Cambridge Introductions to Language and Linguistics

mental lexicon

inflection

lexeme

Introducing Morphology

Rochelle Lieber

dictionary

compound

morpheme

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Introducing Morphology

Morphology is the study of how words are put together. A lively introduction to the subject, this textbook is intended for undergraduates with relatively little background in linguistics. Providing data from a wide variety of languages, it includes hands-on activities such as "Challenge Boxes," designed to encourage students to gather their own data and analyze them, work with data on websites, perform simple experiments, and discuss topics with each other. There is also an extensive introduction to the terms and concepts necessary for analyzing words. Topics such as the mental lexicon, derivation, compounding, inflection, morphological typology, productivity, and the interface of morphology with syntax and phonology expose students to the whole scope of the field. Unlike other textbooks it anticipates the question "Is it a real word?" and tackles it head-on by looking at the distinction between dictionaries and the mental lexicon.

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Introducing Morphology

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Preface

One of the things that drew me to linguistics several decades ago was a sense of wonder at both the superficial diversity and the underlying commonality of languages. My wonder arose in the process of working through my first few problem sets in linguistics, not surprisingly, problem sets that involved morphological analysis. What I learned first was not theory – indeed at that moment in linguistic history morphology was not perceived as a separate theoretical area in the US – but what languages were like, how to analyze data, and what to call things. I love morphological theory, but for drawing beginning students into the field of linguistics, I believe that there is no substitute for hands-on learning, and that is where this book starts.

This book is intended for undergraduate students who may have had no more than an introductory course in linguistics. It assumes that students know the International Phonetic Alphabet, and have a general idea of what linguistic rules are, but it presupposes little else in the way of sophistication or technical knowledge. It obviously assumes that students are English-speakers, and therefore the first few chapters concentrate on English, and to some extent on languages that are likely to be familiar to linguistics students from language study in high school and university. As the book progresses, I introduce data from many languages that will be "exotic" to students, so that by the end of the book, they will have some sense of linguistic diversity, at least with respect to types of morphology.

There are some aspects of the content of this text that might seem unusual to instructors. The first is the attention to dictionaries in chapter 2. Generally, texts on linguistic morphology do not mention dictionaries, but I find that beginning students of morphology retain a reverence for dictionaries that sometimes gets in the way of thinking about the nature of the mental lexicon and how word formation works. Instructors can skip all or part of this chapter, but my experience is that it sets students on a good footing from the start, and largely eliminates their squeamishness about considering whether *incent*, or *bovineness* or *organizationalize* or the like are 'real' words, even if we can't find them in the dictionary.

Another section that might seem odd is the part of chapter 7 devoted to snapshot descriptions of five different languages. These also might be skipped over, but they serve two important purposes. One purpose is simply to expose students to what the morphology of a language looks like overall; much of what they're exposed to in the rest of the book (and in most other morphology texts that I know of) are bits and pieces of the morphology of languages – a reduplication rule here, an inflectional paradigm there – but never the big picture. More importantly, having looked at the 'morphological toolkits' of several languages, students will be better prepared to understand both the traditional categories used in morphological typology and more recent means of classification.

The final thing that might strike instructors as unusual is that I largely hold off on introducing morphological theory until the last chapter. Clearly, no text is theory-neutral, and this text is no exception. It fits squarely in the tradition of generative morphology in the sense that I present morphology as an attempt to characterize and model the mental lexicon. I presuppose that there is much that is universal in spite of apparent diversity. And I believe that the ultimate aim of teaching students about morphology (indeed about any area of linguistics) is to expose them to what is at stake in trying to characterize the nature of the human language capacity. Nevertheless I start by presenting morphological rules in as neutral a way as possible, and hold off on raising theoretical disputes until students have enough experience to understand how

morphological data might support or refute theoretical hypotheses. In a sense I believe that students will gain a better understanding of theory if they already have the ability to find data and analyze it themselves. Therefore the bulk of the morphological theory will be found in the last chapter, where I have tried to pick a few theoretical debates and show how one might argue for or against particular analyses. Having read this chapter, students will be able to go on and tackle some of the texts that are intended for advanced undergraduates or graduate students.

