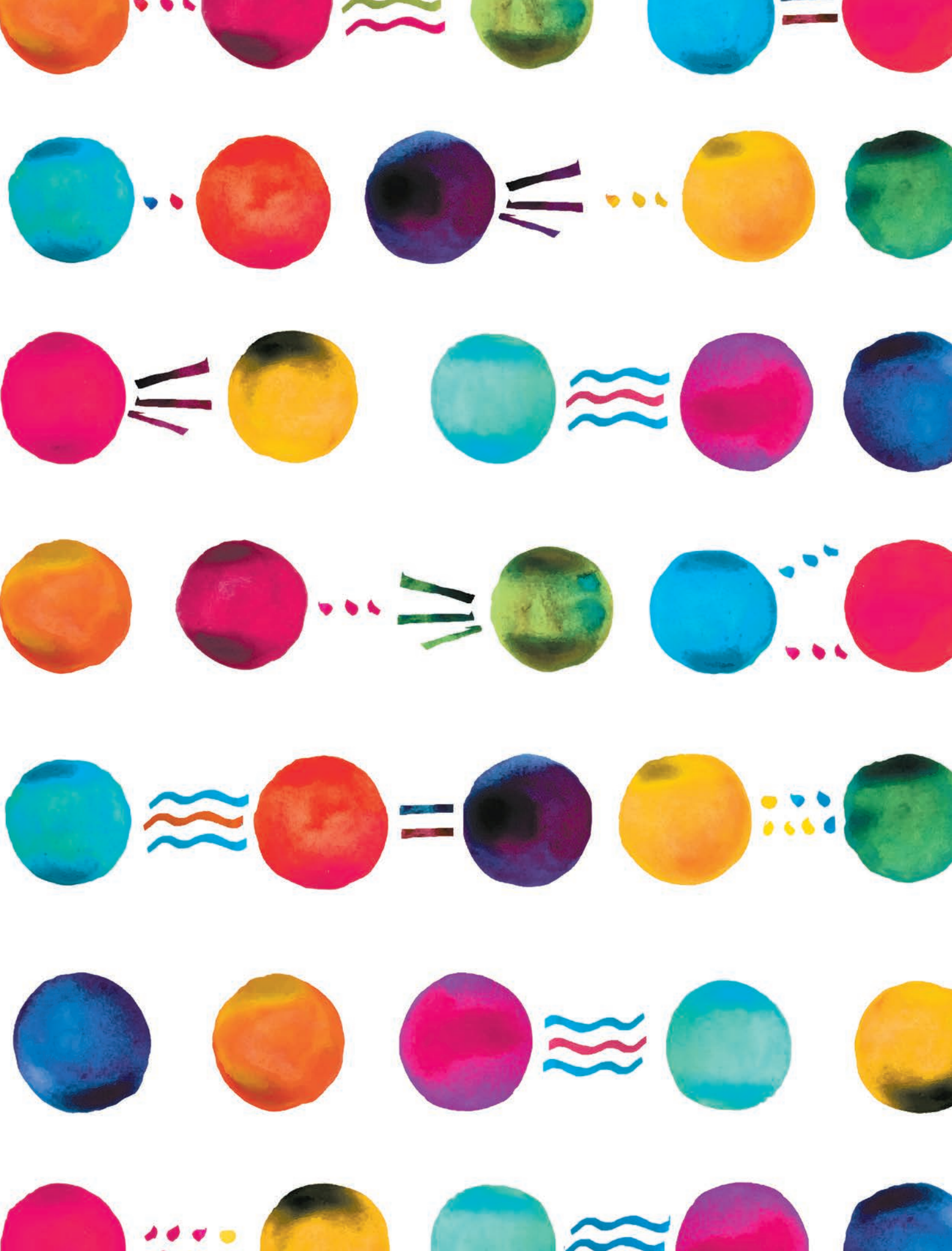


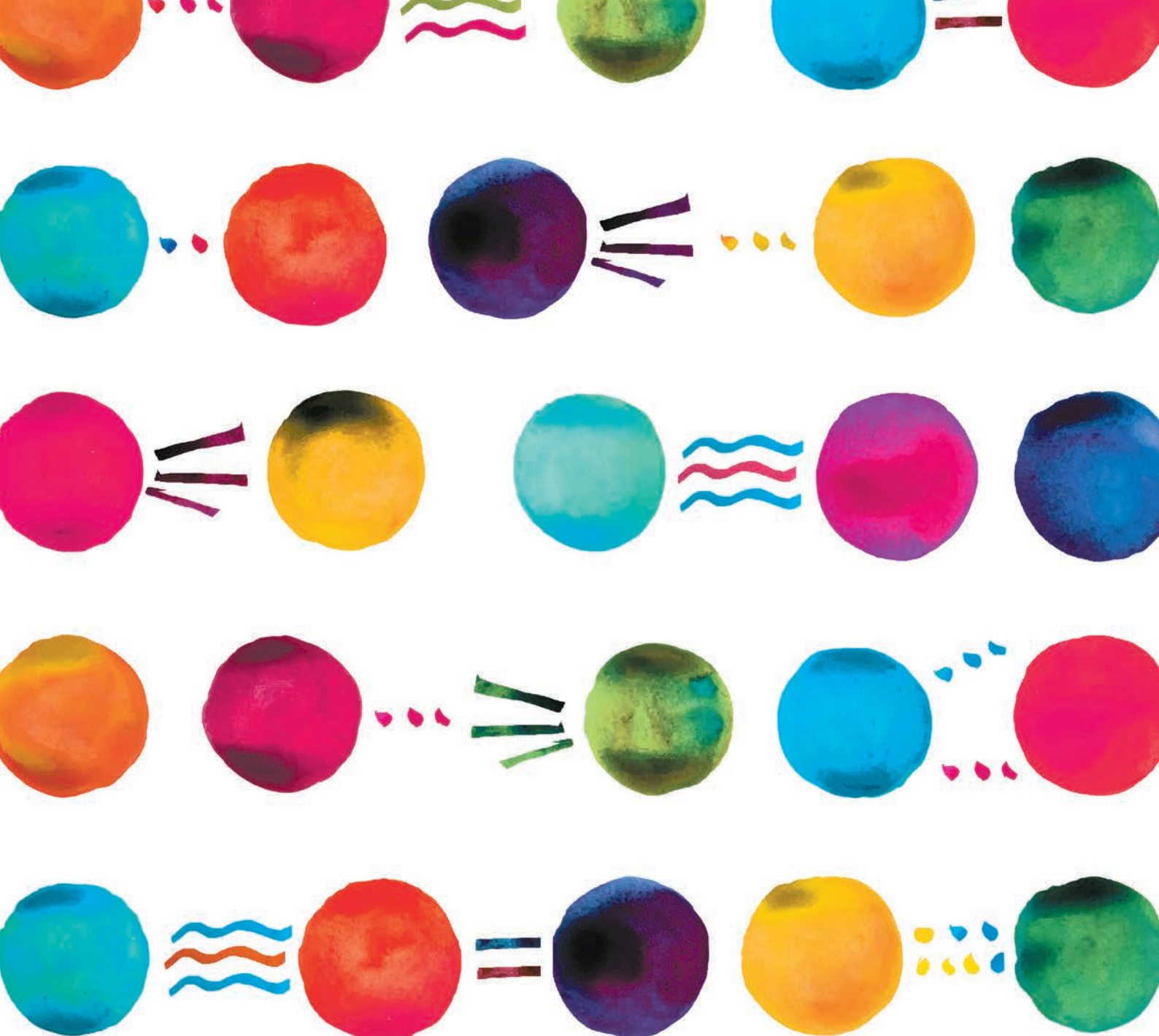
An Introduction to Language

AUSTRALIAN &
NEW ZEALAND
10TH
EDITION

Victoria Fromkin, Robert Rodman, Nina Hyams,
Mengistu Amberber, Felicity Cox, Rosalind Thornton







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An Introduction to Language: Australian and New Zealand 10th edition
10th Edition
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Previous edition published by Cengage in 2018.

