

GLOBAL  
EDITION



# Language Development

## *An Introduction*

NINTH EDITION

Robert E. Owens, Jr.



ALWAYS LEARNING

PEARSON

NINTH EDITION  
GLOBAL EDITION

# *Language Development*

## *An Introduction*

Robert E. Owens, Jr.

College of Saint Rose

PEARSON

Boston Columbus Indianapolis New York San Francisco Upper Saddle River  
Amsterdam Cape Town Dubai London Madrid Milan Munich Paris Montreal Toronto  
Delhi Mexico City São Paulo Sydney Hong Kong Seoul Singapore Taipei Tokyo

Vice President and Editorial Director: *Jeffery W. Johnston*  
Executive Editor: *Ann Castel Davis*  
Editorial Assistant: *Janelle Criner*  
Executive Field Marketing Manager: *Krista Clark*  
Senior Product Marketing Manager: *Christopher Barry*  
Senior Acquisitions Editor, Global Edition: *Sandhya Ghoshal*  
Senior Project Editor, Global Edition: *Daniel Luiz*  
Manager, Media Production, Global Edition: *M. Vikram Kumar*  
Senior Manufacturing Controller, Production, Global Edition:  
*Trudy Kimber*

Project Manager: *Kerry Rubadue*  
Program Manager: *Joe Sweeney*  
Operations Specialist: *Deidra Skahill*  
Text Designer: *Jouve*  
Design Director: *Diane Ernsberger*  
Cover Art: © *knysh ksenya / Shutterstock*  
Media Producer: *Autumn Benson*  
Media Project Manager: *Tammy Walters*  
Full-Service Project Management: *Jouve*  
Composition: *Jouve*

Pearson Education Limited  
Edinburgh Gate  
Harlow  
Essex CM20 2JE  
England

and Associated Companies throughout the world

Visit us on the World Wide Web at:  
[www.pearsonglobaleditions.com](http://www.pearsonglobaleditions.com)

© Pearson Education Limited 2016

The rights of Robert E. Owens, Jr., to be identified as the author of this work have been asserted by him in accordance with the Copyright, Designs and Patents Act 1988.

*Authorized adaptation from the United States edition, entitled Language Development: An Introduction, 9th edition, ISBN 978-0-13-381036-3, by Robert E. Owens, Jr., published by Pearson Education © 2016.*

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without either the prior written permission of the publisher or a license permitting restricted copying in the United Kingdom issued by the Copyright Licensing Agency Ltd, Saffron House, 6–10 Kirby Street, London EC1N 8TS.

All trademarks used herein are the property of their respective owners. The use of any trademark in this text does not vest in the author or publisher any trademark ownership rights in such trademarks, nor does the use of such trademarks imply any affiliation with or endorsement of this book by such owners.

ISBN 10:1292104422  
ISBN 13:9781292104423

British Library Cataloguing-in-Publication Data  
A catalogue record for this book is available from the British Library.

10 9 8 7 6 5 4 3 2 1  
14 13 12 11 10

Typeset in Stone Serif Std by Jouve.

Printed and bound by Vivar, Malaysia.

*"Say that again. I didn't hear you. I was listening to my toast."*

Jessica Owens, age 4

*To my gran'kids, Cassidy, Dakota, and Zavier.*

---

*This page intentionally left blank*

# Preface

There is no single way in which children learn to communicate. Each child follows an individual developmental pattern just as you did. Still, it is possible to describe a pattern of general communication development and of English specifically. This text attempts such descriptions and generalizations but emphasizes individual patterns, too.

## New to This Edition

---

For those readers familiar with older editions, you'll find much has changed and, hopefully, much that you'll like. The changes in the ninth edition of *Language Development: An Introduction* are as follows:

- Continued distribution of bilingual and dialectal development throughout the text rather than in a separate stand-alone chapter. It seemed time to bring these speakers in out of the cold and put them where they belong in recognition of their importance and also the increase in bilingualism in the United States.
- Expanded discussion of children from lower-SES families, including those living in homeless shelters.
- Chapter 4, which carries the burden of explaining cognition and its relationship to speech and language, has been substantially reorganized to aid learning.
- Consolidated information on Theory of Mind in one chapter, as some professors recommended, so the discussion is more coherent.
- Improved readability throughout with more thorough explanations and clarification/simplification of terms, and increased use of headings and bulleted points.
- Weeded out redundancies and asides to make the text less dense.
- Provided more child language examples throughout to better illustrate language structures.
- And, of course, updated research. I spent over eight months just reading before I ever began to edit. For those compulsive types who count number of bibliographic entries, you'll find several hundred new references along with several retirements.

Phew! That list even makes me tired. My hope is that you'll also find the new edition very useful.

Those of you who will one day become parents should appreciate the value of this text as a guideline to development. If you plan to work with children with disabilities and without, you'll find that typical development can provide a model for evaluation and intervention. The developmental rationale can be used to decide on targets for training and to determine the overall remediation approach.

In recognition of the importance of the developmental rationale as a tool and of the changing perspectives in child language development, the ninth edition offers

expanded coverage of preschool and school-age language development. Pragmatics receives increased attention, as does the conversational context within which most language development occurs. If you're a prospective speech-language pathologist, you will find these developmental progressions valuable when making decisions concerning materials to use with children who have speech and language impairments. As consumers of educational and therapeutic products, you must be especially sensitive to the philosophy that governs the organization of such materials. Many materials claim to be developmental in design but are not. I recall opening one such book to find *please* and *thank you* as the first two utterances to be taught to a child with deafness. These words violate many of the characteristics of first words.

Experienced teachers, psychologists, or speech-language pathologists need not rely on such prepackaged materials if they have a good base in communication development. An understanding of the developmental process and the use of a problem-solving approach can be a powerful combination in the hands of creative clinicians.

## Acknowledgments

A volume of this scope must be the combined effort of many people fulfilling many roles, and this one is no exception.

My first thanks go to all those professionals and students, too numerous to mention, who have corresponded or conversed with me and offered criticism or suggestions for this edition. The overall organization of this text reflects the general organization of my own communication development course and that of professionals with whom I have been in contact.

The professional assistance of several people has been a godsend. The College of Saint Rose is an environment that encourages collaboration and individual professional growth, and it's a wonderful place to work. This attitude is reflected in the policies and practices of Dean of Education Margaret McLane and my department chair, James Feeney. Other great faculty members include, in alphabetical order, Dave DeBonis, Colleen Karow, Jessica Kisenwether, Megan Overby (now at Dequesne University), Jack Pickering, Anne Rowley, and Julia Unger, and fellow clinical faculty members Director of Clinical Education Jackie Klein, Marisa Bryant, Sarah Coons, Colleen Fluman, Elaine Galbraith, Julie Hart, Barbara Hoffman, Kate Lansing, Jessica Laurenzo, Melissa Spring, and Lynn Stephens. You have all made me feel welcome and valued.

Others included in my list are

- Dr. Addie Haas, retired professor in the Communication Disorders Department at State University of New York at New Paltz, is a dear friend; a trusted confidant; a good buddy; a fellow hiker; a skilled clinician; a source of information, ideas, and inspiration; my go-to person to bounce ideas around; and a helluva lot of fun. I will never forget our adventures "Down under."
- My former department chair, Dr. Linda House, created an environment at SUNY Geneseo in which I enjoyed working and growing.
- Irene Belyakov's suggestions; ideas; and, more important, her loving understanding have been a welcome source of encouragement.
- My dear friend Omid Mohamadi has kept me alert to new possibilities and given me a fresh perspective on the field of speech-language pathology. I look forward to more collaborations.

