

## 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.

ROCHELLE LIEBER is Professor of Linguistics in the English Department at the University of New Hampshire. Her recent publications include *The Oxford Handbook of Compounding* (2009), *Morphology and Lexical Semantics* (Cambridge, 2004), and *The Handbook of Word Formation* (2005).

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ROCHELLE LIEBER  
*English Department*  
*University of New Hampshire*



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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.

(revised to 2005)

CONSONANTS (PULMONIC)											© 2005 IPA	
	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal	
Plosive	<b>p b</b>			<b>t d</b>		<b>ʈ ɖ</b>	<b>c ɟ</b>	<b>k ɡ</b>	<b>q ɢ</b>		<b>ʔ</b>	
Nasal	<b>m</b>	<b>ɱ</b>		<b>n</b>		<b>ɳ</b>	<b>ɲ</b>	<b>ŋ</b>	<b>ɴ</b>			
Trill	<b>ʙ</b>			<b>r</b>					<b>ʀ</b>			
Tap or Flap		<b>ⱱ</b>		<b>ɾ</b>		<b>ɽ</b>						
Fricative	<b>ɸ β</b>	<b>f v</b>	<b>θ ð</b>	<b>s z</b>	<b>ʃ ʒ</b>	<b>ʂ ʐ</b>	<b>ç ʝ</b>	<b>x ɣ</b>	<b>χ ʁ</b>	<b>ħ ʕ</b>	<b>h ɦ</b>	
Lateral fricative				<b>ɬ ɮ</b>								
Approximant		<b>ʋ</b>		<b>ɹ</b>		<b>ɻ</b>	<b>j</b>	<b>ɰ</b>				
Lateral approximant				<b>l</b>		<b>ɭ</b>	<b>ʎ</b>	<b>ʟ</b>				

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	
◌ǀ	Bilabial	◌ɓ	Bilabial	◌ʼ	Examples:
◌ǃ	Dental	◌ɗ	Dental/alveolar	◌pʼ	Bilabial
◌ǂ	(Post)alveolar	◌ɟ	Palatal	◌tʼ	Dental/alveolar
◌ǁ	Palatoalveolar	◌ɠ	Velar	◌kʼ	Velar
◌ǁ̥	Alveolar lateral	◌ɠ̥	Uvular	◌sʼ	Alveolar fricative

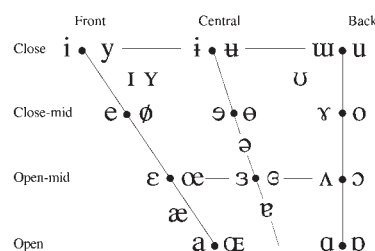
### OTHER SYMBOLS

<b>M</b>	Voiceless labial-velar fricative	<b>ʑ</b>	Alveolo-palatal fricatives
<b>W</b>	Voiced labial-velar approximant	<b>ɹ</b>	Voiced alveolar lateral flap
<b>ɥ</b>	Voiced labial-palatal approximant	<b>ɥ</b>	Simultaneous <b>ɥ</b> and <b>X</b>
<b>ħ</b>	Voiceless epiglottal fricative		
<b>ʕ</b>	Voiced epiglottal fricative		Affricates and double articulations
<b>ʡ</b>	Epiglottal plosive		can be represented by two symbols
			joined by a tie bar if necessary.

**DIACRITICS** Diacritics may be placed above a symbol with a descender, e.g.  $\dot{\eta}$

o	Voiceless	n̥ d̥	..	Breathily voiced	b̤ a̤	□	Dental	t̪ d̪
h	Voiced	ɟ ɢ	..	Creaky voiced	b̰ a̰	□	Apical	t̪̰ d̪̰
h	Aspirated	tʰ dʰ	~	Linguallabial	t̠ d̠	□	Laminal	t̠̠ d̠̠
o	More rounded	ɔ̹	w	Labialized	tʷ aʷ	~	Nasalized	ẽ̃
o	Less rounded	ɔ̜	j	Palatalized	tʲ aʲ	n	Nasal release	d̪ⁿ
+	Advanced	u̟	ʏ	Velarized	tʷ aʷ	l	Lateral release	d̪ˡ
..	Retracted	e̠	ɣ	Pharyngealized	t̠̠ a̠̠	~	No audible release	d̪̠̠
x	Centralized	ẽ	~	Velarized or pharyngealized	t̠̠			
o	Mid-centralized	ẽ̜		Raised	e̟ (ɿ = voiced alveolar fricative)			
o	Syllabic	n̩	~	Lowered	e̠ (ɓ̥ = voiced bilabial approximant)			
o	Non-syllabic	e̯	~	Advanced Tongue Root	e̟			
o	Rhoticity	ə̃ ɑ̃	~	Retracted Tongue Root	e̠			

## VOWELS



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

## SUPRASEGMENTALS

Primary stress  
Secondary stress  
Long *ˈ*  
Half-long *ˑ*  
Extra-short *ː*  
Minor (foot) group  
Major (intonation) group  
Syllable break  
Linking (absence of a break)

TONES AND WORD ACCENTS  
LEVEL                      CONTOUR

LEVEL		CONTOUR	
ẽ or ǃ	Extra high	ẽ or ǃ	Rising
é	High	ẽ	Falling
ē	Mid	ǃ	High rising
è	Low	ǃ	Low rising
ě	Extra low	ǃ	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	<b>p,b</b>			<b>t,d</b>			<b>k,g</b>	ʔ
Fricative		<b>f,v</b>	θ,ð	<b>s,z</b>	ʃ,ʒ			h
Affricate					tʃ,dʒ			
Nasal	<b>m</b>			<b>n</b>			ŋ	
Liquid				<b>l,r</b>				
Glide	<b>(w)</b>					<b>j</b>	<b>(w)</b>	

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