Authorised adaptation of An Introduction to Language by Fromkin/Rodman/Hyams
11th edition, published Cengage Learning © 2019 ISBN 9781337559577

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National Library of Australia Cataloguing-in-Publication Data

ISBN: 9780170450065

A catalogue record for this book is available from the National Library of Australia.

Cengage Learning Australia
Level 7, 80 Dorcas Street
South Melbourne, Victoria Australia 3205

Cengage Learning New Zealand
Unit 4B Rosedale Office Park
331 Rosedale Road, Albany, North Shore 0632, NZ

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Printed in Singapore by 1010 Printing International Limited.
1 2 3 4 5 6 7 25 24 23 22 21



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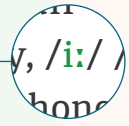
Guide to the text

As you read this text you will find a number of features in every chapter to enhance your study of linguistics and help you understand how the theory is applied in the real world.

A PHONEME LIST FOR AUSTRALIAN ENGLISH

Consonants		Vowels	
Phoneme	As in	Phoneme	As in
Stops			
/p/	pit	/pɪt/	peat
/b/	bit	/bɪt/	pet
/t/	tip	/tɪp/	pet
/d/	dip	/dɪp/	pair
/k/	could	/kʊd/	part
/g/	good	/gʊd/	part
Nasals			
/m/	mitt	/mɪt/	pat
/n/	nit	/nɪt/	pat
/ŋ/	sing	/sɪŋ/	boot
Approximants			
/r/	rip	/rɪp/	part
/w/	whip	/wɪp/	part
/j/	yip	/jɪp/	part
/l/	lip	/lɪp/	part
Fricatives			
/f/	fan	/fæn/	part
/v/	van	/væn/	part
/θ/	thick	/θɪk/	part
/ð/	this	/ðɪs/	part
/s/	sip	/sɪp/	pair
/z/	zip	/zɪp/	part
/ʃ/	fission	/fɪʃən/	part
/vʒ/	vision	/vɪʒən/	part
/h/	hit	/hɪt/	part
Affricates			
/tʃ/	chill	/tʃɪl/	part
/dʒ/	jill	/dʒɪl/	part
Harrington, Cox & Evans			
/i:/	peat	/pi:t/	peat
/ɪ/	pet	/pɪt/	pet
/e/	pair	/peɪ/	pair
/æ/	part	/pɑ:t/	part
/ɛ/	part	/pɛ:t/	part
/ɔ/	part	/pɔ:t/	part
/o:/	part	/pɔ:t/	part
/u/	boot	/bu:t/	boot
/ʊ/	part	/bʊ:t/	part
/ɜ:/	part	/pɜ:t/	part
/ɜ:/	apart	/əpɑ:t/	apart
/æ/	hay	/heɪ/	hay
/e/	high	/haɪ/	high
/o/	hay	/hoɪ/	hay
/ɔ/	how	/haʊ/	how
/u/	hoe	/hoʊ/	hoe
/ɜ:/	here	/hɪə/	here
/ɜ:/	here	/hɪə/	here
Mitchell & Delbridge			
/i/	peat	/pi:t/	peat
/ɪ/	pet	/pɪt/	pet
/e/	pair	/peɪ/	pair
/æ/	part	/pɑ:t/	part
/ɛ/	part	/pɛ:t/	part
/ɔ/	part	/pɔ:t/	part
/u/	boot	/bu:t/	boot
/ɜ:/	part	/pɜ:t/	part
/ɜ:/	apart	/əpɑ:t/	apart
/æ/	hay	/heɪ/	hay
/e/	high	/haɪ/	high
/o/	hay	/hoɪ/	hay
/ɔ/	how	/haʊ/	how
/u/	hoe	/hoʊ/	hoe
/ɜ:/	here	/hɪə/	here
/ɜ:/	here	/hɪə/	here
/u/	tour	/tuə/ (now rare)	tour

Use the **phoneme list for Australian English** inside the front cover as a quick reference list of the symbols that are used to represent the sounds of Australian English.



Find instances of these symbols throughout the text.

Quick tests for lexical categories

Note: These tests are not foolproof so try both the morphological and the distributional tests.

Lexical Category	Test Type	Test Question
Noun	Morphological	Can the word take a plural suffix? (e.g. X-s)
	Distributional	Can the word combine with an article? (e.g. a X, the X) or Can the word appear after an adjective? (e.g. silly X, beautiful X)
Verb	Morphological	Can the word take a suffix for present or past tense? (e.g. X-s, X-ed)
	Distributional	Can the word be used with an adverb? (e.g. X quickly, X often) or Can the word be used with a modal? (e.g. can X, will X)
Adjective	Morphological	Can the word be used in a comparative form by adding -er or preceding it by more? (e.g. X-er, more X)
	Distributional	Can the word be positioned between a determiner and a noun? (e.g. the X book, a X boy) or Can the word be preceded by very? (e.g. very X) Caution: This test also identifies adverbs
Adverb	Morphological	Does the word end with -ly? (e.g. X-ly) Caution: This test only identifies a small subset of adverbs, and there are also adjectives ending with -ly
	Distributional	Can the word be preceded by very? (e.g. very X) Caution: This test also identifies adjectives or Is the word ungrammatical when positioned between a determiner and a noun? (e.g. *the X book, *a X boy)
Preposition	Morphological	None. Prepositions are a closed class set (e.g. in, under, before, of, with etc.)
	Distributional	Can the word be followed by a noun phrase? (e.g. X the box)

Functional categories with examples

Determiner (Det)	the, a, my, his, your, each, some, many, two, several, this, those
Auxiliary (Aux)	have, be, do, can, may, might, must, will, shall, should, would, could
Complementiser (C)	that, if, for, whether
Conjunction (Conj)	and, or, but

Find useful summary tables while you learn about syntax including a quick guide to the various **lexical categories** inside the back cover.

PART-OPENING FEATURES

Part 2

Grammatical aspects of language

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The theory of grammar is concerned with the question: What is the nature of a person's knowledge of [their] language, the knowledge that enables [them] to make use of language in the normal, creative fashion? A person who knows a language has mastered a system of rules that assigns sound and meaning in a definite way for an infinite class of possible sentences.

Noam Chomsky, *Language and Mind*, 1968

Refer to the **Chapter list** for an outline of the chapters in each part.

CHAPTER OPENING FEATURES

2

Phonetics: the sounds of language

7111 languages are spoken today. That number is constantly in flux, because we're learning more about the world's languages every day. And beyond that, the languages themselves are in flux. They're living and dynamic, spoken by communities whose lives are shaped by our rapidly changing world. This is a fragile time. Roughly 40 per cent of languages are now endangered, often with less than 1000 speakers remaining. Meanwhile, just 23 languages account for more than half the world's population.

Ethnologue, <https://www.ethnologue.com/guides/how-many-languages>

Learning objectives

After reading Chapter 2, you should be able to:

- show an understanding that speech is produced through carefully coordinated overlapping vocal gestures that lead to disturbances in the air creating dynamic changes in acoustic energy
- demonstrate familiarity with the International Phonetic Alphabet (IPA) and its ability to represent the speech sounds of the world's languages, showing a particular understanding of the IPA symbols used to represent Australian English speech sounds
- categorise the consonant sounds of English according to the taxonomy determined by the International Phonetic Association and show an understanding of some additional consonantal features used across the world's languages
- describe the major features used to classify the vowels of the world's languages, with a focus on Australian English
- show how the phonetic features of length, pitch and loudness can be used in language to create the prosodic characteristics of rhythm, stress, intonation and tone

Authentic real-world and literary **quotes** provide insights and connect with the theory.

Identify the key concepts that the chapter will cover with the **Learning objectives** at the start of each chapter.

FEATURES WITHIN CHAPTERS

fundamental frequency

In speech, the rate at which the vocal folds vibrate, symbolised as F₀, called F-zero, perceived by the listener as pitch.