Additionally, I would like to thank the reviewers of this ninth edition: Brenda L. Beverly, University of South Alabama; Sloane Burgess, Kent State University; Elizabeth



Hunter, Regent University; Tobias A. Kroll, Texas Tech University, Health Sciences Center; and Steven Long, Marquette University.

I would also like to express my love and appreciation to my children, Jason, Todd, and Jessica, who are as beautiful as adults as they were as youngsters; to my gran'kids, Cassidy, Dakota, and Zavier, whose language is sprinkled throughout this book; and to my colleague at O and M Education, Moon Byungchoon.

I'm also indebted to the student researchers who helped me analyze over 175 language samples from which much research continues to flow. The now-SLPs and audiologists are Katherine Allen, Lynda Feenaughty, Annie Feldman, Erin Filippini, Marc Johnson, Andrew Kanuck, Jessica Kroecker, Zhaleh Lavasani-Leliberté, Stephanie Loccisano, Katherine Lyle, Jordan Nieto, Catherine Sligar, Kathryn Wind, and Sara Young.

Robert E. Owens, Jr.

Pearson would like to thank the following people for their work on the Global Edition:

Contributor:

Medha Bhattacharyya, Bengal Institute of Technology, Kolkata

Reviewers:

Annesha Dutta, Institute of Engineering and Management, Kolkata

Aditi Ghosh, Calcutta University

Sonia Sahoo, Jadavpur University



*This page intentionally left blank*

# Contents

## 1 *The Territory* 15

**This Text and You** 16

**Speech, Language, and Communication** 17

Speech 17 / Language 18 / Communication 22

**Properties of Language** 27

Language Is a Social Tool 27 / Language Is a Rule-Governed System 27 /

Language Is Generative 29 / Other Properties 29

**Components of Language** 30

Syntax 31 / Morphology 32 / Phonology 33 / Semantics 34 /

Pragmatics 36 / Relationship of Language Components 37

**Dialects** 39

A Changing Demographic 39 / Dialectal Differences 40 / Related

Factors 41 / American English Dialects 43

*Conclusion* 45

*Discussion* 45

*Main Points* 46

*Reflections* 46

## 2 *Describing Language* 47

**Linguistic Theory** 48

Nature Versus Nurture 49 / Generative Approach 49 / Interactionist

Approach 51 / Conclusion 55

**Language Research and Analysis** 55

**Issues in the Study of Child Language** 56

Method of Data Collection 56 / Sample Size and Variability 59 / Naturalness

and Representativeness of the Data 60 / Collection Procedures 62 / Analysis

Procedures 62

**Cross-Language Studies** 63

*Conclusion* 64

*Discussion* 64

*Main Points* 65

*Reflections* 65

### 3 *Neurological Bases of Speech and Language* 66

#### Central Nervous System 67

Neurons 67 / Components 67 / Brain Functions 71 /  
Hemispheric Asymmetry 71 / Brain Maturation 72

#### Language Processing 73

Language Comprehension 75 / Language Production 77

#### Models of Linguistic Processing 79

Information Processing 79 / Other Processing Models 83

#### The Role of Executive Function 85

*Conclusion* 86

*Discussion* 86

*Main Points* 87

*Reflections* 87

### 4 *Cognitive, Perceptual, and Motor Bases of Early Language and Speech* 88

#### Neurological Development 89

Neuron Growth 89 / Anatomical Specialization in Your Cortex 89 /  
Turning on and Getting Organized 90

#### Early Cognitive Development 91

Sensation 91 / Perception 92 / Motor Control 93 /  
Cognition 95 / Learning 97

#### Cognition and Communication Development 101

Speech 101 / Language 110 / Role of the Caregiver 112

*Conclusion* 113

*Discussion* 113

*Main Points* 114

*Reflections* 114

### 5 *The Social and Communicative Bases of Early Language and Speech* 115

#### Development of Communication: A Chronology 117

The Newborn 117 / Socialization and Early Communication: Birth to  
6 Months 120 / Development of Intentionality: Age 7 to 12 Months 122

#### Maternal Communication Behaviors 129

Infant-Elicited Social Behavior 131 / Cultural, Socioeconomic, and Gender  
Differences 136

#### Interactions between Infant and Caregiver 138

Joint Reference 138 / Joint Action 141 / Turn Taking 144 /  
Protoconversations 145 / Situational Variations 145

*Conclusion* 146  
*Discussion* 147  
*Main Points* 147  
*Reflections* 148

## **6** *Language-Learning and Teaching Processes and Young Children* 149

**Comprehension, Production, and Cognitive Growth** 150  
 Cognition and Language 150 / Less Is More 153

**Child Learning Strategies** 154  
 Toddler Language-Learning Strategies 154 / Preschool Language-Learning Strategies 159 / Children's Processes of Language Acquisition 164

**Adult Conversational Teaching Techniques** 166  
 Adult Speech to Toddlers 166 / Adult Conversations with Preschoolers 173

**Importance of Play** 177

**Variations on a Theme** 178  
 Individual Child Differences 178 / Cultural and Social Differences 179

*Conclusion* 183  
*Discussion* 183  
*Main Points* 184  
*Reflections* 184

## **7** *First Words and Word Combinations in Toddler Talk* 185

**Single-Word Utterances** 189  
 Pragmatics 190 / Initial Lexicons 196 / Meaning of Single-Word Utterances 201

**Early Multiword Combinations** 205  
 Transition: Early Word Combinations 206 / Multiword Utterances 207

**Phonological Learning** 210  
 Auditory Maps 210 / Articulatory Maps 211 / Single-Word Utterance Patterns 212 / Phonological Processes 213 / Learning Units and Extension 215

**Individual Differences** 215  
 Bilingualism 216

*Conclusion* 220  
*Discussion* 220  
*Main Points* 221  
*Reflections* 221

## 8 *Preschool Pragmatic and Semantic Development* 222

**Preschool Development** 223

**Pragmatic Development** 224

The Conversational Context 227 / Narratives 238 / Theory of Mind 243 / Summary 247

**Semantic Development** 247

Relational Terms 250 / Conclusion 254

**Semantic and Pragmatic Influence on Syntactic Development** 255

Semantics 255 / Pragmatics and Its Role in Syntactic Development 256

**Language Development Differences and Delays** 256

Language Development Differences 256 / Language Development Delays 260

*Conclusion* 261

*Discussion* 261

*Main Points* 262

*Reflections* 262

## 9 *Preschool Development of Language Form* 263

**The Semantic–Syntactic Connection** 264

**Syntactic and Morphologic Development** 265

Language Input 266

**Patterns in Preschool Language Development** 267

**Bound Morphemes** 267

Progressive *-ing* 269 / Regular Plural *-s* 270 / Possessive *-s* or *-s'* 270 / Regular Past *-ed* 270 / Regular Third Person Singular *-s* 271 / Noun and Adjective Suffixes 272 / Determinants of Acquisition Order 273

**Phrase Development** 275

Noun Phrase Development 275 / Verb Phrase Development 277 / Prepositional Phrase Development 281 / Infinitive Phrase Development 282 / Gerund Phrase Development 283

