

# *The Universal Meaning and Trend of Semantics*

Ziyi Yang<sup>1,a,\*</sup>

<sup>1</sup>HuaXia University of Technology, Wuhan, 430073, China

a. 1844296878@qq.com

\*corresponding author

**Abstract:** Semantic universals, as a core concept in linguistics, refer to the commonalities and regularities of different languages in expressing meaning. It covers the meaning properties and laws that are prevalent in linguistic phenomena. Since linguistics has become an independent discipline, semantic universality has been an important area for its in-depth exploration. This phenomenon attracted attention as early as the time of the ancient Greek philosopher Aristotle, while the development of modern linguistics provides us with more in-depth and systematic means of research. This paper will focus on the literature review of semantic universals, aiming at sorting out and analysing the main views and research results in this field, exploring the connotation of semantic universals, the current status of research and the future trends, with a view to providing valuable references for the research in linguistics and related fields.

**Keywords:** semantic universal, connotation, current situation, trend

## 1. Introduction

Although gender bias in the workplace and social life groups has received a lot of attention, and a large amount of in-depth research has been done [1,2], the exploration of gender bias in school group activity teams still needs further research and systematization. Student groups in schools are miniature social models, where interactions and exchanges may mirror future social behaviors. At the same time, gender bias among students may distort their self-evaluation and evaluation of others, affecting their mental health and learning motivation [2]. Therefore, in order to gain a more comprehensive understanding of the existence and impact of gender bias in student group activity teams, it is imperative to conduct systematic research and analysis on this issue. In light of this, the present study aims to explore the specific situation and manifestations of gender bias against female students within group activity teams.

Through a mixed research method of questionnaire surveys and interviews, the author explores gender bias against female students in group activity teams. This paper aims to reveal gender bias in student group activity teams and provide practical suggestions for educators to promote gender equality in schools, thereby cultivating a fairer social environment for future generations. Semantic universality refers to the common characteristics of different languages when expressing the same or similar concepts. This universality is reflected in the lexical level as well as in the syntactic structure and pragmatic function. In other words, despite their significant differences in phonology, syntax and vocabulary, languages show striking similarities in expressing basic concepts and logical relations. Semantic universality can be understood in two ways[3].

First, there is entity universality, i.e., the fact that certain phonological, syntactic and semantic units are universal does not mean that they necessarily exist in all languages. For example, almost all languages have words that express basic concepts such as "water", "fire", "love", etc., but the pronunciation, morphology and usage of these words are different in different languages. The particular language only learns from these universal units. A particular language only takes some of these universal units and combines them to form its own unique system of expression. Secondly, there is formal universality, i.e., although the grammars of words and phrases or sentences and paragraphs differ from one language to another, there are general principles governing the rules of these grammars. These principles enable different languages to follow similar logic and structure in expressing complex meanings[3,4].

## **2. The Theoretical Basis Semantic Universals**

The theoretical foundation of semantic universals mainly stems from the cross-study of several disciplinary fields such as linguistics, cognitive science and philosophy[5].

### **2.1. Universal Grammar Theory (UG)**

The theory of Universal Grammar (*Noam Chomsky*) who believed that human beings are born with an innate ability to learn languages, and that this ability has built-in a set of universal rules known as Universal Grammar. These rules are abstract, formalised and common to all natural languages. Although different languages vary in surface form, they all follow a deep, universal set of structural rules. The theory of universal grammar provides philosophical and psychological support for semantic universals.

### **2.2. Conceptual Metaphor Theory**

Conceptual Metaphor Theory (*George Lakoff and Mark Johnson*) who argued that metaphors are not just rhetorical devices, but an important way for humans to understand and express concepts. Metaphors create new meanings by mapping concepts from one domain to another. While metaphorical expressions in different languages may differ, the basic conceptual mappings on which they are based are universal[5]. Conceptual metaphor theory provides a conceptual level explanation for semantic universals.

### **2.3. Semantic Map Model (SAM)**

Semantic Map Model is a model for describing changes in semantic relations between languages. It reveals the commonalities and differences in semantic relations between languages by mapping the semantic relations of different languages onto the same map. The semantic map model provides tools and methods for empirical research on semantic universals and helps us better understand the semantic relations between languages.

### **2.4. Cross-Language Comparison Method**

Cross-language comparison method is a method to reveal the commonalities and differences between languages by comparing the lexical, syntactic and pragmatic features of different languages. Through cross-language comparison[5,6], this study can discover the common strategies and mechanisms used by different languages to express the same or similar concepts, thus verifying the existence of semantic universals. The cross-linguistic comparison method provides empirical support for semantic universals.

### 3. Research Status of Semantic Universals

As an important branch of linguistics, the study of semantic universals has gradually received widespread attention since the mid-20th century. In recent years, with the continuous deepening of linguistic research, the study of semantic universals has also made remarkable progress. Among them, the generative grammar school has made important contributions in this field. According to this school, linguistic universals provide a universal descriptive framework for language, enabling people to understand and describe various linguistic phenomena more accurately. In addition, with the establishment of cross-linguistic databases and the development of computational linguistics, more and more scholars have begun to use large-scale corpora to conduct empirical research in order to reveal the commonalities and differences in semantic expressions of different languages[7].

#### 3.1. Research Content

**Lexical semantic universals:** vocabulary is the basic unit of language, and lexical semantic universals research focuses on the commonalities and differences of lexical meanings in different languages. For example, for basic words (such as "water", "fire", "food", etc.), different languages often have similar semantic features, which reflects the lexical semantic universality.

**Syntactic semantic universality:** Syntactic structure is an important part of language, and the study of syntactic semantic universality focuses on the syntactic strategies used by different languages to express the same or similar concepts. For example, many languages use subject-verb-object structures to express basic declarative sentences, which reflects syntactic semantic universality.

**Semantic semantic universality:** semantic semantics is concerned with the use and understanding of language in the communicative process. While there may be differences in the pragmatics of politeness, euphemism, sarcasm, etc. across languages, there are also many common pragmatic strategies. For example, when asking for help, people of different languages tend to use polite and humble expressions.

#### 3.2. Research Methods

**Cross-language comparison method:** by comparing the corpus and documentary resources of different languages, it reveals the common strategies and mechanisms adopted by various languages in expressing the same or similar concepts[7]. This method helps to verify the existence of semantic universals and provides guidance for inter-language translation and communication.

**Experimental research method:** to explore the cognitive processes and strategies of different speakers in processing semantic information through experimental means (e.g., lexical judgement tasks, sentence comprehension tasks, etc.). This approach helps to reveal the cognitive basis and neural mechanisms of semantic universals.

**Computational Linguistics Approach:** analyzing and mining large-scale corpora using natural language processing techniques and computational models to reveal the laws and patterns of semantic universals. For example, Word Vector Modelling (Word Embedding) can be used to compare the semantic similarity of words in different languages.

### 4. Empirical Research on Semantic Universals

With the continuous deepening of linguistic research, more and more scholars have begun to pay attention to the empirical study of semantic universals. By comparing and analyzing the corpora of different languages, these studies reveal the common strategies adopted by various languages in expressing the same or similar concepts. For example, for the core concept of "time", different languages often adopt similar lexical and syntactic structures to express it. This kind of empirical

research not only provides strong evidence for the existence of semantic universality, but also facilitates cross-linguistic and cultural communication[8]. Future research will focus more on exploring the relationship between semantic universals and linguistic diversity. Linguistic diversity is one of the important topics in linguistic research, while semantic universals reveal the commonalities among languages. Through in-depth study of the relationship between semantic universals and linguistic diversity, this study can better understand the evolution and development of language, as well as the interaction between language and cognitive, cultural, social and other factors.

## **5. Future Trends of Semantic Universals**

As linguistic research continues to deepen, the study of semantic universals will also face new challenges and opportunities. In the future, the research in this field may pay more attention to the practical applications of cross-language communication, such as machine translation and multilingual education. At the same time, with the rise of cognitive linguistics, neurolinguistics and other emerging disciplines, the study of semantic universals will also reveal the nature and mechanism of human language ability in greater depth[8]. Looking ahead, the research on semantic universals will show the following trends. First, with the development of multimodal technology, more and more scholars will begin to pay attention to the role of nonverbal symbols (e.g., gestures, facial expressions, etc.) in semantic expressions, which will help us understand the connotation of semantic universals more comprehensively. Secondly, with the continuous progress of artificial intelligence and natural language processing technology, the research on semantic universals will focus more on practical applications. For example, by constructing cross-language semantic models, this study can achieve automatic translation and information retrieval between different languages, which will provide powerful support for cross-cultural communication and globalisation process. Finally, with the acceleration of globalisation and the increase of cross-cultural communication, the study of semantic universals will pay more attention to the cross-cultural perspective. By comparing linguistic phenomena in different cultural contexts, this study can gain a deeper understanding of the interaction between language and culture, thus providing useful insights for cross-cultural communication and cultural diversity protection.