The sounds we produce can be described in terms of how fast the variations of air pressure occur, which determines the **fundamental frequency** of the sounds and is perceived by the hearer as pitch. We can also describe the magnitude, or **intensity**, of the variations, which determines the loudness of the sound. The quality of the speech sound – whether it is an [i:] or an [e:] or whatever – is determined by the shape of the vocal tract when air is flowing through it. This shape modulates the sound from the glottis into a spectrum of frequencies of greater or lesser intensity, and the particular combination of 'greater or lesser' is heard as a particular sound.

When you see **Key terms** marked in bold, study the **Definitions** nearby to learn important vocabulary. See the **Glossary** at the back of the book for a full list of key terms and definitions.

FEATURES WITHIN CHAPTERS

Key examples of linguistic rules and theory in practice are captured in **Worked examples**.

**Worked example****Planning in Active versus Passive Sentences**

Nellie chased *the ball*

The ball was chased by Nellie

Active

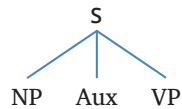
The object of 'chase' is 'the ball.'

Passive

The object of the active sentence 'the ball' becomes the subject NP in the passive sentence.

**Worked example****Semantic rule I**

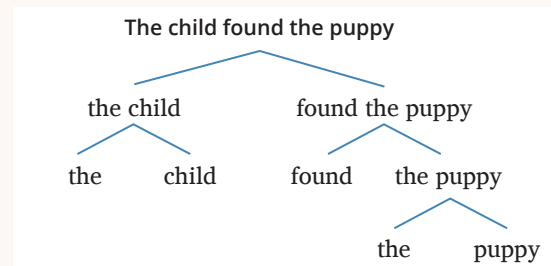
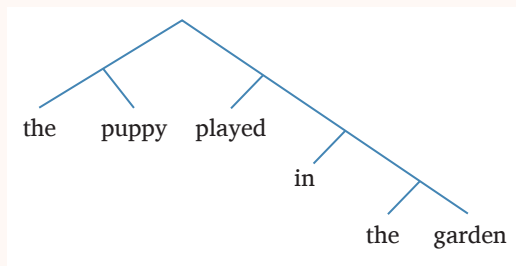
The meaning of:



is the following truth condition:

If the meaning of NP (an individual) is a member of the meaning of VP (a set of individuals), then S is TRUE; otherwise it is FALSE.

Other key elements are highlighted for simple navigation, including **Phrase structure trees** and **Constituency tests**



What did the child find?

The puppy.

*Found the.

Constituency tests

Where did you find *the puppy*?

I found *him* in the park.

Constituency tests

END-OF-CHAPTER FEATURES

At the end of each chapter you will find several tools to help you to review, practise and extend your knowledge of the key learning objectives.

CHAPTER REVIEW

Summary

Psycholinguistics is concerned with linguistic performance or processing, which is the use of linguistic knowledge (competence) in speech production and comprehension.

Comprehension, the process of understanding an utterance, requires the ability to access the mental lexicon to match the words in the utterance to their meanings. Comprehension begins with the perception of the acoustic speech signal. Listeners who know a language have the ability to segment the stream into linguistic units and to recognise acoustically distinct sounds as the same linguistic unit.

Psycholinguistic studies are aimed at uncovering the units, stages and processes involved in linguistic performance. Several experimental techniques, including lexical decision tasks, have proved helpful in understanding lexical access. The measurement of response times (RTs), shows that it takes longer to retrieve less common words than more common words, longer to retrieve possible non-words than impossible non-words, longer to retrieve words with larger phonological neighbourhoods than ones with smaller neighbourhoods, and longer to retrieve lexically ambiguous words than unambiguous ones. A word may prime another word if the

Review your understanding of the key chapter topics with the **Summary**.

Exercises

1 Speech errors (i.e. 'slips of the tongue' or 'bloopers') illustrate a difference between linguistic competence and performance since our very recognition of them as errors shows that we have knowledge of well-formed sentences. Furthermore, errors provide information about the grammar. The following utterances were actually observed. A few are attributed to Dr Spooner.

- For each speech error, state what kind of linguistic unit or rule is involved, that is, whether it is phonological, morphological, syntactic, lexical or semantic.
- State, to the best of your ability, the nature of the error or the mechanisms that produced it.
(Note: The intended utterance is to the left of the arrow and the actual utterance is to the right.)

Example: ad hoc → odd hack

- phonological vowel segment
- reversal or exchange of segments

Example: she gave it away → she gived it away

20 **Challenge exercise:** Do some independent research on one or more of the following topics:

- Consider some of the high-tech methodologies used to investigate the brain discussed in this chapter, such as PET, MRI and MEG. What are the upsides and downsides of the use of these technologies on healthy patients? Consider the cost, the intrusiveness and the ethics of exploring a person's brain, weighed against the knowledge obtained from such studies.
- Recent research suggests that specific language impairment may have a genetic basis. Conduct some research to find out what observations and experimental findings have led researchers to this conclusion. It may be helpful to investigate the websites of senior researchers in this area, such as Mabel Rice and

Test your knowledge and consolidate your learning through the end-of-chapter **exercises**.

Extend your understanding with **challenge exercises**.

Further reading

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 Senghas, A, Kita, S, and Ozyürek, A 2004, 'Children creating core properties of language: Evidence from an emerging sign language in Nicaragua', *Science*, 305: 1779–1782.
 Smith, N V and Tsimpli, I M 1995, *The mind of a savant: Language*

Extend your understanding with the suggested **Further reading** and **Weblinks** relevant to each chapter.

NEW

Weblinks

- <https://www.youtube.com/user/thelingspace> – Fun short introductory videos on language acquisition, psycholinguistics and neurolinguistics.
- <http://www.linguisticsociety.org/resource/neurolinguistics> – You can learn about how our brains work, aphasia, dyslexia and stuttering.
- <https://aphasia.org.au/about-aphasia> – At this site you will find information about aphasia and useful
- <http://psychology.about.com/od/historyofpsychology/a/genie.htm> – Here you will learn more about Genie's case.
- http://criticalperiodhypothesis.blogspot.com/p/history-of-cph_21.html – This site introduces the history of the critical period hypothesis [CPH], research that support the existence of the CPH and research that failed to support the existence of the

Guide to the online resources

FOR THE INSTRUCTOR

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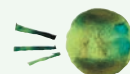
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- Interactive phoneme list for Australian English
- Lexical category test tables

Access the resources at <https://fromkin.cengagelearning.com.au/>

Preface



Well, this bit which I am writing, called Introduction, is really the er-h'r'm of the book, and I have put it in, partly so as not to take you by surprise, and partly because I can't do without it now. There are some very clever writers who say that it is quite easy not to have an er-h'r'm, but I don't agree with them. I think it is much easier not to have all the rest of the book.

A A Milne, *The Christopher Robin Birthday Book*

The last thing we find in making a book is to know what we must put first.

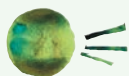
Blaise Pascal (1623–1662)

Interest in linguistics – the study of human language – has existed throughout history. Many of the questions discussed in this book have been asked for thousands of years. What is language? What do you know when you know a language? What is the origin of language? Is language unique to the human species? Why are there so many languages? Where do they come from? How are they related? How do children learn language? Are some languages (or dialects) superior to others? Are some languages simpler than others? What do all languages have in common? What is the neurological basis of human language? What parts of the brain are concerned with language? Can computers be taught to speak and understand human language? These are only a few of the questions that have piqued curiosity about language.

In addition to a philosophical interest in such questions, there are many other reasons that linguists, psychologists, philosophers, educators, sociologists, legal experts, neurologists, communication engineers and computer scientists need to understand the nature of human language. New developments in linguistics have wide ranging impact in education, health science, sociology, psychology, law, medicine, technology and communication.