**Sentence Development** 283

Declarative-Sentence Form 283 / Interrogative-Sentence Form 286 / Imperative-Sentence Form 290 / Negative-Sentence Form 291 / Subordinate Clause Development 292 / Compound Sentence Development 295 / Summary 297

**Phonemic and Phonologic Development** 299

Speech-Sound Acquisition 299 / Phonologic Processes 302

**Dialectal Difference** 306

*Conclusion* 307

*Discussion* 307

*Main Points* 308

*Reflections* 308

## 10 *Early School-Age Language Development* 309

**The Early School-Age Child** 311

**Pragmatic Development** 313

Narratives 313 / Conversational Abilities 320 / Summary 324

**Semantic Development** 324

Vocabulary Growth 324 / Conceptual Change 326 / Related Cognitive Processing 327 / Figurative Language 328

**Syntactic and Morphologic Development** 330

Morphologic Development 332 / Noun- and Verb-Phrase Development 333 / Sentence Types 336 / Summary 341

**Phonologic Development** 341

Morphophonemic Development 341 / Speech Production 342 / Summary 343

**Metalinguistic Abilities** 343

**Language Difference** 344

Code Switching Development 345 / African American English Speakers and Society 346

*Conclusion* 347

*Discussion* 347

*Main Points* 348

*Reflections* 348

## 11 *School-Age Literacy Development* 349

**The Process of Reading** 350

Phonological Awareness 351 / Comprehension 352

**Reading Development** 356

Emerging Reading 356 / Mature Reading 361

**The Process of Writing** 361

Orthographic Knowledge 362 / Spelling 363

**Writing Development** 363

Emerging Writing 363 / Mature Writing 364 / Development of Orthographic Knowledge 364 / Spelling Development 365 / Text Generation and Executive Function 367

*Conclusion* 369

*Discussion* 369

*Main Points* 370

*Reflections* 370

## 12 *Adolescent and Adult Language* 371

**Pragmatics** 373

Narratives 373 / Speaking Styles 374 / Conversational Abilities 375 / Gender Differences 376

**Semantics** 379

Word Definitions 379

**Syntax and Morphology** 380

Noun Phrases 381 / Conjuncts and Disjuncts 381

**Phonology** 382

Acoustic-Perceptual Knowledge 382 / Articulatory Knowledge 383 /

Social-Indexical Knowledge 383

**Literacy** 383**Bilingualism** 384**Congratulations!** 385*Conclusion* 385*Discussion* 385*Main Points* 385*Reflections* 386**Appendix A***Development Summary* 387**Appendix B***Computing MLU* 394**Appendix C***Background Grammar* 396**Glossary** 401**References** 408**Author Index** 445**Subject Index** 452





Monkey Business Images/Shutterstock

# 1

## The Territory

### OBJECTIVES

**B**efore we can discuss language development, we need to agree on what language is and what it is not. Don't worry; as a user of language, you already know a great deal about it. This chapter will organize your knowledge and provide some labels for the many aspects of language you know. Don't panic—introductory chapters usually contain a lot of terminology so that we can all “speak the same language” throughout the text. When you have completed this chapter, you should understand the following:

- Differences among speech, language, and communication
- Differences among nonlinguistic, paralinguistic, and metalinguistic aspects of communication
- Main properties of language
- Five components of language and their descriptions
- What a dialect is and its relation to its parent language

- Major factors that cause dialects to develop

- Important terms:

antonym	phoneme
bilingual	phonology
bound morpheme	pragmatics
code switch	register
communication	selection restrictions
communicative	semantic features
competence	semantics
deficit approach	sociolinguistic
dialects	approach
discourse	speech
free morpheme	suprasegmental
language	devices
linguistic competence	style shifting
linguistic performance	synonym
morpheme	syntax
morphology	vernacular
nonlinguistic cues	word knowledge
paralinguistic codes	world knowledge

Language and its processing in your brain are so complex that specialists devote their lives to investigating them. These specialists, called *linguists*, try to determine the ways in which we use language to communicate. The linguist deduces rules and patterns demonstrated when we, as users of a language, communicate with one another. In a sense, each child is a linguist who must deduce the rules of his or her native language.

You're already a mature language user but let's imagine that you encounter human language for the first time. Even if you had the most sophisticated computer-based code-breaking software, it would be impossible to figure out the many ways in which humans use language. For that task, you would need to decipher each of the 6,000 human languages and gain extensive knowledge of human interactions, emotions, and cultures. In other words, language is more than the sum of these parts. To understand language, we must consider it in the natural contexts in which it occurs.

Language is the premier achievement of humans, and using it is something that all of us can do. For example, the average adult English speaker produces about 150 words per minute, selecting each from between 30,000 and 60,000 alternatives stored in the user's brain, choosing from a myriad of English language grammatical structures, and making less than 0.1% errors! That's impressive!

This becomes all the more amazing when you realize that the typical 4-year-old child has deciphered much of American English and already has well-developed speech, language, and communication skills. Truly remarkable given the complexity of the task!

You probably don't recall much about your own language acquisition. One statement is probably true: Unless you experienced difficulty, there was no formal instruction. Congratulations, you did most of it on your own. Now, we're going to attempt something almost as momentous . . . trying to explain it all!

To appreciate the task involved in language learning, you need to be familiar with some of the terminology that is commonly used in the field. All the terms introduced in this chapter and throughout the text are summarized for you in the Glossary. The remainder of this chapter is devoted to an explanation of these terms. First, we discuss this text in general. Then we distinguish three often confused terms—*speech*, *language*, and *communication*—and look at some special qualities of language itself. Finally, we'll examine dialects.



It's important to understand the significance of language for humans. Watch the first 2:08 minutes of this video for an interesting introduction. <http://www.youtube.com/watch?v=PZatrVND0iE>

## This Text and You

Although the full title of this text is *Language Development: An Introduction*, it is not a watered-down or cursory treatment of the topic. I have attempted to cover every timely, relevant, and important aspect of language development that might be of interest to the future speech-language pathologist, educator, psychologist, child development specialist, or parent. Of necessity, the material is complex and specific.

No doubt you've at least thumbed through this book. It may look overwhelming. It's not. I tell my own students that things are never as bleak as they seem at the beginning of the semester. Within the last 36 years, I have taken more than 5,000 of my own students through this same material with a nearly 100% success rate. Let me try to help you find this material as rewarding to learn as it is to teach.

First, the text is organized into two sections. The first few chapters provide a background that includes terms, theories, and information on the brain and language. I know it's difficult to have to read this material when you really want to get to the development part, but believe me, all this background is necessary. The main topics of development are contained in the remaining chapters, which are organized sequentially from newborns through adults. Yes, adults are still learning language and adapting to changes.

As with any text, there are a few simple rules that can make the learning experience more fruitful.

