how to distinguish between the two temperature units may think that 100 degrees Fahrenheit is the same concept as 100 degrees Celsius because if the temperature reaches around 100 degrees Celsius it is very frightening for the Chinese.

Firstly, the temperature units are different in China and the UK. In China, we use 'Celsius' as the unit of temperature, whereas in countries such as the UK and the USA, we use 'Fahrenheit' as the unit of temperature measurement. As an example, in the summer in China, the average temperature can reach 38 degrees Celsius. However, converting 38 degrees Celsius to Fahrenheit gives a very large number, 100 degrees Fahrenheit.

There is also a great deal of similarity between English and Chinese in terms of the metaphorical projection of temperature. In expressing emotions, Chinese has words such as 'rè aì (ardently love)' rè liè (enthusiastic)' and 'lěng kù (Callous)' beī liáng (Sorrowful)', while English has the expressions 'be warm with wine' and 'be cool to this idea'. The higher the emotion and the stronger the attitude, the higher the temperature used in the expression. This is because people's emotions become high and their body temperature rises when they are confronted with something they love. People, therefore, associate temperature with emotion, forming a metaphorical projection. 'Coldis' is a metaphor for nervousness and fear. Low temperatures can cause the body to feel cold, but people also often experience similar sensations because they are nervous or scared, so both English and Chinese often use 'cold' as a metaphor for people who are nervous or scared [8]. The Chinese would say cold as 'cì gǔ (Bone-chilling)', while the British would say 'freezing cold'; it is clear to see that the Chinese are more concerned with their bodies or feelings and their hearts, while the British are more concerned with appearances and physical states.

In terms of description, there are similar expressions in English and Chinese. For example, when people feel very anxious, they will use the word 'hot' to describe some state of affairs. In China, when people feel anxious, they feel 'huŏ jí huŏ liǎo (I am on fire) ', sometimes even to the point of 'chū hàn (sweat) '. These are derivatives of 'hot'; the British also use 'hot' when they feel anxious and at a loss, as we all know that 'hot' is also used in English as 'excited', 'active', 'anxious', and 'furious'. In addition, we all know that in countries such as the United States and the United Kingdom, people use the word 'hot' to describe girls in good shape. In this case, 'hot' does not mean that the girl is hot, but that the person who sees her is very hot. Of course, in China, we also use this word to describe girls with great bodies. In Chinese, we use the term 'huŏ là (sexy)' or 'là meì (sexy women)' to describe a girl with a beautiful body. However, these Chinese terms have only emerged in China in recent years, probably due to foreign influences. In the past, people in China often used old poems or idioms to express the good form of a woman, such as 'yáo tiáo shū nǔ (a quiet and modest maiden)' or some idioms with a deeper meaning to describe. Not only 'hot' but also 'cold' is a metaphorical approach between English and Chinese.

Also, when a person is very uncommunicative and behaves the same way about everything, there is an adjective that fits the person's personality: 'lěng kù (as cold as marble)'. In the same way, the translation of cold in English also includes the word 'cold', we called it, 'a cold attitude', both of which are used to describe a person's cold personality and unenthusiastic attitude towards things. Similar expressions can be found in both English and Chinese when expressing mental states. For example, the action of 'pō lěng shuǐ' is expressed in English as 'pouring cold water on sb'. Both expressions use the same expression metaphorically to strike others. This is because when a person who is in a warm environment is suddenly put into a cold environment, the body temperature drops rapidly and the person's mood is destroyed. Another example is the phrase 'niē lěng hàn' in Chinese and 'I broke out in a cold sweat' in English. This is because there are natural physiological reactions to fear and nervousness, such as cold sweat and shivering. These identical expressions show that English and Chinese people share a common basis of bodily experience and a corresponding metaphorical system of thinking.

A similar situation can occur in relationships. One partner in a relationship is very enthusiastic, while the other is very indifferent or ignores or even avoids his or her partner's enthusiasm. In Chinese, we call this 'lěng bào lì (cold violence) ' and in English, it is called 'cold violence'. It is obvious that both include the word 'cold'. There is cold violence and there must be hot violence. In a relationship where one partner is overly dependent on the other and does not give his or her partner some private time and space, or even stays with their partner all the time or the whole day, this is called 'rè bào lì (heat violence) ' in Chinese and is replaced by "heat violence" in English. Hot violence and cold violence are two opposite opposites, just as cold and hot are two opposite temperature levels. In addition, there are expressions in both English and Chinese that use temperature as a metaphor for popularity. For example, 'rè mén huà tí' and 'hot topic'. This metaphorical system exists in people's minds, does not change depending on the language and cultural environment, and still influences the creation of new words, such as 'hot search' and 'hot topic', which have become more popular in recent years.