In light of the importance of linguistics in so many diverse disciplines, the first nine (Australian) editions of this textbook were directed towards students in a wide variety of courses. The book has been used in linguistics and non-linguistics courses, at all levels from undergraduate to postgraduate, for students in fields as diverse as computer science, English, foreign languages, speech pathology, anthropology, communications and philosophy. The tenth Australian edition follows in this tradition, but further extends and updates the content to make it suitable for an even wider audience. Students will gain insight into current linguistic issues and develop a better understanding of debates appearing in the national media. We hope that this book will help to dispel certain common misconceptions that people have about language and language use.

We have provided many new exercises and problem sets in this edition so that students can apply their knowledge of linguistic concepts to novel data. This will help to consolidate learning and further test understanding of the material in the text. More research-oriented exercises have also been added for those instructors who wish their students to pursue certain topics more deeply. Some exercises are marked as 'challenge exercises' if they go beyond the scope of what is ordinarily expected in a first course in language study. An answer key is available to instructors to assist them in areas outside of their expertise. Chapter 1 continues to be a concise introduction to the general study of language. It includes many 'hooks' for engaging students in language study, including discussions of signed languages; a consideration of animal 'languages'; a treatment of language origins; and the occasional silliness of self-appointed mavens of 'good' grammar who beg us not to carelessly split infinitives and who find sentence-ending prepositions an abomination not to be put up with.



Chapter 2, on phonetics, introduces the notion of phoneme and allophone at the beginning of the chapter to set the scene for discussion of different levels of analysis. In this chapter the transcription system for Australian English, based firmly on the principles of the International Phonetic Alphabet is introduced. This system is essential for the study of Australian English speech patterns. The text fully adheres to the International Phonetics Association (IPA) notation conventions. The taxonomic classification system for describing the sounds of the world's languages is introduced with particular reference to articulatory processes that are necessary to create individual speech sounds. Consonants, vowels, tone and intonation are illustrated through examples from a range of languages.

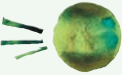
Chapter 3, on phonology, reinforces the concept of phoneme and allophone and highlights some important allophonic processes that occur in English. This chapter retains numerous Australian English and other language problems and examples to illustrate the important theoretical concepts relating to the patterns of sounds in language. Material in this chapter continues to be presented so that the student can appreciate the need for formal theories through real-world examples.

Chapter 4 launches the book into the study of grammar with morphology, the study of word formation, as that is the most familiar aspect of grammar to most students. The subject is treated with clarity and an abundance of simple illustrations from non-English languages to emphasise the universality of word structure, including the essentials of derivational versus inflectional morphology, free and bound morphemes, and the hierarchical structure of words. The section on compound words has been expanded to include a detailed discussion of their internal structure.

Many instructors have noted that recent school English curricula include little teaching of grammar, and have requested that the text cover more foundational knowledge. Chapter 5 now has an expanded section on the various syntactic categories, and ways to identify parts of speech. In particular, we have expanded the section on how to identify different syntactic categories using constituency tests. Our feedback has shown that our students would benefit more from studying the basics of sentence structure than learning about current views on X-bar phrase structure. For this reason, we have not followed the US edition in moving to X-bar theory. Instead, we have chosen to introduce students to the more intuitive earlier system of phrase structure rules with ternary branching trees, leaving X-bar theory for more advanced courses on syntax. The text introduces students to phrase structure rules slowly and systematically, incorporating many example tree structures. While our focus is necessarily on the sentence structure of English, we have introduced cross-linguistic examples where possible. The intention in the syntax chapter is to enhance the student's understanding of the differences among languages as well as the universal aspects of grammar. Nevertheless, the introductory spirit of these chapters is not sacrificed, and students gain a deep understanding of word and phrase structure with a minimum of formalisms and a maximum of insightful examples and explanations, supplemented as always by quotes, poetry and humour.

Chapter 6, on semantics, has been more finely structured so that the challenging topics of this complex subject can be digested in smaller pieces. Still based on the theme of 'What do you know about meaning when you know a language?' the chapter first introduces students to truth-conditional semantics and the principle of compositionality. Following that are discussions of what happens when compositionality fails, as with idioms, metaphors and anomalous sentences. Lexical semantics takes up various approaches to word meaning, including the concepts of reference and sense, semantic features, argument structure and thematic roles. The most heavily revised parts of this chapter are the sections on argument structure, thematic roles and semantic features, the latter now containing a discussion of how these features affect the syntax. In the section on pragmatics, we discuss and illustrate in depth the influence of situational versus linguistic context on the communicative content of utterances, the significance of implicature in comprehension, Grice's maxims of conversation, presuppositions and J L Austin's speech acts.

The chapters comprising Part 3, 'The psychology of language', have been revisited. Chapter 7, 'Language acquisition', remains rich in data from English and other languages. The 10th edition incorporates a new



section on the acquisition of Murrinhpatha, an Australian indigenous language spoken in the Northern Territory. Bilingualism and L2 acquisition are taken up in detail, including a section on L2 teaching. This edition includes both usage-based approaches to language acquisition as well as the generative approach. The arguments for innateness and Universal Grammar that language acquisition provides are, nevertheless, exploited to show the student how scientific theories of great import are discovered and supported through observation, experiment and reason. As in most chapters, Australian Sign Language (Auslan) is discussed, and its important role in understanding the biological foundations of language is emphasised.

In Chapter 8, ‘Language processing and the human brain’, the section on psycholinguistics has been revised to accommodate recent discoveries. This chapter may be read and appreciated without technical knowledge of linguistics. When the centrality of language to human nature is appreciated, students will be motivated to learn more about human language, and about linguistics, because they will be learning more about themselves. As in the previous edition, highly detailed illustrations of MRI and PET scans of the brain are included, and this chapter highlights some of the new results and tremendous progress in the study of neurolinguistics over the past few years. There is a section on how MEG (magnetoencephalography) can be used to study aspects of our linguistic knowledge. The arguments for the autonomy of language in the human brain are carefully crafted so that the student sees how experimental evidence is applied to support scientific theories.

Part 4 is concerned with language and society, including sociolinguistics and historical linguistics. Chapter 9 emphasises the important relationship between language and society and includes a focus on the concept of social dialect and style. Pidgins and creoles are discussed with greater reference to Aboriginal and Torres Strait Islander languages. The ‘Language in use’ section takes up slang, profanity, racial epithets, euphemisms and similar topics. Attitudes towards language and how they reflect the views and mores of society are also included in this chapter. We also discuss topics such as English spoken by non-native speakers and so-called standard languages. A section on language and sexism reflects a growing concern with this topic. An expanded list of references in this chapter is a valuable resource for further study.

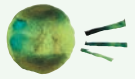
Chapter 10, on language change, includes the latest research on language families, language relatedness and language typology. There is also a section ‘Extinct and endangered languages’, which reflects the intense interest in this critical subject. In response to reviewers’ requests, a detailed and more complex illustration of the application of the comparative method to two contemporary dialects to reconstruct their ancestor – often called ‘internal reconstruction’ – is included in this chapter.

Chapter 11, on writing systems, has been updated with a discussion on emojis, adding a further dimension to what it means to write a language.

Key terms, which are bold in the text, are defined in the margin close to where they appear, as well as in the revised glossary at the end of the book. The glossary has been expanded and improved so that this edition provides students with a linguistic lexicon of nearly 550 terms, making the book a worthy reference volume.

This new Australian edition continues to reflect the study of linguistics in Australia by taking account of the place of language in Australian society and by basing its detailed description of English on the Australian English dialect. The phonemic symbols, for example, are those that are in standard use in this country, and the discussion of social and regional variation in Chapter 9 continues to focus on Australia and New Zealand. This book assumes no previous knowledge on the part of the reader. An updated list of references and list of weblinks at the end of each chapter are included to accommodate any reader who wishes to pursue a subject in more depth. Each chapter concludes with a summary and exercises to enhance the student’s interest in, learning and comprehension of the textual material. We wish to thank the reviewers of this edition. We have benefited greatly from discussions with and suggestions from friends,

PREFACE



colleagues, students, lecturers, tutors and reviewers of the last edition. If this text is better than the last, it is because of them. The responsibility for errors in fact or judgement is, of course, ours. We hope that the continual updates we make to the book improve its quality and the user experience. Finally, we wish to say thank you to the lecturers who have used the earlier editions; without them and their students there would be no new edition.