- Note the chapter objectives prior to reading the chapter and be alert for this information as you read. That's the key information.
- Read each chapter in small doses then let it sink in for a while. The worst thing to do is put it off until the night before the test.
- Find the chapter organization described at the end of each chapter's introduction. This will help you know where we're going and follow me through the material.
- Take brief notes as you read. Don't try to write everything down. Stop at natural divisions in the content and ask yourself what was most important. Periodic summarizing is a great learning strategy.
- Review your notes when you stop reading and before you begin again the next time. This process will provide a review and some continuity.
- Try to read a little every day or every other day. That's a good long-term learning strategy. I say long-term because if you are a speech-language pathology student, you'll be seeing a lot more about language in your studies.
- Note the key terms in the chapter objectives and try to define them as you read. Each one is printed in boldface in the body of the chapter. Please don't just thumb through or turn to the Glossary for a dictionary definition. The terms are relatively meaningless out of context. They need the structure of the other information. Context is very important.
- Try to answer the questions throughout each chapter. They'll help you think more deeply about the material.
- I have tried to de-emphasize linguists, authors, and researchers by placing all citations in parentheses. Unless your professor calls your attention to a specific person, she or he may not wish to emphasize these individuals either. It may be a waste of time to try to remember who said what about language development. "He said-she said" memorization can be very tedious. The exceptions, of course, are individuals mentioned specifically by name in lecture and in the text.
- Make ample use of the weblinks and videos to enhance your reading. Additional information is always good.

I hope that these suggestions will help, although none is a guarantee.

Roll up your sleeves, set aside adequate time, and be prepared to be challenged. Actually, your task is relatively simple when compared to the toddler faced with deciphering the language she or he hears.

## Speech, Language, and Communication

Child development professionals study the changes that occur in *speech*, *language*, and *communication* as children grow and develop. You might interpret these terms as having similar meanings or as being identical. Actually, they're very different and denote different aspects of development and use.

### SPEECH

**Speech** is a verbal means of communicating. Other ways of communicating include but are not limited to writing, drawing, and manual signing. The result of planning and executing specific motor sequences, speech is a process that requires very precise

neuromuscular coordination. Each spoken language has specific sounds or **phonemes**, plus sound combinations that are characteristic of that language. In addition, speech involves other components, such as voice quality, intonation, and rate. These components enhance the meaning of the message. For example, we talk faster when excited.

A highly complicated acoustic or sound event, speech is unlike any other environmental noise. Not even music achieves the level of complexity found in speech. Take a simple word such as *toe* and say it very, very slowly. The initial sound is an almost inhuman “tsch.” This is followed by “o . . . w” in which your rounded mouth gradually tightens. Now say *toe* at normal speed and note how effortlessly this is done. Say it again and note how your brain integrates the signal as it comes in, creating the unified *toe*. You are a truly amazing being!

Speech is not the only means of face-to-face human communication. We also use gestures, facial expressions, and body posture to send messages. In face-to-face conversation, nonspeech means may carry up to 60% of the information exchanged.

Although humans are not the only animals that make sounds, to my knowledge, no other species can match the variety and complexity of human speech sounds. These qualities are the result of the unique structures of the human vocal tract, a mechanism that is functional months before the first words are spoken. Infants spend much of their first year experimenting with their vocal mechanisms and producing a variety of sounds. Gradually, these sounds come to reflect the language of the child’s environment.

## LANGUAGE

Individual speech sounds are meaningless noises until some regularity is added. The relationship between individual sounds, meaningful sound units, and the combination of these units is specified by the rules of a language. **Language** can be defined as a socially shared code or conventional system for representing concepts through the use of arbitrary symbols and rule-governed combinations of those symbols. In other words, the symbols or words are arbitrary but speakers know the meanings of these symbols, which are, in turn, organized in certain ways to convey ideas.

English is a language, as is Spanish or Navajo. Each has its own unique symbols and rules for symbol combinations. Languages are not monolithic. They contain **dialects**, subcategories of the parent language that use similar but not identical rules. All users of a language follow certain dialectal rules that differ from an idealized standard. For example, I sometimes find myself reverting to former dialectal usage in saying “*acros#t* the street” and “open your *umbrella*.”

Languages change and evolve. Interactions between languages naturally occur in **bilingual** communities. Under certain circumstances, language mixing may result in a new form of both languages being used in that community (Backus, 1999). When I was a child, we said “tidal wave”; now we say “tsunami.”

Languages that don’t evolve, grow, and change become obsolete. Sometimes, for reasons other than linguistic ones, languages either flourish or wither. At present, for example, fewer than 80 individuals fluently speak Seneca, a western New York Native American language. The death of languages is not a rare event in the modern world. Languages face extinction as surely as plants and animals. When Kuzakura, an aged woman, died in western Brazil in 1988, the Umutina language died with her. It is estimated that as many as half the world’s 6,000 languages are no longer learned by children. These languages will die. Many others are endangered. Most of these have less than a few thousand users. Only strong cultural and religious ties keep languages such as Yiddish and Pennsylvania Dutch viable. How long they will be secure is anyone’s guess.

This century may see the eradication of most remaining languages. Sadly, it is doubtful that many of the 270 aboriginal languages of Australia—possibly some of the earth’s oldest languages—will survive. The one that gave us the name for the cuddly-looking

koala is already gone. Of the 154 Native American languages now in use, nearly 120 are each spoken by less than a thousand individuals. Other endangered languages include OroWin, an Amazonian language with only three surviving speakers; Gullah, spoken by the descendents of African slaves on islands off the coast of South Carolina and Georgia; and Nushu, a southern Chinese language spoken only by women. The worldwide loss of languages is the result of government policy, dwindling indigenous populations, the movements of populations to cities, mass media, and lack of education of the young. The Internet is also a culprit in the demise of some languages. The need to converse in one language is fostering increasing use of English.

Each language is a unique vehicle for thought. For example, in many Native American languages, the Great Spirit is not a noun as in European languages but a *verb*. This concept of a supreme being is totally different from that of Europeans. As a speaker of English, can you even imagine *god* as a verb? It changes the whole concept of a supreme being.

In the rain forest of northwestern Brazil, a language called Pirahã is so unique that it almost defies accepted notions of language. Spoken by approximately 350 people and reflecting their culture, Pirahã consists of only eight consonants and three vowels. Yet it has such a complex array of tones, stresses, and syllable lengths that speakers dispense with their sounds altogether and hum, sing, or whistle using relatively simple grammar by linguistic standards. Instead, meaning of words and phrases depends on changes in pitch and tone.

When we lose a language, we lose an essential part of the human fabric with its own unique perspective. A culture and possibly thousands of years of communication die with that language, the study of which might have unlocked secrets about universal language features, the origins of language, or the nature of thought. Within oral-only languages, the very nature of language itself is different. Words that have been passed on for generations acquire a sacredness, and speech is somehow connected to the Divine.

The death of a language is more than an intellectual or academic curiosity. After a week's immersion in Seneca, Mohawk, Onondaga, and other Iroquois languages, one man concluded:

These languages are the music that breathes life into our dances, the overflowing vessels that hold our culture and traditions. And most important, these languages are the conduits that carry our prayers to the Creator. . . . Our languages are central to who we are as a native people.

“Come visit sometime,” he offers. “I will bid you ‘oolihelisi’ ” (Coulson, 1999, p. 8A).

English is a Germanic variation of a much larger family of Indo-European languages as varied as Italian, Greek, Russian, Hindi, Urdu, Persian, and ancient Sanskrit. Although the Indo-European family is the largest family, as many as 30 others may exist, many much smaller.

Languages can grow as their respective cultures change. English has proven particularly adaptive, changing slowly through the addition of new words. According to the *Oxford English Dictionary*, approximately 8,000 English words predate the 12th century, including *laugh* and *friend*.