Since one of my main goals in this text is to teach students to do morphology, there are a number of pedagogical features that set this book apart from other morphology texts. First, each chapter has one or more 'Challenge' boxes. These occur at points in the text where students might take a breather from reading or class lecture and try something out for themselves. Challenge exercises are ideal for small teams of students – either outside of class, or as an in-class activity – to work on together. Some involve discussion, some analysis, some doing some work on-line or at the library. But all of them involve hands-on learning. Instructors can use them or skip them or assign them as homework instead of, or in addition to, the exercises at the ends of chapters. I have tried most of them myself as in-class activities, and have found that they get students excited, stimulate discussion, and generally give students the feeling of really 'doing morphology' rather than just hearing about it.

A second pedagogical feature that sets this book apart are the "How to" sections in chapters 3, 4, 6, and 9. These are meant to give students tips on finding or working with data. Some students don't need such tips; they have the intuitive ability to look at data and figure out what to do with it. But I've found over years of teaching that there are some students who don't have this knack, and who benefit enormously from being walked through a problem or technique systematically. The "How to" sections do this.

Instructors and students will also find what they would expect to find in any good text. First, there are several aids to navigating the text – chapter outlines and lists of key terms at the beginnings of chapters and brief summaries at the end, as well as a glossary of the terms that are highlighted in the text. A copy of the International Phonetic Alphabet is included at the beginning for easy reference. And each chapter has a number of exercises that allow students to practice what they've been exposed to.

A general point about examples in this text. Where I have cited data from different books, grammars, dictionaries, and scholarly articles, I have chosen to keep the glosses provided in the original source even if this results in some inconsistency in the use of abbreviations. In other words, slightly different abbreviations may occur in different examples (for instance, N or Neut for 'neuter'). Although students may be confused by this practice at first, it does give them a taste of the linguistic "real world." Any student going on and doing further work in morphology is bound to find exactly this sort of variation in the use of abbreviations in sources.

My goal in this text is to bring students to the point where they are not only ready to confront morphological theory but also have the skills to begin to think independently about it, and perhaps to contribute to it.

This text has benefitted from the help of many people. I am grateful to John McCarthy and Donca Steriade for suggesting examples, to Charlotte Brewer for supplying me with statistics about citations in the OED, to Marianne Mithun for suggesting Nishnaabemwin as a polysynthetic language to profile, and to several classes of students at UNH both for serving as guinea pigs on early drafts and for supplying me with wonderful examples from their Word Logs. Thanks go as well to the College of Liberal Arts at the University of New Hampshire for the funds to hire a graduate student assistant at a critical moment, and to Chris Paris for supplying assistance. I am especially grateful to several anonymous reviewers who made excellent suggestions on the penultimate draft of the text. Finally, thanks are due as well to Andrew Winnard at Cambridge University Press for inviting me to write this text and for his patience in waiting for it.

The International Phonetic Alphabet

(revised to 2005)

CONSONANTS (PULMONIC) © 2005 IPA

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k g	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

CONSONANTS (NON-PULMONIC)

Clicks		Voiced implosives		Ejectives	
ʘ	Bilabial	ɓ	Bilabial	ʼ	Examples:
ǀ	Dental	ɗ	Dental/alveolar	pʼ	Bilabial
ǃ	(Post)alveolar	ʃ	Palatal	tʼ	Dental/alveolar
ǂ	Palatoalveolar	ɠ	Velar	kʼ	Velar
ǁ	Alveolar lateral	ʛ	Uvular	sʼ	Alveolar fricative

VOWELS

	Front	Central	Back
Close	i • y	ɨ • ʉ	ɯ • u
	ɪ ʏ		ʊ
Close-mid	e • ø	ɘ • ɵ	ɤ • o
		ə	
Open-mid	ɛ • œ	ɜ • ɞ	ʌ • ɔ
	æ	ɐ	
Open	a • ɶ		ɑ • ɒ

Where symbols appear in pairs, the one to the right represents a rounded vowel.

