

Contemporary Linguistic Analysis

< AN INTRODUCTION >

eighth edition

William O'Grady John Archibald



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An Introduction

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An Introduction

Eighth Edition

Edited by

William O'Grady

UNIVERSITY OF HAWAII AT MANOA
UNIVERSITY OF PRINCE EDWARD ISLAND

and

John Archibald

UNIVERSITY OF VICTORIA

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To the memory of Michael Dobrovolsky,
founding co-editor of
Contemporary Linguistic Analysis

Convinced at once that, in order to break loose from the beaten paths of opinions and systems, it was necessary to proceed in my study of man and society by scientific methods, and in a rigorous manner, I devoted one year to philology and grammar; linguistics, or the natural history of speech, being, of all the sciences, that which best suited the researches which I was about to commence.

PIERRE-JOSEPH PROUDHON, *WHAT IS PROPERTY?* (1840)

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Preface

From its inception, the basic goal of *Contemporary Linguistic Analysis* has been to provide an up-to-date introduction to the discipline of linguistics while at the same time covering phenomena that are of special interest and relevance to the linguistic situation in Canada. Indeed, *Contemporary Linguistic Analysis* was the first textbook to offer such a focus.

These dual objectives have grown increasingly challenging in recent years, as work in the various subdisciplines of linguistics becomes more technical and far-reaching. As the size of the textbook increased in response to these trends, it became necessary to search for new solutions to the problem of just how much an introductory textbook can and should cover. It has often been difficult to decide where to draw the line between essential and advanced material, of course, and we now have some appreciation of what it feels like to be the Minister of Finance in tough economic times. The pressing need to reduce and restructure is constantly challenged by cries of “Don’t cut there.” After much experimentation and compromise (a Canadian virtue if ever there was one), we have arrived at a division of labour that we all—editors, referees, and publisher—feel reasonably comfortable with. We hope that this will still allow instructors the flexibility to create the kind of introductory course that they want for their students.

New to this Edition

The eighth edition has been modified to reflect changes in the discipline as well as comments from faculty and students who used the seventh edition. These modifications include

- A rewritten version of Chapter 5, Syntax: the analysis of sentence structure, updated to reflect new developments in the field.
- Revision of individual chapters to update and clarify their content, as well as offer revised end-of-chapter exercises that allow students to work through some of the concepts discussed in the chapter.
- A revised Study Guide offering practice exercises covering all 15 chapters of the textbook, accompanied by an instructor answer key.

Supplements to the Text

Contemporary Linguistic Analysis: An Introduction, Eighth Edition, offers a number of supplements that will enrich both the instructor’s presentation of introductory linguistics and the student’s understanding of it.

Instructor Supplements

- **Answer Key to *Contemporary Linguistic Analysis*** (ISBN 9780134086620). This answer key contains solutions to the series of exercises found at the end of each chapter in the textbook. It is available for download from the Pearson Online Catalogue.

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- **Answer Key to the *Study Guide*** (ISBN 09780134181431). This answer key contains solutions to the exercises found in each chapter of the study guide. This resource can be downloaded from the Instructor Resource Centre.
- **Companion Website** (www.pearsoncanada.ca/ogradey) Organized by textbook chapter number, the website features audio exercise files in chapter 2 as well as advanced material relating to many topics covered in the textbook. Chapter 16: Animal communication is also included on the Companion Website.
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Thanks are also due to the professors across Canada, including Richard Compton from the University of Toronto, who read and commented on individual eighth edition chapters and sections.

We are also very grateful to our ever-alert and perceptive proofreader Pamela Erlichman, whose work as copy editor for several earlier editions of this book continues to contribute to its quality. Her efforts were complemented by our technical reviewer, Jennifer Abel, whose close attention to detail has led to many important corrections.

As the demands of producing a wide-ranging, state-of-the-art textbook increase with each edition, it has become necessary to coordinate the tasks of copy editing, technical fact checking, critical reading, and strategic rewriting, by placing them in the hands of a single person. There was only one person to whom we could turn—the extraordinary Joyce Hildebrand of Speargrass Communications. Joyce is at once a trained linguist, a published writer, and a professional copy editor. No one in the world has been able to combine those three gifts in the way that she has. She is among the elite editors in her profession, and we are forever in her debt for the guidance and assistance that she provided on this project.

About this book

Linguistics provides students with an ideal introduction to the kind of thinking we call “scientific.” Such thinking proceeds from the discovering of problems and puzzles, to hypotheses that attempt to account for those problems, to the careful testing and extension of these hypotheses. But science is more than a formal activity. One of the great pleasures offered introductory students of linguistics is the discovery of the impressive body of subconscious knowledge that underlies language use. This book attempts to emphasize the importance of this knowledge as well as to introduce the scientific methodology used in linguistic analysis.

Although this is the first linguistics textbook designed primarily for a Canadian readership, we have tried to do much more than simply provide coverage of linguistic phenomena peculiar to Canada. As the title suggests, we have attempted an introduction to linguistic analysis as it is practised at this stage in the development of our discipline. While we do not ignore or reject other fruitful approaches to linguistics, we have taken the generative paradigm as basic for two reasons. First, generative linguistics provides a relatively coherent and integrated approach to basic linguistic phenomena. Phonetics, phonology, morphology, syntax, and semantics are viewed within this framework, as perhaps in no other, as fully integrated and interrelated. Second, the generative approach has been widely influential in its application to a broad range of other linguistic phenomena over the past several decades, including the study of first and second language learning, historical linguistics, typology, psycholinguistics, neurolinguistics.

The extent of our “contemporariness” has been limited by the inevitable compromise between the need to present basic concepts and the demands of sophisticated and competing recent approaches. In some cases, early versions of our chapters were judged “too contemporary” by instructors who were not specialists in the subfields in question. This led to substantial revisions and a somewhat more traditional approach to certain issues than was originally intended. Nonetheless, we have made every effort to provide what is promised by the title—an introductory text that provides a solid grounding in basic linguistic concepts—as well as a text that prepares the student to go on to current work in the discipline.

No textbook can be all things to all users. We hope that this book will provide students with not only a broad introduction to linguistic analysis, but also a greater appreciation of the wonder of human language.

List of technical abbreviations

*	(in front of words or sentences)	L1	first language
	unacceptable	L2	second language
#	word boundary	LN	last name
1	first person	Loc	locative case
1	primary stress	Loc	location
2	second person	M	mid tone
2	secondary stress	N	noun
3	third person	N	nucleus
A	adjective	Nom	nominative case
Abl	ablative case	NP	noun phrase
Abs	absolutive case	O	(direct) object
Acc	accusative case	O	onset
Adv	adverb	Obl	oblique
AdvP	adverb phrase	OE	Old English
Af	affix	P	preposition, postposition
ag	agent	Pass	passive
AP	adjective phrase	PET	positron emission tomography
Aux	auxiliary verb	PIE	Proto-Indo-European
B	bound root	pl	plural
C	complementizer	PP	prepositional phrase
C	consonant	PR	phonetic representation
caus	cause	Prs	present tense
CG	constricted glottis	Pst	past tense
cmpl	completed action	R	rhyme
C ₀	any number of consonants	R	rounded
Co	coda	RC	relative cause
Com	comitative	REA	right ear advantage
CP	complementizer phrase	recip	recipient
CT	computerized axial tomography	S	sentence
DA	derivational affix	S	subject
Dat	dative case	σ	syllable
Deg	degree word	SES	socioeconomic status
DR	delayed release	SG	spread glottis
EEG	electroencephalogram	sg	singular
Erg	ergative case	SLA	second language acquisition
ERP	event-related potentials	th	theme
ESL	English as a second language	T	title alone
FN	first name	TLN	title + last name
Fut	future tense	Top	topic
Gen	genitive case	UG	Universal Grammar
go	goal	UR	underlying representation
H	high tone	UR	unrounded
IA	inflectional affix	V	verb
indic	indicative	V	vowel
IP	inflectional phrase (= S)	VP	verb phrase
IPA	International Phonetic Alphabet	W	woman
L	low tone	Wd	word

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Language: a preview

The gift of language is the single human trait that marks us all genetically, setting us apart from the rest of life.

LEWIS THOMAS, *THE LIVES OF A CELL*

LANGUAGE is at the heart of all things human. We use it when we're talking, listening, reading, writing—and thinking. It underpins social relationships and communities; it forges the emotional bond between parent and child; it's the vehicle for literature and poetry. Language is not just a part of us; language *defines* us. All normal human beings have at least one language, and it is difficult to imagine much significant social, intellectual, or artistic activity taking place without the opportunities for communication offered by language.

Linguistics is the study of how language works—how it is used, how it is acquired, how it changes over time, how it is represented in the brain, and so on. It is concerned not only with the properties of the world's more than 7000 living languages but also with the abilities and adaptations that have made it possible for our species to create and use language in the first place.

1.1 Specialization for language

Modern *Homo sapiens* (our species) made its appearance 100 000 to 200 000 years ago, by many estimates. Early humans were anatomically like us—they had large brains and vocal tracts capable of producing speech. Archaeological evidence (such as tools, carvings, and cave paintings) suggests that they also had the type of intellect that could accompany language.

Language Matters How Many Languages Are There in the World Today?

That's not an easy question, since little is known about the linguistic situation in many parts of the world. The most complete compilation to date can be found at www.ethnologue.com, which lists 7106 living languages.

But this is not the whole story. Many languages have only two or three hundred speakers (or fewer), and many others are in grave danger of demise as indigenous peoples throughout the world lose their traditional cultures and homelands. You can find out more by reading *Language Death* by David Crystal (Cambridge, UK: Cambridge University Press, 2002) or *Vanishing Voices: The Extinction of the World's Languages* by Daniel Nettle and Suzanne Romaine (New York: Oxford University Press, 2000). Up-to-date information is also available at the websites of the Endangered Languages Project (<http://www.endangeredlanguages.com/>) and Terralingua (<http://www.terralingua.org/>), among others.

Hundreds of thousands of years of evolution created a special capacity for language in humans that is not found in any other species. The evidence is literally inside us. Our speech organs (the lungs, larynx, tongue, teeth, lips, soft palate, and nasal passages) were—and still are—primarily concerned with breathing and eating. However, they have also all become highly specialized for use in language. Their structure and shape is unique to our species, as is the highly developed network of neural pathways that controls them during speech production (see table 1.1). Indeed, the bundle of nerves controlling the vocal cords is among the densest in the entire body.

Organ	Survival function	Speech function
Lungs	to exchange carbon dioxide and oxygen	to supply air for speech
Vocal cords	to create seal over passage to lungs	to produce vibrations for speech sounds
Tongue	to move food to teeth and back into throat	to articulate vowels and consonants
Teeth	to break up food	to provide place of articulation for consonants
Lips	to seal oral cavity	to articulate vowels and consonants
Nose	to assist in breathing and smelling	to provide nasal resonance during speech

Human beings are also specially equipped for the perception of speech. Newborns respond differently to human voices than to other types of sounds, and six-month-old infants are able to perceive subtle differences among sounds in languages that they have never heard before.

Of course, language is much more than just speech sounds and does not even have to be oral. In sign languages, meaning is conveyed via gestures, body posture, and facial expressions rather than through sounds. Moreover, much of what makes language special can be neither heard nor seen because it involves the way in which the human mind goes about forming words, building sentences, and interpreting meaning.

Language Matters **Sign Language**

There are many misconceptions about sign languages, the most prevalent being that they are just a way to ‘spell out’ an oral language. Although ‘finger spelling’ of words from an oral language is sometimes used (to indicate names or technical terms, for instance), sign languages are independent systems of communication, with their own vocabulary and grammatical rules. That’s why British Sign Language and American Sign Language (ASL) are mutually unintelligible. And it’s why Quebec Sign Language (Langue des signes québécoise) is similar in many respects to American Sign Language, despite major differences between French and English. You can find out more about ASL by going to the U.S. National Institutes of Health website at <http://www.nidcd.nih.gov/health/hearing/asl.asp>.

1.2 A creative system

What, precisely, is language? What does it mean to know a language? To answer these questions, it is first necessary to understand the resources that a language makes available to its **native speakers**, those who have acquired it as children in a natural setting (say, a home rather than a classroom).

The breadth and diversity of human thought and experience place great demands on language. Because there are always new things to say, new experiences to report, and new challenges to confront, language has to be **creative**, giving us the freedom to produce and understand new words and sentences as the need arises.

The creativity of language goes hand in hand with a second defining characteristic—the presence of systematic constraints that establish the boundaries within which innovation can occur. We can be innovative in our use of language, but there are rules to the game—and those rules are an integral part of our knowledge of language. As a preliminary illustration of this, consider the process that we use to create verbs from nouns in English, as shown in table 1.2. (For now, you can think of verbs as words that name actions and nouns as words that name things.)

TABLE 1.2 Nouns used as verbs	
Noun use	Verb use
pull the boat onto the <i>beach</i>	<i>beach</i> the boat
keep the airplane on the <i>ground</i>	<i>ground</i> the airplane
tie a <i>knot</i> in the string	<i>knot</i> the string
put the wine in <i>bottles</i>	<i>bottle</i> the wine
catch the fish with a <i>spear</i>	<i>spear</i> the fish
clean the floor with a <i>mop</i>	<i>mop</i> the floor

As the sentences in (1) show, we have a great deal of freedom to innovate in the formation of such verbs.

- (1) a. I *wristed* the ball over the net.
 b. He would try to *stiff-upper-lip* it through.
 c. She *Houdini'd* her way out of the locked closet.

However, this freedom also has limits. For instance, a new verb is rarely coined if a word with the intended meaning already exists. Although we say *jail the robber* to mean ‘put the robber in jail’, we do not say *prison the robber* to mean ‘put the robber in prison’. This is because the well-established verb *imprison* already has the meaning that the new form would have.

There are also special constraints on the meaning and use of particular subclasses of these verbs. One such constraint involves verbs that are created from time expressions such as *summer*, *holiday*, and so on.

- (2) a. Julia *summered* in Paris.
 b. Harry *wintered* in Mexico.
 c. Bob *holidayed* in France.
 d. Harry and Julia *honeymooned* in Hawaii.

Language Matters **Disagreeing about Language Use**

People sometimes object to innovation in language. The following “letter to the editor” is a case in point:

“I was shocked and appalled to read in yesterday’s newspaper the following phrase: *Nash’s knee injury impacted his ability to score*. As anyone with a modicum of education or who owns a dictionary will tell you, *impact* is a noun. You have used it as a verb. This is clearly nonsensical and provides further evidence of the crumbling of our public education system and the decline of language in general. If your editorial offices are not in the possession of a suitable dictionary, I would be happy to provide one for you.”

Languages change, and so do dictionaries—the second edition of the *Canadian Oxford Dictionary* (Oxford University Press, 2004, available online) lists *impact* as a verb. The *New York Times* publishes a long-running column titled “On Language” (http://topics.nytimes.com/topics/features/magazine/columns/on_language/index.html). Often witty and insightful, it helps document (sometimes disappointingly) changes to contemporary English.

Although the sentences in (2) all sound natural, not all time expressions can be used in this way. (Throughout this book, an asterisk is used to indicate that an utterance is unacceptable.)

- (3) a. *Jerome *midnighted* in the streets.
 b. *Andrea *nooned* at the restaurant.
 c. *Philip *one o’clocked* at the airport.

These examples show that when a verb is created from a time expression, it must be given a very specific interpretation—roughly paraphrasable as ‘to be somewhere for the period of time X’. Thus, *to summer in London* is ‘to be in London for the summer’, *to holiday in France* is ‘to be in France for the holidays’, and so on. Since *noon* and *midnight* express *points* in time rather than extended *periods* of time, they cannot be used to create new verbs of this type.¹

Moreover, there are constraints on what verbs that are derived from nouns can mean. For instance, *winter in Hawaii* can only mean ‘spend the winter in Hawaii’, not ‘make it snow in Hawaii’ or ‘stay in Hawaii until winter begins’. Without such constraints, creativity would run amok, undermining rather than enhancing communication.

Systematic rule-governed creativity is the hallmark of all aspects of language. For instance, consider how sounds are combined to form words. Certain patterns of sounds, like the novel forms in (4), have the ‘look’ of English words—all they lack is a meaning.

- (4) a. prasp
 b. flib
 c. traf

In contrast, the forms in (5) contain combinations of sounds that English does not permit; they simply do not have the shape of English words.

- (5) a. *psapr
 b. *bfli
 c. *ftra

Still other constraints determine how special endings can be used to create words from other words. Imagine, for example, that the word *soleme* entered the English language (used perhaps for a newly discovered atomic particle). As a speaker of English, you would then automatically know that something with the properties of a soleme could be called *solemic*. You would also know that to make something solemic is to *solemicize* it, and you would call this process *solemicization*. Further, you would know that the *c* is pronounced as *s* in *solemicize* but as *k* in *solemic*, and that both words are pronounced with the stress on the second syllable. (You would say *soLEmic*, not *SOlemic* or *soleMIC*.)

Nowhere is the ability to deal with novel utterances more obvious than in the production and comprehension of sentences. Apart from a few fixed expressions and greetings (*What's up?*, *How're things?*, *No way!*), much of what you say, hear, and read in the course of a day consists of sentences that are new to you. In conversations, lectures, newscasts, and textbooks, you are regularly exposed to novel combinations of words, unfamiliar ideas, and new information. Consider, for instance, the paragraph that you are currently reading. While each sentence is no doubt perfectly comprehensible to you, it is extremely unlikely that you have ever seen any of them before.

Not all new sentences are acceptable, however. The words in (6) are all familiar, but they are simply not arranged in the right way to make a sentence of English.

- (6) *Frightened dog this the cat that chased mouse a.
(cf. This dog frightened the cat that chased a mouse.)

As with other aspects of language, the ability to form and interpret sentences is subject to systematic limitations.

1.3 Grammar and linguistic competence

As we have just seen, speakers of a language are able to produce and understand an unlimited number of utterances, including many that are novel and unfamiliar. At the same time, they are able to recognize that certain utterances are not acceptable and do not belong in their language. Knowledge of this type, which is often called **linguistic competence**, constitutes the central subject matter of linguistics and of this book.

In investigating linguistic competence, linguists focus on the mental system that allows human beings to form and interpret the sounds, words, and sentences of their language. Linguists often call this system a **grammar** and break it down into the components in table 1.3.

TABLE 1.3 The components of a grammar

Component	Domain
Phonetics	the articulation and perception of speech sounds
Phonology	the patterning of speech sounds
Morphology	word formation
Syntax	sentence formation
Semantics	the interpretation of words and sentences

As you can see, the term *grammar* is used in a special way within linguistics. To a linguist, a grammar is not a book, nor is it concerned with just the form of words and sentences. Rather, it is the intricate network of knowledge that underlies our ability to use language.

The study of grammar lies at the core of our attempts to understand what language is and what it means to know a language. Five simple points should help clarify why the investigation of grammatical systems is so important to contemporary linguistic analysis.

1.3.1 Generality: all languages have a grammar

One of the most fundamental claims of modern linguistic analysis is that all languages have a grammar. It could not be any other way. If a language is spoken, it must have a phonetic and phonological system; since it has words and sentences, it must also have a morphology and a syntax; and since these words and sentences have systematic meanings, there must be semantic principles as well.

It is not unusual to hear the remark that some language—say, Acadian French, Cree, or Swahili—has no grammar. (This is especially common in the case of languages that are not written or are not taught in schools and universities.) Unfamiliar languages sometimes appear to an untrained observer to have no grammar, perhaps because their grammatical systems are different from those of more frequently studied languages. In Walpiri (an indigenous language of Australia), for example, the relative ordering of words is so free that the English sentence *The two dogs see several kangaroos* could be translated by the equivalent of any of the following sentences. (The word ‘now’ is used informally to help express present tense.)

- (7) *a.* Dogs two now see kangaroos several.
- b.* See now dogs two kangaroos several.
- c.* See now kangaroos several dogs two.
- d.* Kangaroos several now dogs two see.
- e.* Kangaroos several now see dogs two.

Although Walpiri does not restrict the order of words in the way English does, its grammar imposes other types of requirements. For example, in the sentence above, Walpiri speakers must place the ending *lu* on the word for ‘dogs’ to indicate that it names the animals that do the seeing rather than the animals that are seen. In English, by contrast, this information is conveyed by placing *two dogs* in front of the verb and *several kangaroos* after it.

Rather than showing that Walpiri has no grammar, such differences simply demonstrate that it has a grammar that is unlike the grammar of English in certain respects. This point holds across the board: although no two languages have exactly the same grammar, every language has a grammar.

A similar point can be made about different varieties of the same language. Newfoundland English, Jamaican English, and Hawaiian English each have pronunciations, vocabulary items, and sentence patterns that may appear unusual to outsiders. But this does not mean that they have no grammar; it just means that their grammars differ in particular ways from those of more familiar varieties of English.

Language Matters Regularization

Why and how does the English spoken in one area end up being different from the English spoken in other places? One powerful force is *regularization*—the tendency to drive out exceptions by replacing them with a form that fits with a more general pattern.

With one exception, English verbs all have a single past tense form—*I just arrived, you just arrived, s/he just arrived*, and so on. The exception is the verb *be*, which has two forms—*was* and *were*: *I was there, you were there, s/he was there*.

Regularization has taken care of this anomaly in at least two varieties of English. In Yorkshire English (northern England), only *were* is used: *I were there, you were there, s/he were there*. In Appalachian English (West Virginia and parts of nearby states), things have gone the other way—only *was* has been retained: *I was there, you was there, s/he was there*.

1.3.2 Parity: all grammars are equal

Contrary to popular belief, there is no such thing as a ‘primitive’ language, even in places untouched by modern science and technology. Indeed, some of the most complex linguistic phenomena we know about are found in societies that have neither writing nor electricity.

Moreover, there is no such thing as a ‘good grammar’ or a ‘bad grammar’. In fact, all grammars do essentially the same thing: they tell speakers how to form and interpret the words and sentences of their language. The form and meaning of those words and sentences vary from language to language and even from community to community, of course, but each language works for its speakers.

Linguists sometimes clash over this point with people who are upset about the use of ‘non-standard’ varieties of English that permit sentences such as *I seen that, They was there, He didn’t do nothing, She ain’t here*, and so forth. Depending on where you live and who you talk to, speaking in this way can have negative consequences: it may be harder to win a scholarship, to get a job, or to be accepted in certain social circles. This is an undeniable fact about the social side of language. From a purely linguistic point of view, however, there is absolutely nothing wrong with grammars that permit such structures. They work for their speakers, and they deserve to be studied in the same objective fashion as the varieties of English spoken by the rich and educated.

The bottom line for linguists is that the analysis of language must reflect the way it is actually used, not someone’s idealized vision of how it should be used. The psychologist Steven Pinker offers the following illustration to make the same point.

Imagine that you are watching a nature documentary. The video shows the usual gorgeous footage of animals in their natural habitats. But the voiceover reports some troubling facts. Dolphins do not execute their swimming strokes properly. White-crowned sparrows carelessly debase their calls. Chickadees’ nests are incorrectly constructed, pandas hold bamboo in the wrong paw, the song of the humpback whale contains several well-known errors, and the monkey’s cries have been in a state of chaos and degeneration for hundreds of years. Your reaction would probably be, What on earth could it mean for the song of the humpback whale to contain an “error”? Isn’t the song of the humpback whale whatever the humpback whale decides to sing?

As Pinker goes on to observe, language is like the song of the humpback whale. The way to determine whether a particular sentence is permissible is to find people who speak the language and observe how they use it.

In sum, linguists don't even think of trying to rate languages as good or bad, simple or complex. Rather, they investigate language in much the same way that other scientists study snails or stars—with the goal of figuring out how it works. This same point is sometimes made by noting that linguistics is **descriptive**, not **prescriptive**. Its goal is to describe and explain the facts of languages, not to change them.

1.3.3 Universality: all grammars are alike in basic ways

In considering how grammars can differ from each other, it is easy to lose sight of something even more intriguing and important—the existence of principles and properties shared by all human languages.

For example, all languages use a small set of contrastive sounds that help distinguish words from each other (like the *t* and *d* sounds that allow us to recognize *to* and *do* as different words). There are differences in precisely which sounds particular languages use, but there are also fundamental similarities. For instance, all languages have more consonant sounds (*p*, *t*, *d*, etc.) than vowel sounds (*a*, *e*, *i*); any language that has a *d* sound almost certainly has a *t* sound as well; and all languages have a vowel that sounds like the 'ah' in *far*.

There are also universal constraints on how words can be put together to form sentences. For example, in describing a situation in which Ned lost his own wallet, many languages can use the equivalent of the first sentence below, with *his* coming after *Ned*, but no language can use the second sentence, with *he* coming before *Ned*.

- (8) a. Ned lost his wallet.
b. He lost Ned's wallet.

Moreover, even when languages do differ from each other, the amount of variation is restricted in certain ways. For example, some languages (like English) place question words at the beginning of the sentence. In (9), for example, the word *what* originates after *donate* and is moved to the beginning of the sentence to create the question.

Language Matters **Don't End That Sentence with a Preposition**

One of the better-known prescriptive rules of English is 'Don't end a sentence with a preposition.' (In other words, say 'To whom were you talking?', not 'Who were you talking to?'.) The problem with this rule is that people don't speak that way. Prepositions often occur at the end of a sentence in English, and trying to prevent this from happening leads to all sorts of unnatural-sounding constructions, as Winston Churchill illustrated (in a famous but possibly apocryphal story) when he said, tongue in cheek, "This is the kind of tedious nonsense up with which I will not put."

Here's an extreme case of prepositions ending a sentence. A young girl, unhappy with the book that her father had brought upstairs for her bedtime story, was heard to say: "What did you bring the book I didn't want to be read to out of up for?" This sentence ends with five prepositions—an extreme case, admittedly, but it's still English!

(9) What did Mary donate to the library?

Other languages, like Mandarin, make no such changes.

(10) Mali juan shenme gei tushuguan?

Mary donate what to library

But no language uniformly places question words at the *end* of the sentence.

In other cases, variation is constrained by strong tendencies rather than absolute prohibitions. Take three-word sentences such as *Canadians like hockey*, for instance. Such sentences have six logically possible orders.

- (11) *a.* Canadians like hockey.
b. Canadians hockey like.
c. Like Canadians hockey.
d. Like hockey Canadians.
e. Hockey like Canadians.
f. Hockey Canadians like.

All other things being equal, we would expect to find each order employed in about one-sixth of the world's languages. In fact, more than 95 percent of the world's languages adopt one of the first three orders for basic statements (and the vast majority of those use one or the other of the first two orders). Only a handful of languages use any of the last three orders as basic.

These are not isolated examples. As you'll see as you continue your study of linguistics, languages are fundamentally alike in important ways.

1.3.4 Mutability: all grammars change over time

The features of language that are not universal and fixed are subject to change over time. Indeed, the grammars of all languages are constantly changing. Some of these changes are relatively minor and occur very quickly (for example, the addition of new words such as *bitcoin*, *twerk*, *selfie*, *defriend*, and *geekery* to the vocabulary of English). Other changes have a more dramatic effect on the overall form of the language and typically take place over a long period of time. One such change involves the manner in which we negate sentences in English. Prior to 1200, English formed negative constructions by placing *ne* before the verb and a variant of *not* after it.

- (12) *a.* Ic *ne* seye *not*. ('I don't say.')
b. He *ne* speketh *nawt*. ('He does not speak.')

By 1400 or thereabouts, the use of *ne* had decreased dramatically, and *not* (or *nawt*) typically occurred by itself after the verb.

- (13) *a.* I seye *not* the wordes. ('I don't say the words.')
b. We saw *nawt* the knyghtes. ('We didn't see the knights.')

It was not until several centuries later that English adopted its current practice of allowing *not* to occur after only certain types of verbs (*do*, *have*, *will*, and so on).

Language Matters Verbs Again

A thousand years ago, more than three hundred English verbs formed their past tense by making an internal change (*drive/drove, eat/ate, etc.*) rather than by adding a suffix (*walk/walked, dance/danced*). Today, about half as many verbs do this. The past tense of *heave* used to be *hove*; now it is *heaved*. The past tense of *thrive* used to be *throve*; now it is *thrived*. The past tense of *chide* ('scold') used to be *chid*; now it is *chided*. And so on. These past tense forms have all changed to the more regular *-ed* pattern.

Then why aren't all verbs regular? One factor involves frequency: more frequent forms tend to resist regularization. That's why the most enduring irregular past tense forms in English (*was* and *were* for *be*, *had* for *have*, *went* for *go*, *came* for *come*, and so on) involve high-frequency verbs. To find out more, read *Words and Rules* by Steven Pinker (New York: Basic Books, 1999).

- (14) a. I will *not* say the words. (versus *I will say not the words.)
 b. He did *not* see the knights. (versus *He saw not the knights.)

These changes illustrate the extent to which grammars can be modified over time. The structures exemplified in (13) are archaic by today's standards, and those in (12) sound completely foreign to speakers of modern English.

Through the centuries, those who believed that certain varieties of language are better than others frequently expressed concern over what they perceived to be the deterioration of English. In 1710, for example, the writer Jonathan Swift (author of *Gulliver's Travels*) lamented "the continual Corruption of our English Tongue." Among the corruptions to which he objected were contractions such as *he's* for *he is*, although he had no objection to *'tis* for *it is*!

Similar concerns have been expressed about the state of English spoken in Canada. In 1857, members of the Canadian Institute in Toronto heard a speech describing Canadian English as "a corrupt dialect growing up amongst our population." The speaker objected to the use of words such as *lot* (for 'a division of land'), *boss* (for 'master'), *store* (for 'shop'), *fix* (for 'mend'), and *guess* (for 'think', as in *I guess I'll go*). Judging by current usage, he objected in vain.

Linguists reject the view that languages attain a state of perfection at some point in their history and that subsequent changes lead to deterioration and corruption. As noted above, there are simply no grounds for claiming that one language or variety of language is somehow superior to another.

1.3.5 Inaccessibility: grammatical knowledge is subconscious

Knowledge of a grammar differs in important ways from knowledge of arithmetic, traffic rules, and other subjects that are taught at home or in school: it is largely subconscious and not accessible to introspection—you can't figure out how it works just by thinking about it. As an example of this, consider your pronunciation of the past tense suffix, written as *ed*, in the following words.

- (15) a. hunted
 b. slipped
 c. buzzed

You probably didn't notice it before, but the *ed* ending has three different pronunciations in these words. Whereas you say *id* in *hunted*, you say *t* in *slipped* and *d* in *buzzed*. Moreover, if you heard the new verb *flib*, you would form the past tense as *flibbed* and pronounce the ending as *d*. If you are a native speaker of English, you acquired the grammatical subsystem regulating this aspect of speech when you were a child, and it now exists subconsciously in your mind, allowing you to automatically make the relevant contrasts.

The same is true for virtually everything else about language. Once we go beyond the most obvious things (such as whether words like *the* and *a* come before or after a noun), the average person can't say much about how language works. For example, try explaining to someone who is not a native speaker of English why we can say *I went to school* but not **I went to supermarket*. Or try to figure out for yourself how the word *or* works. Matters are seemingly straightforward in a sentence such as the following, which means something like 'Either Mary drank tea, or she drank coffee—I don't know which.'

(16) Mary drank tea or coffee.

But *or* has a different interpretation in the next sentence.

(17) Mary didn't drink tea or coffee.

Now it seems to mean 'and'—'Mary didn't drink tea and she didn't drink coffee,' not 'Mary didn't drink tea or she didn't drink coffee—I don't know which.'

As you can see, being able to interpret these sentences is not the same thing as knowing *why* they have the particular meanings that they do. Speakers of a language know what sounds right and what doesn't sound right, but they are not sure how they know.

Because most of what we know about our language is subconscious, the analysis of human linguistic systems requires considerable effort and ingenuity. As is the case in all scientific endeavours, observable facts (about the pronunciation of words, the interpretation of sentences, and so on) must be used to draw inferences about the sometimes invisible mechanisms (atoms, cells, or grammars, as the case may be) that are ultimately responsible for these phenomena.

Summing up

Human language is characterized by **creativity**. Speakers of a language have access to a **grammar**, a mental system that allows them to form and interpret both familiar and novel utterances. The grammar governs the articulation, perception, and patterning of speech sounds; the formation of words and sentences; and the interpretation of utterances. All languages have grammars that are equal in their expressive capacity, and all speakers of a language have (subconscious) knowledge of its grammar. The existence of such linguistic systems in humans is the product of unique anatomical and cognitive specialization not found in other species.