About the authors

Victoria Fromkin received her bachelor's degree in economics from the University of California, Berkeley, in 1944 and her MA and PhD. in linguistics from the University of California, Los Angeles, in 1963 and 1965, respectively. She was a member of the faculty of the UCLA Department of Linguistics from 1966 until her death in 2000, and served as its chair from 1972 to 1976. From 1979 to 1989 she served as the UCLA Graduate Dean and Vice Chancellor of Graduate Programs. She was a visiting professor at the Universities of Stockholm, Cambridge, and Oxford. Vicki served as president of the Linguistics Society of America in 1985, president of the Association of Graduate Schools in 1988, and chair of the Board of Governors of the Academy of Aphasia. She received the UCLA Distinguished Teaching Award and the Professional Achievement Award, and served as the US Delegate and a member of the Executive Committee of the International Permanent Committee of Linguistics (CIPL). She was an elected Fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, the New York Academy of Science, the American Psychological Society, and the Acoustical Society of America, and in 1996 was elected to membership in the National Academy of Sciences. She published more than one hundred books, monographs, and papers on topics concerned with phonetics, phonology, tone languages, African languages, speech errors, processing models, aphasia, and the brain/mind/language interface – all research areas in which she worked. Vicki Fromkin passed away on 19 January, 2000, at the age of 76.

Robert Rodman received his bachelor's degree in mathematics from the University of California, Los Angeles, in 1961, a master's degree in mathematics in 1965, a master's degree in linguistics in 1971, and his PhD. in linguistics in 1973. He was on the faculties of the University of California at Santa Cruz, the University of North Carolina at Chapel Hill, Kyoto Industrial College in Japan, and North Carolina State University. His research areas included forensic linguistics and computer speech processing. In 2009, he was elected into the American Academy of Social Sciences as an Associate Fellow for his achievements in computational forensic linguistics. Robert Rodman passed away on 15 January, 2017, at the age of 76.

Nina Hyams received her bachelor's degree in journalism from Boston University in 1973 and her MA and PhD. in linguistics from the Graduate Center of the City University of New York in 1981 and 1983, respectively. She joined the faculty of the University of California, Los Angeles, in 1983, where she is currently a professor of linguistics. Her main areas of research are childhood language development and syntax. She is author of the book *Language Acquisition and the Theory of Parameters* (D. Reidel Publishers, 1986), a milestone in language acquisition research. She has also published numerous articles on the development of syntax, morphology, and semantics in children. She has been a visiting scholar at the University of Utrecht and the University of Leiden in the Netherlands and has given lectures throughout Europe and Japan. Nina lives in Los Angeles with her pal Spot, a rescued border collie mutt, and his olde English bulldogge companion, the ever soulful Nellie.

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Acknowledgements

Cengage and the authors would like to thank the following reviewers, who provided incisive and helpful feedback:

- Gavin Austin, University of Southern Queensland
- Manuel Delicado Cantero, ANU
- Alison Dench, Sheridan College
- Iain Giblin, Macquarie University
- Weifeng Han, Flinders University
- Alan Libert, University of Newcastle
- Hossein Shokouhi, Deakin University

We would also like to thank David Blair, Mark Harvey and Peter Collins for their major contributions to previous editions, and Adam Schembri for his valuable help in reviewing and updating this edition's sections on sign languages.

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Part 1

The nature of human language

1 What is language?

2

Reflecting on Noam Chomsky's ideas on the innateness of the fundamentals of grammar in the human mind, I saw that any innate features of the language capacity must be a set of biological structures, selected in the course of the evolution of the human brain.

S E Luria, *A Slot Machine, a Broken Test Tube, an Autobiography*, 1984

The nervous systems of all animals have a number of basic functions in common, most notably the control of movement and the analysis of sensation. What distinguishes the human brain is the variety of more specialized activities it is capable of learning. The pre-eminent example is language.

Norman Geschwind, *Specializations of the Human Brain*, 1979

Linguistics shares with other sciences a concern to be objective, systematic, consistent and explicit in its account of language. Like other sciences, it aims to collect data, test hypotheses, devise models and construct theories. Its subject matter, however, is unique: at one extreme it overlaps with such 'hard' sciences as physics and anatomy; at the other, it involves such traditional 'arts' subjects as philosophy and literary criticism. The field of linguistics includes both science and the humanities, and offers a breadth of coverage that, for many aspiring students of the subject, is the primary source of its appeal.

David Crystal, *The Cambridge Encyclopedia of Language*, 2010

1

What is language?

When we study human language, we are approaching what some might call the 'human essence', the distinctive qualities of mind that are, so far as we know, unique to [humankind].

Noam Chomsky, *Language and Mind*, 1972

Learning objectives

After reading Chapter 1, you should be able to:

- understand the arbitrary relation between linguistic form and meaning
- distinguish between linguistic knowledge (competence) and linguistic behaviour (performance)
- distinguish between descriptive and prescriptive rules of grammar
- understand the relationship between grammatical rules of individual languages and principles of language structure that may hold across all languages
- explain the difference between human language and the communicative systems of other animals.

Whatever else people do when they come together – whether they play, fight, make love or make cars – they talk. We live in a world of language. We talk to our friends, our associates, our wives and husbands, our lovers, our teachers, our parents, our rivals and even our enemies. We talk to bus drivers and total strangers. We talk face-to-face and over the telephone, and everyone responds with more talk. Television and radio further swell this torrent of words. Hardly a moment of our waking lives is free from words and even in our dreams we talk and are talked to. We also talk when there is no-one to answer. Some of us talk aloud in our sleep. We talk to our pets and sometimes to ourselves.

The possession of language, perhaps more than any other attribute, distinguishes humans from other animals. To understand our humanity, one must understand the nature of language that makes us human. According to the philosophy expressed in the myths and religions of many peoples, language is the source of human life and power. To some people of Africa, a newborn child is a *kintu*, a 'thing', not yet a *muntu*, a 'person'. Only by the act of learning language does the child become a human being. According to this tradition, then, we all become human because we all know at least one language. But what does it mean to know a language?

Linguistic knowledge

Do we know only what we see, or do we see what we somehow already know?

Cynthia Ozick, 'What Helen Keller Saw', *New Yorker*, 16 and 23 June 2003

When you know a language, you can speak and be understood by others who know that language. This means you are able to produce strings of sounds that signify certain meanings and to understand or interpret the sounds produced by others. But language is more than speech. Deaf people produce and understand **sign languages** just as hearing people produce and understand spoken languages. The languages of the deaf communities throughout the world are equivalent to spoken languages, differing only in their modality of expression.

sign language

A language used by deaf people in which linguistic units, such as morphemes and words as well as grammatical relations, are formed by manual and other body movements.



Almost everyone knows at least one language. Five-year-old children are nearly as proficient at speaking and understanding speech as their parents. Yet the ability to carry out the simplest conversation requires profound knowledge that most speakers are unaware of. This is true for speakers of all languages, from Albanian to Zulu. A speaker of English can produce a sentence that has two relative clauses without knowing what a relative clause is, such as:

My goddaughter, who was born in Sweden and who now lives in Australia, is named Disa, after a Viking queen.

In a parallel fashion, a child can walk without understanding or being able to explain the principles of balance and support or the neurophysiological control mechanisms that permit one to do so. The fact that we may know something unconsciously is not unique to language.

Knowledge of the sound system

Part of knowing a language means knowing what sounds (or **signs**)¹ are in that language and what sounds are not. One way this unconscious knowledge is revealed is by the way speakers of one language pronounce words from another language. If you speak only English, for example, you may substitute an English sound for a non-English sound when pronouncing words of another language, such as French *ménage à trois*. If you pronounce it as the French do, you are using sounds outside the English sound system.

sign

A single gesture (possibly with complex meaning) in the sign languages used by the deaf.

