Introducing Morphology

THIRD EDITION

A lively introduction to morphology, this textbook is intended for undergraduates with relatively little background in linguistics. It shows students how to find and analyze morphological data and presents them with basic concepts and terminology concerning the mental lexicon, inflection, derivation, morphological typology, productivity, and the interfaces between morphology and syntax on the one hand and phonology on the other. By the end of the text students are ready to understand morphological theory and how to support or refute theoretical proposals. Providing data from a wide variety of languages, the text includes hands-on activities designed to encourage students to gather and analyze their own data. The third edition has been thoroughly updated with new examples and exercises. Chapter 2 now includes an updated detailed introduction to using linguistic corpora, and there is a new final chapter covering several current theoretical frameworks.

ROCHELLE LIEBER is Professor of Linguistics at the University of New Hampshire, Durham, NH, where she teaches a wide range of courses on theoretical linguistics and the English language. She is the recipient of a Teaching Excellence Award (1990), the Lindberg Award for Outstanding Teacher and Scholar in Liberal Arts at UNH (2013), and the Bloomfield Award given by the Linguistic Society of America for the *Oxford Reference Guide to English Morphology* (with Laurie Bauer and Ingo Plag, Oxford University Press, 2015). She is the author of four monographs and over fifty articles and book chapters on morphology and related topics, and is the co-editor of three handbooks on morphology.

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ROCHELLE LIEBER
University of New Hampshire

CAMBRIDGE UNIVERSITY PRESS

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UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India

103 Penang Road, #05–06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambridge.org/9781108832489
DOI: 10.1017/9781108957960

First published 2010
Second Edition 2016
9th printing 2019
Third Edition 2022

Printed in the United Kingdom by TJ Books Limited, Padstow, Cornwall

A catalogue record for this publication is available from the British Library

Library of Congress Cataloging-in-Publication Data
Names: Lieber, Rochelle, 1954– author.
Title: Introducing morphology / Rochelle Lieber.
Description: Third edition. | Cambridge, UK ; New York : Cambridge University Press, 2021. | Series: Cambridge introductions to language and linguistics | Includes bibliographical references and index.
Identifiers: LCCN 2021013065 (print) | LCCN 2021013066 (ebook) | ISBN 9781108832489 (hardback) | ISBN 9781108957960 (ebook)
Subjects: LCSH: Grammar, Comparative and general – Morphology. | BISAC: LANGUAGE ARTS & DISCIPLINES / Linguistics / Morphology
Classification: LCC P241 .L534 2021 (print) | LCC P241 (ebook) | DDC 415–dc23
LC record available at https://lccn.loc.gov/2021013065
LC ebook record available at https://lccn.loc.gov/2021013066

ISBN 978-1-108-83248-9 Hardback
ISBN 978-1-108-95848-6 Paperback

Additional resources for this publication at www.cambridge.org/lieber3

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Preface to First Edition

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 online 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, 5, 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.

Preface to Second Edition

The study of morphology keeps on changing. There are basics that every student linguist must learn, but for all linguists – student and grown-up alike – there are always new challenges, new ideas, new ways of finding data. Textbooks that stay the same for too long therefore run the risk of falling behind the times. Hence, the need for a second edition. This edition is not radically different from the previous one, but I have made some significant additions. Most importantly, I have introduced the use of corpora as tools for gathering data. Chapter 3 introduces students to gathering data from corpora such as the Corpus of Contemporary American English (COCA) and the British National Corpus (BNC) and to formulating hypotheses on the basis of their own data. Exercises throughout the book now make reference to corpus data. I have also added some "How to" sections, as well as new Challenge boxes within chapters. I have added material on the interaction of affixation, compounding, and conversion (Chapter 3), subtractive processes (Chapter 5), evidentiality (Chapter 6), typological change (Chapter 7), periphrastic versus morphological expression (Chapter 8), and syllable structure in morphology (Chapter 9). Exercises and additional examples have been added throughout.

I wish to thank several anonymous Cambridge University Press reviewers for comments both before and after I wrote this edition, as well as Andrew Winnard for his support throughout. I especially want to thank students in the Fall 2012 section of my morphology class for their great word log words and the students in the Fall 2014 section for serving as guinea pigs, finding typos, and generally letting me know what needed to be fixed. You guys are the best!