Already the language with the largest number of words—approximately 700,000—English adds an estimated half dozen words per day. While many of these are scientific terms, they also include words popular on college campuses, such as *selfie* (smartphone self-photo), *cholo* (macho), and *dis* (scorn). English dictionaries have just recently added *24/7*, *bubba*, *blog*, *headbanger*, *gaydar*, *pumped (up)*, *megaplex*, *racial profiling*, *slamming*, *brownfield*, *piercing*, *homeschool*, *netiquette*, and *sexting*. Some words have new meaning. For example, previously only Moses had *tablets*, now everybody does. These words tell us much about our modern world.



What is language and what is not? Watch minutes 4:05–11:50 in this video as Dr. Steven Pinker of Harvard University answers this question. [http://www.youtube.com/watch?v=Q-B\\_ONJIEcE](http://www.youtube.com/watch?v=Q-B_ONJIEcE)



Although most languages can be transmitted by speech, speech is not an essential feature of language. To some extent, the means of transmission influences processing and learning, although the underlying concepts of signing are similar to spoken languages (Emmorey, 1993; Lillo-Martin, 1991).

American Sign Language is not a mirror of American English but is a separate language with its own rules for symbol combinations. As in spoken languages, individually signed units are combined following linguistic rules. Approximately 50 sign languages are used worldwide, including one of the world's newest languages, Nicaraguan Sign Language, invented by children with deafness to fill a void in their education. On the other side of the earth in Al-sayyid, a Bedouin village in the Negev desert of Israel, another sign language has arisen without the influence of any other spoken or signed languages. Within this village approximately 150 individuals are deaf and use their language to communicate with each other and with hearing members of the community (Boswell, 2006).

Following is the American Speech-Language-Hearing Association definition of *language* (Committee on Language, 1983). The result of a committee decision, this definition has a little of everything, but it also is very thorough.

- Language is a complex and dynamic system of conventional symbols that is used in various modes for thought and communication.
- Language evolves within specific historical, social, and cultural contexts.
- Language, as rule-governed behavior, is described by at least five parameters—phonologic, morphologic, syntactic, semantic, and pragmatic.
- Language learning and use are determined by the intervention of biological, cognitive, psychosocial, and environmental factors.
- Effective use of language for communication requires a broad understanding of human interaction including such associated factors as nonverbal cues, motivation, and sociocultural roles.

Languages exist because users have agreed on the symbols to be used and the rules to be followed. This agreement is demonstrated through language usage. Thus, languages exist by virtue of social convention or use. Just as users agree to follow the rules of a language



Monkey Business Images/Shutterstock

**H**umans use language to communicate through a number of means, such as reading, writing, speaking, and listening.

system, they can agree to change the rules. For example, the *eth* found as an ending on English verbs (*asketh*) in the King James Version of the Bible has disappeared from use. New words can be added to a language; others fall into disuse. Words such as *DVD* and *blog* were uncommon just a few years ago. Users of one language can borrow words from another. For instance, despite the best efforts of the French government, its citizens seem to prefer the English word *jet* to the more difficult, though lyrical, *avion de reaction*.

English also has borrowed heavily from other languages, while they have felt free to borrow in return. Here are a few English words taken from other languages:

- *Raccoon* (Powhatan, a Native American language)
- *Jaguar* (Tupi-Guarani languages of the Amazon)
- *Immediate* (French)
- *Democracy* (Greek)
- *Tycoon* (Japanese)
- *Sofa* (Arabic)
- *Piano* (Italian)

In the process, meanings and words are changed slightly to conform to linguistic and cultural differences. More recently, English has incorporated words such as *tsunami* (Japanese), *barrio* (Spanish), *jihad* (Arabic), *sushi* (Japanese), and *schlep* (Yiddish).

Even strong, vibrant, firmly entrenched languages struggle against the embrace of the Internet and its accompanying English. Formal Spanish has given way to Cyber-Spanish with words such as *escapar* (escape) instead of *salir* and *un emilio* or *imail* (an e-mail) instead of *un correo electronico*.

English has become the language of worldwide commerce and the Internet. Possibly a billion people speak English as a second language, most in Asia. As they learn English, these speakers are making it their own, modifying it slightly with the addition of words from their languages and incorporating their own intonational and structural patterns. In the near future, it may be more appropriate to think of English as a family of similar languages.

Braj Kachru, a professor in India, questions the very idea that English is inevitably linked to Western culture. He hypothesizes that English can be as adaptable to local culture as a musical instrument is to music. More succinctly put, English no longer belongs to the English. According to Professor Kachru (2005), the over 500 million Asian speakers of English should direct the language's course because the number of speakers in traditionally English-speaking countries is declining. The "Englishes" of the future may be hybrids or even new languages that may not be mutually understood by users from different cultures.

The socially shared code of English or any language allows the listener and speaker or writer and reader of the same language to exchange information. Internally, each uses the same code. The shared code is a device that enables each to represent an object, event, or relationship. Let's see how this is done.

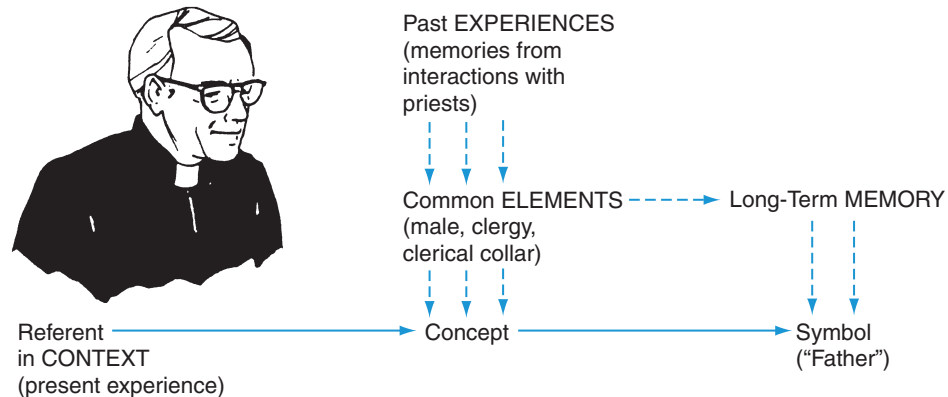
Close your eyes for a few seconds and concentrate on the word *ocean*. While your eyes were closed, you may have had a visual image of surf and sand. The concept was transmitted to you and decoded automatically. In a conversation, listener and speaker switch from encoding to decoding and back again without difficulty. Words, such as *ocean*, represent concepts stored in our brains.