OTHER SYMBOLS

- ʍ Voiceless labial-velar fricative
- w Voiced labial-velar approximant
- ɥ Voiced labial-palatal approximant
- ʜ Voiceless epiglottal fricative
- ʢ Voiced epiglottal fricative
- ʡ Epiglottal plosive
- ɕ ʑ Alveolo-palatal fricatives
- ɺ Voiced alveolar lateral flap
- ɧ Simultaneous ʃ and x

Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary. k͡p t͡s

SUPRASEGMENTALS

- ˈ Primary stress
- ˌ Secondary stress ˌfoʊnəˈtɪʃən
- ː Long eː
- ˑ Half-long eˑ
- ̆ Extra-short ĕ
- | Minor (foot) group
- ‖ Major (intonation) group
- . Syllable break ɹi.ækt
- ‿ Linking (absence of a break)

DIACRITICS Diacritics may be placed above a symbol with a descender, e.g. ŋ̊

̥	Voiceless	n̥	d̥	̤	Breathy voiced	b̤	a̤	̪	Dental	t̪	d̪
̬	Voiced	s̬	t̬	̰	Creaky voiced	b̰	a̰	̺	Apical	t̺	d̺
ʰ	Aspirated	tʰ	dʰ	̼	Linguolabial	t̼	d̼	̻	Laminal	t̻	d̻
̹	More rounded	ɔ̹		ʷ	Labialized	tʷ	dʷ	̃	Nasalized	ẽ	
̜	Less rounded	ɔ̜		ʲ	Palatalized	tʲ	dʲ	ⁿ	Nasal release	dⁿ	
̟	Advanced	u̟		ˠ	Velarized	tˠ	dˠ	ˡ	Lateral release	dˡ	
̠	Retracted	e̠		ˤ	Pharyngealized	tˤ	dˤ	̚	No audible release	d̚	
̈	Centralized	ë		̴	Velarized or pharyngealized	ɫ					
̽	Mid-centralized	e̽		̝	Raised	e̝			(ɹ̝ = voiced alveolar fricative)		
̩	Syllabic	n̩		̞	Lowered	e̞			(β̞ = voiced bilabial approximant)		
̯	Non-syllabic	e̯		̘	Advanced Tongue Root	e̘					
˞	Rhoticity	ə˞	a˞	̙	Retracted Tongue Root	e̙					

TONES AND WORD ACCENTS

LEVEL			CONTOUR		
ȅ or ˥	Extra high		ě or ˩˥	Rising	
é ˦	High		ê ˥˩	Falling	
ē ˧	Mid		ĕ ˧˥	High rising	
è ˨	Low		ȅ ˩˨	Low rising	
ȅ ˩	Extra low		ê ˩˥˩	Rising-falling	
↓	Downstep		↗	Global rise	
↑	Upstep		↘	Global fall	

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Point and manner of articulation of English consonants and vowels

Consonants								
	Labial	Labio-dental	Interdental	Alveolar	Alveo-palatal	Palatal	Velar	Glottal
Stop	p,**b**			t,**d**			k,**g**	ʔ
Fricative		f,**v**	θ,**ð**	s,**z**	ʃ,**ʒ**			h
Affricate					tʃ,**dʒ**			
Nasal	**m**			**n**			**ŋ**	
Liquid				**ɹ,l**				
Glide	(**w**)					**j**	(**w**)	

Characters in boldface are voiced.
[w] is labio-velar in articulation.

Vowels			
	Front	Central	Back
High	i ɪ		u ʊ
Mid	e ɛ	ʌ,ə	o ɔ
Low	æ		ɑ

Tense vowels: i, e, u, o, ɑ
Lax vowels: ɪ, ɛ, æ, ʊ, ɔ, ʌ
Reduced vowel: ə

CHAPTER

1 What is morphology?

CHAPTER OUTLINE

KEY TERMS

morpheme
simplex
complex
type
token
lexeme
word form
inflection
derivation

In this chapter you will learn what morphology is, namely the study of word formation.