French people speaking English often pronounce words such as *this* and *that* as if they were spelt *zis* and *zat*. The English sound represented by the initial letters *th* in these words is not part of the French sound system, and the French pronunciation reveals the speaker's unconscious knowledge of this fact.

Knowing the sound system of a language includes more than knowing the inventory of sounds. It means also knowing which sounds may start a word, end a word and follow each other. The name of a former president of Ghana was *Nkrumah*, pronounced with an initial sound like the sound ending the English word *sing*. Although this is an English sound, no word in English begins with the *ng* sound. Speakers of English who have occasion to pronounce this name often mispronounce it (by Ghanaian standards) by inserting a short vowel sound, such as *Nekrumah* or *Enkrumah*. Similarly, the first name of the New Zealand mystery writer *Ngaio Marsh* is often mispronounced with an 'n' sound at the beginning instead of the 'ng' sound. Children who learn English recognise that *ng* does not begin a word, just as Ghanaian and Māori children learn that words in their language may begin with the *ng* sound.

We will learn more about sounds and sound systems in Chapters 2 and 3.

Knowledge of words

Knowing the sounds and sound patterns in our language constitutes only one part of our linguistic knowledge. Knowing a language means also knowing that certain sequences of sounds signify certain concepts or meanings. Speakers of English know what *boy* means, and that it means something different from *toy* or *girl* or *pterodactyl*. When you know a language, you know words in that language; that is, which sequences of sounds are related to specific meanings and which are not.



Arbitrary relation of form and meaning

The minute I set eyes on an animal I know what it is. I don't have to reflect a moment; the right name comes out instantly. I seem to know just by the shape of the creature and the way it acts what animal it is. When the dodo came along he [Adam] thought it was a wildcat. But I saved him. I just spoke up in a quite natural way and said, 'Well, I do declare if there isn't the dodo!'

Mark Twain, *Eve's Diary*, 1906

arbitrary

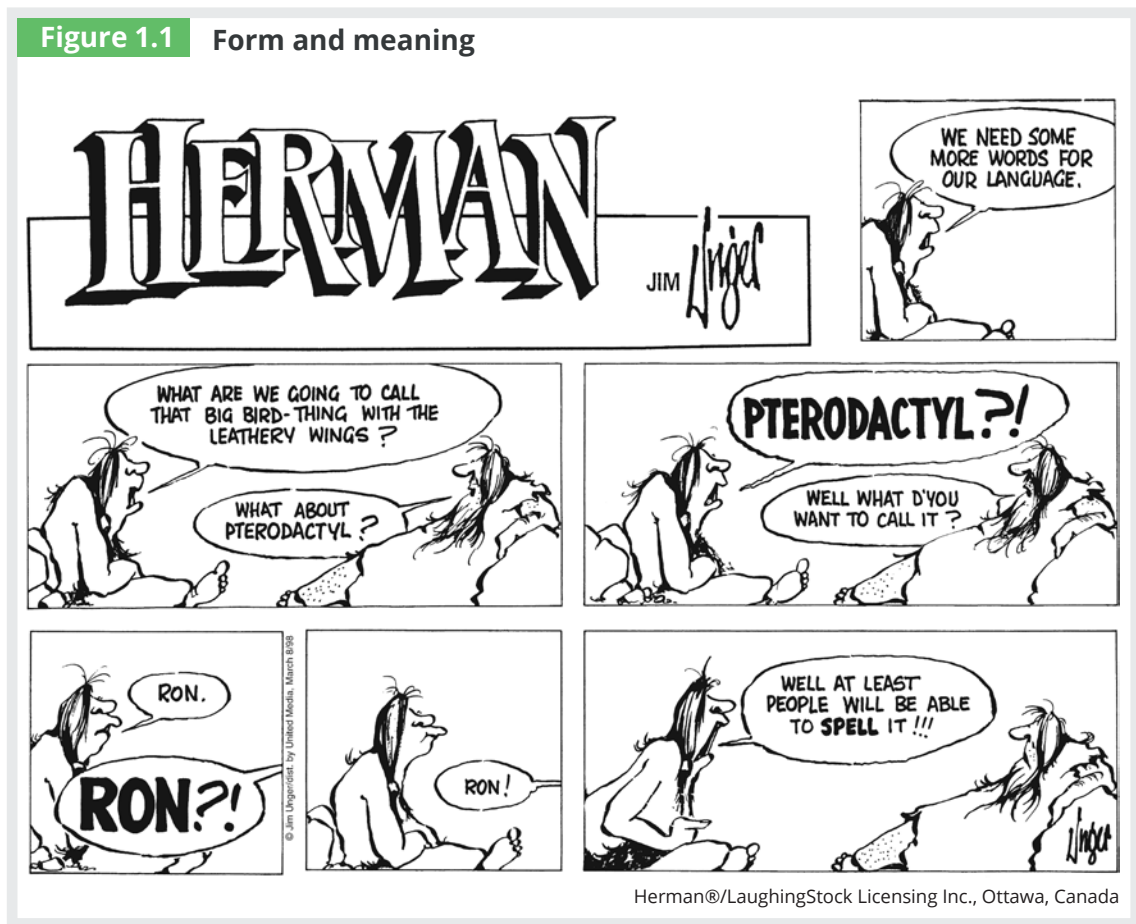
Describes the property of language, including sign language, whereby there is no natural or intrinsic relationship between the way a word is pronounced (or signed) and its meaning.

If you do not know a language, the words (and sentences) of that language will be mainly incomprehensible because the relationship between speech sounds and the meanings they represent in the languages of the world is, for the most part, an **arbitrary** one. When you are acquiring a language, you have to learn that the sounds represented by the letters *house* signify the concept ; if you know French, this same meaning is represented by *maison*; if you know Spanish, by *casa*, if you know Amharic, by *bet*. Similarly,  is represented by *hand* in English, *main* in French, *nsa* in Twi, and *ruka* in Russian. The same sequence of sounds can represent different meanings in different languages. The word *bolna* means ‘speak’ in Hindu-Urdu and ‘aching’ in Russian; *bis* means ‘devil’ in Ukrainian and ‘twice’ in Latin; a *pet* means ‘a domestic animal’ in English and ‘a fart’ in Catalan; and the sequence of sounds *taka* means ‘hawk’ in Japanese, ‘fist’ in Quechua, ‘a small bird’ in Zulu, and ‘money’ in Bengali.

These examples show that the words of a particular language have the meanings they do only by convention. This arbitrary relationship between form and meaning is shown in **Figure 1.1**, whereby a *pterodactyl* could have been called a *ron*, *blick* or *kerplunkity* and remained the same type of dinosaur.

As Juliet says in Shakespeare’s *Romeo and Juliet*:

What’s in a name? That which we call a rose
By any other name would smell as sweet.





This **conventional** and arbitrary relationship between **form** (sounds) and **meaning** (concept) of a word in spoken languages is also true of many signs in sign languages. If you see someone using a sign language you do not know, it is doubtful you will understand much of the message from the signs alone. A person who knows Chinese Sign Language (CSL) would find it difficult to understand Australian Sign Language (Auslan) and vice versa.

For some signs, the relationship between form and meaning was originally not arbitrary. The Auslan sign meaning ‘tomorrow’, for example, may have originated as a compound of signs meaning ‘one’ and ‘sleep’. Over time this has changed, just as the pronunciation of words may change; now, the sign is formed by a ‘one’ handshape moving away from the cheek. These signs become conventional, so that the forms of the handshape, movement and location do not reveal the meaning any longer.

There is some **sound symbolism** in language; that is, words whose pronunciation suggests their meaning. Most languages contain **onomatopoeic** words, such as *buzz* or *murmur*, that imitate the sounds associated with the objects or actions they refer to. But even here the sounds differ from language to language, reflecting the particular sound system of the language. In English *cock-a-doodle-doo* is an onomatopoeic word whose meaning is ‘the crow of a rooster’, whereas in Finnish the rooster’s crow is *kukkokiekuu*. Forget *gobble gobble* when you are in Istanbul; a turkey in Turkey goes *glu-glu*.

