



Factors That Account for the Formation of Prototype From the Perspective of Sociolinguistics

HAO Yu^{[a],*}; CHI Ren^[a]

^[a]Changchun University of Science and Technology, Changchun, China.

* Corresponding author.

Received 7 September 2013; accepted 2 December 2013

Abstract

The study of prototype has been an interesting subject for the scholars in psycholinguistics. But some sociolinguistic scholars also advocated that the study of prototype theory can not be separated from the perspective of sociolinguistics, for the prototype affects the way people talk in different situations and the social differences play an significant role in the formation of prototype. These social factors are the deep social structure that ultimately influences our linguistic behaviors. Using the theories related to categorization to analyze the these social differences, we can find out the reasons for the differences, which mainly contain culture, living environment, scientific development, living experience and age.

Key words: Prototype; Category; Social factors

HAO Yu, CHI Ren (2013). Factors That Account for the Formation of Prototype From the Perspective of Sociolinguistics. *Studies in Literature and Language*, 7(3), 90-93. Available from: <http://www.cscanada.net/index.php/sll/article/view/j.sll.1923156320130703.H673> DOI: <http://dx.doi.org/10.3968/j.sll.1923156320130703.H673>

INTRODUCTION

As sociolinguistic researchers, we should be prepared to probe into various aspects of the possible relationships between language and society. It will be quite obviously from doing so that correlational studies must form a important part of sociolinguistic work. Gumperz (1971, p.223) has viewed that sociolinguistics is an attempt to find correlations between social existence and linguistic forms and to study any changes that occur. However, as Gumperz had indicated, these correlational studies

do not exhaust sociolinguistic studies nor do they always proves to be as enlightening as one might hope. According to Ronald (2008, p.10), a correlation shows only a relationship between two variables; it does not show ultimate causation. To find that X and Y are related is not necessarily to discover that X causes Y, for it is also quite possible that some third factor, Z, may cause both X and Y. This paper shows the corelations in the same way, prototype theory may affects the way people use language, the social factors influence the formation of prototype, it is also possible that the social factors determines both the prototype and the use of language. This paper intends to probe in to the deep social structures that determines the formation of prototype and the way of using language.

1. PROTOTYPE THEORY

There are so many different things in the boundless universe and they have different characteristics. But how do human beings distinguish and perceive them, it is a topic which is relevant to the issue of categorization. People can take the features of these objective things as the start point, then analyze it further and classify them, later, they will get the perceptual knowledge of these things, this process is called categorization. Concepts are based on this process, so does the languages make sense of themselves. The most important theory of categorization is the Prototype Theory was proposed by Rosch (1978, pp.83-103), which is an alternative to the former view that concepts come from sets of clear-cut features which necessarily and sufficiently shared by all the members within the category. She suggests that some category members are learned as as a kind of prototype. By the prototype of a category, she means the clear examples of a category which has the goodness and typicality as the representative judged by people. To confirm this, Rosch and Mervis (1975) did research and concluded that the meaning of a word could be

represented by a prototype, and other instances within a category can be categorized according to their similarity to the ideal example. For example, the word “bird” is not best represented by a set of features like wings, feathers or flying characteristics, but by the best examples, so the prototype in category of bird is something more like robin rather than penguin or ostrich.

2. RELATIONSHIPS BETWEEN PROTOTYPE THEORY AND SOCIOLINGUISTICS

At first glance, prototype theory is a term in cognitive linguistics, it has nothing to do with sociolinguistics. But indeed, according to Ronald (2008) if we look back at the history of linguistics, it is rare to find investigations of any language which are entirely cut off from current investigations of the history of that language, or its regional and social distributions, or its relationship to objects, ideas, events, and actual speakers and listeners in the “real” world. Prototypes in prototype theory are also formed differently for some social reasons, such as culture, living environment, scientific development, living experience and age.

As it is well-known, sociolinguistics is concerned with investigating the relationships between language and society with the goal being a better understanding of the structure of language and how language function in communication. And also Coulmas (1997, p.2) says that, micro-sociolinguistics investigate how social structure influences the way people talk and how language varieties and patterns of use correlate with social attributes such as class, sex, and age. Macro-sociolinguistics, on the other hand, studies what societies do with their languages, that is, attitudes and attachments that account for the functional distribution of speech forms in society, language shift, maintenance, and replacement, the delimitation and interaction of speech communities. That is to say, sociolinguistics involves the study of what influences the way people talk. People who have different social backgrounds may talk differently. And for the reason people who have different social background may have different view of prototype, so they may also talk differently. Hudson (1996, pp.75-78) confirmed this opinion, he believes that prototype theory has much to offer sociolinguists. It leads to an simple interpretation of how people learn to use language, especially linguistic concepts, from the kind of instance we come across. He explains that:

A prototype-based concept can be learned on the basis of a very small number of instances—perhaps a single one—and without any kind of formal definition, whereas a feature-based definition would be very much harder to learn since a much larger number of non-cases, would be needed before the learner could work out which features were necessary and which were not (Hudson, 1996, pp.75-78).