- We will look at the distinction between words and morphemes, between types, tokens, and lexemes and between inflection and derivation.
- We will also consider the reasons why languages have morphology.

1.1 Introduction

The short answer to the question with which we begin this text is that **morphology** is the study of word formation, including the ways new words are coined in the languages of the world, and the way forms of words are varied depending on how they're used in sentences. As a native speaker of your language you have intuitive knowledge of how to form new words, and every day you recognize and understand new words that you've never heard before.

Stop and think a minute:

- Suppose that *splinch* is a verb that means 'step on broken glass'; what is its past tense?
- Speakers of English use the suffixes *-ize* (*crystallize*) and *-ify* (*codify*) to form verbs from nouns. If you had to form a verb that means 'do something the way ex-Prime Minister Tony Blair does it', which suffix would you use? How about a verb meaning 'do something the way ex-President Bill Clinton does it'?
- It's possible to *rewash* or *reheat* something. Is it possible to *relove, reexplode,* or *rewiggle* something?

Chances are that you answered the first question with the past tense *splinched* (pronounced [splɪntʃt])[1], the second with the verbs *Blairify* and *Clintonize,* and that you're pretty sure that *relove, reexplode,* and *rewiggle* are weird, if not downright impossible. Your ability to make up these new words, and to make judgments about words that you think could never exist, suggests that you have intuitive knowledge of the principles of word formation in your language, even if you can't articulate what they are. Native speakers of other languages have similar knowledge of their languages. This book is about that knowledge, and about how we as linguists can find out what it is. Throughout this book, you will be looking into how you form and understand new words, and how speakers of other languages do the same. Many of our examples will come from English – since you're reading this book, I assume we have that language in common – but we'll also look beyond English to how words are formed in languages with which you might be familiar, and languages which you might never have encountered before. You'll learn not only the nuts and bolts of word formation – how things are put together in various languages and what to call those nuts and bolts – but also what this knowledge says about how the human mind is organized.

The beauty of studying morphology is that even as a beginning student you can look around you and bring new facts to bear on our study. At this point, you should start keeping track of interesting cases of new words

1. In this text I presuppose that you have already learned at least that part of the International Phonetic Alphabet (IPA) that is commonly used for transcribing English. You'll find an IPA chart at the beginning of this book, if you need to refresh your memory.

that you encounter in your life outside this class. Look at the first Challenge box.

Challenge: your word log

Keep track of every word you hear or see (or produce yourself) that you think you've never heard before. You might encounter words while listening to the radio, watching TV, or reading, or someone you're talking to might slip one in. Write those new words down, take note of where and when you heard/read/produced them, and jot down what you think they mean. What you write down may or may not be absolutely fresh new words – they just have to be new to you. We'll be coming back to these as the course progresses and putting them under the microscope.

Of course, if the answer to our initial question were as simple as the task in the box, you might expect this book to end right here. But there is of course much more to say about what makes up the study of morphology. Simple answers frequently lead to further questions, and here's one that we need to settle before we go on.

1.2 What's a word?

Ask anyone what a word is and … they'll look puzzled. In some sense, we all know what words are – we can list words of various sorts at the drop of a hat. But ask us to define explicitly what a word is, and we're flummoxed. Someone might say that a word is a stretch of letters that occurs between blank spaces. But someone else is bound to point out that words don't have to be written for us to know that they're words. And in spoken (or signed) language, there are no spaces or pauses to delineate words. Yet we know what they are. Still another person might at this point try an answer like this: "A word is something small that means something," to which a devil's advocate might respond, "But what do you mean by 'something small'?" This is the point at which it becomes necessary to define a few specialized linguistic terms.

