构词法

The Morphology of Chinese

A Linguistic and Cognitive Approach

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1 | Introduction

1.1 Rationale: why investigate Chinese words?

Why is Chinese morphology worth investigating? To many, the very posing of this question will seem to suggest an ironic lack of relevance, due to the common belief that Chinese 'doesn't have words' but instead has 'characters', or that Chinese 'has no morphology' and so is 'morphologically impoverished'. The powerful influence that characters have over conceptions of the Chinese language has led many investigators (e.g., Hoosain 1992, Xu 1997) to doubt the existence of words in Chinese. My goal is to demonstrate that speakers of Chinese compose and understand sentences just as speakers of any language do, by manipulating sentence constituents using rules of syntax, and that the smallest representatives of those constituents have the size, feel, shape and properties of words. And while Chinese may not have word forms that undergo morphological alternations such as *give*, *gave*, *giving* and *given*, Chinese does indeed have 'morphology', and the morphology that it has is of a most intriguing and enlightening sort.

Understanding how Chinese words are constructed and used is critical for a full understanding of how the Chinese language operates. Chinese native speakers possess implicit knowledge about the structure and use of words. For example, a native speaker knows that you can change *shuìjiào* 睡觉 sleep-sleep 'sleep' to *shuìguojiào* 睡过觉 sleep-ASP-sleep 'have slept' or *tiàowǔ* 跳舞 jump-dance 'dance' to *tiàoguowǔ* 跳过舞 jump-ASP-dance 'have danced', but that you can't in the same way change *jiějué* 解决 undo-decide 'decide'/*chūbǎn* 出版 emit-edition 'publish' to get **jiěguojué* *解过决 undo-ASP-decide 'have decided' or **chūguobǎn* *出过版 emit-ASP-edition 'have published'. By the same token, the native speaker knows that it is fine to say *tiàodegāo* 跳得高 jump-EXTENT-tall 'can jump high' but not **tuīdeguǎng* *推得广 push-EXTENT-wide 'can push wide'. In this book, I will explain how the native speaker knows these facts about words by describing the form that this knowledge takes. I do this by proposing generalizations that explain the regularities in the creation and use of words, and then

offering principled explanations for the exceptions to those generalizations. Following current trends in cognitive science, I shall argue that much of what native speakers know about words and their structure occurs innately in the form of a hard-wired, specifically linguistic 'program' in the brain, and that such hard-wired word structure information is realized in surface form upon exposure to linguistic data.

Following that line of reasoning, Chinese words are worth investigating because they have the potential to tell us a great deal about the universal properties of words in natural language. Chinese words traditionally have been considered uninteresting as objects of morphological investigation because they do not manifest characteristics thought critical to the concept 'morphology' (such as grammatical agreement or morphophonemic and paradigmatic alternation). In the pages that follow I will show that Chinese words are particularly suitable for asking different but equally interesting questions about words – for example, how words evolve, how they come into being via lexicalization, abbreviation or borrowing, and how they pass out of existence through reduction or grammaticalization. Chinese is particularly suited to answer these questions because Chinese word components are relatively easy to isolate, identify and track over time.

Chinese words exhibit other properties that must be understood if we wish to claim a universal characterization of words. For example, to what extent is the concept of 'bound root' – which is important in Chinese (see 3.4) – relevant in other languages? Since Chinese is the world's most widely spoken language, it is clear that any account of language that aspires to a claim of universality – including universals of word structure – must take the Chinese data into account. Chinese words have a story to tell about the degree to which words are susceptible to the algorithms of syntax, and whether there is a definition of *word* that works reasonably well across languages. Using Chinese to address these questions is bound to increase our understanding of universal word properties.

I will demonstrate how the structure I propose for Chinese words goes a long way toward explaining how these words have come to have the shape they now have, resulting in the present designation of Chinese as a language of 'compounds'. If we want to know how Chinese words evolved to take their present shape, it is important to understand how word components evolve to take on the identity they have, and how that identity shifts over time as new words are created

and old ones discarded. It would be a mistake to overrely on contemporary data in addressing historical factors, but a good understanding of what is happening in the language now can offer a possible window into the past.