Exactly speaking, this point of view offers a more flexible way to understand how people actually use language. In this usage some concepts are not so clear as the definition says, but this very indeterminate prototype allows speakers to use language differently. Moreover, prototype theory can even be used to social situations where conversations happens. When we hear a linguistic item, we usually associate it with what is the typical situation it should be used or who typically use it. And we only need a few instance or even a single linguistic item to be able to be correctly communicated. If we used the atypical one, we will feel uncomfortable when we know the typical item later. So prototype theory not only gives us enlightenment about how concepts and categorization are formed in the cognitive linguistic level, but also determines how we achieve our social competence in the actual use of language in social linguistic level. All in all, the relationships between prototype theory and social linguistic is: the social conditions determines the formation of prototype, and the prototype influences how we talk in different situations.

3. THE SOCIAL FACTORS THAT INFLUENCES THE FORMATION OF PROTOTYPE

Ever since Rosch put forward the prototype theory, much research has been conducted to determine the typicality of category instances. However, there is little research done to try to find out the factors that may account for the formation of prototypes. The following is concerned with this particular problem in the field of prototype theory, i.e., what factors may have an influence on prototype formation. Do the culture differences play a role here? If there are really culture prototypes, is it possible to have regional prototypes?

In the process of categorization, human beings would have different perception and interpretation towards the the same thing. For example, when a Chinese reading a American novel, it is said that “a flock of birds is flying near form far away, “ most of the Chinese would think the birds must be a sparrow, however, Rosch’s experiment shows that most American think that these birds should be robins. So the prototype in the category of bird is sparrow in China and robin in American. As another example, when a farmer from the mountain area talk about vehicles with a person from the city, vehicles may refers to different things for them, carriages or motorcycle to the farmer, whereas buses or cars to the city man. There are many instances like this, such as fruit, vegetables, tableware and so on. We consider “the same thing” here as the prototype in the same semantic category, for it makes using prototype theory to explain these differences possible. There are several reasons for the different prototypes in the same categories among

different people, different customs and cultures, different natural environment, different experiences, age and the fast development of science and technology can all lead to the difference in the formation of prototype.

3.1 Culture and Custom

Language as part of culture may more or less be influenced by the cultural differences. As the Soviet semiologist Uuri Lotman (1990, p.12) once said: "No language can exist unless it is steeped in the context of culture; and no culture can exist which does not have at its corner the structure of natural language." Prototype is the basic element in the perception of language. So when studying the formation of prototype, the cultural differences that lying behind it should be considered first. Cultural differences includes the complex causes of geography, history, religion and many other things, it contains both the cultural similarities and different national characters. Probing into the cultural differences, we can gain a better understanding about the cognitive differences and the reasons for the differences. Firstly, there exists difference in thinking pattern, the differences in thinking pattern leads to the difference in cognitive model, cognitive concepts, textual structure, communicative behavior and coding mode. Secondly, differences in value orientation can make people think and behavior differently. Thirdly, religion as a kind of social ideologies, has a great impact on society, especially in some countries, it can be decisive. When the same category member are combined with different national faith, customs, concept of value, different prototypes were produced. Dragon is the Chinese traditional legendary or mythological creature. In the dynastic times in China, dragon was the traditional symbol of royalty. The dragon stood for the king or emperor. There were few negative connotations, and even today, these mythological creatures occasionally appear in traditional Chinese designs. To the Westerners, however, dragon is often a symbol of evil, a fierce monster that is dangerous and must be destroyed. There are several legends of heroes deal with struggles against the dragons, which in most cases are slain in the end. So difference in prototypes were formed in different cultures. Also different prototypes shows different customs, take meat as an example, meats almost appears on the dining tables in every countries, pork, beef, chicken, mutton and fish are all different prototypes for meat. Because of different customs, meat in China mostly refers to pork, pork dishes on menus were all named with meat, it will be a special remark if it was beef or other kind of meat. Some prototypes like pork, is a taboo for the the people who believe in Islam, for their prototype for meat is mutton, they never eat pork. We should pay attention to it in cross-cultural communications.

3.2 Living Environment

In the process of categorization, people firstly come into contact with the living environment, in our lifetime,

the living environment have a significant impact on our cognition, owing to different environmental factors that embodied in terrain, landform, hydrology, climate and the different plants and animals. In the early stages of language categorization, people often take the most common objects as the prototypes. Among these objects, animals and plants are the most typical. The influence of regional difference on prototype formation is apparent in China in that China covers a large area, and the things grown in the south and in the north are quite different. The difference in prototype in different living environments were called regional prototypes, here it means the formation of various prototypes because of the difference of places where people live for a long time and which, to some extent, has an influence on their perception of the world and hence affects cognition with respect to categories. There are some differences between the prototypes in the north and in the south. Coconut, dragon eye and liulian are the special fruits grown in the south of China, and therefore, their position as the prototype of the category fruit is relatively high in the eyes of the southerners. However, grape, plum and shiliu are grown in more northern areas, and consequently they have a higher position in the typicality ratings of the northerners. Therefore, a possible conclusion can be drawn, regional differences, to some extent, play a certain role in the formation of what is considered to be prototypes. It also helps to explain that why the same words in different dialects refers to different things.