Sometimes particular sound sequences seem to relate to a particular concept. In English many words beginning with *gl* relate to sight, such as *glare*, *glint*, *gleam*, *glitter*, *glossy*, *glaze*, *glance*, *glimmer*, *glimpse* and *glisten*. However, such words are a very small part of any language, and *gl* may have nothing to do with ‘sight’ in another language or even in other words in English, such as *gladiator*, *glucose*, *glory*, *glutton*, *globe* and so on.

To know a language we must know words of that language. But no speaker knows all the entries in an unabridged dictionary, and even if someone did, he or she would still not know that language. Imagine trying to learn a foreign language by buying a dictionary and memorising words. No matter how many words you learnt, you would not be able to form the simplest phrases or sentences in the language, or understand a native speaker. No one speaks in isolated words. Of course, you could search in your tourist’s dictionary for individual words to find out how to say something like ‘car – petrol – where?’ After many tries, a native speaker might understand this question and then point in the direction of a service station. If the speaker answered you with a sentence, however, you probably would not understand what was said; nor would you be able to look it up, because you would not know where one word ended and another began. Chapter 5 will explore how words are put together to form phrases and sentences, and Chapter 6 will explore word and sentence meanings.

The creativity of linguistic knowledge

Albert: So are you saying that you were the best friend of the woman who was married to the man who represented your husband in divorce?

André: In the history of speech, that sentence has never been uttered before.

Neil Simon, *The Dinner Party*, 2000

Knowledge of a language enables you to combine sounds to form words, words to form phrases and phrases to form sentences. You cannot buy a dictionary of any language with all its sentences because no dictionary can list all the possible sentences. Knowing a language means being able to produce and understand new sentences never spoken before. This is the **creative aspect**, or **creativity of language**. Not every speaker of a language can create great literature, but everybody who knows a language can create and understand new sentences.

convention/ conventional

The agreed-on, though generally arbitrary, relationship between the form and meaning of words.

form

The phonological or gestural representation of a morpheme or word.

meaning

The conceptual or semantic aspect of a sign or utterance that permits us to comprehend the message being conveyed. Expressions in language generally have both form – pronunciation or gesture – and meaning.

sound symbolism

The notion that certain sound combinations occur in semantically similar words, for example, *gl* in *gleam*, *glisten*, *glitter*, which all relate to vision.

onomatopoeia/ onomatopoeic

Refers to words whose pronunciations suggest their meaning, e.g. *meow*, *buzz*.

creative aspect/ creativity of language

Speakers’ ability to combine the finite number of linguistic units of their language to produce and understand an infinite range of novel sentences.

In pointing out the creative aspect of language, Chomsky made a powerful argument against the behaviourist view of language that prevailed in the first half of the twentieth century, which held that language is a set of learnt responses to stimuli. While it is true that if someone steps on our toes we may automatically respond with a scream or a grunt, these sounds are not part of language. They are involuntary reactions to stimuli. After we automatically cry out, we can then go on to say, 'Thank you very much for stepping on my toe because I was afraid I had elephantiasis, but because I could feel it hurt I know I don't', or any one of an infinite number of sentences, because the particular sentence we produce is not controlled by a stimulus.

Even some involuntary cries, such as *ouch*, are constrained by our own language system, as are the filled pauses that are sprinkled through conversational speech, such as *er*, *uh* and *you know* in English. They contain only the sounds found in the language. French speakers, for example, often fill their pauses with the vowel sound that starts their word for 'egg' – *oeuf* – a sound that does not occur in English. Knowing a language includes knowing what sentences are appropriate in various situations. Saying 'Minced steak costs five dollars a kilo' after someone has just stepped on your toe would hardly be an appropriate response, although it would be possible.

Our creative ability is not only reflected in what we say, but also includes our understanding of new or novel sentences. Consider the following sentence: *Ben Hall decided to become a bushranger because he dreamed of pigeon-toed giraffes and cross-eyed elephants dancing in pink skirts and green berets on the wind-swept sands of the Nullarbor*. You may not believe the sentence, you may question its logic, but you can understand it, although you have probably never heard or read it before now.

Knowledge of a language, then, makes it possible to understand and produce new sentences. If you counted the number of sentences in this book that you have seen or heard before, the number would be small. Next time you write an essay or a letter, see how many of your sentences are new. Few sentences are stored in your brain, to be pulled out to fit some situation or matched with some sentence that you hear. Novel sentences never spoken or heard before cannot be stored in your memory.

Simple memorisation of all the possible sentences in a language is impossible in principle. If for every sentence in the language a longer sentence can be formed, then there is no limit to the length of any sentence and therefore no limit to the number of sentences. In English you can say:

This is the house.

or

This is the house that Jack built.

or

This is the malt that lay in the house that Jack built.

or

This is the dog that worried the cat that killed the rat that ate the malt that lay in the house that Jack built.

And you need not stop there. How long, then, is the longest sentence? A speaker of English can say:

The old man went.

or

The old, old, old, old, old man went.

How many 'olds' are too many? Seven? Twenty-three?

It is true that the longer these sentences become, the less likely we would be to hear or to say them. A sentence with 276 occurrences of 'old' would be highly unlikely in either speech or writing, even to describe Methuselah. But such a sentence is theoretically possible. If you know English, you have the knowledge to add any number of adjectives as modifiers to a noun and to form sentences with indefinite numbers of clauses, as in *the house that Jack built*.



All human languages permit their speakers to form indefinitely long sentences; creativity is a universal property of human language.

The fact of human linguistic creativity was well expressed more than 400 years ago by Huarte de San Juan (1530–1592):

‘Normal human minds are such that ... without the help of anybody, they will produce 1000 (sentences) they never heard spoke of ... inventing and saying such things as they never heard from their masters, nor any mouth’.

Knowledge of sentences and non-sentences

A person who knows a language has mastered a system of rules that assigns sound and meaning in a definite way for an infinite class of possible sentences.

Noam Chomsky, *Language and Mind*, 1972

Our knowledge of language not only allows us to produce and understand an infinite number of well-formed (even if silly and illogical) sentences. It also permits us to distinguish well-formed (grammatical) from ill-formed (ungrammatical) sentences. This is further evidence of our linguistic creativity because ungrammatical sentences are typically novel, not sentences we have previously heard or produced, precisely because they are ungrammatical! Consider the following sentences:

- 1 a John kissed the little old lady who owned the shaggy dog.
- b Who owned the shaggy dog John kissed the little old lady.
- c John is difficult to love.
- d It is difficult to love John.
- e John is anxious to go.
- f It is anxious to go John.
- g John, who was a student, flunked his exams.
- h Exams his flunked student a was who John.

If you were asked to put an asterisk before the examples that seemed ill formed or ungrammatical or no good to you, which ones would you choose? (The **asterisk** * is used before examples that speakers reject for any reason. This notation will be used throughout the book.) Our intuitive knowledge about what is or is not an allowable sentence in English leads us to put an asterisk before *b*, *f* and *h*. Which ones did you choose? Would you agree with the following judgements?

- 2 a What he did was climb a tree.
- b *What he thought was want a sports car.
- c Drink your beer and go home!
- d *What are drinking and go home?
- e I expect them to arrive a week from next Thursday.
- f *I expect a week from next Thursday to arrive them.
- g Linus lost his security blanket.
- h *Lost Linus security blanket his.

If you find the sentences with asterisks unacceptable, as we do, you see that not every string of words constitutes a well-formed sentence in a language. Our knowledge of a language determines which strings of words are well-formed sentences, and which are not. Therefore, in addition to knowing the words of the language, linguistic knowledge includes rules for forming sentences and making the kinds of judgements you made about the examples in (1) and (2) above. These rules must be finite in length and finite in number so they can be stored in our finite brains.

asterisk

The symbol * used to indicate ungrammatical or anomalous examples; for example, **cried the baby*, **sincerity dances*; also used in historical and comparative linguistics to represent a reconstructed form.