Linguists define a **morpheme** as the smallest unit of language that has its own meaning. Simple words like *giraffe, wiggle,* or *yellow* are morphemes, but so are prefixes like *re-* and *pre-* and suffixes like *-ize* and *-er*.[2] There's far more to be said about morphemes – as you'll see in later chapters of this book – but for now we can use the term **morpheme** to help us come up with a more precise and coherent definition of **word**. Let us now define a **word** as one or more morphemes that can stand alone in a language. Words that consist of only one morpheme, like the words in (1), can be

2. In chapter 2 we will give a more formal definition of **prefix** and **suffix**. For now it is enough to know that they are morphemes that cannot stand on their own, and that prefixes come before, and suffixes after, the root or main part of the word.

termed **simple** or **simplex** words. Words that are made up of more than one morpheme, like the ones in (2), are called **complex**:

(1) *Simplex words*
giraffe
fraud
murmur
oops
just
pistachio

(2) *Complex words*
opposition
intellectual
crystallize
prewash
repressive
blackboard

We now have a first pass at a definition of what a word is, but as we'll see, we can be far more precise.

1.3 Words and lexemes, types and tokens

How many words occur in the following sentence?

My friend and I walk to class together, because our classes are in the same building and we dislike walking alone.

You might have thought of at least two ways of answering this question, and maybe more. On the one hand, you might have counted every item individually, in which case your answer would have been 21. On the other hand, you might have thought about whether you should count the two instances of *and* in the sentence as a single word and not as separate words. You might even have thought about whether to count *walk* and *walking* or *class* and *classes* as different words: after all, if you were not a native speaker of English and you needed to look up what they meant in the dictionary, you'd just find one entry for each pair of words. So when you count words, you may count them in a number of ways.

Again, it's useful to have some special terms for how we count words. Let's say that if we are counting every instance in which a word occurs in a sentence, regardless of whether that word has occurred before or not, we are counting **word tokens**. If we count word tokens in the sentence above, we count 21. If, however, we are counting a word once, no matter how many times it occurs in a sentence, we are counting **word types**.

Counting this way, we count 20 types in the sentence above: the two tokens of the word *and* count as one type. A still different way of counting words would be to count what are called **lexemes**. **Lexemes** can be thought

of as families of words that differ only in their grammatical endings or grammatical forms; singular and plural forms of a noun (*class, classes*), present, past, and participle forms of verbs (*walk, walks, walked, walking*), different forms of a pronoun (*I, me, my, mine*) each represent a single lexeme. One way of thinking about lexemes is that they are the basis of dictionary entries; dictionaries typically have a single entry for each lexeme. So if we are counting lexemes in the sentence above, we would count *class* and *classes*, *walk* and *walking*, *I* and *my*, and *our* and *we* as single lexemes; the sentence then has 16 lexemes.

1.4 But is it *really* a word?

In some sense we now know what words are – or at least what word types, word tokens, and lexemes are. But there's another way we can ask the question "What's a word?" Consider the sort of question you might ask when playing Scrabble: "Is *aalii* a word?" Or when you encounter an unfamiliar word: "Is *bouncebackability* a word?" What you're asking when you answer questions like these, is really the question "Is *xyz* a REAL word?" Our first impulse in answering those questions is to run for our favorite dictionary; if it's a real word it ought to be in the dictionary.

But think about this answer for just a bit, and you'll begin to wonder if it makes sense. Who determines what goes in the dictionary in the first place? What if dictionaries differ in whether they list a particular word? For example, the *Official Scrabble Player's Dictionary* lists *aalii* but not *bouncebackability*. The *Oxford English Dictionary On-Line* doesn't list *aalii*, but it does list *bouncebackability*. So which one is right? Further, what about words like *cot potato* or *freshmore* that don't occur in any published dictionary yet, but can be encountered in the media? The former, according to Word Spy (www.wordspy.com) means a baby who spends too much time watching television (Americans might use the term *crib potato* instead of *cot potato*), and the latter is a second-year high school student in the US who has to repeat a lot of first-year classes. And what about the word *cot potatodom*, which I just made up? Once you know what a *cot potato* is, you have no trouble understanding my new word. If it consists of morphemes, has a meaning, and can stand alone, doesn't it qualify as a word according to our definition even if it doesn't appear in the dictionary?