3.3 Scientific Development

The modern technology progresses with each passing day, especially when we entered this new century, the new scientific discoveries and new technological breakthrough all change our lives. So it will certainly influence the human cognition, just for the semantic category, the development of technology adds many new members to the same category. Before automobiles were invented, humans can only take carriages or other uncultured transport as the prototype for the category of transport, for there was no cars. The advance in technology has brought obvious changes to vehicles. In the 1980s, the main vehicles is bicycles, and China is called "the kingdom of bikes", certainly the bicycle is the prototype for vehicles. However when more and more cars filled the roadway, bicycles lost its position as the prototype, and cars replaced them as the prototype for vehicle. It does not mean that the prototype changes with time, the development of technology offers the possibility. All these difference in prototypes can be best explained by the development of technology.

3.4 Living Experiences

The empirical view was established in the psychological study of discovering the prototype theory in the process of categorization, it reveals that linguistic study should

not only focus on logical deductions and introspective thinking to prescribe grammar rules, but to find a more practical and experimental way. Many subjective and empirical meanings are drawn from the description of the language users, it provides a more ample, real and natural image for the word or sentence we study. Take the sentence "Our car has broken down" as an example, the traditional semanticist will analyze its meaning word by word, its subject-verb structure, or the use of the present perfect. Quite different from the traditional approach, the empirical linguistics will let the speaker or listener of this sentence speak out what he thinks, the study shows that, when hearing the word "car," most of the participants not only speak out its features like four wheels, the driver's seat or its appearance, but also its convenience even its social positions. All these factors go beyond the scope of semantics and become part of our cognition of car. Deduct from this view, what we know the world and what we communicate in the world are all recorded in the formation of concepts. Rhodes (1997) has offered several interpretations for this instance: "a. Prototype is a reasonable result for human's perception of the inner characteristics of a categorization; b. Because we always have access to a category member, this category member becomes the prototype." As Rhodes said, what we know about are all centred on the prototype - the object which we are familiar with, when we say an instance in a category, we often think of its prototype, e.g., when we say "furniture", table or chair would come to our mind, because we often get access to it. So we can safely conclude that the formation of prototype is influenced by living experience.

3.5 Age

At different age stages, our cognitive ability varies with natural physical development and contact with the society, and people have different prototypes for the same category during different time. When the children first begin their language acquisition, the things they come into contact with change from "initial impression" to "stereotyped impression". When they were first asked about "car," the children can only say "du du" which refers to the toy car they often play with. With their age increases, in the late stage of language acquisition, a reference object will be formed in their mind, these reference objects were all

simple images of cars, but not the "Audi" or "BOW" in the adults' mind. When judging the similarities between a category member and the prototype, children will use their own standard, so at the beginning the children's prototype may or may not be included in the adult's. But children will try to modulate their own prototypes which is based on the adult's standard. Finally, they will have almost the same prototypes with adults but still have their own age characteristics. Owing to different working, living conditions and experience differences, there exist differences in prototypes of people of different ages. So, age plays an important part in the formation of prototype.

CONCLUSION

Language cognition and society are an indispensable community. They coexist and reflect each other. Prototype as the core of language cognition is inevitably affected by the social background, it changes with the change of social factors. For prototypes influence the way we use language, the analysis of the social factors that affect the formation will be of great importance for the interpretation of why different languages are used in different situations. The analysis of the social factors that account for the formation of prototype would be helpful for foreign language education, cross-cultural communication, dialect investigation and many other studies.

REFERENCES

- Coulmas, F. (Ed.). (1997). *The handbook of sociolinguistics*. Oxford: Basil Blackwell.
- Gumperz, J. J. (Ed.). (1971). *Language in social groups*. Stanford: Stanford University Press.
- Hudson, R. A. (1996). *Sociolinguistics*. Cambridge: Cambridge University Press.
- Lotman, J. (1990). *Mind of the universe: A semiotic theory of culture*. Bloomington: Indiana University Press.
- Ronald, W. (2008). *An introduction to sociolinguistics*. Beijing: Foreign Language and Research Press.
- Rosch, E. (1978). Principles of categorization. *Rosch and Lloyd*.
- Rosch, E. H., & Mervis, C. B. (1975). Family resemblances: Studies in the internal structure of categories. *Cognitive Psychology*, (10), 573-605.