Yet they must permit us to form and understand an infinite set of new sentences. They are not rules determined by a judge or a legislature, or even rules taught in a grammar class. They are unconscious rules that we acquire as young children as we develop language.

Returning to the question we posed at the beginning of this chapter – what does it mean to know a language? It means knowing the sounds and meanings of many, if not all, of the words of the language, and the rules for their combination – the grammar, which generates infinitely many possible sentences. We will have more to say about these rules of grammar in later chapters.

Linguistic knowledge and performance

linguistic competence

The knowledge of a language represented by the mental grammar that accounts for speakers' linguistic ability and creativity. For the most part, linguistic competence is unconscious knowledge.

linguistic performance

The use of linguistic competence in the production and comprehension of language; behaviour as distinguished from linguistic knowledge.

slip of the tongue (speech error)

An involuntary deviation from an intended utterance that often results in ungrammaticality, nonsense words, anomaly, etc.

'What's one and one and one and one and one and one and one and one and one and one?'
'I don't know', said Alice. 'I lost count'. 'She can't do Addition', the Red Queen interrupted.

Lewis Carroll, *Through the Looking-Glass*, 1871

Our linguistic knowledge permits us to form longer and longer sentences by joining sentences and phrases or adding modifiers to a noun. Whether we stop at three, five or eighteen adjectives, it is impossible to limit the number we could add if desired. Very long sentences are theoretically possible, but they are highly improbable. Evidently, there is a difference between having the knowledge necessary to produce sentences of a language and applying this knowledge. It is a difference between what we know – our **linguistic competence** – and how we use this knowledge in actual speech production and comprehension – our **linguistic performance**.

Speakers of all languages have the knowledge to understand or produce sentences of any length. However, there are physiological and psychological reasons that limit the number of adjectives, adverbs, clauses and so on that we actually produce and understand. Speakers may run out of breath, lose track of what they have said or die of old age before they are finished. Listeners may become confused, tired, bored or disgusted.

When we speak we usually wish to convey some message. At some stage during the act of producing speech, we must organise our thoughts into strings of words. Sometimes the message is garbled. We may stammer or pause or produce **slips of the tongue** (or **speech errors**), like saying 'preach seduction' when 'speech production' is meant (discussed in Chapters 3 and 8). We may even sound like the character in the cartoon below, who illustrates the difference between linguistic knowledge and the way we use that knowledge in performance.

For the most part, linguistic knowledge is not conscious knowledge. The linguistic system – the sounds, structures, meanings, words and rules for putting them all together – is acquired with no conscious awareness. Our ability to speak and understand, and to make judgements about the grammaticality of sentences, reveals our knowledge of the rules of our language. This knowledge represents a complex cognitive system. The nature of this system is what this book is all about. **Figure 1.2** highlights the distinction between linguistic knowledge and linguistic performance.

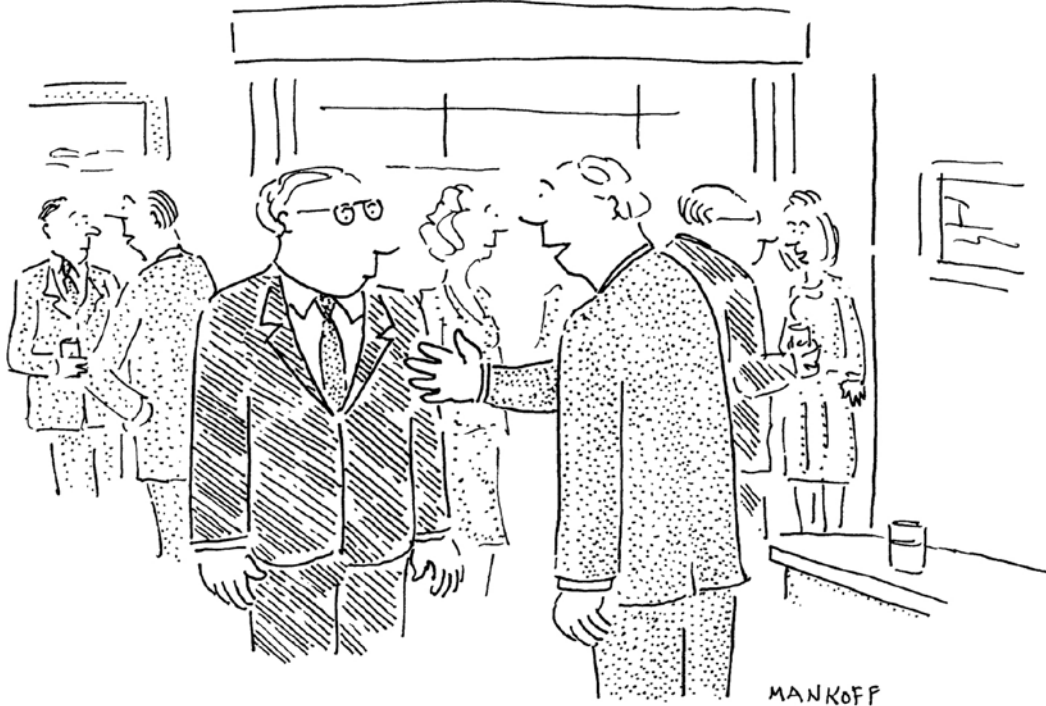
What is grammar?

We use the term 'grammar' with a systematic ambiguity. On the one hand, the term refers to the explicit theory constructed by the linguist and proposed as a description of the speaker's competence. On the other hand, it refers to this competence itself.

Noam Chomsky and Morris Halle, *The Sound Pattern of English*, 1968



Figure 1.2 Linguistic knowledge versus linguistic performance



“Hi. I’m, I’m, I’m . . . You’ll have to forgive me, I’m terrible with names.”

CartoonStock/Robert Mankoff

grammar

A linguistic description of a speaker’s mental grammar; the mental representation of a speaker’s linguistic competence; what a speaker knows about a language.

phonology

The sound system of a language; the component of a grammar that includes the inventory of sounds (phonemic units) and the processes required to ensure their appropriate combination and realisation, including aspects of rhythm, intonation and stress; the study of the sound systems of all languages.

morphology

The structure of words; the component of the grammar that includes the rules of word formation.

syntax

The rules of sentence formation; the component of the mental grammar that represents speakers’ knowledge of the structure of phrases and sentences.

semantics

The study of the linguistic meaning of morphemes, words, phrases and sentences.

Descriptive grammars

There are no primitive languages. The great and abstract ideas of Christianity can be discussed even by the wretched Greenlanders.

Johann Peter Suessmilch, in a paper delivered before the Prussian Academy, 1756

The way we are using the word **grammar** differs from most common usages. In our sense, the grammar includes the knowledge speakers have about the units and rules of their language – rules for combining sounds into words (called **phonology**), rules of word formation (called **morphology**), rules for combining words into phrases and phrases into sentences (called **syntax**) and rules for assigning meaning (called **semantics**). The grammar, together with a mental dictionary that lists the words of the language, represents our linguistic competence. To understand the nature of language, we must understand the nature of grammar and, in particular, the internalised, unconscious set of rules that is part of every grammar of every language.

Every human being who speaks a language knows its grammar. When linguists wish to describe a language, they attempt to describe the rules (the grammar) of the language that exist in the minds of its speakers. Some differences will exist among speakers, but there must be shared knowledge too. The shared knowledge – the common parts of the grammar – makes it possible to communicate through language. To the extent that the linguist’s description is a true model of the speakers’ linguistic capacity, it is a successful description of the grammar and of the language itself. Such a model is called a **descriptive grammar**. It does not tell you how you should speak; it describes your basic linguistic knowledge. It explains how it is possible for you to speak and understand and make judgements about well-formedness, and it tells what you know about the sounds, words, phrases and sentences of your language.