Preface to Third Edition

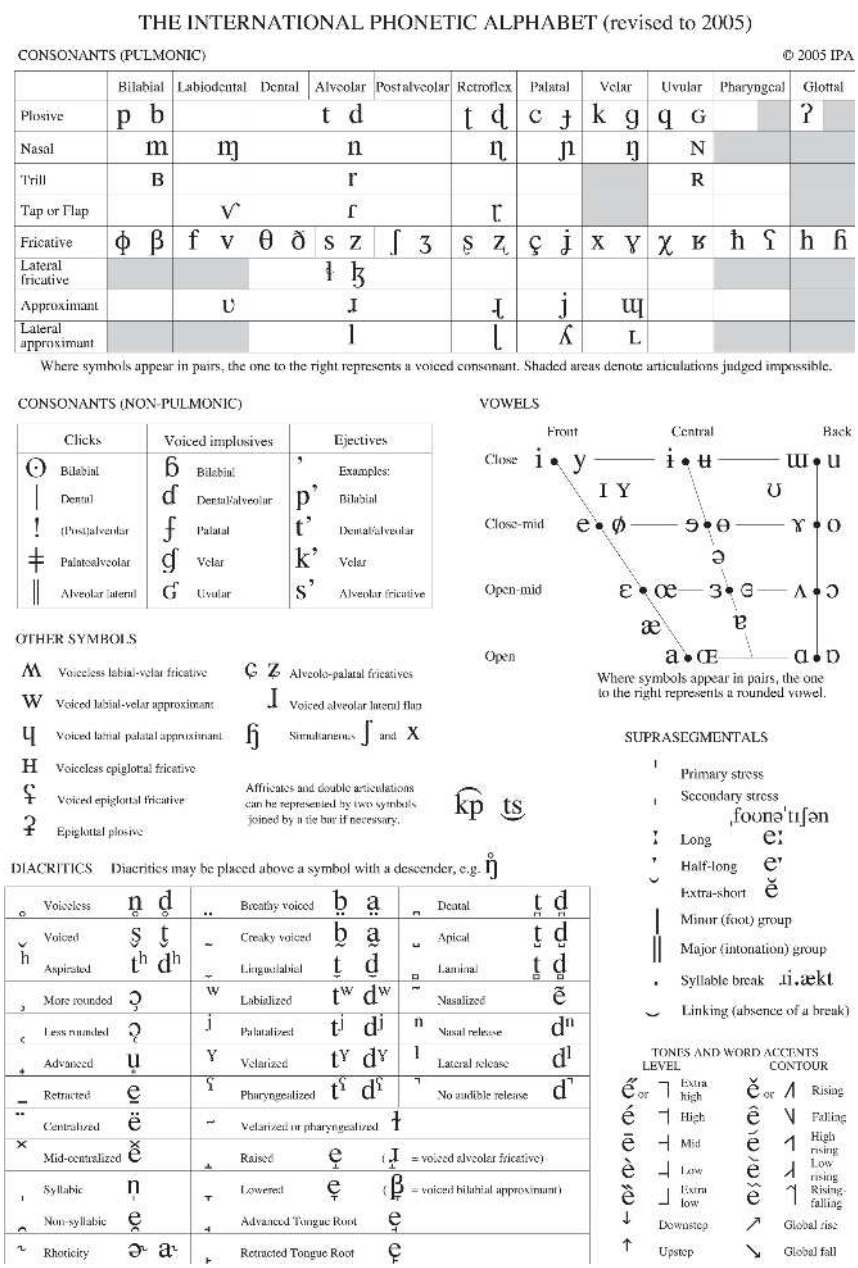
As I wrote in the preface to the second edition, morphology is a field that keeps on changing, and any good text must keep up with those changes. As I learn new things and use this text in my own teaching I find things that work well, but also things that fall flat. I find new subjects to add and ways to help my students with kinds of analysis that some find difficult.

This edition is not radically different from the previous one, but I have updated sections on the mental lexicon, added some "How to" sections, changed and clarified some exercises, and added sections on subjects I've learned about since writing the second edition (overabundance! mirativity!). I have also made some minor stylistic changes. Although I continue to preserve the language names and transcription systems that are used in my sources, I have added family (genetic) affiliations for languages outside of Indo-European, using the designations of Ethnologue (www.ethnologue.com). Languages for which no family affiliation is given can be assumed to be Indo-European.

The most substantial difference between the second and third editions is the addition of Chapter 11 in which I give brief outlines of six theoretical frameworks that are or have been important in the first decades of the twenty-first century. This edition still presupposes little prior linguistic knowledge, and is still eminently suitable for undergraduates just embarking on linguistic studies. But for courses in morphology that aim to prepare students (advanced undegraduates, beginning graduate students) for further study of the subject, Chapter 11 can serve as a bridge between basic and advanced study. Instructors who are offering basic courses for undergraduates can choose to skip Chapter 11 or assign it as recommended or supplementary reading.

I am grateful for the suggestions of several anonymous readers and for the ongoing support of Andrew Winnard and his staff at Cambridge University Press. As always, I am especially grateful to my own students. Students in my 2018 morphology class first gave me the idea of adding Chapter 11 (thanks Tom and Jonah!). Students in my 2020 class served as guinea pigs for this edition, letting me know where things that seemed perfectly clear to me were not so clear at all. If the directions in the exercises have improved over the previous edition, the reader can thank Alex, Alexa, Brenda, Caleb, Denali, Eivet, Jessica, Jillian, and Sam. And of course, I thank all of these students for the words they contributed to the class word log, some of which have found their way into this edition.

The International Phonetic Alphabet



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	’	Examples:
ǀ	Dental	ɗ	Dental/alveolar	pʼ	Bilabial
ǃ	(Post)alveolar	ʄ	Palatal	tʼ	Dental/alveolar
ǂ	Palatoalveolar	ɠ	Velar	kʼ	Velar
ǁ	Alveolar lateral	ʛ	Uvular	sʼ	Alveolar fricative

OTHER SYMBOLS

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

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

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			

VOWELS

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

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)

TONES AND WORD ACCENTS

LEVEL			CONTOUR	
◌̋ or ˥	Extra high	◌̌ or ˩˥	Rising
◌́ ˦	High	◌̂ ˥˩	Falling
◌̄ ˧	Mid	◌᷄ ˧˥	High rising
◌̀ ˨	Low	◌᷅ ˩˧	Low rising
◌̏ ˩	Extra low	◌̌ ˩˥˧	Rising-falling
↓	Downstep	↗	Global rise
↑	Upstep	↘	Global fall

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		u
	ɪ		ʊ
Mid	e	ʌ,ə	o
	ɛ		ɔ
Low	æ		ɑ

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