What all these questions suggest is that we each have a **mental lexicon**, a sort of internalized dictionary that contains an enormous number of words that we can produce, or at least understand when we hear them. But we also have a set of **word formation rules** which allows us to create new words and understand new words when we encounter them. In the chapters to follow, we will explore the nature of our mental lexicon in detail, and think further about the "Is it really a word?" question. In answering this question we'll be led to a detailed exploration of the nature of our mental lexicon and our word formation rules.

1.5 Why do languages have morphology?

As native speakers of a language we use morphology for different reasons. We will go into both the functions of morphology and means of forming new words in great depth in the following chapters, but here, we'll just give you a taste of what's to come.

One reason for having morphology is to form new lexemes from old ones. We will refer to this as **lexeme formation**. (Many linguists use the term **word formation** in this specific sense, but this usage can be confusing, as all of morphology is sometimes referred to in a larger sense as 'word formation'.) Lexeme formation can do one of three things. It can change the part of speech (or **category**) of a word, for example, turning verbs into nouns or adjectives, or nouns into adjectives, as you can see in the examples in (3):

(3) *Category-changing lexeme formation*[3]
V→ N: amuse → amusement
V → A: impress → impressive
N → A: monster → monstrous

Some rules of lexeme formation do not change category, but they do add substantial new meaning:

(4) *Meaning-changing lexeme formation*

A → A 'negative A'	happy → unhappy
N → N 'place where N lives'	orphan → orphanage
V → V 'repeat action'	wash → rewash

And some rules of lexeme formation both change category and add substantial new meaning:

(5) *Both category and meaning-changing lexeme formation*

V → A 'able to be Ved'	wash → washable
N → V 'remove N from'	louse → delouse

Why have rules of lexeme formation? Imagine what it would be like to have to invent a wholly new word to express every single new concept. For example, if you wanted to talk about the process or result of amusing someone, you couldn't use *amusement*, but would have to have a term like *zorch* instead. And if you wanted to talk about the process or result of resenting someone, you couldn't use *resentment*, but would have to have something like *plitz* instead. And so on. As you can see, rules of lexeme formation allow for a measure of economy in our mental lexicons: we can recycle parts, as it were, to come up with new words. It is probably safe to say that all languages have some ways of forming new lexemes, although,

3. The notation V → N means 'changes a verb to a noun.'

as we'll see as this book progresses, those ways might be quite different from the means we use in English.

On the other hand, we sometimes use morphology even when we don't need new lexemes. For example, we saw that each lexeme can have a number of **word forms**. The lexeme WALK has forms like *walk, walks, walked, walking* that can be used in different grammatical contexts. When we change the form of a word so that it fits in a particular grammatical context, we are concerned with what linguists call **inflection**. Inflectional word formation is word formation that expresses grammatical distinctions like number (singular *vs*. plural); tense (present *vs*. past); person (first, second, or third); and case (subject, object, possessive), among others. It does not result in the creation of new lexemes, but merely changes the grammatical form of lexemes to fit into different grammatical contexts.

Interestingly, languages have wildly differing amounts of inflection. English has relatively little inflection. We create different forms of nouns according to number (*wombat, wombats*); we mark the possessive form of a noun with *-'s* or *-s'* (*the wombat's eyes*). We have different forms of verbs for present and past and for present and past participles (*sing, sang, singing, sung*), and we use a suffix *-s* to mark the third person singular of a verb (*she sings*).

However, if you've studied Latin, Russian, ancient Greek, or even Old English, you'll know that these languages have quite a bit more inflectional morphology than English does. Even languages like French and Spanish have more inflectional forms of verbs than English does.

But some languages have much less inflection than English does. Mandarin Chinese, for example, has almost none. Rather than marking plurals by suffixes as English does, or by prefixes as the Bantu language Swahili does, Chinese does not mark plurals or past tenses with morphology at all. This is not to say that a speaker of Mandarin cannot express whether it is one giraffe, two giraffes, or many giraffes that are under discussion, or whether the sighting was yesterday or today. It simply means that to do so, a speaker of Mandarin must use a separate word like *one, two* or *many* or a separate word for *past* to make the distinction.