The unique metaphor expression in Chinese mainly includes disease and social status [9]. As the British and Chinese people agree that the temperature is too low, so in the expression of diseases caused by cold, there is a term of 'catch a cold' in English, and there is also an expression of 'zhao liang' in Chinese. However, due to the unique traditional Chinese medicine culture in China, there are not only 'feng han', 'shou liang', but also 're zheng (fever)' to distinguish diseases caused by different causes. In addition, the expression of temperature in traditional Chinese medicine culture not only refers to diseases such as cold, but also the temperature differences of human organs, and classifies the corresponding drugs and foods, creating expressions such as 'han xing', 'wen bu' and 're xing'. In TCM theory, temperature is closely related to human diseases, so the conceptual metaphor formed is far more than the disease conceptual metaphor formed in English. In this respect, the difference between Chinese and English expression is far greater than the similarity.

In addition, temperature is also used in Chinese to express social status, treating high social status as high temperature and low social status as low temperature. Such as 'han suan (poor)', 'han men (poor student)' and 'zhi shou ke re (influential people)', 'qu yan fu shi (be a follower of the rich)' and other expression. This association comes from the actual experience of the ancient Chinese people. For the poor, houses can not completely cover the cold winter wind, and there is not enough money to buy coal for heating, so poverty means cold. In contrast, the ability to live in a warm house is a symbol of abundance, so the heat can describe a figure with a certain social influence. This is a unique conceptual metaphor in Chinese, and there is no similar expression of temperature in English.

In English, temperature is often used to express the distance, perhaps because cold colors and warm colors can bring different psychological distance to the viewers. Cold indicates distance, warm means near. For example, there is an expression of 'You are getting hot to the answers' in English,

which means that the other party's answer is very close to the correct answer. Or 'The police followed the robbers to the airport but then the trail went cold', which uses cold expression far from the target. This is a unique metaphor for temperature in English.

English people also use cold to express their loss of consciousness, because when people are extremely cold, they will be harden until their loss of consciousness. Such as the 'He was knocked out cold in the second round.' However, in Chinese, though sharing similar physical sensations, other physical reactions are often used to express similar states, without creating the corresponding temperature metaphor.

In addition, the English language will also use 'cold' to express a blunt and frank attitude. This metaphor often presents temperature words not alone, but in the form of 'cold turkey'. The metaphor stems from a drug treatment called 'cold Turkey therapy,' which quickly stops drugs and lets their withdrawal reactions develop. When the withdrawal reaction appeared, the patient was cold and the skin was like a Turkey skin [10]. The direct and rigid characteristics of this treatment have been used as metaphorical expressions, such as 'I am going to talk cold turkey with booksellers about the hot gravy in the stories.'

In short, although metaphors are mostly derived from similar physical experiences, special cultural backgrounds also affect metaphors to a certain extent, such as disease metaphor in Chinese and cold turkey in English. The unique expression of temperature in both Chinese and English reflects the different cultural backgrounds and social value orientation. In terms of the expression of the same physical feelings, such as the special expression of diseases in Chinese and the expression of unconsciousness in English, different nationalities may have different priorities, thus creating different metaphorical expressions.

#### 3. Conclusions

Metaphor is not only a figure of speech, but also a way of thinking about the world. The unique relationship between metaphor and metaphorical thinking provides a new perspective on the relationship between language and thinking. This paper from the perspective of concept metaphor, comparison analyzes the English-Chinese temperature concept metaphor differences and similarities, noticed that two language differences mostly from the special cultural background, such as the unique culture of traditional Chinese medicine temperature metaphor, and the expression of 'cold turkey', a few comes from different aspects of the same body feeling concern. The similarity between the two languages comes from the common body feelings, such as the natural reaction of the human body in the cold environment, the human body's attitude towards the heat source, and the behavior of spontaneously moving closer to the heat source. This common way of thinking stems from similar personal experiences, which in turn produces an approximate perception of the world. At the same time, people also look back at their own thinking through the role of the external world and the body, and constantly reconstruct the existing experience according to the social and cultural environment, so there are differences in expression. To sum up, although language decision thinking and thinking decision language has been fierce confrontation between the two ideas, but from the point of view of metaphor, whether the existing metaphor or new metaphor expression in recent years, both in Chinese metaphor or metaphor in English, is a common human body experience created a similar way of thinking, thus create the approximate language expression. This shows that thinking determines language, thus negating the judgment that language determines thinking.

Of course, due to the limited author's ability and time, the author cannot further explore the thinking of metaphor and metaphor, and there is still a great space for research. Future research could also focus on the metaphorical contrast of odor, body feeling, and space and other aspects between different languages.

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