Each user encodes and decodes according to his or her shared concept of a given object, event, or relationship; the actual object, event, or relationship does not need to be present. Let's assume that you encounter a priest. From past experience, you recognize his social role. Common elements of these experiences are *Catholic*, *male*, and *clergy*. As you pass, you draw on the appropriate symbol and encode, "Morning, Father." This representational process is presented in Figure 1.1. The word may also suggest a very different meaning, depending on the experiences of each party. Let's assume for a moment



## FIGURE 1.1 Symbol–Referent Relationship

*The concept is formed from the common elements of past experiences. The common elements of these experiences form the core of the concept. When a referent is experienced, it is interpreted in terms of the concept and the appropriate symbol applied.*



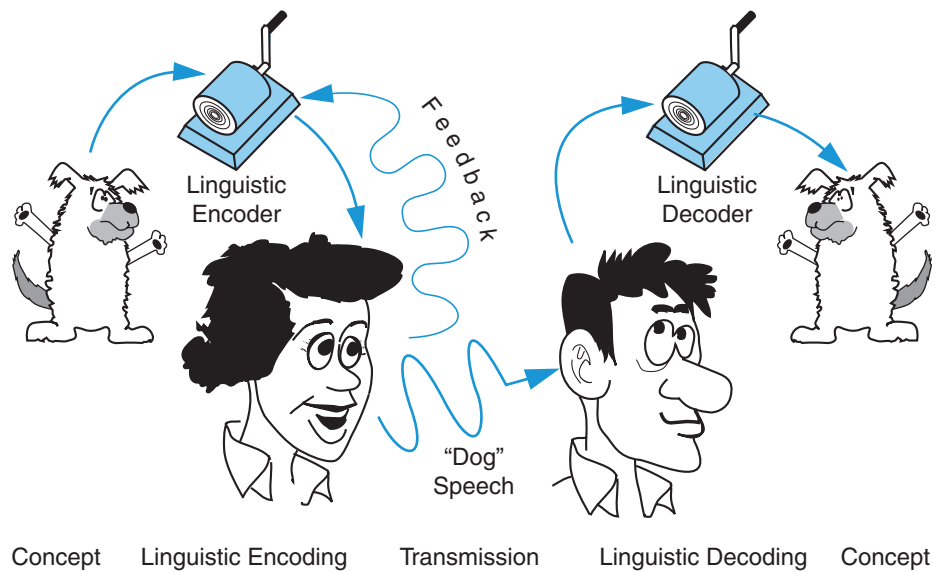
that your biological father is an Episcopal minister. You see him on the street in clerical garb and say, “Good morning, Father.” A passerby, unaware of your relationship, will assume something very different from the meaning that you and your father share. Coding is a factor of the speaker’s and listener’s shared meanings, the linguistic skills of each, and the context in which the exchange takes place.

Individual linguistic units communicate little in isolation. Most of the meaning or information is contained in the way symbols are combined. For example, “Teacher Jim a is” seems a meaningless jumble of words. By shifting a few words, however, we can create “Jim is a teacher.” Another modification could produce “Is Jim a teacher?”—a very different sentence. Language rules specify a system of relationships among the parts. The rules for these relationships give language order and allow users to predict which units or symbols will be used. In addition, the rules permit language to be used creatively. Symbols and rules governing their use help us to create utterances.

Language should not be seen merely as a set of static rules. It is a process of use and modification within the context of communication. Language is a tool for social use.

## COMMUNICATION

Both speech and language are parts of a larger process called communication. **Communication** is the exchange of information and ideas, needs and desires, between two or more individuals. The process is an active one that involves encoding, transmitting, and decoding the intended message. Figure 1.2 illustrates this process. It requires a sender and a receiver, and each must be alert to the informational needs of the other to ensure that messages are conveyed effectively and that intended meanings are preserved. For example, a speaker must identify a specific female, such as “Have you seen Catalina?” prior to using the pronoun *she*, as in “She was supposed to meet me.” The probability of message distortion is very high, given the number of ways a message can be formed and the past experiences and perceptions of each participant. The degree to which a speaker is successful in communicating, measured by the appropriateness and effectiveness of the message, is called **communicative competence**. The competent communicator is

**FIGURE 1.2** Process of Communication

able to conceive, formulate, modulate, and issue messages and to perceive the degree to which intended meanings are successfully conveyed.

Human communication is a complex, systematic, collaborative, context-bound tool for social action. Complexity can be demonstrated by the multifaceted and multifunctional aspects of the process. These include all aspects of communication and language plus additional mental processes, such as memory and planning, exercised within the cultural beliefs, situational variables, and social conventions of the individual participants. Although complex, communication is a systematic pattern of behavior.

Conversations don't consist of disconnected, independent utterances. Instead, communication is collaborative. Partners actively coordinate construction of a joint dialogue as they negotiate to understand each other's meanings.

This process occurs within a specific cultural context that influences interpretation of linguistic units and speaker behaviors. The context is variable, changing minute by minute as the physical setting, partners, and topics change. I once introduced myself to a young Korean boy as *Bob*, unaware that *bob* means *rice* in Korean and that being someone's rice is an idiom for being his servant. Imagine how thrilled — and misinformed — he was when I, his supposed servant, subsequently hoisted him upon my shoulders as his mother and I headed down the street.

Finally, communication is a tool for social action. We accomplish things as we communicate. Let's eavesdrop on a conversation:

SPEAKER 1: Are you busy?

SPEAKER 2: No, not really.

SPEAKER 1: Well, if you could, please take a look at my lesson plan.

SPEAKER 2: Okay.

Speaker 1 used politeness to accomplish his goals. By prefacing his request with a question, he invited speaker 2 to respond in a positive way. That's why gran'ma told you that you could catch more flies with honey than with vinegar.

### Paralinguistic Cues

Speech and language are only a portion of communication. Other aspects of communication that may enhance or change the linguistic code can be classified as paralinguistic, nonlinguistic, and metalinguistic. These relationships are illustrated in Figure 1.3.

**Paralinguistic codes**, including intonation, stress or emphasis, speed or rate of delivery, and pause or hesitation, are superimposed on speech to signal attitude or emotion. All components of the signal are integrated to produce the meaning. *Intonation*, the use of pitch, is the most complex of all paralinguistic codes and is used to signal the mood of an utterance. For example, falling or rising pitch alone can signal the purpose of an utterance, as in the following example:

You're coming, aren't you.↓(Telling)  
You're coming, aren't you↑(Asking)

A rising pitch can change a statement into a question. Pitch can signal emphasis, asides, emotions, importance of the information conveyed, and the role and status of the speaker.

Stress is also employed for emphasis. Each of us remembers hearing, "You **will** clean your room!" to which you may have responded, "I **did** clean my room!" The *will* and *did* are emphasized.

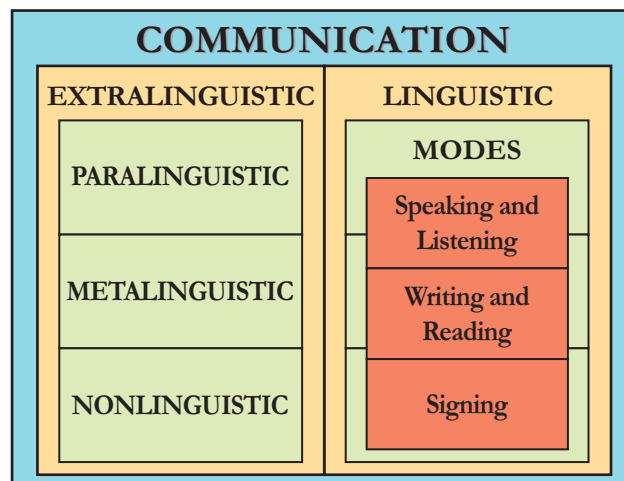
Speaking rate varies with our state of excitement, familiarity with the content, and perceived comprehension of our listener. In general, we tend to talk faster if we are more excited, more familiar with the information being conveyed, or more assured that our listener understands our message.

Pauses may be used to emphasize a portion of the message or to replace the message. Even young children recognize that a short maternal pause after a child's request usually signals a negative reply. Remember asking, "Can Chris sleep over tonight?" A long silence meant that your plans were doomed.

Pitch, rhythm, and pauses may be used to mark divisions between phrases and clauses. Combined with loudness and duration, pitch is used to give prominence to certain syllables and to new information.

### FIGURE 1.3 Relationships of Speech, Language, and Communication

*Communication is accomplished through linguistic and paralinguistic codes and many means of transmission, such as speech, intonation, gestures, and body language*



Paralinguistic mechanisms are called **suprasegmental devices** because they can change the form and meaning of a sentence by acting across elements, or segments, of a sentence. As mentioned, a rising pitch can change a statement into a question without altering the arrangement of words. Similarly, “I did my homework” and “I *did* my homework” convey different emotions.

### Nonlinguistic Cues

Gestures, body posture, facial expression, eye contact, head and body movement, and physical distance or proxemics convey information without the use of language and are called **nonlinguistic cues**. The effectiveness of these devices varies with users and between users. We all know someone who seems to gesture too much or to stand too close while communicating. Some nonlinguistic messages, such as a wink, a grimace, a pout, or folded arms, can convey the entire message.

As with language, nonlinguistic cues vary with the culture. Perfectly acceptable gestures in one culture may be considered offensive in another. Table 1.1 presents a list

**TABLE 1.1** Nonlinguistic Cues

GESTURE	OTHER INTERPRETATIONS	COUNTRIES IN WHICH UNACCEPTABLE
Thumbs-up		Australia, Nigeria, Islamic countries, such as Bangladesh
A-OK	Japan: <i>money</i> France: <i>zero, worthless</i>	Latin American countries
Victory or peace sign		England (if palm toward body)
Hailing a waiter (one finger raised)	Germany: <i>two</i>	Japan
Beckoning curled finger		Yugoslavia, Malaysia, Indonesia, Australia
Tapping forehead to signify “smart”	Netherlands: <i>crazy</i>	
Stop		Greece, West Africa
Hands in the pockets		Belgium, Indonesia, France, Finland, Japan, Sweden
Strong handshake	Middle East: <i>aggression</i>	
Good-bye	Europe and Latin America: <i>no</i>	
Crossing legs and exposing sole of the foot		Southeast Asia
Nodding head for agreement	Greece, Yugoslavia, Turkey, Iran, Bengal: <i>No</i>	

Source: Information from Axtell (1991).

of common American gestures considered rude, offensive, or insulting in other cultures. Luckily, the smile is a universal signal for friendliness.

### *Metalinguistic Skills*

The ability to talk about language, analyze it, think about it, judge it, and see it as an entity separate from its content or out of context is termed **metalinguistics**. For example, learning to read and write depends on metalinguistic awareness of the component units of language—sounds, words, phrases, and sentences. Metalinguistic skills also are used to judge the correctness or appropriateness of the language we produce and receive, thus signaling the status of the transmission or the success of communication.

### *The Beginnings of Human Communication*

As you can see, like language, communication is quite complex, yet it is almost impossible not to communicate. Even if you tried not to communicate, your behavior would communicate that you do not want to communicate.

When and how did human communication diverge from other primate communication? Unfortunately, speech doesn't leave any tangible evidence. Our best guess is that spoken language appeared around 50,000–100,000 years ago. The first “words” may have been imitations of animal sounds or may have accompanied emotion, such as crying, and actions, such as a grunt when attempting to move something heavy.

Although we can't answer the question more precisely, language itself may offer a place to begin an explanation. If we look back at the characteristics of language, the first was that language is a social tool. If we take this further, we can conclude that language is a social means for achieving social ends based on shared understanding and purpose (Tomasello, 2008). Thus, human communication is fundamentally cooperative. Herein may be our answer.

The cooperative nature of human communication and the cooperative structure of human social interaction and culture are closely related. Early forms of communication were most likely gestural in nature, including pointing and pantomiming (Tomasello, 2008). The cooperative nature of these gesture differs qualitatively from other primate communication, which is primarily requesting to fill immediate needs. In contrast, cooperative communication requires socio-cognitive skills of shared intentionality. While chimpanzees, with whom we share a common ancestor, do have and understand individual intentionality, most do not have the skills of shared intentionality, such as joint goals and joint attention that are necessary for cooperative communication.

Early humans were probably driven to cooperate because of fear of hunger or the high risk of being eaten by predators (Bickerton, 2003). Thus, human cooperative communication resulted from a biological adaptation for collaborative activities; reciprocating could help ensure your survival.

Vocal communication probably emerged after conventionalized gestures. Most likely the earliest vocal accompaniments to gestures were emotional or added sound effects to some already meaningful action-based gestures or other actions. Some vocalizations may have accompanied specific acts such as mourning or imitated animal sounds. At some point, the vocalizations took on meaning of their own. Unlike ape communication, human vocalization is not context-bound or involuntary and this characteristic may be related to the need for vocal communication. While pointing works in context, we must rely on some other signal to communicate about something that is not present. In addition, vocal communication freed the hands for other purposes (Goldin-Meadow, 2005).

When we compare a gorilla skull to a Neanderthal skull from approximately 60,000 years ago, one striking difference can be noted in the vocal tract of the early human. The reconfigured vocal tract suggests that some consonant-like sounds were possible. More

modern vocal tracts appear about 35,000 years ago. When compared to other primates, humans have more vertical teeth, more intricately muscled lips, a relatively smaller mouth, a greater closure of the oral cavity from the nasal, and a lower larynx or “voice box.” All of these adaptations make speech as we know it possible. Most importantly, humans possess a large and highly specialized brain compared to their overall size.

It is the rules that enable humans to communicate. Sounds can be combined, recombined, broken down, and combined another way to convey different meanings. A dog’s bark cannot be manipulated in this way and is a relatively fixed form.

Grammar arose to express more complex relationships. This is especially important as communication moves from requesting to informing and information sharing (Tomasello, 2008).

## Properties of Language

---

Linguists attempt to describe the properties or characteristics of language. In general, language is a social interactive tool that is both rule governed and generative, or creative.

### LANGUAGE IS A SOCIAL TOOL

It does little good to discuss language outside the framework provided by communication. While language is not essential for communication, communication is certainly an essential and defining element of language. Without communication, language has no purpose.

As a shared code, language enables users to transmit ideas and desires to one another. In fact, language has but one purpose: to serve as the code for transmissions between people.

Overall, language reflects the collective thinking of its culture and, in turn, influences that thinking. In the United States, for example, certain words, such as *democracy*, reflect cultural meanings and emotions and, in turn, influence our concepts of other forms of government. The ancient Greek notion of democracy was somewhat different and similarly influenced the Greeks’ thinking.

Likewise, at any given moment, language in use is influenced by what precedes it and influences what follows. The utterance “And how’s my little girl feeling this morning?” only fits certain situations that define the appropriate language use. It would not be wise to use this utterance when meeting the Queen of England for the first time. In turn, the sick child to whom this is addressed has only limited options that she can use to respond. Responses such as, “Go directly to jail; do not pass Go” and “Mister Speaker, I yield the floor to the distinguished senator from West Virginia,” while perfectly correct sentences, just don’t fit the situation. The reason is that they do not continue the communication but rather cause it to break down.

To consider language without communication is to assume that language occurs in a vacuum. It is to remove the very *raison d’être* for language in the first place.

### LANGUAGE IS A RULE-GOVERNED SYSTEM

The relationship between meaning and the symbols employed is an arbitrary one, but the arrangement of the symbols in relation to one another is nonarbitrary. This nonarbitrary organizational feature of language demonstrates the presence of underlying rules or patterns that occur repeatedly. These shared rule systems allow users of a language to create and comprehend messages.

Language includes not only the rules but also the process of rule usage and the resulting product. For example, a sentence is made up of a noun plus a verb, but that rule tells us nothing about the process by which you select the noun and verb or the seemingly infinite number of possible combinations using these two categories.

A language user's underlying knowledge about the system of rules is called his or her **linguistic competence**. Even though the user can't state many of the rules, performance demonstrates adherence to them. The linguist observes human behavior in an attempt to determine these rules or operating principles.

If you have ever listened to an excited speaker or a heated argument, you know that speakers do not always observe the linguistic rules. In fact, much of what we, as mature speakers, say is ungrammatical. Imagine that you have just returned from the New Year's celebration at Times Square. You might say the following:

Oh, wow, you should have . . . you wouldn't be-believe all the . . . never seen so many people. We were almost . . . ah, trampled. And when the ball came down . . . fell, all the . . . Talk about yelling . . . so much noise. We made a, the mistake of . . . can you imagine anything as dumb as . . . well, it was crazy to drive.

It's ungrammatical but still understandable. So is much of what we say.

Linguistic knowledge in actual usage is called **linguistic performance**. A user's linguistic competence must be deduced from his or her linguistic performance, such as that of our New Year's reveler. You cannot measure linguistic competence directly.

There are many reasons for the discrepancy between competence and performance in normal language users. Some constraints are long-term, such as ethnic background, socioeconomic status, and region of the country. These account for dialects and regionalisms. We are all speakers of some dialectal variation, but most of us are still competent in the standard or ideal dialect. Dialectal speakers do not have a language disorder, just a different way of saying things.

Even though much that is said is ungrammatical, native speakers have relatively little difficulty decoding messages. If a native speaker knows the words being used, he or she can apply the rules in order to understand almost any sentence encountered. In actual communication, comprehension is influenced by the intent of the speaker, the context, the available shared meanings, and the linguistic complexity of the utterance.

A sentence such as "Chairs sourly young up swam" is ungrammatical. It violates the rules for word order. Native speakers notice that the words do not fall into predictable patterns. When rearranged, the sentence reads "Young chairs swam sourly up." This is now grammatical in terms of word order but meaningless; it doesn't make sense. Other rules allow language users to separate sense from nonsense and to determine the underlying meaning. Although "Dog bites man" and "Man bites dog" are very similar in that each uses the same words, the meanings of the two sentences are very different. Only one will make a newspaper headline. Likewise, a single sentence may have two meanings. For example, the sentence "The shooting of the hunters was terrible" can be taken two ways: either they shot poorly or someone shot them. Language users must know several sets of rules to make sense of what they hear or read.

### *Learning the Rules*

Children learn language rules by actually using them to encode and decode. The rules learned in school are the "finishing touches." For example, a preschool child demonstrates by using words that he or she knows what a noun is long before he or she can define the term or even name it.

On one family trip, we passed the time with a word game. My 5-year-old daughter was asked to provide a noun. Immediately, she inquired, "What's that?" In my best



teacher persona, I patiently explained that a noun was a person, place, or thing. She replied, “Oh.” After some prodding, she stated, “Then my word is ‘thing.’” Despite her inadequate understanding of the formal definition of a noun, my daughter had demonstrated for years in her everyday use that she knew how to use nouns.

## LANGUAGE IS GENERATIVE

Language is a generative system. The word *generative* has the same root as *generate*, which means to produce, create (as in the word *Genesis*), or bring into existence. Thus, language is a productive or creative tool. A knowledge of the rules permits speakers to generate meaningful utterances. From a finite number of words and word categories, such as nouns, and a finite set of rules, speakers can create an almost infinite number of sentences. This creativity occurs for several reasons:

- Words can refer to more than one entity.
- Entities can be called more than one name.
- Words can be combined in a variety of ways.

Think of all the possible sentences you could create by combining just the nouns and verbs you know. When this task is completed, you could modify each sentence by adding adverbs and adjectives, articles and prepositions, and by combining sentences or rearranging words to create other variations.

The possibilities for creating new sentences are virtually endless. Consider the following novel sentence:

Large elephants danced gracefully beneath the street lights.

Even though you have probably never seen this utterance before, you understand its meaning because you know the linguistic rules. Try to create your own novel utterance. The process will seem difficult, and yet you form novel utterances every day and are not consciously aware of using any effort. In fact, much of what you said today was novel or new.

I don't mean to imply that sentences are never repeated. Polite social or ritualistic communication is often repetitious. How frequently have you said the following sentences?

How are you?  
Thank you very much.  
Can I, Mom, please?  
See you soon.

These utterances aside, you create whatever sentences you desire whenever you want.

Children do not learn all possible word combinations. Instead, they learn rules that govern these combinations. As a young child, you deduced the rules by hearing others and trying out different types of sentences yourself. Knowing the linguistic rules enables you to understand and to create or *generate* an infinite variety of sentences.

## OTHER PROPERTIES

Human language is also *reflexive*, meaning we can use language to reflect on language, its correctness and effectiveness, and its qualities. We referred to this aspect of language previously as *metalinguistics*. Other animals cannot reflect on their own communication. Without this ability, this book would be impossible to produce.



What are the distinctions among speech, language, and communication? And what are form content and use? In this video, Dr. Lydia Soifer answers these questions in the segments 4:51–11:06 and 14:01–23:27. <http://www.youtube.com/watch?v=TzpkRZvdOCw>

An additional property of language is *displacement* or the ability to communicate beyond the immediate context. As far as we know, your dog's bark is not about something that he remembers of interest from last week. You, on the other hand, can discuss tomorrow, last week, or last year, or events in the dim past of history in which you were not a participant.

Although not always obvious from inside a language, the symbols used in a language are *arbitrary*, another property of language. There is, for example, nothing in the word *cat* that would suggest the animal to which it applies. Except for some words, such as *squash* and *cuckoo* that suggest a relationship between the sound and the action or thing to which a word refers, there is no naturally obvious relationship. The relationship is arbitrary.

## Components of Language

An exceedingly complex system, language can best be explained by breaking it down into its functional components (Figure 1.4). We typically divide language into three major, although not necessarily equal, components: form, content, and use. Form includes syntax, morphology, and phonology, the components that connect sounds and symbols in order. Content encompasses meaning or semantics, and use is termed pragmatics. These five components—syntax, morphology, phonology, semantics, and pragmatics—are the basic rule systems found in language.

As each of us uses language, we code ideas (*semantics*); that is, we use a symbol—a sound, a word, and so forth—to stand for an event, object, or relationship. To communicate these ideas to others, we use certain forms, which include the appropriate

- sound units and sequences (*phonology*),
- word order and relationships (*syntax*), and
- words and word beginnings (*un-, non-*) and endings (*-s, -ed*) (*morphology*).

**FIGURE 1.4** Components of Language