Another important issue this study addresses is the relationship between words and characters in Chinese. Time and again, when I tell people that I work in Chinese linguistics, I get a response like: 'Oh, Chinese makes sentences by putting characters together, right?', as if, unlike the rest of the world's languages, Chinese enables spoken communication by the oral exchange of little visual icons. People for the most part do not really think that Chinese speech communication occurs via 'characters', but many *do* believe that the spoken language unit represented by the character – the morpheme – is the unit that is used to create and understand Chinese sentences. This may seem more reasonable than the notion of little visual icons flying through the air among speakers, but it is quite nearly as untenable, as we shall see in 7.2.

This widely accepted belief that the morpheme is the unit of spoken language lexical access has coloured the attitudes of many who work in the psycholinguistics of Chinese language processing. For this reason, Chinese language perception and production studies have tended to focus on properties of Chinese orthography.[1] Chinese orthography is valuable because its special characteristics enable us to ask questions about the nature of reading that cannot be asked using other orthographies. But if we want to gain insight into the psycholinguistic properties of Chinese we must also focus on the perception and production of spoken Chinese. To do that requires a precise description of Chinese words and their structure. Some who work in Chinese psycholinguistics assume that words in Chinese cannot be defined easily, or that the concept *word* is somehow not relevant for Chinese. But Chinese forms phrases and sentences as do all natural languages, by using rules of syntax to string together words that are retrieved from a mental lexicon. In order to investigate sentence processing in Chinese, we must be able to identify those words and have an understanding of their properties. Only then can we ask how the online natural language processing or the first- and second-language acquisition of spoken Chinese occurs.

[1] A notable exception to this is the work of Xiaolin Zhou and William Marslen-Wilson (e.g., Zhou and Marslen-Wilson 1994, 1995).

1.2 The scope of this work

This volume is a combination of descriptive and theoretical approaches. Following this introductory chapter, I provide criteria for identifying Chinese words in chapter 2, and in chapter 3 I explain why word structure is optimally described in terms of the form class identity of word components and how that may be accomplished. Then I offer a morphological analysis of Chinese words in chapter 4, followed by a universal ('X-bar') analysis in chapter 5 that abstracts the morphological properties of words over different form class categories. In chapter 6, I discuss the phenomenon of lexicalization, including why it explains how the relation between the gestalt word and its constituents varies, and why this is an important factor in understanding how Chinese words have evolved into their present form. The nature of the Chinese mental lexicon is discussed in chapter 7, including how lexical access occurs in speaking, hearing and reading Chinese. Finally, in chapter 8 I offer a summary and some concluding remarks.

The working hypothesis of this book is that the entity 'word' is a real cognitive construct that is also a linguistic primitive in natural language, and that word properties and word-forming algorithms like those proposed for Chinese arise due to universal principles and constraints that apply to all languages, serving to circumscribe the range of possible word types that may occur. This critically involves the notion of lexical primitives (X^{-0}, X^{-1} etc., see chapter 5),[2] the existence and combination of which I propose constitute the universal character of word structure. It is proposed that words in all human natural languages are analysable into these lexical primitives and their concatenation, subject to limited parametric variation.

I shall be referring in all cases to Mandarin Chinese, transcribed using the pinyin system of phonetic romanization and represented using simplified Chinese characters. Also, I'll be dealing for the most part with only two-syllable words. There are many words of three, four and more syllables in Chinese, but I feel better able to investigate

[2] For the purposes of this study, the terms X^{-0} and X^{0} (with negative and non-negative superscripts respectively) may be considered the same. I generally follow the convention of using negative superscripts for morphological objects as a notational device to distinguish them from syntactic objects.

the various aspects of word formation in depth by restricting the data base at present to words consisting of two syllables. To further restrict my data base, in this study I deal for the most part only with complex words formed from noun and verb elements.

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As the reader goes through this work, in many places it will become evident that I have remained overly simplistic, choosing to sidestep many questions of interest. In some cases I have remained at that

level intentionally, because to do otherwise would have resulted in great delays as I tackled problems of detail, and also because the resulting exposition has allowed me to make the points and address the issues I wish to focus on. There are also likely to be logical lacunae and analytical abysses in the interplay of ideas that I have forged in putting this work together. I invite the reader to point these out, and to offer suggestions and criticism.