(6) Wo jian guo yi zhi chang jing lu.
I see past one CLASSIFIER giraffe[4]

(7) Wo jian guo liang zhi chang jing lu
I see past two CLASSIFIER giraffe

The word *chang jing lu* 'giraffe' has the same form regardless of how many long-necked beasts are of interest. And the verb 'to see' does not change its form for the past tense; instead, the separate word *guo* is added to express this concept. In other words, some concepts that are expressed via inflection in some languages are expressed by other means (word order, separate words) in other languages.

4. We will explain in chapter 6 what we mean by **classifier**. For now it is enough to know that classifiers are words that must be used together with numbers in Mandarin.

1.6 The organization of this book

In what follows, we'll return to all the questions we've raised here. In chapter 2, we'll revisit the question of what a word is, by further probing the differences between our mental lexicon and the dictionary, and look further into questions of what constitutes a "real" word. We'll look at the ways in which word formation goes on around us all the time, and consider how children (and adults) acquire words, and how our mental lexicons are organized so that we can access the words we know and make up new ones. In chapter 3, we'll get down to the work of looking at some of the most common ways that new lexemes are formed: by adding prefixes and suffixes, by making up compound words, and by changing the category of words without changing the words themselves. In this chapter we'll concentrate on how words are structured in terms of both their forms and their meanings. Many of our examples will be taken from English, but we'll also look at how these kinds of word formation work in other languages. Chapter 4 takes up a related topic, productivity: some processes of word formation allow us to form many new words freely, but others are more restricted. In this chapter we'll look at some of the determinants of productivity, and how productivity can be measured. Chapter 5 will also be concerned with lexeme formation, but with kinds of lexeme formation that are less familiar to speakers of English. We'll look at forms of affixation that English does not have (infixation, circumfixation), processes like reduplication, and templatic morphology. Our focus will be on learning to analyze data that might on the surface seem to be quite unfamiliar. In chapter 6 we will turn to inflection, looking not only at the sorts of inflection we find in English and other familiar languages, but also at inflectional systems based on different grammatical distinctions than we find in English, and systems that are far more complex and intricate. Chapter 7 will be devoted to the subject of typology, different ways in which the morphological systems of the languages of the world can be classified and compared to one another. We'll look at some traditional systems of classification, as well as some that have been proposed more recently, and assess their pros and cons. Chapters 8 and 9 will explore the relationship between the field of morphology and the fields of syntax on the one hand and phonology on the other. Our final chapter will introduce you to some of the interesting theoretical debates that have arisen in the field of morphology over the last two decades and prepare you to do more advanced work in morphology.

Summary

Morphology is the study of words and word formation. In this chapter we have considered what a word is and looked at the distinction between word tokens, word types, and lexemes. We have divided word formation into derivation – the formation of new lexemes – and inflection, the different grammatical word forms that make up lexemes.

Exercises

1. Are the following words simple or complex?
   a. members
   b. prioritize
   c. handsome
   d. fizzy
   e. dizzy
   f. grammar
   g. writer
   h. rewind
   i. reject
   j. alligator

   If you have difficulty deciding whether particular words are simple or complex, explain why you find them problematic.
2. Do the words in the following pairs belong to the same lexeme or to different lexemes?
   a. revolve revolution
   b. revolution revolutions
   c. revolve dissolve
   d. go went
   e. wash rewash
3. In the following sentences, count word tokens, types, and lexemes:
   a. I say now, just as I said yesterday, that the price of a wombat is high but the price of a platypus is higher.

      tokens _____
      types _____
      lexemes _____

   b. I've just replaced my printer with a new one that prints much faster.

      tokens _____
      types _____
      lexemes _____
4. In sentence (3b), what sorts of problems does the word *I've* pose for our definition of 'word'?
5. What words belong to the same word family or lexeme as *sing*?