



句子语义学

Sentence Semantics: On the Study of
Semantic-based Sentence Categories

司联合◎著



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著 者	司联合	责任编辑	刘 坚
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Preface

The book is about sentence semantics, and is mainly based on my PhD dissertation, which is mainly grounded on Huang Zengyang's Hierarchical Network of Concepts (HNC) theoretical approach to the interpretation and explication of sentence categories (SCs), and I hope that it can, to some extent, reflect some of excitements I have felt as a PhD candidate during the years' study of linguistics, especially semantics, pragmatics, theoretical linguistics and second language acquisition in Beijing Normal University.

It is almost ten years since I graduated from Beijing Normal University. And I have expected to witness more and more papers and monographs on sentence semantics bringing out, and if any of them is superior to mine, I will not have my draft published. However, I have decided to publish it so as to give my due contribution to sentence semantics.

The book explores the categories of sentences from semantic point of view rather than syntactic or pragmatic one. Sentences can be classified from different aspects or on different levels such as semantic, syntactic and pragmatic. These different classifications of sentences represent multi-levels of sentences.

The book mainly uses Huang Zengyang's Hierarchical Network of Concepts (HNC) to explore the sentence categories (SCs) of simple sentences and multiple sentences with the deductive method. Based on Huang's viewpoint that sentence is the function of semantic

chunks, I give a proposition about the relationship between sentence meaning, structural meaning and lexical meaning: sentence meaning is the function of structural meaning and that of lexical meaning, in which both structural meaning and lexical meaning are variables, and a slight change of any or both of them will result in the change of sentence meaning.

Sentence semantics is the description of the semantic structure of sentences based on the meaning of individual lexemes and their syntactic roles in the given sentence. Traditional semantics is lexical semantics in a strict sense, and it mainly deals with the meanings of individual lexemes, and the sense relations between lexemes. Modern western linguists study sentence semantics by describing sentential constituents such as tense, aspect, voice and mood. They also study situation types and participants of sentences, the latter being mainly entities, each of them has its own semantic roles. There are semantic relationships between verbs and these entities or among these entities in a sentence. These semantic roles and semantic relationships can be called thematic roles, some of which have been recognized by most linguists, for example, agent, patient, theme, experiencer, beneficiary, tool, location, target, and source. These thematic roles form implicational hierarchy and thematic role grid or theta grid.

As an important part of sentence semantics, sentence meaning is mainly studied from the relation between it and propositions. It is also formalized in such theories as Katz-Fodor theory and Montague Grammar. The relationship between sentence meaning, structural meaning, and lexical meaning is formalized in the book.

According to Huang's HNC theory, semantic chunks are sentence-constituents from semantic point of view, just as phrases are

sentence-constituents from syntactic point of view. Chunks can be divided into main chunks and supplementary chunks. Main chunks are further divided into Eigen chunk (E chunk) and generalized object chunk (JK). It is E chunk that determines the semantic type of a sentence, or its SC format. E chunk is identified on the basis of the action-effect chain, and the division between simple sentences and multiple sentences relies on the number of the links of the chain described: if only one link is described, the sentence is a simple sentence, the SC of which is called basic SC; if two or more links are described, or two or more E chunks occur in a sentence, then it is multiple. Multiple sentences are divided into compound, complex and mixed. Mixed sentences are further divided into compound-complex and complex-compound ones. All these subclasses are studied from semantic point of view.

I owe special and great thanks to Professor Zhou Liuxi, my supervisor, for his heuristic instruction, support and encouragement in the past three years, and for his comments, carvings and embellishments on the early drafts. It is his broad knowledge and profound insight, and constant strictness and kind understanding that help me succeed in mastering the important linguistic theories, ranging from the history of linguistics to the modern linguistic theories, which in all times aids me in finishing this dissertation as I have planned. Of course, any error that may occur in the book is totally my own responsibility.

My sincere thanks are also due to Professor Huang Zengyang, the advocator of HNC theory, a new way for computers to comprehend natural languages, who is very kind and ready to help, and has offered me such a new theory concerning cognitive science, computer

science, linguistics, mathematical logic, philosophy, and physics, which is undoubtedly of great value to the fulfillment of this book, and the book could not have come into existence without his help, and the list of basic sentence categories and the list of conceptual nodes are attached with his special permission. I also make a grateful acknowledgement for Doctor Miao Chuanjiang, Doctor Zhang Yanhong, Doctor Zhang Quan, Doctor Jin Yaohong and Mr. Huang Yuanjing who have helped me in learning and mastering HNC theory, which is of great benefit to this research.

I am eager to take this opportunity to give thanks to Professor Shen Jiaxuan, Professor Feng Zhiwei, Professor Lin Shuwu of Social Academy of China, Professor Xiong Xueliang of Fudan University, Professor Zhao Fa of Ningbo University, Professor Wen Qiufoang of Beijing Foreign Studies University, Professor Hu Zhuanglin of Peking University, Professor Wu Tieping and Professor Wu Zunmin of Beijing Normal University, and Professor Zhao Zongfu of Qinghai Normal University who all have given me some instructions in my study. I also give my great thanks to the deceased Professor Zhao Shikai of Social Academy of China and Professor Lin Xingguang of China Renmin University.

In addition, I am greatly indebted to Wang Hongqiang, one of my former schoolmates in Luohe Normal School, who has introduced me to Professor Huang Zengyang and Professor Lin Xingguang, and has given me a lot of encouragement in studying linguistics.