## **6. Challenges and Controversies of Semantic Universals**

Although semantic universality is widely recognized in linguistics, some scholars still question it. They argue that different languages may differ in expressing the same concepts, and such differences may be due to factors such as cultural, historical and social backgrounds. Therefore, they advocate that inter-language differences should be fully taken into account in the study of semantic universals and over-generalization and simplification should be avoided[8].

### **6.1. Explanatory Differences in Theoretical Frameworks**

There are differences in the explanations of semantic universals in different theoretical frameworks. For example, the theory of universal grammar emphasizes the innate and universal nature of linguistic competence, arguing that human beings are born with a set of abstract and formal rule systems. Cognitive linguistics, on the other hand, focuses more on the interaction between language and cognition, arguing that semantic universals are the manifestation of human cognitive structures in language[9]. These different theoretical frameworks have led to differences in the interpretation of the nature and scope of semantic universals, which has led to some controversies.

## 6.2. The complexity of empirical research

Empirical research is an important means of verifying the existence of semantic universals, but it faces many complexities in practice. Firstly, the collection and processing of a corpus requires a lot of human, material and financial input. Secondly, the comparison and analysis between different languages need to take into account the inter-language variability and comparability. In addition, the choice of experimental design and methodology will also have an impact on the research results. Therefore, the complexity and challenge of empirical research make the verification of semantic universals difficult.

## 6.3. Impact of Linguistic Diversity

Linguistic diversity is one of the important topics in linguistic research, while semantic universals reveal commonalities between languages. However, linguistic diversity may also have an impact on the study of semantic universals[10]. Different languages may employ different lexical, syntactic and pragmatic strategies to express the same or similar concepts, which may lead to biases in the understanding and interpretation of semantic universals. Therefore, it is an important challenge to study semantic universals in depth while taking into account linguistic diversity.

## 6.4. The relationship between semantic universals and cultural and social factors

Semantic universals are not only a linguistic issue, but also involve several factors such as culture and society. Different cultural and social backgrounds may affect people's perception and expression of concepts and categories, which in turn has an impact on semantic universals. Therefore, how to comprehensively consider the influence of cultural and social factors on semantic universals is also a problem that future research needs to face.

## 7. Conclusion

To sum up, semantic universality, as an important concept in linguistics, has both theoretical value and practical significance. Through in-depth study and exploration of it, this study will better understand the nature and laws of language and provide a more solid theoretical foundation and practical guidance for cross-linguistic communication and cultural exchange. Through in-depth exploration of semantic universals, this study can not only better understand and describe various linguistic phenomena, but also provide useful support for cross-cultural communication, the process of globalisation and the protection of cultural diversity[11]. In this study future research, this study should continue to pay attention to the connotation, current status and future trend of semantic universals, with a view to making greater contributions to the study of linguistics and related fields.

## References

- [1] *Semantic Relation of Meronymy in Languages of Different Structure (Case Study of Semantics of Body Part Names)*Materynska, Olena *Advanced Education*, n12 p256-264 2019
- [2] *Transfer and Semantic Universals in the L2 Acquisition of the English Article System by Child L2 Learners*,Morales-Reyes, Alexandra; Soler, Inmaculada Gómez
- [3] *Universal Semantics in Translation*Wang, Zhenying,*English Language Teaching*, v2 n3 p109-112 Sep 2009
- [4] Baroni, M., Dinu, G., & Kruszewski, G. (2014). *Don't count, predict! A systematic comparison of context-counting vs. context-predicting semantic vectors*. In *ACL (1)*, pages 238-247.
- [5] Clark, E. (2015). *Data-driven language processing: A computational perspective on learning and cognition*. MIT press.
- [6] Goldberg, A. (2019). *A primer on neural network models for natural language processing*. *Journal of Artificial Intelligence Research*, 65, 345-420.

- [7] Levy, O., & Goldberg, Y. (2014). *Dependency-based compositionality: A neural network factor model for semantic roles*. In *ACL (2)*, pages 554-564.
- [8] Linzen, T., Berwick, R., & Chomsky, N. (2016). *Assessing the learnability and typology of grammatical structure*. *Language*, 92(1), 101-151.
- [9] Potts, C. (2015). *The logical problem of language acquisition*. MIT press.
- [10] Ruder, S. (2018). *A hierarchical model of semantics and pragmatics for language understanding*. *arXiv preprint arXiv:1804.00024*.
- [11] Schutze, H., Manning, C. D., & Hinton, G. E. (2016). *Introduction to information retrieval*. Cambridge university press.