Moreover, I offer my heartfelt thanks to Doctor Lu Kejian, who often gives me direction in my study and exchanges with me his studying methods and experiences.

I also thank Ms. Ye Huiying, who has given me some useful

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Last but not least, I would like to thank my wife Bai Meiling, my son Si Yiming, and my father Si Yaoshen who have kept me going with their encouragement and support, without which it is out of the question for me to complete this dissertation during the expected period of time.

Si Lianhe
November 10, 2010

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Chapter One

Introduction

1.1 Introduction

In this chapter, we'll discuss lexical semantics and word meaning, sentence semantics and sentence meaning, the relationship between word meaning and sentence meaning, and the distinction between sentence patterns, sentence types and sentence categories. Also some important classical elements are presented and commented such as situation types, tense, aspect, voice, mood, and thematic roles or semantic roles. I also state the significance of studying sentence semantics, corpus presented in the book, and methodology appeared in the study.

1.2 Lexical Semantics and Word Meaning

Lexical Semantics is the study of word meaning. Traditionally, lexical semantics aims (1) to represent the meaning of each word in the language; and (b) to show how the meanings of words in a language are interrelated. Since the meaning of a word is defined in part by its relations with other words in the language, the two aims are closely



related. Strictly speaking, lexical semantics is concerned both with the meaning of morphemes and multi-word units. **Morphemes** are the minimal units which make up words and larger units. Thus the word *hopeful* can be defined as being composed of the two morphemes *hope* and *-ful*, each of which has meaning. Some morphemes are words, traditionally called **free morphemes**, such as *cat*, *dog*, *son*. Others are parts of words and traditionally called **bound morphemes**, to which *un-*, *re-*, *in-*, *-ful*, *-less*, *-ness* belong. The bound morphemes exhibit a consistent meaning but do not occur as independent words. Multi-word units are cases where a group of words have a unitary meaning which does not correspond to the compositional meaning of their parts, such as the idiomatic phrases: *pass away*, *give up the ghost*, *kick the bucket*, *snuff it*, *pop one's clogs*, all of which mean *die*.

It is known that the meaning of a word is defined in part by its relations with other words in the language. It follows that a word is in a relationship with other words in the same sentence (**syntagmatic relation**) and also in a relationship with other, related but absent, words (**paradigmatic relation**). For instance, the word *father* is in a relationship with the related, but unspoken word *man*, representing links in the vocabulary. In other word, the word *father* contains a **semantic element** MAN as part of its meaning. Lexical relations play an important part in speakers and hearers' constructing meaning. There are many different types of lexical relations between words. A particular lexeme (word) may be simultaneously in a number of these relations, so we can accurately think that the lexicon is a network, rather than a listing of words as in a dictionary. In the lexicon, there is an organizational principle named the **lexical field**, either a group of lexemes belonging to a particular activity or area of specialist knowledge or the vocabulary

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used by special class of people. Lexical field can lead us to think that lexical relations are more common in the same field.

Now we briefly deal with some important lexical relations or sense relations as called in some linguistic books, such as **homonymy**, **polysemy**, **synonymy**, **antonymy**, **hyponymy** and **meronymy**. **Homonyms** are unrelated senses of the same phonological word, including **homographs** (senses of the same written word) and **homophones** (senses of the same spoken word). In terms of their syntactic behaviour, and spelling, four types can be distinguished:

Table 1 Four types of homonyms

Types of homonyms	Syntactic category	spelling	examples
1	+	+	bank (depositing and drawing money place) , bank (the sloping side of a river)
2	+	-	ring , wring
3	-	+	keep , keep
4	-	-	not , knot

In the above table, ' + ' stands for ' the same ' , whereas ' - ' for ' the different ' .

Polysemy differs from homonymy in that the multiple senses of the same phonological word are judged to be related, though both of them deal with the senses of the same word. Also, polysemous senses are listed under the same lexical entry, whereas homonymous senses are given separate entries. In identifying polysemy, the criteria of ' relatedness ' can be used, including speakers' intuitions and the historical development of the items. However, the criteria are



indeterminate. Speakers may differ in their intuitions, and sometimes historical fact and speaker intuitions may be in a conflict. It follows that there could be an argument for polysemy.

Synonyms are different phonological words which have the same or very similar meanings. The term 'synonymy' can be interpreted in a stricter or a looser sense. In the stricter sense, two items are synonymous if they have the same sense. In the looser sense, synonyms may be illustrated by means of a quotation from *Roget's Thesaurus*. Synonymy can be quantified, and it is just a matter of degree, and any set of lexical items can be arranged on a scale of similarity and difference of senses.

It is a popular belief that true or exact synonyms are very rare in natural languages. According to Ullman (1957), it is almost a truism that total synonymy is an extremely rare occurrence, a luxury that language can ill afford, and only those words can be described as synonymous which can replace each other in any given context without the slightest change either in cognitive or emotive import. His view is based on two quite distinct criteria or conditions: interchangeability in all contexts and identity in both cognitive and emotive import. The first condition leads us to assume that words are never synonymous in any context unless they can occur in all contexts. Lyons (1968:448) introduces a terminological distinction: the term **complete synonymy** for equivalence of both cognitive and emotive sense, and the term **total synonymy** for those synonyms which are interchangeable in all contexts. The two terms result in four possible permutation as the following: