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A History of the English Language

COURSE GUIDE

Professor Michael D.C. Drout
WHEATON COLLEGE

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Course Syllabus

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About Your Professor

Michael D.C. Drout

Michael D.C. Drout is the William and Elsie Prentice Professor of English at Wheaton College in Norton, Massachusetts, where he teaches courses in Old and Middle English, medieval literature, Chaucer, fantasy, and science fiction, and the history of the English language.

Professor Drout received his Ph.D. in medieval literature from Loyola University in 1997. He also holds M.A. degrees from Stanford (journalism) and the University of Missouri-Columbia (English literature) and a B.A. from Carnegie Mellon.

In 2006, Professor Drout was chosen as a Millicent C. McIntosh Fellow by the Woodrow Wilson Foundation. In 2005, he was awarded the Prentice Professorship for outstanding teaching. The Wheaton College class of 2003 presented him with the Faculty Appreciation Award in that year. He is editor of J.R.R. Tolkien's *Beowulf and the Critics,* which won the Mythopoeic Scholarship Award for Inklings Studies for 2003. He is also the author of *How Tradition Works: A Meme-Based Cultural Poetics of the Anglo-Saxon Tenth Century* (Arizona Medieval and Renaissance Studies). Drout is one of the founding editors of the journal *Tolkien Studies* and is editor of *The J.R.R. Tolkien Encyclopedia* (Routledge).

Drout has published extensively on medieval literature, including articles on William Langland's *Piers Plowman, Beowulf,* the Anglo-Saxon wills, the Old English translation of the *Rule of Chrodegang,* the *Exeter Book* "wisdom poems," and Anglo-Saxon medical texts. He has also published articles on Ursula K. Le Guin's *Earthsea* books and Susan Cooper's *Dark Is Rising* series of children's fantasy novels. Drout has written an Old English grammar book, *King Alfred's Grammar,* which is available for free at his website, www.michaeldrout.com. He has given lectures in England, Finland, Italy, Canada, and throughout the United States.

Drout lives in Dedham, Massachusetts, with his wife Raquel D'Oyen, their daughter Rhys, and their son Mitchell.

A Note on Typesetting in This Booklet

There is a distinct typefont change between our standard typeface (Arial, a sans serif typeface) and Junius Modern (a serif typeface) used for special character settings for passages set in Old English.

Introduction

Language defines people as human. In fact, all of humanity's greatest cultural accomplishments are either made out of language or rely on language for their dissemination. In *A History of the English Language,* highly regarded professor Michael D.C. Drout of Wheaton College leads a fascinating discussion of the origin and development of the English language.

Professor Drout addresses the foundation of language and its connection to specific portions of the brain. The components of language are explained in easy-to-understand terms and the progression of the language from Germanic to Old, Middle, and Modern English is fully illustrated—including such revolutionary language upheavals as those brought about by the Norman Conquest and the Great Vowel Shift.

One of the most interesting aspects of the English language lies in its variants, such as the "soda" vs. "pop" debate and the place of African-American English in modern culture. These and other dialectual curiosities are looked at in detail and placed in the context of today's world. Finally, Professor Drout examines the future not only of the English language, but of all the world's languages.

Lecture 1:
The Foundations of Language:
Brain, Development, Acquisition

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapters 1–2.

The study of language is the foundation of all other learning. In the Middle Ages, education was divided into the *Trivium* and the *Quadrivium*, which together made up *The Seven Liberal Arts*. The *Trivium* was made up of grammar, rhetoric, and logic; the *Quadrivium* included arithmetic, geometry, music, and astronomy. So even in the Middle Ages, long before the great linguistic discoveries of the nineteenth and twentieth centuries, the study of language was the base upon which everything else was built.

Language defines us as human. All the other old clear separations between human and animal—social organization, tool use, altruism—have been seen to be much less clear as more research has been done, but the possession of abstract language is thus far still uniquely human (some animals seem to possess the rudiments of language, but even the most advanced of these does not have the ability of a human two-year-old). All of our greatest cultural achievements are either made out of language or rely upon language for their accomplishment and dissemination. Even when someone achieves something great in art, or athletics or music, we immediately turn to language to tell other people about it. The massive proliferation of cell phones, instant messaging, podcasts, and voice mails simply illustrates a simple fact about humanity: we love to talk. In fact, we just cannot stop talking.

Language is our medium of communication, but it can also be a barrier to understanding. There are over six thousand languages in the world today, though we are rapidly losing the smaller ones the same way we are losing endangered species. Anyone who has been stranded in a place where no one around you speaks your language knows the frustration that arises from being unable to communicate in an articulate, complex fashion. We spend billions of dollars and countless hours on translation, on attempting to learn new languages and on developing machines that can translate for us (with surprisingly little success). The six thousand living languages would need an entire library of dictionaries and grammars just to document them, not to mention that at the present state of our knowledge, each language needs a dictionary and grammar in terms of every other language: a book that teaches Japanese in Korean is no use to a speaker of English or German or Russian who wants to learn Japanese.

Some languages have reputations for being particularly difficult. Finnish has more than ten noun cases; the verb system of Spanish is exceedingly complex; Japanese has the most difficult alphabet system in the world; Chinese and many other Asian languages rely on *tones* that are very difficult for adult

speakers of non-Asian languages even to hear; Khoi-san and other African languages rely on click sounds that are not phonemes in many other languages. English has numerous exceptions to all of its rules and adopts new vocabulary so readily that dictionaries must be constantly updated. And yet take a tiny child from any linguistic environment, bring him or her to another linguistic environment, and essentially do nothing except carry on normal behavior and the child will grow up as a fluent speaker of the new language. Before the age of six children learn new languages effortlessly. There seems to be no upper limit to the number of languages that can be learned this way, and not only can children learn as many languages as they are exposed to, but they also never seem to confuse languages: A child growing up in a bilingual environment can switch easily from, say, Finnish to Swedish or Spanish to English or Polish to Russian without confusing the two languages or making fundamental mistakes in grammar. Multilingual people can do this switching without confusion. And yet adults can study languages for decades and not achieve perfect pronunciation.

So how does this all work? Where does language come from? If it is a completely "natural" phenomenon, why do we have six thousand world languages? If language is a completely "cultural" phenomenon, why is it the common capability of every human? Why can even people who are unable to hear or speak develop complex language? Why do we speak a language different from that of our ancestors? Why do some people, even within America, speaking English, use different words for the same things?

In this course, we will learn the answers to all these questions and more, tracing language from the brain, through the throat and mouth and out into the world, examining the ways it changes over time and space. In the end, although we will not have all the answers, we will have a much better idea about how language works and how this supremely human achievement helps make us what we are.

This course can be divided into two parts. In the first half, lectures one through seven, we will examine how language works in general. In the second half, lectures eight through fourteen, we will take these general principles and apply them to the specific language of English in all its fascinating and complex history and development.

We will therefore start off with the very big picture—the logical structures of languages, the ways linguistic sounds are produced, the connection between sound and meaning, the power of syntax—and then zoom in to the particular ways English puts together sound and meaning. Interwoven throughout the entire argument will be the history of English, a language that began among a small group of relatively primitive forest-dwellers many thousands of years ago in the north of Europe and has expanded to become the first truly global language.

The Foundations and the Brain

We could begin our discussion of language with mathematics, with the types of communications systems that can be described mathematically. The key ideas in this field were developed by Claude Shannon and Warren Weaver, who were researchers for Bell Labs (the telephone company) in 1949.

Shannon and Weaver demonstrated mathematically how much information could be transmitted through a wire; in other words, what was the maximum amount of information that could be conveyed through a certain "bandwidth." Other mathematicians and logicians took up where Shannon and Weaver left off and developed the discipline of information theory. But information theory is a bit beyond the scope of this course, particularly since we are able to do most of our thinking about language without having to rely upon information theory.

Instead, we will begin with the brain, where language begins. Surprisingly, language study did not always start with the brain. In the Middle Ages, language was thought to be a gift from God, and for about two thousand years the explanation for the existence of multiple languages came pretty much unchanged from Genesis and the Tower of Babel story. But in 1861 the French physician Pierre Paul Broca discovered that a certain part of the brain (in the inferior frontal gyrus of the frontal lobe of the cortex) was connected to speech.

Broca dissected the brain of a person with aphasia and noticed a lesion in that particular area. People with damage to Broca's area are able to produce words, but not grammatical speech. People with damage to another part of the brain called Wernicke's area (in the left posterior section of the superior temporal gyrus) have a different kind of aphasia: They produce normal-sounding speech that makes no sense; it has the rhythm of regular speech but has no meaning. The discovery of Broca's and Wernicke's area, and the study by many doctors and linguists of speech impairments, led to the understanding that language is not simply produced in the brain, but in very specific parts of the brain. In other words, we have a "language organ."

The neurobiological study of language is one of the fastest-moving areas in contemporary linguistic research. PET (positron emission tomography) and fMRI (functional magnetic resonance imaging) scans allow researchers to see which areas of the brain are functioning when an individual does different kinds of linguistic processing. Studies of stroke victims and sufferers of brain injuries have also allowed neurolinguists to map the brain in more detail (detailed neurolinguistics is also a bit beyond the scope of this course).

So the brain generates language in some way that we are still figuring out. Then what happens? The signals from the brain travel down to the throat, mouth, lips, and lungs. We produce sounds by forcing air out of the chest and through folds in the throat—the vocal cords—and then modifying the sounds thus produced by changing the arrangements of the vocal tract, which includes the throat, tongue, mouth, lips, and palate. In lecture three we will discuss this movement—called *articulation*—in much more detail, but for now it is simply important to note that the brain generates impulses that are then transmuted into sound by the movement of air through the vocal tract. These sounds travel through the air into the ears of a listener, where the sound impulses are converted back into electrical impulses in the brain.

Of course this really does not explain very much, as it leaves out the really important elements of *which* sounds are chosen by the brain, how they are arranged, and how the hearer decodes them. The brain obviously chooses sound combinations that are meaningful in some language, but how does the brain know this? By being exposed to that language enough to learn it. Thus

we get to the biggest "which came first, the chicken or the egg?" problem since the original "chicken and the egg" problem: How did language arise? There are a variety of theories, and they are all bad. Some researchers think that language came from imitation of sounds (the "ding dong") theory, others from the need to keep groups of people in rhythm (the "yo hee ho" theory). We simply do not know, as humans have been using spoken language far, far longer than they have been using writing.

Language Acquisition and Development

We do know that once a language exists, exposing a young child's mind to that language results in the child learning the language. The language organ is clearly universal: Take a baby from an American family to China and put that child with a Chinese-speaking family, and that child will grow up speaking fluent Chinese. But wait too long, and bring an adult to China, and that adult will not even be able to distinguish key aspects of Chinese, such as rising and falling tones. The difficulty that adult Japanese speakers have in distinguishing L and R, for example, has led to many unpleasant ethnic jokes and also World War II-era attempts to separate out Japanese Americans from potential spies based on the pronunciation of L and R words.

So we can conclude that the language organ is both hard-wired (anyone can learn a language with no instruction if he or she is exposed early enough) and programmable. Our best research suggests that the brain's language capability is completely open until the age of six. Then, between six and puberty, there is a bit less flexibility. After puberty something hardens in the brain and it becomes far more difficult to learn new languages without a great deal of complex intellectual material (i.e., memorizing paradigms, figuring out parallels, understanding rules) that children do not need in order to pick up a language.

But, as anyone who has spent time around a young child knows, children do not pick up language completely and immediately. The field of *Developmental Linguistics* investigates the ways children learn languages, and this investigation has shown us much about how the brain works in general. It all begins with sounds. Babies babble, repeating sounds like "da, da, da," or "ma, ma, ma." Research shows that babies can babble any sound in any of the world's languages, but they rapidly restrict their babbling to the sounds that make up the language that is spoken around them. Sound acquisition continues throughout language development. Although babies can babble any given sound from any language, they cannot combine all of these sounds in any order. Neither can older children, which is why "baby talk" is often characterized by phenomena such as *consonant cluster simplification,* in which groups of consonants, such as those at the beginning of the word "squirrel," are simplified; "squirrel" becomes "skel," "truck" becomes "tuck." These processes of substitution are the same as those that go into language change in general, and we will discuss them in some detail in lecture five.

Around the age of one year, children begin to use one-word utterances, moving from sounds to words. These words are, at the beginning, nearly all nouns. Then follow the verbs, and then other words that can be combined with nouns and verbs: adjectives and adverbs. The two-word stage lasts for a while, with children able to communicate through expressions like "my book"

or “more milk” or “Daddy give.” There is no separate three- or four-word stage, but at around the age of two and a half years, expressions very rapidly become more complex. The child learns to use single clauses and (in English) distinguishes between subjects and objects: “Mitchell bite sister” is distinct from “Sister bite Mitchell.” The child is thus moving from merely *words* to *rules* (to use the language breakdown given by linguist Steven Pinker in his excellent book by the title).

Rules apply not only to the large-scale structure of the sentence (like the difference between subject and object), but also to the words themselves. Thus children first learn to make a present progressive verb (running, playing, going), then to use the prepositions “in” and “on,” then to make plurals, and then to use irregular forms like “went” or “came.” Later they pick up possessives, use “is” and “was,” then articles “a” and “the” and so on through a predictable sequence.

We know children are not just memorizing what they hear and repeating it back because of the mistakes they make: The adults around them are not making the mistakes, so the children cannot be imitating them. For instance, children will somehow learn the rule that you make a past-tense verb in English by adding “-ed” (this is called a dental preterite) and for a while they add the “-ed” ending everywhere, so you get “he eated” or “sister runned” or “kitty sleeped.” Likewise children learn that an “s” ending means a plural, so they produce “tooths,” “mans,” “gooses,” and “foots.” Many of the more amusing language errors made by children come from the overgeneralization of rules.

Eventually, of course, children learn all the rules of the language and produce perfectly grammatical and well-pronounced sentences as native speakers. But on their way to achieving that virtuosity, they produce a great deal of malformed, incorrect words and sentences. Some theorists believe that these errors are the raw material from which language change arises. There is some good evidence to suggest that new languages arise in groups of children, rather than among adults. Hawaiian Creole is the most famous example. During the colonization of Hawaii, speakers of Spanish, Portuguese, Chinese (Cantonese), Japanese, and other languages mingled on the island with native Hawaiian speakers. A “pidgin” language soon developed so that all of these different speakers could communicate (“pidgin” languages usually lack complex syntax and vocabulary). But the children of these workers of many languages began to communicate in a different language entirely: Hawaiian Creole has all the complexity and richness of any other language, and it appears to have arisen in a single generation. Linguists theorize that children who spoke different languages at home were exposed to so many different languages at their play that they began to spontaneously develop an entirely new language out of the old ones. Many theorists believe that language evolves this way among children.

Others believe that languages develop the same ways as biological species: Some event or geographic barrier separates people from each other and each spoken language accumulates a variety of changes. After a long enough separation, the new language is so different from its source (and

from other languages that have developed separately) that the languages are no longer mutually understandable. The best evidence for this theory comes from the languages of Papua New Guinea, a relatively small island in which 820 languages are currently spoken. Mountain ranges, difficult terrain, and climate variation divide New Guinea into numerous well-defined smaller areas in which cultural isolation was very strong for very long periods of time, and New Guinea thus seems to have developed the greatest linguistic diversity per square mile of any place on Earth.

Isolation, acquisition, conquest, borrowing, and development are all processes that have made English what it is today. In studying the history of the English language, we will see how English developed in both ways, both through internal evolution and external influence. But first we need to understand in more detail how language works. We will begin with the connections between words and meanings (lecture two) and then link these to the fundamental particles of language: the individual sounds made by the vocal tract (lecture three), the ways in which they are linked to meanings (lecture four), and the ways they change (lecture five). In lecture six we examine the rules by which words can be combined to create sentences, and in lecture seven we discuss words, their creation, and their change. The course then examines the specifics of the development of English, beginning with the very deepest roots of the language (lecture eight) and moving from Gothic to Old English in lecture nine. We investigate the influences of the Vikings, Celts, and Romans in lecture ten before analyzing the linguistic cataclysm of the Norman Conquest in lecture eleven. Lecture twelve shows how Chaucer's language became Shakespeare's (and our own) language because of an event called the Great Vowel Shift. Then we cross the sea from England to America for a discussion of the development of American English, investigating why some people say "soda" and others "pop," and why you can "pahk a cah" in Boston but not in Tennessee. Our final lecture discusses the present and future of English, the first truly global language and most widely used tongue in the history of the planet.

FOR GREATER UNDERSTANDING

Questions

1. What areas of the brain are most closely tied to language production?
2. What are the key stages of language acquisition in children?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

Algeo, John, and Thomas Pyles, eds. *The Origins and Development of the English Language.* 5th ed. Belmont, CA: Heinle, 2004.

Kosslyn, Stephen M., and Olivier Koenig. *Wet Mind: The New Cognitive Neuroscience.* New York: Free Press, 1995.

Pinker, Steven. Chapters 1–2. *The Language Instinct: How the Mind Creates Language.* New York: HarperCollins Publishers, 2000.

———. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Lecture 2:
Signs and Meanings:
Semantics

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapter 5.

When we are addressing the question of how languages work, we can go in several directions. In the previous lecture we examined how language works in the brain and how children acquire languages. These two overlapping fields are *neurolinguistics* and *developmental linguistics*. Each is closely related to the field of psychology, and in fact in many universities the developmentalists and neurolinguists are housed in the psychology department or even in the biology department.

Developmental and neurolinguistics are both very useful ways of looking at language, but they are not the only ways. Another direction from which to approach language is to examine the way it works *as a system*, as a set of logical structures. This approach is more akin to math or logic (or philosophy) than it is to psychology or biology (though it is different from information theory, also). Looking at language as a logical system is usually called *semiology* (the study of signs), a term coined by the great linguist Ferdinand de Saussure. Semiology attempts to address the biggest questions in linguistics not with a PET scanner or a one-way mirror and a tape recorder for observing children, but through logic alone. Rather than asking so much "how *does* language work?" (although it does this), semiology asks "how *must* language work?" The

field has all of the strengths and weaknesses that you would associate with such an approach.

How Does Language Convey Meaning?

The biggest question in linguistics is also the hardest to define: How does language convey meaning? The problem is that scholars cannot agree on a definition of meaning (I myself am not sure that I can *compose* such a definition, much less convince anyone that I am right about it). This may seem like a significant lack but, interestingly enough, linguists have been able to figure out a little bit about the ways that language conveys meaning even though we are not exactly sure what we mean by meaning.

One effective way to proceed would be to start small and build up from there, beginning with an analysis of the smallest units of meaning and then see how these units can combine. It would therefore seem to make sense to start with *words* and then see how they combine, but there are two problems. First, words are built up out of smaller units of sound, and so they are not the smallest possible units. But sounds (although they are very interesting and will be discussed in lectures three, four, and five in great detail) do not convey meaning on their own. A single "m" with no other context is not really a unit of meaning. Second, although a word is possibly the simplest *linguistic* utterance we can discuss, there are other very small units of meaning that seem to operate similarly. The word "stop" and a red traffic light, for instance, seem to be pretty much the same. A picture of a saw cutting through a hand (as a warning label) or a finger pushing a button also represent information in the same way words or groups of words do. Thus we need a somewhat bigger category to begin with. If we combine into one group words and things like red lights, warning beeps, and other nonlinguistics means of transferring information, we end up with what linguists call *signs*.

Sign = Signifier + Signified

Although during his own lifetime the Swiss linguist Ferdinand de Saussure was most well known as a student of the sound-relationships of language, since his death he has become famous for explicating how signs work. In a series of lectures (which he never published during his life but which were put together from the notes of students who had attended them), Saussure argued that a sign, linguistic or pictorial or auditory (like a warning beep), is made up of two parts, a *signifier* and a *signified* (I wish he had come up with some different terminology, as signifier/signified gets very confused very quickly). The signifier is the surface marker; it is what we hear or see. Signifiers might include the red light, the beeping sound, the noises "t-r-ee" or the letters T, R, E, E. This signifier *by itself has no meaning*. A red light means "stop" not because red lights are somehow inherently stoppy, but because in certain contexts a convention has evolved that equates red lights with stopping (I know there is some argument that red and danger are associated because human blood is red, and that may indeed be the case, but not all red lights mean stop: There is a red light on my power drill, for instance, that means the battery is fully charged).

Within any system of meaning, a signifier is associated with a *signified*. The light, the beep, the noises from the mouth or letters on the page mean some-

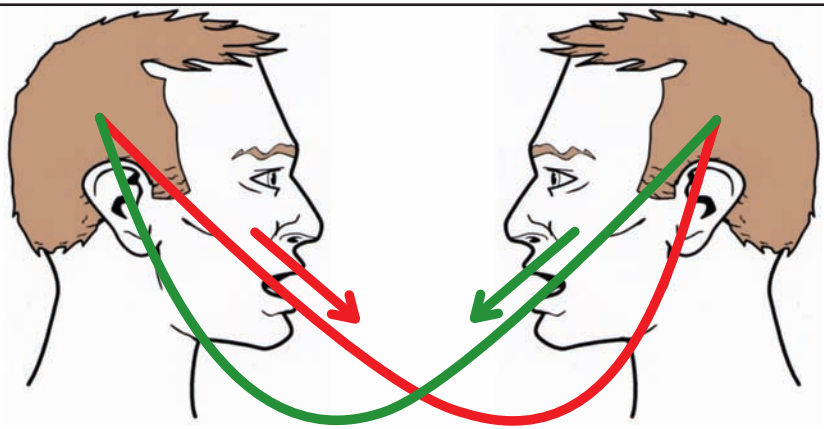
thing because they are conventionally linked with an idea: press on the brake pedal, get out of the way of the car that is backing up, that green and brown thing growing in the yard. The combination of the signifier and the signified is the *sign*; it is a representation plus an idea. Saussure argued that we communicate by means of signs and that the dual nature of the sign (signifier plus signified) had significant implications for communication.

Let us examine the word "tree." You want to tell me something about a tree. There is, at this point, some kind of representation in your mind of a tree. You then say the signifier, t-r-ee. I hear that signifier, and it calls to mind in me some kind of a mental representation of a tree. But your representation and my representation are not the same. The tree you were thinking of is a towering redwood; the tree I think of when you say "tree" is a child's representation of a tree, complete with a nice hole in the middle for the owl to live in. Each person has his or her own image/idea of a tree, and that image or idea may even change from day to day, moment to moment. So you are thinking of one thing; you produce a sound based on conventions that have evolved for human communication over millennia, then I hear that sound and get a related but still unique image in my head. When you start to think about this with any depth, you start seriously to wonder how any communication occurs at all.

And yet it does. This communication is facilitated by the existence of a system of conventions and linkages between signifiers and signifieds and between signs and other signs. The system links the signifiers to signifieds, and it also links specific signs to each other in logical relationships. "Tree" is related to "tree-like," "tree-ish," etc. Saussure called this system a *langue*. The *langue* is held in the minds of many individuals. It is the system that allows you to say "tree" and me to think of something at least related to what you are trying to communicate (as opposed to, say, a cow). The *langue* is collective; one person can not change it (or at least cannot change it very much).

But there is no way for us to put our hands on the *langue*. We can approximate it with dictionaries and grammar books, but the entire thing, the system, resides in millions of minds as well as being evidenced by millions of books. What we see, each time a person speaks or writes, is an example of what Saussure called *parole*. That both you and I are trying to say "tree" is part of the system of *langue*, but that you pronounce the vowel slightly different from me is an example of *parole*.

Both of these observations underlie all the processes of language change that we will be studying in this course. You and I both might use the same signifier "tree" to indicate the signified thing, the tree, but there is some variability in what is communicated. This space between signified and signifier among different people (what some semioticians call *slippage*) allows words to slowly change meaning without our recognizing (and thus correcting) it. You can imagine slippage occurring when you say one thing, I interpret it, then I say the thing to someone else, who interprets it, who says it to someone else, and so on. If all of the slippages are in one particular direction (say that the signifier "cow" begins to mean not cows in general, but specific kinds of cows), over time the meaning of the signifier "cow" within the *langue* will slowly shift. Although there will still be some variability, it will be variability



Speech is linear, sound succeeding sound through time, as in this illustration showing a "speech circuit" adapted from Ferdinand de Saussure's *Course in General Linguistics.*

about a new center. This is precisely what happened in the history of the word "deer." In Old English, the word "deor" meant "any kind of animal." But as time went on, the signifieds that were matched up with the signifier "deor" became more and more specific, until "deer" began to mean not any animal, but only animals belonging to the family Cervidae of the order Artiodactyla.

The Arbitrariness of the Sign

Slippage between signified and signifier is possible because there is thought to be no "natural" relationship between the signifier and the signified: Any signifier can be linked, through the conventions of the *langue*, to any signified. Saussure insisted, and contemporary semioticians—and, when they can be bothered to think about it, most linguists—insist on the *arbitrariness of the sign*. There is not supposed to be an essential tree-ness in the word "tree," merely a set of linguistic conventions evolved and inherited. And this central dogma makes sense. If there is an essential tree-ness associated with the word "tree" in the abstract, then why do we have different words, still representing the same category of objects, that do not have any of the same sounds? We can assume that Spanish speakers do not think English "tree" represents essential tree-ness any more than Spanish "arbol." The enormous variety of different words for the same things suggests the arbitrary nature of the sign. Furthermore, early linguists spent enormous energies trying to find underlying patterns that would show that there is some inherent logic to which sounds are paired with which ideas, with absolutely no luck in generalizing a basic system. However, there is some intriguing research that suggests some connections to in-built, hard-wired human tendencies and language: shown two pictures, one of a sharp-edged, jagged object and the other of a smooth, rounded object, and told that they could label one object "kiki" and the other "booba," 98 percent of experimental subjects labeled the sharp object "kiki." But research, despite many efforts, has not progressed very far in this direction.

It is worth noting, however, that some very significant students of language have questioned the arbitrariness of the sign in various ways. Roman Jakobson pointed out that in a great many languages, there appears to be a connection between the gradation of vowels (from low to high) and colors (from dark to light, with the lightest color having the highest vowels). The great "structural anthropologist" Claude Lévi-Strauss was willing to accept that the initial linkages between sound and meaning might indeed be arbitrary. But, he argued, once a language had settled on some particular sign—for example, that the signifier "r-e-d" meant a color of a certain wavelength—the rest of the language was somewhat constrained: There would be some nonarbitrary relationship between the sound "red" and the sound chosen for another, related color.

Sadly, much of the discussion of the nature of the sign goes back to the unbelievably tedious nature/nurture debate, a debate that is so futile, and whose partisans of either side have so hardened their positions, that there is no real hope of coming to any kind of agreement, even for the sake of discussion. So I propose that we take a mushy middle ground and accept the idea that the sign is *mostly* arbitrary (i.e., given the wide range of words in different languages for the same signified), which mean that a language could link almost any signifier with almost any signified. Then can we see how linguistic evolution can occur.

Language Evolution

For this argument to make sense, we have to go back to *langue* and *parole* for a moment and then tie signs, signifiers, signifieds, *langue* and *parole* all together. Remember that *langue* is the underlying system that tells both you and I to make the sound "tree" when we want to communicate about the idea of a tree (note that this is very difficult to talk about because we are trying to discuss language *within* language). The *langue* causes us both to use "tree," but we never actually hear the *langue*. We hear the *parole*, in the way that you pronounce tree versus the way I pronounce tree. There is some slight difference between each speaker, and if you are, say, from Boston or from Texas or India or Japan, your *parole* may even be *systematically* different from mine (i.e., if you are from Boston, you will pronounce the phoneme that I pronounce as "r" with a different sound, though not in the word "tree").

Because the *langue* is only ever manifested in the *parole* of individual speakers, that *parole* is subject to change even though parts of the underlying system remain the same. I can say "car" and my students say "cah," and we can still communicate. Likewise in the space between what you want to communicate and what I receive from you there is room for change. And there is feedback between *parole* and *langue* and between what you say and what I hear. For example, when I first came to live in Boston I was riding in a giant elevator in a storage facility. Several of us began discussing how much the elevator could lift. The operator said "This elevator could lift a cow." At least that is what I heard. I was shocked. "It could lift more than *a* cow," I said. "More like twenty cows." My wife began to laugh. "He didn't say 'cow,'" she said. "He said 'car.'" I had misheard the Boston retroflex "r" and misunderstood the word. Had this man and I needed to communicate on a regular basis, something would have changed. Either I would have come to understand his pronunciation, or he would have had to change his pronunciation to

make himself understood. The signifier “cah” would have to be clarified so that I did not think it referred to a bovine animal. Such changes, summed across thousands of people over long periods of time, allow languages to change as a whole.

People have decried the imperfect links between signifier and signified for millennia. Christian theories of language from the Middle Ages, for example, suggested that the first languages on Earth were perfect, that the word was always equal to the exact thing. In such a language you could never lie, because a lie would be ungrammatical: not only would a sentence that was not true not fit the world, but it would not fit the rules of the language itself. In the Earthsea books, a fantasy series by Ursula K. Le Guin, there is a language, the Old Speech, that allows people to manipulate the physical world because the word can become equal to the thing. In that language, Le Guin says, people cannot lie.

But such a language does not exist, and, I would argue, this is a good thing. Not because we want lying, but because if there had not been change and variation, there would be no evolution. Language itself might never have evolved if somehow humans had not developed the ability to make an arbitrary (or somewhat arbitrary) sign *mean* a certain thing. Communication is certainly not perfect, and we can wish that it was better, but it is within the imperfections, the errors and the difficulties that the room to evolve is found. And from that evolution comes one of the things that makes us human: language, the ability to convey meaning through signs.

FOR GREATER UNDERSTANDING

Questions

1. What is the difference between signifier and signified? Between *langue* and *parole*?
2. Why are linguists concerned about "the arbitrariness of the sign"?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

De Saussure, Ferdinand. *Course in General Linguistics.* Ed. Roy Harris. Chicago: Open Court Publishing Company, 1986.

Pinker, Steven. Chapters 3–4. *The Language Instinct: How the Mind Creates Language.* New York: HarperCollins Publishers, 2000.

———. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Lecture 3:
Sounds of Language:
Phonetics

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapter 6.

The study of speech sounds and their production is called *phonetics*. The study of a language's sound system (i.e., which sounds and sound combinations are allowed in the language) is called *phonology*. Phonetics focuses on what happens in the throat and mouth, phonology on what happens in the mind.

There are three types of phonetics. *Articulatory phonetics* describes speech in terms of the positions of the elements of the vocal tract. We will focus almost entirely on articulatory phonetics, and it is worth noting that for most of the history of linguistics, articulatory phonetics was all that people studied. But with developments in tape recording and sound analysis, researchers were able to begin to look at the sounds themselves, not only the ways in which they are produced. This research is called *acoustic phonetics*. *Auditory phonetics* analyzes the way people hear and perceive sounds. Acoustic and auditory phonetics are beyond the scope of this course; articulatory phonetics gives enough detail for the types of phenomena that we want to study.

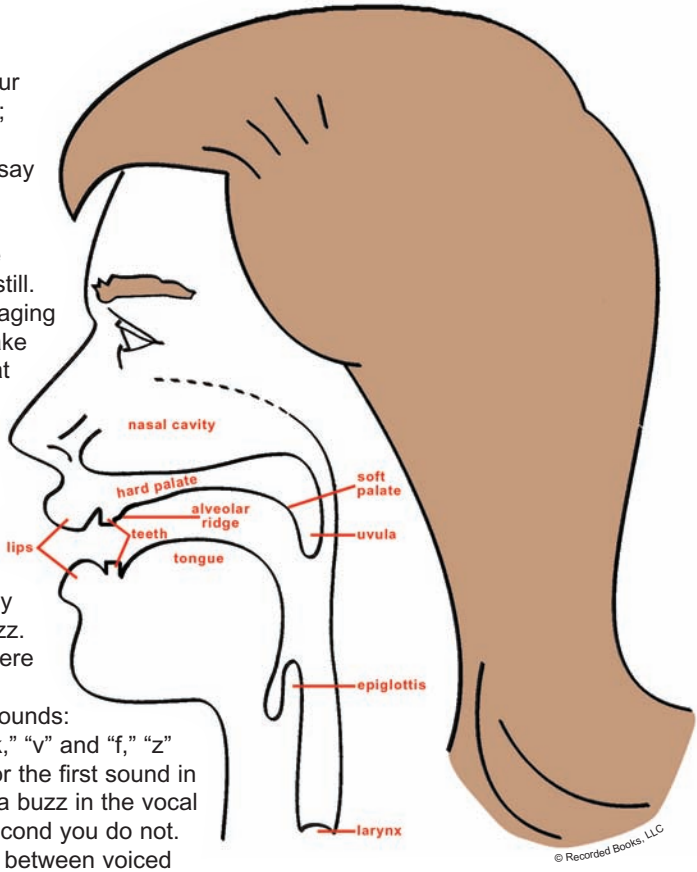
Articulatory phonetics describes speech sounds based on the ways the vocal tract is engaged in their production. Air from the lungs is pushed through the vocal tract and the position and action of elements of the tract determines which speech sounds are uttered. At the base of the vocal tract is the larynx, or voicebox. Moving up the throat from the voicebox, we have the epiglottis (used in the "glottal stop" sound), the uvula (used for the French "uvular" "r" sound), the soft palate and the hard palate at the top of the mouth, the tongue on the bottom of the mouth, the alveolar ridge just behind the teeth, the teeth themselves, and the lips.

Each of these features of the vocal tract can influence the sound that eventually comes out of the mouth. Articulatory phonetics describes each speech sound in terms of three variables: whether a sound is *voiced* or *unvoiced*, how the air flows through the mouth and nose (called the *manner of articulation*), and the positioning of the lips and tongue (called the *place of articulation*).

First, we have to distinguish between vowels and consonants. Vowels are produced by allowing the air to flow through the vocal tract without interruption. Consonants obstruct the flow of air either partially or completely. This is why when you sing, you sing vowels, (you support your vowels with pitch). Consonants do not have pitch. You can sing an "a" sound for as long as you can generate the breath; try singing the "p" sound without any vowels and you will see the difference between vowels and consonants. We will begin our analysis with consonants and then move on to the vowels.

Voicing

Put your hand on your throat and say “buzz”; you will feel the vocal cords vibrating. Now say “fluff”; you may feel a tiny buzz on the “l” sound, but mostly the vocal cords will hold still. *Voicing* is simply engaging the vocal cords to make a buzzing in the throat that is then articulated through the mouth. Voiced consonants have this buzzing, *un-voiced* consonants do not. Put your hand on your throat and say “d”; you will feel a buzz. Now say “t”; notice there is no buzz. Now say these other pairs of sounds: “b” and “p,” “g” and “k,” “v” and “f,” “z” and “s.” Notice that for the first sound in each pair, you make a buzz in the vocal cords while for the second you do not. That is the difference between voiced and unvoiced sounds.



Manner of Articulation

Voiced versus unvoiced is one way in which we can distinguish sounds. We can also note the way the air flows in different consonants. For example, say the “b” sound; now say “sh.” Notice that the air flows through your lips with “sh” but stops with “b.” Now say “m”; note that the air is flowing through your nose rather than through your mouth, which is actually closed when you say “m.” These sounds, “sh,” “b,” and “m” use three different *manners* of articulation. There are in fact six different manners of articulation in English: stops, fricatives, affricates, nasals, approximants, and “others,” a catch-all category.

Stops: In a *stop*, the flow of air is completely blocked, either by the lips touching together or the tongue touching the roof of the mouth: “b,” “p,” “t,” “d,” “k,” and “g” are all stops.

Fricatives: Air can also be allowed to flow with only a partial obstruction, and consonants that use this manner of articulation are called fricatives. The sounds “f,” “v,” “th” (both the “th” in “theater” and the “th” in “leather”), “s,” “z,” “sh,” and “zh” and “h” are all fricatives.

Affricates: Sounds can also be made by starting with the tongue in a stop

position but then releasing the air so that it flows like a fricative. These sounds are called *affricates*, and include the “ch” in “chicken” and the “dg” sound in “edge.” The “ts” sound in “pizza,” not originally present in English, is also an affricate.

Nasals: If air is prevented from exiting the mouth and instead is allowed to come through the nose, we get a *nasal* consonant. In English, “m,” “n,” and the “ng” sound at the end of “-ing” are all nasals.

Approximants: Consonants that are articulated by two articulators (such as the tongue and the roof of the mouth) coming together almost like a fricative, but not quite, are called *approximants*. The consonants “w,” “r,” “l,” and the consonant form of “y” are all approximants. Sometimes “r” and “l” are called liquids.

Others: The most important “other” consonant in English is the *flap*, which is created when we tap the tongue against the roof of the mouth. The sound in the middle of the word “platter” or “batter” in most American dialects (something between the “d” and a “t”) is a flap. The trilled “r” sound (often called a “rolled r”) in many European languages is also categorized as “other.”

Place of Articulation

We now have in place two of the three variables for English consonants. We can have sounds that are voiced or unvoiced, and we can control the flow of air in six ways, thus creating the stops, fricatives, affricates, nasals, approxi-

CONSONANT CHART

MANNER OF ARTICULATION	PLACE OF ARTICULATION						
	Bilabial	**Labio-dental**	**Inter-dental**	**Alveolar**	**Palatal**	**Velar**	**Glottal**
Stop voiceless	p			t		k	uh-oh
voiced	b			d		g	
Nasal	m			n		ing	
Fricative voiceless		f	th (thin)	s	sh		h
voiced		v	th (that)	z	zh		
Affricate voiceless					ts (pizza)		
voiced					dg (edge)		
Glide voiceless							
voiced	w						
Liquid (voiced) lateral				l			
retroflex				r			

Examine this chart carefully, pronouncing the sounds and noting the voicing, place of articulation, and manner of articulation.

mants, and the flap. Now we only need to examine the places in the vocal tract in which the articulation occurs. For example, there are various places we can stop the flow of air: with the lips, with the tongue (in various positions within the mouth), and with the epiglottis. The *place of articulation* is thus our last variable. In discussing place of articulation, we will begin with the lips and work our way backwards down the vocal tract.

Lips: Consonants that are created by controlling the flow of air with the lips are called *bilabial* ("two lips"). These include "p," "b," "m," and "w."

Teeth and Lips: If you say "f" or "v" you will notice that the lower lip comes inside the upper teeth, and the flow of air runs between the teeth and the lip. These are *labio-dental* ("lip-teeth") consonants, sounds articulated between the lip and teeth.

Tongue and Teeth: Say the "th" sound in "thin" or in "feather." The tongue is touching the back of the upper teeth and the air is escaping between the tongue and teeth. These are called *inter-dental* ("between teeth") consonants.

Tongue and the Front of the Roof of the Mouth: There is a small ridge in the roof of the mouth, just behind the teeth. This is called the *alveolar ridge*, and sounds made by touching the tongue to the ridge are called *alveolar* consonants. They include "t," "d," "n," "s," "z," "r," and "l."

Tongue and the Middle of the Roof of the Mouth: If we articulate with the tongue held just a bit below the roof of the mouth, just behind the alveolar ridge, but before the palate, we produce the *alveo-palatal* consonants represented by "sh" and "zh" as well as "ch" and "dg" (the last is the final sound in "edge").

Tongue and Palate: When the back of the tongue is brought up toward the hard palate on the roof of the mouth, we get sounds like the consonant use of "y" (for example, in the word "yes"), which are called *palatal*.

Tongue and Velum: Moving the tongue further back from the hard palate to the soft palate at the very back of the mouth, we get "k," "g," and the "ng" sound in "-ing." These are called *velar* consonants.

Throat: Finally, if we articulate all the way down the throat, with the epiglottis (the valve that we open and close to avoid inhaling water when we drink), we get the "h" sound and the *glottal stop*, the sound in "uh-oh" and (in some American dialects) in the middle of the words "button," "mitten," or "kitten."

Now that we have all three variables in place—voicing, manner of articulation, and place of articulation—we are able to describe precisely all of the consonants in English. Let us examine the consonant "b." Put your hand on your throat and say "b"—you will feel a buzz in your vocal cords, so "b" is a *voiced* consonant. Now feel the flow of air when you say "b"—it is not continuous, but it stops; therefore "b" is a *stop*. Now where does that stop occur? You will note that the tongue is not involved in "b," but instead the two lips are used to stop the flow of air. Thus "b" is a *bilabial*. If we put all of this information together, we can determine that "b" is a *voiced, bilabial stop*: we engage the vocal cords for *voicing*, and we use the *lips* to *stop* the flow of air.

We characterize all other consonants the same way, based on the voicing, flow of air, and place of articulation. So "m" is a voiced, bilabial nasal; "s" is

an unvoiced, alveolar fricative, and so on. We can then arrange the consonants in groups so that the group is composed of consonants that are the same in one or two variables but different in others. So, for example, we can list all the bilabials: “p,” “b,” “m,” and “w.” We can then separate these into stops (“p” and “b”), nasals (“m”), and an approximant “w.” Then we note that “p” and “b,” although both bilabials and stops, are different in that “b” is voiced and “p” is unvoiced. Only one variable, the voicing, is different between the two sounds. That we can modify one sound into another by only one small change, such as going from voiced to unvoiced or from a fricative to an approximant, is one of the underlying principles of sound change that we will later use to explain much of the history of the language.

Vowels

Consonants are sounds in which the flow of air is stopped or partially obstructed. Vowels are sounds in which the flow of air is continuous; it is never obstructed. Vowel sounds are changed by the different positions of the tongue and lips. Vowels are more difficult to describe than consonants because there are infinitely small adjustments that can be made in these positions. Unlike a consonant, where you are either touching your tongue to the teeth or you are not, vowels are classified based on the *relative* height of the tongue and its position in the front or the back of the mouth. Pronunciation of vowels, therefore, has a much greater variety than pronunciation of consonants and is the foundation for speech characteristics like accent, which is largely determined by vowel pronunciation.

Although we think of English as having five vowels (“a,” “e,” “i,” “o,” and “u”), there are actually many more *pronounced* vowels in the language—approximately thirteen by most counts (and three diphthongs). Vowels are classified according to two variables, *height* and *frontness*. The following chart is designed to look like a rough schematic of the mouth turned sideways; imagine the upper lip being at the top left, and you can see that there are three levels of height and three areas from front to back.

A vowel can thus be described as “high front” or “mid central” or “low back.” The *gradation* of the front vowels can be heard in the following words:

VOWEL CHART

HEIGHT OF TONGUE	PART OF TONGUE		
	Front	Central	Back
High	b e e t b i t		b o o t b o o k
Mid	b a i t b e t	t h e	b o a t
Low		b a t	b o u g h t b o p

b**ea**t

b**i**t

b**ai**t

b**e**t

b**a**t

When you pronounce these, you will note how the tongue moves down from the top to the bottom of the mouth. Now pronounce the mid vowels from front to back:

b**ai**t

th**e**

b**oa**t

You will feel the vowels move back in the mouth. If we pronounce the back vowels from the top of the mouth to the bottom, we hear the following gradation:

b**oo**t

b**oo**k

b**oa**t

b**ou**ght

b**o**p

Diphthongs occur where the tongue starts in one place in the mouth to say one vowel and then moves to another. They are represented by *digraphs*, two letters written together. English has three diphthongs, which are found in the words “bite,” “bout,” and “boy.” In some places in America, particularly around Pittsburgh, there are only two recognized diphthongs—there is no clear distinction made between the diphthong in “caught” and the vowel in “cot.”

Phonetic Environment

The discussion above explains the basics of vowel and consonant pronunciation, and you will note that our writing system is relatively well-suited for representing these distinctions. Although we use digraphs or consonant combinations for a few of the major consonants such as “sh” or “ch” or “zh,” in general, we can represent consonants and the major vowels in such a way that a person can “sound out” many English words (and it was far easier to sound out English words when writing first was applied to English).

But there are other aspects of English sounds that are not captured in the writing system. Say the words “cup” and “pot.” Both of these words have “p” in them, and both “p” sounds are unvoiced bilabial stops, but the “p” sounds are still different. Say them again and notice the position of your lips after each sound. In “cup,” the lips are closed; in “pot,” they are open. The “p” in “pot” is called *aspirated* and the “p” in “cup” is *un-aspirated*. The aspirated and un-aspirated form of “p” are called *allophones* of the phoneme “p.” Note that you do not have to think about whether or not you use the aspirated or un-aspirated form: It is automatic in the particular *phonetic environment* of “cup” or “pot.”

Vowels also change because of their phonetic environments. For example, vowels before nasal consonants become nasalized. To determine if a vowel is nasalized, pinch your nose closed and say the word. If the word sounds particularly weird with your nose pinched closed, you are trying to pronounce a nasalized vowel. For example, say “pit” and “pin” with your nose pinched. Although the “i” vowel is the same in both words, the phonetic environment of the upcoming nasal consonant in “pin” causes the vowel to be nasalized in anticipation. Other phonetic environments change the vowels in other ways, and these localized changes can often lead to larger and more significant sound changes.

In the next lecture we will discuss the ways sounds change from one to the other, and it is very important that, before we begin that discussion, you are very clear as to the ways that we describe consonants and vowels. Look over the charts and be certain that you understand the difference, for example, between an unvoiced inter-dental fricative and a voiced alveolar stop as well as between a low front vowel and a mid back vowel.

FOR GREATER UNDERSTANDING

Questions

1. What are the three variables articulatory phonetics uses to describe speech sounds?
2. How are vowels classified?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

Pinker, Steven. *The Language Instinct: How the Mind Creates Language.* New York: HarperCollins Publishers, 2000.

———. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Suggested Viewing

My Fair Lady. Director George Cukor. Warner Home Video, 1964.

Lecture 4:
Sound and Meaning:
Phonology

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapter 7.

Why do English speakers say "father" but Latin speakers say "pater"? Why do some people in America say "kitten," "mitten," and "button" with a glottal stop rather than a "t" in the middle of the word? Why do kids say "aminal" instead of "animal" and politicians say "nuc – yu – lar" instead of "nuclear"? Why does my son call the '80s singer "Hooley Loolis"?

The discipline of *phonology*, the study of how sounds are combined to form words, can explain these and many other mysteries. In the previous chapter we discussed *phonetics*, the study of how the vocal tract makes different sounds. We classified these sounds into vowel and consonant categories, and then we further divided them into groups based on the ways they are made. We now need to distinguish between a sound, which can be described simply phonetically, and a *phoneme*, which is a sound linked to some sort of meaning. In this chapter we will examine the rules that determine which sounds and meanings can be put together and which must stay apart, and we will discuss *sound change*, the process by which one sound in a word is converted to another. Sound change over periods of time produces language changes and, eventually, new languages.

clort ngburga tlop oofick slimp lporta ipple zpigly chzhaba poom

None of the words I have written above are likely to be familiar to you. If you were forced to guess which ones were English words, you would probably choose *clort, oofick, slimp, ipple,* and *poom.* You might even guess that *ngburga* was from an African language or from Vietnamese, that *tlop* was Central American, and that *chzhaba* and *zpigly* were eastern European.

In fact, I made up all of the words above. None of them are, as far as I know, words in real languages, though they very well might be. So how were you able to say that a few *could* be English and a few others definitely could *not* be English?

Your ability to separate possible English from non-English words demonstrates that, although you are very unlikely ever to have been taught the phonological rules of English, you have nevertheless internalized English *phonology*. The human vocal tract can produce a very large number of different sounds, but no language uses all of them. Many sounds, such as the clicks used by the !Kung-San or the uvular "r" used in French, are not used by English at all. Still others are used in English but are subject to *phonotactic constraints* that limit where in a word they can be used. For example, English does have the voiced velar nasal "ng" at the end of words such as "long" or "song," but the phonology of English does not allow this sound to be

used *initially*, at the beginning of a word. The sound “tl” is likewise not allowed initially but can be used *medially* or *terminally* in words like “battle” and “cattlecar.” The “lp” sound also cannot be used initially, but it can appear *terminally* in a word like “help.” English also has rules about the clustering of different sounds. Three-consonant clusters are allowed in words such as “squirrel” or “squirt” (the u after the q is simply a convention; the actual sounds in these words is “skw,” all three of which are consonants), but English does not permit “pdb” or “kwm.”

There are also distinctions made in some languages that are not relevant in others. Say “cup” and “pitcher” and pay close attention to the “p” sound in each word. You will notice that the “p” in cup is pronounced with the lips closing and staying closed, while the “p” in “pitcher” ends with open lips. In the previous chapter we noted this difference between aspirated and un-aspirated forms of “p.” This difference occurs automatically in English depending upon the other sounds that are around the “p”—English speakers do not switch between aspirated and un-aspirated “p” in order to make a distinction, but we do make a distinction between the voiced and unvoiced bilabial stop, which is why “but” and “put” mean different things. English also makes a distinction between the lateral and the retroflex liquids, “l” and “r,” which is why English speakers distinguish “rip” and “lip”—there is no distinction in Japanese, and in fact many adult Japanese speakers do not even hear a difference between the “l” and “r” phonemes. Turkish makes a distinction between the l sound in “leaf” and that at the end of “wool” that English speakers have much difficulty hearing (but pronounce both words very carefully and you will note that the first “l” seems “lighter” and the second “darker”).

Assimilation and Dissimilation

Every language also has rules about the ways sound-segments are pronounced depending upon their phonetic environments within a word. For example, the presence of nasal consonants within a word changes the subsequent vowels into nasalized vowels: say the words “seep” and “seem.” You will notice that the vowel in the middle is the same in terms of height and frontness (it is a high, front vowel), but it sounds somewhat different because in the latter word, some air escapes through the nose as the vocal tract prepares to pronounce the nasal consonant, “m.” In French, nasalized vowels can occur even without a nasal consonant in the same syllable; because this does not happen in English, it can be difficult for English speakers to learn to pronounce French correctly. Nasalization is a form of *assimilation* in which adjacent sound segments are made more similar. In English, the standard plural is made by adding a voiced alveolar fricative, the /z/ sound, to the end of a word: dog ➔ dogz, kid ➔ kidz. But when the singular form of the word ends with a voiceless consonant, such as the word “cat” (the t is a voiceless alveolar stop), the plural is made by adding a voiceless alveolar fricative, the /s/ sound. Cat ➔ cats, cap ➔ caps. This is assimilation based on voicing: a voiceless terminal consonant gets a matching voiceless plural.

There is also assimilation based on place of articulation rather than voicing. For example, English uses a Latin negative prefix on words like “possible” and “tolerant.” When the root word begins with a bilabial sound like the “p” in

"possible," the prefix uses the bilabial nasal. Thus we get "im-possible." But when the root word begins with an alveolar consonant, we get an alveolar nasal in the plural: "in-tolerant."

The mirror of assimilation is *dissimilation*, which occurs when sounds that are too similar have to be pronounced close together. Try the old tongue-twisters of saying "toy boat" or "sixth sheep" five times in quick succession. You will note that this is very difficult because of the repetition of similar sound-segments. We see the process of dissimilation at work in the movement of Latin words into English. Latin adjectives generally have the ending "-alis," but there is a variation: if the noun has an l in it, the ending becomes "aris." So, for example, "ment-alis" does not have an l and becomes "mental" in English. But there is an l in "simil" and so we get "similar" rather than "similal."

Segment Insertion and Deletion

Another important pair of mirrored processes are *segment insertion* and *segment deletion*. If a regular noun ends in a sibilant, a consonant that produces a hissing sound, such as s or z, English inserts a schwa (a mid-central vowel) before the plural /z/ sound: boss ➔ bosses. This inserted vowel allows the speaker to avoid trying to pronounce two sibilants together. Likewise, if a regular verb ends in a non-nasal alveolar stop (t or d), we insert a schwa before the past-tense marker of the voiced alveolar stop (d): punt ➔ punted. Segment insertion is also called *epenthesis*.

Segment deletion in English is one of the aspects of the language that makes it very difficult for second-language learners, and children, to learn to spell. The dreaded "silent g" in words like "sign" and "gnome" is caused by a segment deletion rule. The voiced velar stop "g" is deleted when it is followed by a word-final nasal consonant or when it occurs initially before a nasal consonant. Thus when "g" is followed by "n," the deletion rule applies and we do not pronounce the "g." However, when the "g" occurs medially, in the middle of the word, such as in "signature," the rule does not apply and we do pronounce it.

English also deletes its unstressed vowels, particularly in rapid speech. This means that the addition of suffixes (such as -ing, -tion, -ette) that change the stress patterns of the words can influence whether or not a vowel is deleted. The stress patterns of words are particularly important for understanding why some words changed the way they did from ancestral languages into English (we will discuss this much more when we look at Verner's Law in the next chapter). English has a stress-related rule that, when a non-nasal alveolar stop (t or d) occurs in between a stressed and an unstressed syllable, the t or d is changed from a stop to a flap: the tongue flicks against the roof of the mouth rather than making the full articulation of a stop. Thus we have the pronunciations of "butter," "batter," "kitten," "mitten," and "button," in which the medial consonant sounds much like a rapidly pronounced "d" rather than either the "t" or "d" one would expect from the spelling. The flap rule is a change in *manner* of articulation: The voiced or unvoiced alveolar stop becomes a flap, but the *place* of articulation is basically the *alveolar* ridge. However, in some dialects of American English the flap rule is modified and the change is made not in the manner of articulation, but in the place of articulation. Thus a voiced or voiceless alveolar stop (t or d) becomes a voiceless

glottal stop. The manner of articulation has remained the same (stop), but the place of articulation has moved back in the mouth from the alveolar ridge to the epiglottis.

The relationship of stress patterns to deletions, although it makes life difficult for people learning English and for spellers who already know it, is particularly valuable in reconstructing earlier forms of a language. And those frustrated by deletion rules can at least feel lucky that they do not have to master the conventions of French, which has so many deletion rules that it sometimes seems as if the best way to pronounce a French word is to lop off its second half.

Metathesis

The final process we will discuss is called *metathesis*, the rearrangement of sequences of phonemes. Metathesis is perhaps the most visible of all the sound-change processes because it so often produces pronunciations that native speakers (or at least sticklers) view as wrong. The three most famous of these are perhaps the words "ask," "animal," and "nuclear," all of which are very commonly rearranged by metathesis. The general rule underlying various metatheses is that segments will be rearranged to make them easier to pronounce. In the case of "ask," we have a word in which the "s" and "k" are often switched, producing "aks" as in "I aksed you a question." This metathesis is often associated with African American English (also called Black English Vernacular) and thus has received a great deal of condemnation. However, it is a completely natural metathesis in English. In fact, the Old English verb for "to ask" was "acsian," with the voiceless velar stop (k) coming before the voiceless alveolar fricative (s). A metathesis long ago switched the ks consonant cluster to sk, but in some dialects of English this metathesis is reversed, possibly because the terminal "sk" is more difficult to pronounce: Even in dialects that use the metathesis and say "aks," the present progressive form of the verb is "asking," not "aksing."

"Aminal" is usually associated with the speech of children. The correct pronunciation is a low, central vowel (æ) followed by a voiced alveolar nasal, followed by a high front vowel, a voiced bilabial nasal, a mid, central vowel, and an alveolar liquid. The metathesis switches the order of the two nasals. Say the two forms slowly and feel the movements of your tongue in your mouth, and you will understand how one pronunciation is easier than the other for beginning speakers.

"Nuclear" pronounced "nuc – yu – lar" has been used at the highest levels of American government since the time of President Eisenhower. It is the source of much hilarity, but, like the previous two metatheses, is only a marker of a very normal sound-change process.

The three examples given for metathesis also demonstrate that language change and variation is inextricably entangled with culture and society. All three of the metatheses are generally associated with groups or individuals—African Americans, children, the uneducated—that are not given as much respect as other groups in American society. Although the process of metathesis may be completely normal for English, and although it may make some words easier to pronounce for all speakers, it is resisted for sociocultural reasons.

This leads us toward our next lecture, when we will discuss how large-scale *sound change* brings about the process of *language change,* by which all the world's languages evolved from previous, now-lost tongues in the deep human past. When the processes of sound change that we have examined occur in many words rather than one word, we observe *sound shifts*, which serve to separate branches of languages from each other. These processes occur, most scholars believe, in the *acquisition* stage of languages, either when people learn languages as children or when they acquire them as adults. Language seems to be influenced by two competing processes. Language change is slowed because all the speakers of a language need to understand each other. Language change is accelerated because of the factors we have discussed above, and also because of phenomena like the borrowing of words, the desire of children or other subgroups to speak distinctively different from others, and physical and cultural isolation. The shifting balance between change and stasis leads to the development of languages at different rates and in different environments. The inventions of language-preserving technologies such as writing, tape-recording, and schools, along with language-spreading technologies like telecommunications and fast travel, all play a part in a process that has been going on since the first words were spoken.

FOR GREATER UNDERSTANDING

Questions

1. What is the definition of phonology?
2. When does the *phonetic environment* of a sound influence its pronunciation?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

Pinker, Steven. Chapters 5–6. *The Language Instinct: How the Mind Creates Language.* New York: HarperCollins Publishers, 2000.

———. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Lecture 5:
Sound Shifts and History

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapter 11.

In lecture 3 we learned about the *phonetic* properties of speech, discovering the ways that specific speech sounds are *articulated* in the *vocal tract*. In lecture 4 we examined the *phonological* properties of speech, the ways those speech sounds are combined and re-combined in any given language to make meaningful words. The sound-combinations that make up words change depending upon their local environments (as is shown by processes like *assimilation* or *nasalization*), and they also change during the process of language acquisition. In this chapter we will discuss the ways that sound changes can operate across the whole spectrum of words in a language, producing the *sound shifts* that are characteristic of different languages and which help us to determine the ways that languages divided and evolved from one another.

Historical Roots

When in 1786 William Jones informed the English-speaking world that Sanskrit was related to Germanic and Celtic languages as well as to Latin and Greek (he argued that Greek, Latin, and Sanskrit came from a common source), he began a research program that continues to this day. It was not so much that Jones noticed similar words in the various languages but that he began to note regular correspondences. Rasmus Rask, the Danish philologist, later was able to point out that these correspondences seemed to be based on regular rules. Rask also was able to add Lithuanian and Armenian into the mix, showing that there were regular correspondences between these languages and those previously linked by Jones. But it was Jakob Grimm who really managed to tie everything together. Grimm took Rask's observations and divined the underlying rule that explained both the similarities and the differences. His *Deutsche Grammatik*, first published in 1819, was as important for the humanities as Darwin's *Origin of Species* was to be for biology (and in fact, Grimm's work in part inspired Darwin).

Grimm's Law

Grimm's argument can be hard to follow, particularly because his linguistic terminology is sometimes different from ours, so rather than delving directly into nineteenth-century *vergleichende Philologie*, I am going to simplify a bit and be more explanatory than historical. Grimm himself did not call the consonant shift that he had explained a "law." The German word he uses, "Regel," means "rule," and could just as easily mean "correspondence." It is also worth noting that Grimm could find no way of including the vowels in his

scheme and did not have much luck with the liquids (r, l). Grimm began with the assumption that had been in place since the time of Jones, that Sanskrit, Greek, Latin, and other European languages—most importantly those in the Germanic branch—had a common ancestor. This common ancestor, which, following contemporary practice rather than Grimm's own, we will call Proto-Indo-European, could be reconstructed by examining its descendants. Those elements that appeared in the majority of the descendant languages were assumed to be more likely to have appeared in the original language (they were *ancestral* rather than *derived* characteristics; alternately, they could be called *homologies*). So, for example, we examine the words for "father" and "foot" in a variety of Indo-European languages:

Sanskrit	**Latin**	**Ancient Greek**	**English**
pitar	pater	pātḗr	father
pad	ped	pūs	foot

Because the "p" sound appears in a wider variety of languages, it is assumed to be ancestral and the "f" in English to be derived from a consonant shift. Grimm concluded that the ancestral forms were p, t, k, b, d, g, bh, dh, and gh (the "h" represents aspiration). They shifted, in the Germanic languages, in the following manner:

p → f
t → th
k → h
b → p
d → t
g → k
bh → f
dh → d
gh → g

If you refer back to our chart of the consonants, or simply say these slowly and note the voicing, place of articulation, and manner of articulation, you may be able to reconstruct Grimm's Law on your own. P is a voiceless, bilabial stop. It becomes f, a voiceless, labio-dental fricative. By itself this is not helpful, but remember it: voicing stays the same, bilabial goes to labio-dental, and stop goes to fricative. Now we move on to the next consonant. T is a voiceless alveolar stop. It becomes th, a voiceless inter-dental fricative. K is a voiceless velar stop. It becomes h, a voiceless glottal fricative. Do you see the pattern? Although the voicing remains the same throughout the changes (they are all voiceless) and the place of articulation does not seem to change regularly (bilabial moves back in the mouth to labio-dental and velar moves back to glottal, but the alveolar t moves forward to become inter-dental), *all* of these *stops* become *fricatives*. This is a consistent pattern. So the first part of Grimm's Law is the following:

The voiceless *stops* in Proto-Indo-European became voiceless *fricatives* in Germanic.

Let us continue down the list. B is a voiced bilabial stop. It becomes p, a voiceless bilabial stop. D is a voiced inter-dental stop. It becomes t, a voiceless inter-dental stop. G is a voiced velar stop. It becomes k, a voiceless, velar stop. This pattern is easier to notice because the only aspect of the sounds that changes is the voicing, with voiced sounds becoming voiceless. So the second part of Grimm's Law is the following:

> The voic*ed* stops in Proto-Indo-European become voice*less* stops in Germanic.

The last three consonants on the list require some explanation. Say "cup" and then "pitcher," paying close attention to the "p" sounds. You will note, as we discussed in the previous two chapters, that the "p" in "cup" ends with the lips closed, while the "p" in "pitcher" (even if we do not say the rest of the word) ends with the lips open. We discussed this phenomenon, called *aspiration*, in lecture three. Aspiration is automatic in English: We do not think about it, and it is meaningless because it is simply a factor of the phonetic environment. But in Sanskrit, aspiration is significant (that is, it is *phonemic* as well as *phonetic*). The third element of Grimm's Law is the loss of this aspiration. Bh, the voiced, aspirated, bilabial stop, becomes simply b, a voiced bilabial stop. Likewise dh becomes d and gh becomes g. So we can generalize and say:

> The voiced, *aspirated* stops become voiced, *un*-aspirated stops.

Grimm also noted that these shifts are linked to one another. When the first part of the shift occurred (the voiceless stops becoming voiceless fricatives), the language would have no voiceless stops. But that gap is then filled by the voiced stops becoming voiceless. That leaves another gap, since there would then be no voiced stops, but that gap is filled by the aspirated voiced stops becoming unaspirated voiced stops. Sounds shuffle around, and in the end we are left with the three groups of consonant changes and also the elimination of aspirated stops as meaningful units in the Germanic languages. Thus we see that one shift can start a cascade that changes the phonological system of the entire language.

Exceptions Explained, Verner's Law

There were also some exceptions to this change. The voiceless stops did not become fricatives if they had been preceded by an s. This makes sense if we note that s is a fricative also, and the fricative/fricative combination, although not impossible, is difficult to say. We can thus say that the presence of the *spirant* s in a word immediately before a voiceless stop blocked the operation of Grimm's Law.

Grimm's Law is so important not only because it demonstrated that there was logical regularity underlying language change, but also because it allowed researchers to reconstruct the lost Indo-European language. Of course none of them agreed on this reconstruction, and it is an old philological joke that no language changed as rapidly in the nineteenth century as Proto-Indo-European. Using Grimm's Law, a scholar could take a word beginning in "f" in a Germanic language and reasonably infer that its ancestor in Proto-Indo-European began with "p." This kind of reconstruction could also be used to find the meanings of otherwise obscure words. Scholars can

often reconstruct the meanings of words by using context or by using texts that are translations of known languages. But there are some words for which this is impossible. They might be *hapax legomena*, words that appear only one time in the written corpus of a language. Now, scholars could apply the various sound-change laws and look for correspondences in other Indo-European languages. The corresponding words are called *cognates*: pater, pitar, father, and vater are all cognates. Scholars also learned that there are *false cognates*, words that appear to be related but, upon further investigation, turn out not to be.

Verner's Law

Grimm's Law had remarkable explanatory power, but there were exceptions to it that were not easily explained. This did not bother Grimm himself, who accepted the idea that there were exceptions to his rules, but subsequent linguists were determined to figure out additional regularities. The most successful was the Danish linguist, Karl Verner (1846–1896), who in 1875 formulated *Verner's Law*. Verner examined words in which p did not become f, t did not become th, and k did not become h in the shift from Proto-Indo-European to Germanic. Thus in Sanskrit, Latin, and Greek, as well as Baltic and Slavic languages, there were words that included p in which the *cognates* in Germanic languages also had p, rather than f. For example, the p in the Proto-Indo-European word for father does indeed become an f, as Grimm's Law would predict. But in Proto-Germanic the word is "fæder," with a "d" rather than the "th" we would expect from Grimm's Law. Even more confusing, the Proto-Indo-European word for "brother" *does* follow Grimm's Law, with the Proto-Germanic form being "brother" rather than "broder." Why was Grimm's Law working sometimes and not others in words that were obviously equally old and closely related?

Verner studied these words very carefully and noted a correspondence: When the vowels before the p, t, or k (the unvoiced stops) were unstressed, Grimm's Law did not come into effect. In Proto-Indo-European, the stress was on the second syllable of "father" (compare the Sanskrit pit-á) while it was on the first syllable of "brother" (Sanskrit bhrá-ta). One reason it had taken so long for linguists to figure out Verner's Law was that somewhat later in the development of the Germanic languages stress had become fixed on the root syllable of a word (this had not been the case in Proto-Indo-European or Proto-Germanic). That early stress patterns (which are not usually represented in early writing systems, but have to be inferred) could modify major processes like consonant shifts was enormously important to philologists: They now had an additional tool for understanding language change.

I-mutation

Grimm's and Verner's Law explained changes in the *consonant systems* of the Indo-European languages, but Grimm had been unable to figure out laws for the Indo-European vowel system. Later linguists, however, were able to explain various regular changes in vowel systems of Indo-European languages. The most important of the processes they described is *i-mutation*, also called *umlaut*. I-mutation occurs when a back vowel, such as that in "foot," is moved to the front of the mouth (*fronted*), as in "feet," or when a

front vowel, such as that in Old English "strang" (strong) is moved higher in the mouth (*raised*) such as in Old English "strengthu" (strength).

I-mutation occurs when a syllable is followed by a syllable that contains short-i, long-i, or the y-sound in "yes." In each case the mouth, in preparing to say the next syllable, changes the first one, fronting it if it is a back vowel or raising it if it is already fronted. I-mutation is important for two reasons. First, it changed the entire vowel systems of Old English, Old Norse, and Old High German from their predecessors, so understanding it is vital for understanding the ways that the two languages are related to each other. Second, because we can date i-mutation to the fourth or fifth centuries, we can use it to judge when certain words entered into English. If a Latin word shows the influence of i-mutation, we can conclude that it came into the language before i-mutation had occurred. Thus "monet" from Latin gets i-mutated to "mynet" (mint and money), but "cometa" (comet) does not, suggesting that it was borrowed later.

Breaking

The other vowel-related process we will discuss is called *breaking*, where a single vowel is split into a *diphthong* (two combined vowel sounds). Breaking is important because it demonstrates the influence of consonants on vowels in the same way that Verner's Law demonstrated the influence of vowels on consonants. Breaking applies to short front vowels such as the e in "pet" and the a in "fat" when these vowels are followed by the consonants h, r, and l plus one more consonant (such combinations as "ht" or "rp"). These vowels become diphthongs, so when we find an Old English word like "weorpan" (to throw) we can conclude that its ancestor was "werpan." Likewise Old English "feaht" (fought) had the ancestor "fæht" (the "æ" represents the short-a sound that we pronounce in "bat" or "cat").

This information about sound changes may seem exceptionally complex, but its great beauty was that it was completely logical: If you could understand the rules and apply them correctly, you could reconstruct the earlier versions of the language. And that was not just an abstract exercise. A deep knowledge of phonology and sound-changes in Indo-European languages allowed scholars to recover lost information about the past and to better understand early literatures.

Three Great Achievements

In 1875 the great philologist Eduard Sievers was studying the Anglo-Saxon poem *Genesis*, which is a paraphrase, in Old English, of parts of that book of the Bible. Scholars had long noted some interesting variations in spelling and style in one particular part of the poem, but Sievers was the first to make the argument, based on variations, that at least that section was not an original composition in Old English (done by a poet who either knew the book of Genesis very well or, more likely, had a Latin text in front of him) but was instead a translation of an Old Saxon paraphrase of a Latin text. This was a very interesting deduction, but it would probably have remained merely a point of debate among scholars. But in 1894, a copy of an Old Saxon poem was found in the Vatican Library, twenty-six lines of which overlap with the Old English *Genesis B* poem. Sievers' deduction was proven even though he

had had no knowledge of the Vatican manuscript. This was an enormous triumph for scientific philology, which was shown to have some of the predictive power of hard science.

In 1879 the Swiss philologist Ferdinand de Saussure concluded that Proto-Indo-European must have had one or more *laryngeal* consonants, which would have been pronounced deep in the throat, in the voicebox or larynx (the exact pronunciation is still disputed). Saussure's theory was controversial: Although it did explain how particular sound changes could have occurred, there was no hard evidence in existing Indo-European languages for laryngeals. But in the early twentieth century, the Hittite language was discovered and eventually deciphered. There is a group of phonemes in Hittite that can best be explained by the existence of laryngeals in that language, suggesting that Saussure's theory was correct even though he had had no knowledge of Hittite.

Finally, the great English philologist J.R.R. Tolkien (known more widely, of course, as the author of *The Hobbit* and *The Lord of the Rings*) studied some unusual twelfth-century texts called collectively "The Katherine Group" because among them was a Life of St. Katherine. Tolkien noticed some regularities in the unusual spellings of certain words that had been part of one particular class of verbs in Old English. He was able to demonstrate that these spellings indicated that Old English had continued to be spoken in the West Midlands of England much longer than had previously been recognized—long enough to undergo linguistic evolution before becoming Middle English. Tolkien thus used philology to uncover a lost history of England, showing a persistence of English culture (in certain locations) that had maintained its integrity through the cataclysm of the Norman Conquest.

In all three of these cases, and in many more that are lesser known, the power of philology and the understanding of the logical processes of sound changes recovered lost history, giving us information about our ancestors that would otherwise be completely impossible to recover. Philologists were even able to go back before the advent of writing to conclude that the Indo-European homeland was somewhere in the north, probably in a forest of beech, oak, and birch trees populated by animals like the bear, boar, and squirrel. They could also give us some insight into that lost, pre-historic culture. For example, the English word "daughter" can be traced back to Sanskrit "duhitar," which means "the little milker," suggesting an ancient culture in which a customary duty of daughters was to milk the cows, sheep, or goats. The word "hammer" is cognate with Old Slavic "kamy," which means "stone," and by noting this correspondence, philology is actually able to take us all the way back through history to the lost world of our Stone Age ancestors.

FOR GREATER UNDERSTANDING

Questions

1. What is Grimm's Law?
2. How can laws of sound change be used to reconstruct lost languages?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

Pinker, Steven. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Lecture 6:
The Rules: Syntax

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapter 4.

We have seen how languages change from one to another in part through *sound shifts*, in which the pronunciation of words changes in a regular way. When Germanic split off from the rest of Indo-European, the sound-shift described by *Grimm's Law* occurred. The voiceless stops became voiceless fricatives, the voiced stops become voiceless, thus moving into the space vacated by the voiceless stops, and the aspirated voiced stops moved into the place that the voiced stops had vacated. This sound shift, plus the others described, and some additional shifts that we have left out for reasons of time and complexity, explain many of the differences between Germanic languages and others. We can even see how multiple different sound shifts operating at different times can cause languages to further evolve and split into more and more lineages. Also, although languages change their large-scale sound-systems, they are also continually undergoing the processes of change that we discussed in lecture four. Assimilation, dissimilation, metathesis, and other processes all modify languages as time passes.

But sound shifts and changes in pronunciation are not the whole story. If they were, we would be able to program a computer with the proper sound shifts, put in a poem in English, and have that same poem come out in, say, German or Gothic or Latin. Obviously we cannot do this. Languages change not only in their sound systems, but also in the ways they express logical relationships (their *grammar* and *syntax*), the ways that they change words from one function to another within themselves (*morphology*), and in the words they use (*lexicon*). In this chapter we will investigate syntax and syntactic changes, which are, unfortunately, not as regular or as easy to conceptualize as sound changes.

Infinite Sentences from Finite Resources

The logical structures of human languages allow speakers to create an infinite number of sentences with a finite number of words. At first I resisted this conclusion, thinking that because there are a finite number of words, there could not be an infinite number of possible sentences. A very large number of sentences, even a Vast (to use Daniel Dennett's terminology) number of sentences, certainly. Even a number of sentences greater than the number of elementary particles in the universe. But not an *infinite* number. But let us try the following experiment. Take a very long sentence, perhaps one from (of all the authors in whose works we could look for a long sentence) Ernest Hemingway:

> That something I cannot yet define completely but the feeling comes when you write well and truly of something and know impersonally you have written in that way and those who are paid to read it and report on it do not like the subject so they say it is all a fake, yet you know its value absolutely; or when you do something which people do not consider a serious occupation and yet you know, truly, that it is as important and has always been as important as all the things that are in fashion, and when on the sea, you are alone with it and know this Gulf Stream you are living with, knowing, learning about, and loving, has moved, as it moves, since before man, and that it has gone by the shoreline of that long, beautiful, unhappy island since before Columbus sighted it and that the things you find out about it are permanent and of value because that stream will flow, as it has flowed, after the Indians, after the Spaniards, after the British, after the Americans and after all the Cubans and all the systems of governments, the richness, the poverty, the martyrdom, the sacrifice and the venality and the cruelty are all gone as the high-piled scow of garbage, bright-colored, white-flecked, ill-smelling, now tilted on its side, spills off its load into the blue water, turning it a pale green to a depth of four or five fathoms as the load spreads across the surface, the sinkable part going down and the flotsam of palm fronts, corks, bottles, and used electric light globes, seasoned with an occasional condom or a deep floating corset, the torn leaves of a student's exercise book, a well-inflated dog, the occasional rat, the no-longer-distinguished cat; all this well shepherded by the boats of the garbage pickers who pluck their prizes with long poles, as interested, as intelligent, and as accurate as historians; they have the viewpoint; the stream, with no visible flow, takes five loads of this a day when things are going well in La Habana and in ten miles along the coast it is as clear and blue and unimpressed as it was ever before the tug hauled out the scow; and the palm fronds of our victories, the worn light bulbs of our discoveries and the empty condoms of our great loves float with no significance against one single, lasting thing—the stream (Hemingway, *Green Hills of Africa*, 149–50).

Now that's a long sentence, but I can easily make it longer:

> Ernest Hemingway said that "That something I cannot yet define completely . . . one single, lasting thing—the stream."

If you want it longer still, I can say:

> I heard that Mike Drout said that Ernest Hemingway said that "That something I cannot yet define completely . . . one single, lasting thing—the stream."

Or longer still:

> Ellen completed a fabricated story in which Professor Jones said that John told her that he heard that Mike Drout said that Ernest Hemingway said that "That something I cannot yet define completely . . . one single, lasting thing—the stream."

The number of possible sentences is infinite because however long a sentence you create, you can always add to it and still have it remain

grammatical. This quality of infinite expandability is generated by the rules of *syntax* of languages. In the case of English, we can take any sentence we want, no matter how long, and put it inside another sentence after the word "that." A bit later in this discussion we will examine the specific rules that allow this in English, but a more interesting point is that *all* known human languages have this quality: You can always make a sentence just a little bit longer, and a little bit longer after that.

Sentences and Trees

There are other aspects of language syntax that are, as far as we know, universal to all human languages. Every language has the idea of a *subject*, something that does something, and a *verb,* the thing that gets done. In fact, you can conceptualize the basic idea of a sentence in all human languages as being made up of a doer and the action the doer does. Linguists describe this relationship as

S = NP + VP

S means a sentence, NP means a noun phrase, and VP means a verb phrase.

Let us look at these building blocks for a moment. You will probably remember from grammar school that "a noun is a person, place, or thing." A noun is a naming word. A *noun phrase* is at its most basic just a noun, but it can also include a noun and other, related words.

Cows is a noun phrase.

So is big cows.

So is big, stupid cows.

So is the big, stupid cows.

So is the big, stupid cows with the little horns.

By itself a noun phrase does not make a sentence. For that we also need a verb phrase such as

slept

or kicked over the stool

or kicked over the stool and set the barn on fire

or attacked the professor with violent kicks and buffetings

Verb phrases can contain noun phrases inside them. In the verb phrase above, "the stool" and "the barn" and "the professor" are noun phrases. Sentences in English also contain prepositional phrases, which are created by putting a preposition in front of a noun phrase:

with violent kicks and buffetings

or with their short little horns and nasty tempers

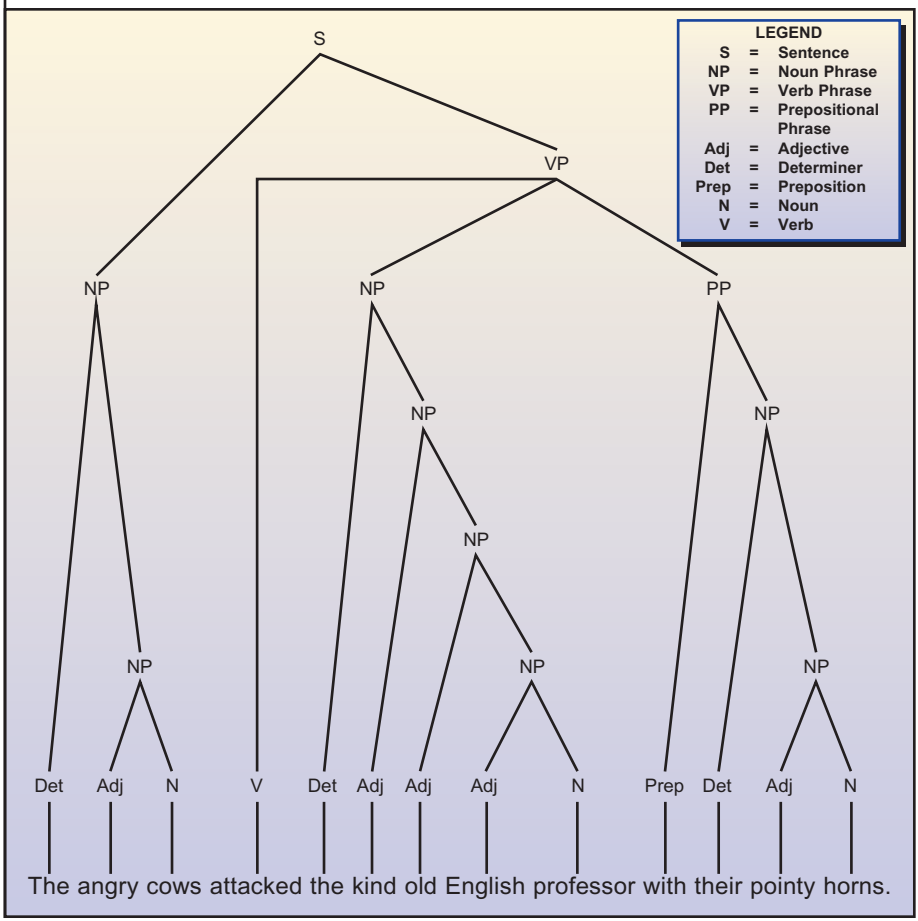
or despite their wretched, tiny brains

English has other constituents as well, such as *determiners* (including "the," "a," "this," "that," "those"), *auxiliaries* (such as "will," "should," "could") and *complementizers* (such as "that" used in the sentence "He said that I should

stop talking about cows"). But all of the sentences that use these other constituents fit into the basic S = NP + VP structure.

Linguists use these functional categories to create *tree diagrams* of sentences. These are not the sentence diagrams that your eighth-grade English teacher struggled to teach you, but a new development in linguistics that focuses on syntactic relationships. The *root* of the tree is the sentence itself, marked by S, and every unit below that sentence (the noun phrases, verb phrases, prepositional phrases, etc.) has to be divided into two pieces.

When I teach linguistics I can spend two or three weeks on tree diagrams, because they really do show the syntactic relationships very well. Diagramming a very complex sentence, such as one of those in Milton's *Paradise Lost*, can give you insight into the ways authors arrange their words for various effects. Very complex sentences also show how amazing the human "language organ" is: You can spend a good hour trying to analyze a sentence that an intelligent nine-year-old can produce without thinking very much about it.



Theories of Syntax

It was this phenomenon that intrigued the linguist Noam Chomsky back in the 1950s. At that time theories of language-production were based on B.F. Skinner's theories of behaviorism: Skinner believed that speaking came as a response to various stimuli and thus was a trained activity. Chomsky demonstrated mathematically that mere response to stimulus could not possibly produce the variety of sentences produced by human speakers: Even children simply could not be producing so many different sentences as part of a set of stimuli and responses. There must be some other factor at work, and Chomsky argued that it was the possession of what he called *universal grammar* that allowed children to acquire complete languages without enough time to have heard even a small portion of the sentences that can be created in them and to understand sentences that they had never before encountered. Children must acquire a set of *rules* and from these make their own sentences, and in fact the syntax of the sentences generated by the rules is more important than the content of the sentences themselves. Chomsky illustrated this point with his famous sentence "Colorless green ideas sleep furiously," which is syntactically perfect but absolutely nonsensical.

Transformations

Chomsky's book *Syntactic Structures* is short, mathematical, and absolutely groundbreaking. In it he showed how a "universal grammar" could at least theoretically explain both the contour of language acquisition and the structures of sentences that we observe speakers creating and understanding. But the most important contribution of *Syntactic Structures* is Chomsky's idea of the *transformation*. Two different sentences can mean the same thing:

The cow attacked the professor.

The professor was attacked by the cow.

Other, very closely related sentences would be the following:

Did the cow attack the professor?

Yes, the cow attacked the professor.

What attacked the professor?

The cow attacked whom?

By whom was the professor attacked?

Chomsky posited that sitting underneath all of these sentences was some set of abstract relationships, something like ACTOR ACTION RECEIVER. Into the logical outline of these relationships, the brain plugged in specific words like "cow," "professor," and "attacked." Then a set of rules, based on each language's individual characteristics, *transformed* these rules into the specific sentences in each language (for example, adding determiners to the nouns, putting the verb in the past tense). Chomsky called the underlying relationships *deep structures* and the actual form of the sentence that a person would utter *surface structures*. But most importantly, he outlined some of the rules that would transform a given deep structure into more than one surface structure. The theory opened up an entirely new era in linguistics.

This can be somewhat confusing, so let us look at some sentences:

The cow attacked the professor.

The professor was attacked by the cow.

Who was attacked by the cow?

Did the cow attack the professor?

We intuitively recognize that these sentences are all closely related to each other. Previously we noted that all sentences are composed of at least a noun phrase plus a verb phrase, and this is obviously true for the first sentence, in which the noun phrase is "the cow" and the verb phrase is "attacked the professor." But something has happened in sentence number two. Now the subject of the sentence, the doer of the action, the cow, is no longer inside the noun phrase but instead is inside a noun phrase inside the verb phrase ("was attacked by the cow"). Also, an auxiliary verb ("was") and a preposition ("by") have appeared, but the information is exactly the same. What happened? According to Chomsky's theory, a transformation was applied to the deep structure that moved the subject noun phrase ("the cow") into a prepositional phrase ("by the cow") inside the verb phrase ("attacked by the cow"). At the same time the object noun phrase ("the professor") was moved up to the front of the sentence. A verbal auxiliary ("was") was generated to mark the passive voice.

This sounds confusing, but Chomsky was able to show how this and many other transformations could be made by a simple set of rules. It was now possible to show that ambiguous sentences like "Visiting relatives can be boring" were ambiguous because two different deep structures could lead to the same surface structures. In this case, one deep structure would have "visiting" as part of the noun phrase "visiting relatives" (i.e., it is a participle, a verb acting as an adjective, and it modifies the noun "relatives"). The meaning of this sentence is that Uncle Earl and Aunt Flossie come to stay over and do nothing but talk about their collection of ceramic opossums. The other deep structure would take "visiting relatives" as a verb phrase (meaning "to visit relatives"). In this case the sentence explains what it is like to go to Uncle Earl and Aunt Flossie's house and have to look at all those stupid ceramic opossums. It does not really make a lot of sense to have such ambiguities in a language, particularly if that language had to be learned as a series of stimuli and responses as the behaviorists had proposed. But it makes a lot of sense once we learn that the underlying rules of a language might end up producing confusing but grammatical sentences—there were no contradictions or ambiguities in the deep structure, and the rules were fine, but the combination was something more difficult.

Universal Grammar, Universal Translation

Chomsky's *transformational generative grammar* took the linguistic world by storm. All of a sudden there was a new way to approach language, and linguists in the 1960s charged right in, describing new transformations, making new and better tree diagrams, and fighting viciously with each other. It seemed as if, with enough work, *universal grammar* might be understood: There must be an underlying basic design for all languages, and if we could

figure it out, a great many good things would happen. First, and most importantly, we would have great insight into how the human mind works. Second, understanding universal grammar would potentially allow for universal translation. All you would need to do was to take your sentence in, say, English, translate it into universal grammar, then apply, say, the Japanese linguistic rules to the underlying universal grammar sentence, plug in the Japanese words, and you would have a grammatical sentence in Japanese. This would be an enormous boon to human communication. But, unfortunately, attempts to build a complete language system and to ferret out true universal grammar and thus universal translation have not been successful, even though the Chomskyan transformational generative grammar program has been running for nearly fifty years. But we have discovered *some* universals, and a new version of transformational grammar called X-Bar Syntax shows some promise: All languages have phrases that consist of a *head* and a *complement*. But different languages handle these constituents in different ways. For example, in English, the head of a phrase comes at the beginning, while in Japanese it comes at the end.

Synthetic and Analytic Languages

All languages have sentences that include a subject (the doer of the action), a verb (the action), and an object (the receiver of the action), but they have different ways of indicating these relationships. English is what is called an *analytic* language: The order of words in the sentence indicates the logical relationship, so that "The cow attacked the professor" means something very different from "The professor attacked the cow." You will notice that the words in the sentences are exactly the same, only their order is different.

If you have studied Latin, however, you will note that the order of words in a Latin sentence is far more flexible. You can say "Carthago delenda est" or "Delenda est Carthago" and mean the same thing. Why? Because Latin is a *synthetic* language. Rather than relying on very fixed word order to indicate subject and object, Latin uses *inflections*, various sounds, called *morphemes* attached to the ends of words. Thus when learning Latin, we have to memorize the various endings for a noun in the various *cases*: the nominative, when the noun is the subject; the accusative, when the noun is the direct object, and so forth. Synthetic languages can pile more and more morphemes together, and they can allow words to be scrambled around in a sentence but still maintain their meanings. *Polysynthetic* languages can have as many as ten morphemes attached to any given word.

But even in these languages there is a preferred order in which the information is presented. There are six possible arrangements of subject, verb, and object (SVO, SOV, VSO, VOS, OVS, OSV), but 90 percent of the world's languages either use SVO or SOV (about half use SVO and the other half use SOV). Most of the remaining languages are VSO. Only Yoda, from *Star Wars,* speaks OSV (from a parody of *Revenge of the Sith*: "Told you I did. Listen you did not. Now screwed we all shall be."). The analytic versus synthetic distinction (word order versus inflections) and the order of subject, verb, and object are both significant in the history of English. The earliest ancestors and relatives of Old English were highly inflected, with a well-defined case structure for nouns. As time passed, English became more and

more analytic, until after the Norman Conquest most logical relationships were conveyed through word order. Old English was also, like modern German, more of a subject object verb (SOV) language. Middle English and Modern English are subject verb object (SVO).

Changes in sound occur to entire classes of words in a language through sound shifts. Changes in syntax are just as important. Because we now understand how syntax is learned and stored as a set of rules, it is easier to see how it can change across an entire language rather than simply in individual sentences. A few changes in transformational rules—and the cascades of changes triggered by these changes—and we can go from one kind of language (analytic) to another (synthetic), one word order (subject object verb) to another (subject verb object). We have now mastered two separate sets of rules: those of sound and those of syntax. It is now time to examine the other major part of language, the words that get pronounced according to the sound changes and which get plugged into the syntactical structures in order to produce meaning.

FOR GREATER UNDERSTANDING

Questions

1. What is an aspect of syntax that is universal to all languages?
2. Why did B.F. Skinner believe that speaking was a trained activity?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

Chomsky, Noam. *Syntactic Structures.* 2nd ed. Ossining, NY: Walter de Gruyter, Inc., 2002.

Kaplan, Jeffrey P. *English Grammar: Principles and Facts.* 2nd ed. Upper Saddle River, NJ: Prentice Hall, 1994.

Pinker, Steven. Chapters 7–10. *The Language Instinct: How the Mind Creates Language.* New York: HarperCollins Publishers, 2000.

———. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Lecture 7:
Words, Words, Words

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapter 3.

It is somewhat remarkable that we are nearly half way into this course and we are only now just getting to words. But words occupy a very interesting intermediate point in language. At the smallest scale we have *sounds*, the building blocks of words, and at the largest scale we have grammar and syntax, which determine the ways that words are arranged, but the words themselves are just in between, and it was useful for us to see them in both other contexts before examining them in detail.

"In the beginning there was the word" begins the Gospel of John, and at some point in the very, very, very distant past there must indeed have been one first word. That first word could very well have been "snake!"

This is not entirely a joke. Scientists who attempt to find language or language-like behavior in animals often cite the cries of the vervet monkey as being something like what the origins of human language might have been in the prehistoric past. Vervet monkeys have three separate alarm calls, one for eagles, one for leopards, and one for snakes. This linkage of specific sounds to specific meanings is one of the basic elements of languages that researchers look for in animals, and a vervet call could be interpreted as a word. But vervets lack *syntax*; they have no way to say "the snake is behind the leopard!"

Medieval philosophers of language did not look to animals because they did not recognize language as having evolved. Nevertheless they too were interested in the first word. In *De vulgari eloquentia* Dante argues that the first word must have been "El," the Hebrew word for God, addressed to God by Adam. Dante arrives at this conclusion by noting that since Jesus spoke Hebrew, Hebrew must have been the original language of God (because God and Jesus are the same). Thus the confusion of languages at the Tower of Babel added many other languages, but kept Hebrew in place. If God spoke Hebrew, Dante concludes, Adam must have known Hebrew so that he could speak to God. And what word would be more appropriate than "God"?

Although contemporary research does not follow his lead, Dante did reason his way to a conclusion that is not that different from what current linguistic scholars think: The key development in language is thought to be the creation of words for "self" and "other"—logically equivalent to Dante's "God" and "Adam." With self and other linguistically marked, the reasoning goes, language can begin to develop as a means of communication. The Oxford philosopher Owen Barfield followed some of the same lines of reasoning in understanding words. He also began with "In the beginning was the word,"

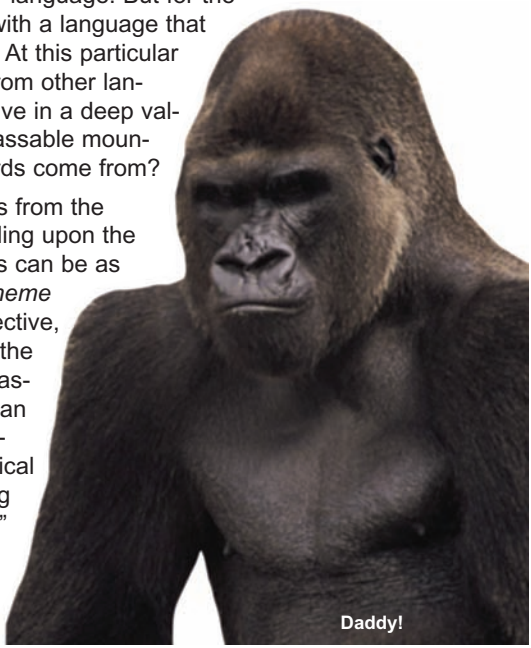
and argued that human language had developed through a process of diversification. The Greeks had the word “pneuma,” which means “breath,” “life,” and “soul.” English, millennia later, had multiple words for the different concepts. Barfield saw language continually splintering into finer and finer distinctions, giving humans more and more ways to label and discuss the world around them.

A story, whose source I cannot document, might illustrate this point. A mother and father were taking their very young daughter to the zoo. She was just learning to talk, and at that stage classified all animals into two categories, “doggies” and “birdies.” Anything that walked on four legs was a “doggie.” Zebra? “Doggie.” Giraffe? “Doggie.” Ostrich? “Birdie.” Then the family walked up to the gorilla exhibit. The gorilla happened to be standing up on its hind legs. “What’s that?” the mother asked the daughter, wondering whether the gorilla would be a doggie or a birdie. The little girl thought for a moment, looked the gorilla up and down, and then said, happily, “Daddy!” She had found another classification for animals. So perhaps Barfield was on to something.

However, we are unable to study languages that would have such an impoverished set of words. The most primitive peoples that have been studied have incredibly complex languages with thousands of words. They must have come from somewhere, and scholars have turned to living languages to see how words can enter a language. There are several processes, divided into two categories: external and autochthonous (a technical term for “arising from within”).

We honestly cannot say where the “original” set of words in a language comes from, again, because every language that we can study has had many years to evolve from some other language. But for the sake of argument, let us begin with a language that has a full set of its “own” words. At this particular point, our language is isolated from other languages (perhaps the speakers live in a deep valley between two seemingly impassable mountain ranges). Where do new words come from?

First of all, we can create words from the words we already have. Depending upon the *morphology* of the language, this can be as simple as adding a single *morpheme* to a word. So if we have an adjective, such as “pleasant,” we can add the *morpheme* “un-” to make “unpleasant” a new word. Likewise, we can use the addition of different morphemes to change the grammatical categories of words, thus making new words. Take the noun “cow” and add the morpheme “-like,” and you now have an adjective. Other morphemes that turn nouns into adjectives in



English include “-ish,” and “-esque,” and you can turn an adjective into a noun by using “-ness.” English allows for the addition of *prefixes* and *suffixes*, but other languages also have *infixes*, which allow speakers to insert morphemes into the middle of words. English also allows words to be shifted from one grammatical category to another (we can verb nouns and noun verbs). The noun “cow” becomes the verb “to cow”; the verb “to run” becomes the noun “run” (as in a one-mile run). So a language can expand by taking its basic stock of words and, by applying different morphemes, expanding them into more grammatical categories as well as changing their meanings. The addition of prefixes and suffixes also changes the stress patterns of words, which in turn can determine whether or not a word is affected by a sound shift.

Making New Words

Languages can also create new words through *coinage*, the deliberate invention of new words that are not built up out of preexisting morphemes.

New words can also enter the language by the combination of existing complete words (rather than the addition of morphemes to existing words). Germanic languages, for reasons that are not entirely understood, have a strong tendency to create words by *compounding*, usually by linking together two separate nouns to create a word that, while originally understood as the union of the two separate terms, eventually becomes recognized as a single lexical unit. “Fireplace” is a good example. Yes, it is a place for a fire, but it is now also a very specific thing, and if you build a nice bonfire on your lawn, you will not call the burned spot a “fireplace,” though it might be “the fire place.” Likewise a “girlfriend” has a special meaning separate from a “girl friend,” and “birthplace,” although it is indeed the place where someone was born, has a somewhat more specialized meaning.

Compounds can also be created from other parts of speech. Verbs can be compounded with verbs to create words like “sleepwalk.” Adjectives can be compounded with adjectives in words like “Anglo-Saxon.” Nouns compounded with verbs give us “proofread” and “babysit,” and a verb compounded with a noun gives us “payday.” “Waterproof” is a noun–adjective compound, and “strikeout” combines a noun with a preposition.

The principle of compounding allows an immense number of new words to be created from a very limited original vocabulary (a mere twenty-six words can generate more than 4×10^{26} possible two-word compounds). Of course many if not most of these would be nonsensical, but obviously with such a large set of possibilities, many, many new words can be generated.

The process of *back-formation* can be seen as the mirror-image of compounding. Speakers apply morphological analysis to words and generate from them new words that had not previously existed. For example, English uses the suffix “-er” as an “agentive” (it indicates that someone is doing something). Words like “baker” and “firefighter” have this agentive. But regular nouns in Old Norse have a *nominative* ending of “r” (when the noun is the subject). English speakers hear these words as having a suffix “-er” and assume that they have been created by adding the “-er” suffix to an existing word. English speakers then subtract the suffix, creating a word without “-er” that never actu-

ally existed. For example, a “berserkr” is a crazy fighter who enters a kind of killing frenzy in which he cannot be controlled and seems to be immune to most attacks. English speakers created the back-formation of an adjective “berserk” from “berserkr,” assuming it meant “one who is berserk.” The singular form of the word for the pea (the vegetable) was in fact “pease,” but some speakers took the “s” on the end of this word as indicating a plural and back-formed the word “pea.” “Edit,” “peddle,” and “swindle” were all created by back-formation. As was “enthuse” (from “enthusiasm”). If we want someone to be less ruthless and say “have some ruth” or tell someone else to “be couth” or suggest that while I was unhappy at my job yesterday, today I am perfectly “gruntled,” we are creating words through back-formation.

Proper names can also be a source of new words in a language. If a person becomes famous or infamous for a particular thing, his or her name can gain immortality by becoming a common noun or verb. These *eponyms* are often not recognized as being related to proper nouns, outlasting the fame of the individual who inspired them. “Sandwich” is perhaps the most famous eponym in English (named after the Earl of Sandwich, as we all learned in grammar school, who wanted to be able to eat quickly while gambling). “Algorithm,” “Caesarian,” “diesel,” “leotard,” “maverick,” “sadism,” “sideburns,” “teddy bear,” “valentine,” and “volt” are all nouns created from proper names. Verbs can also be eponymous. Recently I overheard one student say to another, “Don’t Homer that donut,” telling him not to eat it in one bite. The proper noun “Homer” (from Homer Simpson, of course) was changed into a verb. “To Bogart,” “to galvanize,” and “to guillotine” are also eponymous verbs. Brand names can also become verbs, such as “to Xerox” and “to Hoover.”

Languages also generate new words, or reassign meanings of words from within by processes called broadening and narrowing. Linguistic broadening occurs when a word that once had a specific meaning begins to include a wider semantic range in its possible meanings. For instance, “holiday” was originally “halig dæg,” which translates as “holy day,” meaning a feast or celebration of the church. Some wags joke that English as a language makes no sense because, among other things, we can ship a car but not car a ship, but “ship” is a broadening of the original definition, to send by ship, to mean to transport in any way.

Narrowing can make a word more specific rather than less so. In Anglo-Saxon England you could kill a really nice deer and have some tasty pork for dinner: “Deor” meant any animal rather than the specific white-tailed beast with horns we think of today when we use the word. “Starve” simply meant “to die” in Chaucer’s time; to die due to lack of food is a narrowing that has occurred since the fourteenth century.

One form of narrowing is called linguistic degradation. If I were to say that my wife was spending an evening with her gossips, you might think I was a pretty obnoxious husband, and if she found out I said such a thing, she would probably be angry. But for the Puritans who used to live in my town outside of Boston, saying that you had spent time with your “gossips” just meant that you had visited some close friends or relatives: Your “gossips” were your “god-sibs” (good-kinsmen). If I called my wife a “hussy” you would, I hope, be

even more scandalized. But in the sixteenth century, a “hussy” was simply the woman in charge of the household. The word even had connotations of being a good economic manager, being thrifty and clever.

Processes of degradation are very frequently seen in words that reference women and members of minority groups. What was perfectly acceptable a generation ago, such as the term “colored,” which I can remember hearing elderly relatives using, has now become degraded enough that it is no longer within the range of socially acceptable discourse. The neologism “person-of-color” is already undergoing a process of degradation, as did the phrase “politically correct,” which was originally a positive description.

Another semantic field that seems to undergo continual degradation are references to the sense of smell. In Anglo-Saxon, a “stench” (*stenc*) was just a smell and could be good or bad. “Stench” became a very negative term, and was replaced by “smell,” which in turn is mostly negative (though it can take a modifier to be positive and might even at times be neutral). “Smell” was replaced with the Latinate “odor” for polite conversation, but that word also underwent degradation. “Aroma” and “perfume” are probably the most positively connoted smell words today, but even these are being degraded.

Borrowing

All of the processes discussed above demonstrate the ways that a language of a completely isolated population could nevertheless grow in range, sophistication, and specialization. But most populations are not isolated; languages continually rub up against each other as people travel, trade, and conquer. When there is language contact, languages change.

This change mostly occurs through the process of borrowing. People hear a word in some language for which they do not have a simple equivalent in their own. Some languages, such as English in the early Old English period, will re-analyze a foreign word in their own terms. Thus the word “historigraphus” (historian, history writer) becomes in Anglo-Saxon “tidwritere” (time-writer). But more often than not the new word is simply taken into the language. In lecture ten we will look at the many words borrowed by English in its early period, but this process continues today. “Pajamas” and “jodhpurs” were both borrowed from Hindi to describe clothing forms not previously known in English. German gave words for mining and specific minerals, such as “cobalt” and “quartz” and “feldspar.” “Moose,” “chipmunk,” and “woodchuck” come from Native American languages, as do many place names. Japanese has given, among other words, “anime,” which is particularly interesting because the word was originally based on a Latin root (“anima”), brought into English in the fourteenth century as “animated,” meaning “alive,” then reapplied in the sixteenth century to mean “giving the appearance of being alive,” then applied to moving cartoons around 1910, then borrowed in Japan in the post-World War II era and converted to “animé” following the rules of Japanese phonology, and then recently re-borrowed back to English as “anime.”

As this particular example shows, languages weave a tangled web of borrowings and re-borrowings, and the resulting body of words has scattered through it the history of language contact, technology, conquest, trade, and art. Most scholars think English is particularly eager both to borrow words

and to coin new ones. So profligate is the language in its continued expansion that dictionaries cannot keep up: New words are added to spoken English more rapidly than they can be recorded. And although words do die out for various reasons, including technological change and the evolution of social customs, English at least, continued to increase the stock of new words, giving us new ideas and new ways to express them.

FOR GREATER UNDERSTANDING

Questions

1. How can new words be created from existing words in a language?
2. What is the process called in which words enter one language from another?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

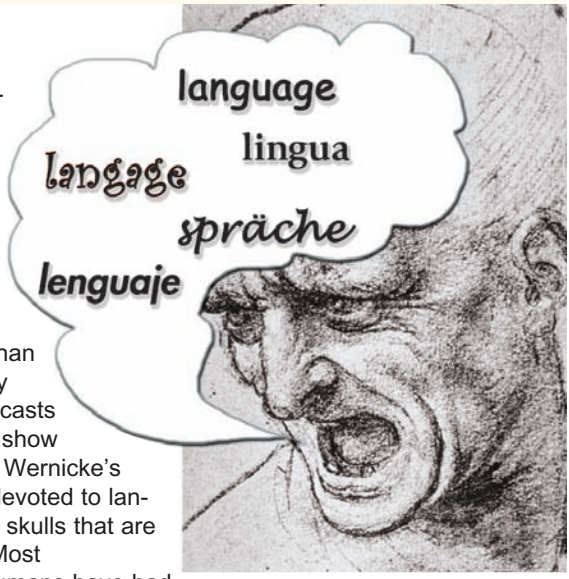
Crystal, David. *Words, Words, Words.* Oxford: Oxford University Press, 2006.

Pinker, Steven. *The Language Instinct: How the Mind Creates Language.* New York: HarperCollins Publishers, 2000.

———. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Lecture 8:
The History of the English Language

The Suggested Reading for this lecture is Robert McCrum, Robert MacNeil, and William Cran's (eds.) *The Story of English.*



Two lines of evidence converge to suggest that the origins of human language lie in the very, very deep past. First, all humans, no matter how isolated they are or how primitive their society is, have language, and the languages of primitive societies are not structurally any less developed or complex than those of more technologically advanced cultures. Second, casts of the insides of fossil skulls show the presence of Broca's and Wernicke's areas (key brain structures devoted to language) in very early hominid skulls that are up to two million years old. Most researchers conclude that humans have had language as long as there have been humans, and some even hypothesize that the development of language was the major evolutionary leap that separated humans from their closest ape relatives.

But the sounds of language disappear as soon as they are uttered, so there are no records of all those millennia of talking until we reach the relatively recent past, in which writing was developed. And because writing was only developed once (possibly twice) and then spread throughout human culture, many cultures only had memory and oral tradition with which to preserve their languages. Even though oral tradition can preserve some information about old languages, it cannot preserve very much when the language changes sufficiently. Thus most of the information we would like to have about human language and history is lost due to want of writing.

For a long time the histories of languages seemed to have been lost forever. But several remarkable developments in the late eighteenth and nineteenth centuries allowed researchers to reconstruct long-lost languages and to begin piecing together a history of human migration and conquest that had never been written down. It began with Sir William Jones in 1786. Jones (who had worked with Benjamin Franklin at one point to try to negotiate the differences between the colonies and England) was a judge in India and

became fascinated by the cultures he encountered there. Jones studied the ancient Indian language of Sanskrit and recognized that it must be in some way related to both Latin and Greek and also to Persian, Gothic, and the Celtic languages. His "The Third Anniversary Discourse, on the Hindus" is often seen as the beginning of comparative historical linguistics:

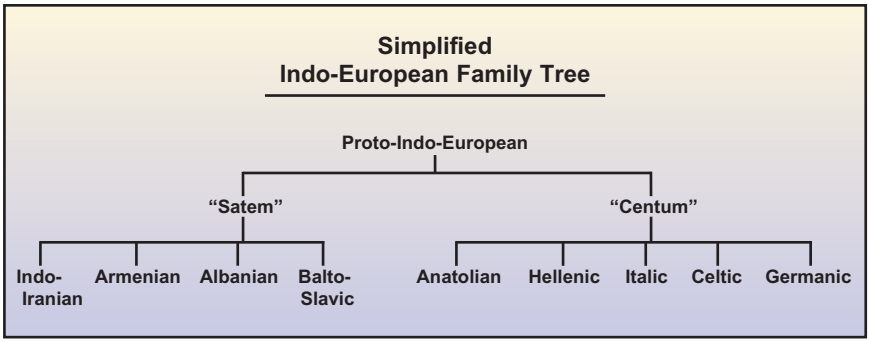
> The Sanscrit language, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, both in the roots of verbs and the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists.

Jones's work implied that all of the various languages he had mentioned had once been connected, and he inspired subsequent researchers to attempt to deduce the relationships of the languages and the form of the language that must have been their common ancestor. Scholars called this proto-language *Indo-European* to indicate that the language family included most of the languages of Europe (Hungarian, Finnish, and Estonian are exceptions) and those of India. The German scholar Franz Bopp was the first to work out some of the relationships between languages, demonstrating not just that Latin, Greek, and Sanskrit were related, but showing *how* they were related: Bopp focused on *comparative grammar*, analyzing the way the different languages accomplished similar grammatical tasks.

Rasmus Rask, a Danish philologist, recognized that there were regular *sound shifts* between languages, but it was left to a German scholar, Jakob Grimm (who with his brother Wilhelm is now remembered for his Fairy-Tale collection), to deduce that there were regular rules of sound change. *Grimm's Law*, which we discussed in lecture five, explains the systematic ways that sounds changed between languages. For example, the evolution of Indo-European into various other language groups was characterized by certain specific sound changes: Words that begin in "p" in Italic languages such as Latin begin with "f" in Germanic languages. Grimm's Law, and its subsequent elaborations by other scholars—most importantly the Danish linguist Karl Verner, who deduced *Verner's Law*—gave scholars the tools to reconstruct the family tree of the Indo-European languages. The basic strategy was to figure out the ancestral sound-changes (such as that from "p" to "f" in Germanic languages) and then run them in reverse: If you had a word beginning in "f" in English, it was likely to have begun with a "p" in Proto-Indo-European. Through years and years of painstaking work, scholars were able to figure out how most European languages related to each other and what their ancestors must have been.

The Indo-Europeans

They also were able to reconstruct some of the history of the otherwise dark prehistoric period in Europe. The original Indo-Europeans had no words for things like monkeys, lions, bamboo, rice, parrots, palm trees, or camels. They did have words for snow, ice, and bitter cold, suggesting that they came originally from somewhere toward the north of Europe. The patterns of

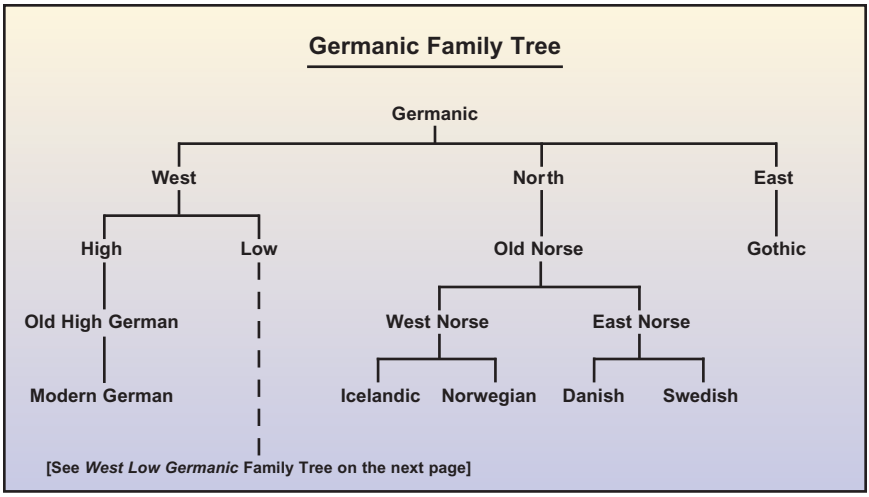


languages—and recently discovered genetic characteristics of peoples—suggests that the Indo-Europeans lived originally in the north east of Europe, possibly in the foothills of the Ural mountains, around 3500 to 2500 BCE. From their language, scholars have deduced that they lived in or near forests of beech, oak, pine, and birch trees, encountered bears, wolves, and deer, raised pigs, goats, and sheep, and searched the forest for honey from bees. They mostly used stone tools (the word "kamy," which means "stone" in Indo-European, evolved into Modern English "hammer"), but they cultivated land and raised cattle in addition to hunting. They had kings, and they believed in the existence of their own souls and of various supernatural beings or gods. Over the next millennia, these Indo-Europeans spread throughout Europe, settling in different areas. Over time, their languages changed and diversified into those we have today.

Scholars infer that the Indo-European migration throughout Europe occurred as a process of branching and splitting. The Indo-European family could be broken into two large groups, the "Satem" languages and the "Centum" languages. This terminology is based on the words for "one hundred" in the various languages and indicates a very early consonant shift. These two large groups probably indicate an original divide of the Indo-Europeans in two large groups. The Satem group includes the Indo-Iranian, Armenian, Albanian, and Balto-Slavic families. The Centum group includes the Tocharian, Anatolian, Hellenic (Greek), Italic (Latin), Celtic, and Germanic languages families. The exact relationships between the language families is somewhat disputed, but because we are examining English in this course, we can quickly move to the Germanic branch of the Centum family, the branch and family to which English belongs.

Germanic

The Germanic family tree itself is divided into three branches, based on the location in Europe in which the speakers of those languages had settled and lived for long periods of time (so that their languages had time to split from their common Germanic ancestor into separate languages). Thus we have the East Germanic, North Germanic, and West Germanic branches. Only one language survives from the East Germanic family, and that only in a very few texts. *Gothic* was the language spoken by the Goths, and it is preserved in a few translations made by the missionary Ulfilas in the fourth century (we have a few place names and proper names from Burgundian and Vandalic, but not enough material to reconstruct the languages).

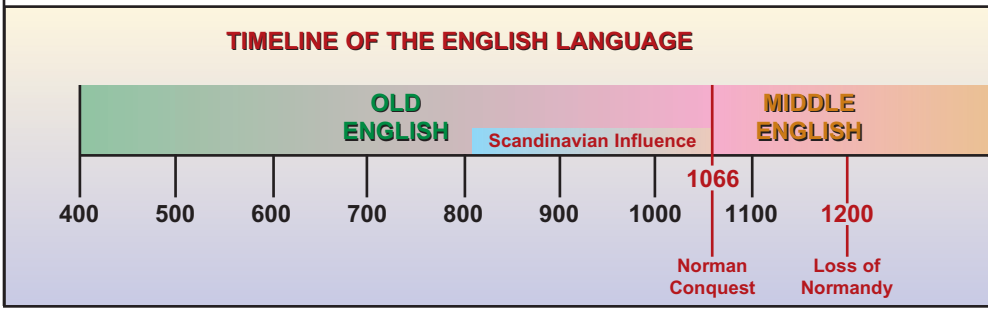


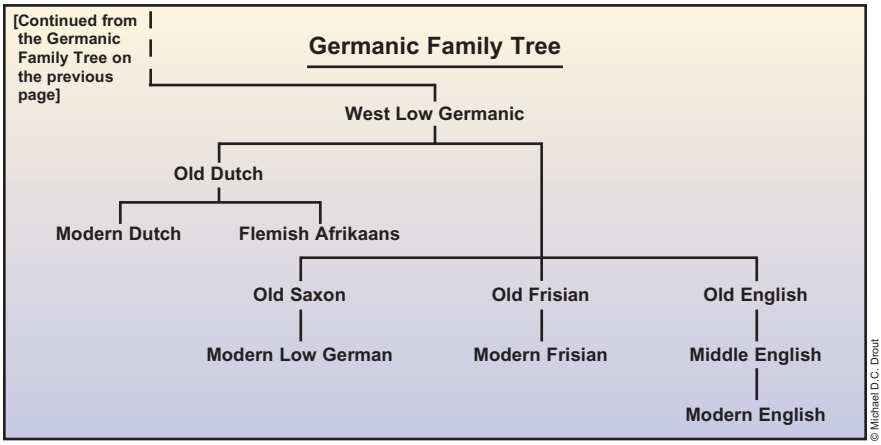
Other Germanic speakers settled in the very north of Europe, in Denmark and Scandinavia. Their language was *Old Norse*, but this language also began to change and diversify, splitting into East Norse and West Norse. East Norse eventually evolved into Swedish and Danish, and West Norse became Norwegian and Icelandic. Old Icelandic is particularly important because so many of our most important medieval texts are preserved in this language. Old Norse is also significant because it would later influence the development of English.

But English itself belongs to the West Germanic group, which is divided into two branches, High and Low. High German was spoken in the mountains and uplands of Germany and, after Martin Luther translated the Bible into this language, became the standard literary language of Germany. The Low German languages include Old Saxon (which has evolved into modern Low German or Plattdeutsch), Old Low Franconian (which became Dutch and Flemish), Old Frisian (which became Frisian, still spoken in a few places in the Netherlands), and Old English.

Old English

Old English evolved on the continent, probably in what is today northern Germany or southern Denmark. In the early fifth century, after the Roman legions were withdrawn from Britain, three tribes of continental Germans



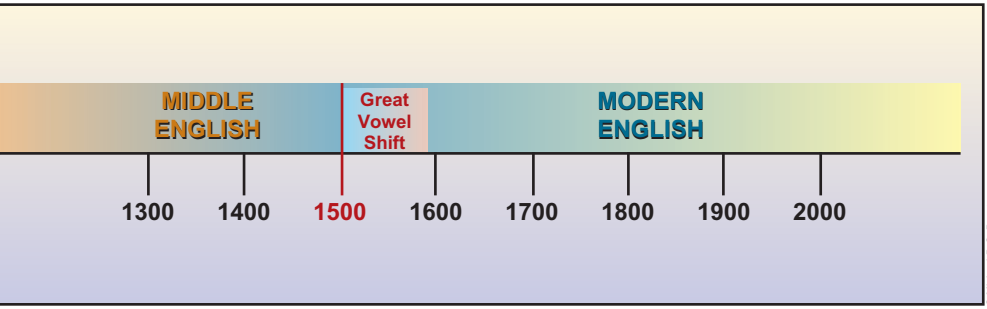


migrated to England. They were called the Angles, the Saxons, and the Jutes. The Angles settled the north of England, the Saxons settled the south, and the Jutes settled in Kent, to the east. Each of the three tribes spoke Old English, but of a different dialect. For several centuries, Old English (also called Anglo-Saxon) was the language of England. It was influenced by Latin, particularly in the adoption of words having to do with the Church, and by Celtic (surprisingly little, however), but it was essentially a West Germanic language.

Then, beginning at the very end of the eighth century, England suffered through more than a century's worth of invasions by the Vikings, who came from Denmark and Scandinavia and who spoke a North Germanic language. At first the Vikings were content with ravaging and pillaging, but soon they began to colonize England, settling throughout the north and east of the country. Whole sections of England were under Viking rule even after King Alfred withstood the harshest Viking attacks—an area of the east and north of England was the Danelaw. During this time Old Norse strongly influenced Old English. Many, many words were borrowed, not only nouns and verbs, which were borrowed in great numbers, but also such fundamental building blocks as pronouns and such language basics as pronunciation.

The Norman Conquest and Middle English

But even the massive influence of Old Norse pales before the cataclysm of 1066, when William the Conqueror invaded England from Normandy and made Norman French the language of the aristocracy and the law courts for



more than a century. People continued to speak Old English, of course: William replaced the nobility but he did not colonize England from France or initiate wholesale massacres of the Anglo-Saxon inhabitants. French was the language of the court, and people learned French to communicate with their rulers. But it seems that even among the nobility, forms of Old English were still spoken well into the twelfth century. Still, we should not minimize the enormous influence of French on Old English. Not only were hundreds and hundreds of words borrowed, but the entire grammatical structure of the language changed (although French grammar was not adopted). Around 1200, England lost control of Normandy and the French and English nobility began to be separated. English came back into regular use among the upper classes, but this English was a very different language than the Old English that had been the language of England over a century before. Its grammar had changed: Inflections at the ends of words were much less important, and the order of words in the sentence now conveyed most of the grammatical meaning. We call this new language *Middle English.*

For several centuries, Middle English persisted as the language of England. It had strong regional flavors, with very different dialects spread throughout England, and, like all languages, slowly changed and developed. Middle English was the language of Chaucer, Langland, and the poet who wrote *Sir Gawain and the Green Knight*. It was still strongly influenced by French, particularly in its literary forms, and it had also begun to borrow more words from continental Europe.

The Great Vowel Shift and Modern English

No external event comparable to the Norman Conquest seems to have affected Middle English, but it changed radically nonetheless. Around 1500, *The Great Vowel Shift* occurred: Over the course of little more than a generation (lightning speed in linguistic time for a change of such magnitude) the pronunciation of nearly all English vowels shifted from their Middle English forms to the pronunciations that we now use. This was the beginning of *Modern English*, which is essentially the English of today: There has been incremental change since then, of course, but there have been no more major upheavals in the development of English.

The invention of printing, the creation of dictionaries, and the spread of education, combined with the English language's tendency to borrow freely, led both to the standardization of English grammar and the vast expansion of the language's vocabulary. Additional historical events—colonization, England's dominance of the high seas and of commerce, the rise of the United States, the wars of the twentieth century, and the developments of mass communications have all combined to spread English throughout the world, making it the first global language.

Thus the story of English is that of the language of a primitive society, only slightly advanced beyond the hunter-gatherer stage, that eventually spread throughout Europe, differentiating, adopting, blending, and being reshaped by history until it finally became the language that we know today and the tongue most widely spoken on the face of the earth.

FOR GREATER UNDERSTANDING

Questions

1. What are the two major branches of Indo-European?
2. What are English's closest relatives on the West branch of the Germanic language family?

Suggested Reading

McCrum, Robert, Robert MacNeil, and William Cran, eds. *The Story of English.* New York: Penguin, 2002.

Other Books of Interest

Baugh, Albert C., and Thomas Cable. *A History of the English Language.* 5th ed. New York: Routledge, 2002.

Bryson, Bill. *The Mother Tongue.* New York: HarperCollins Publishers, 1991.

Crystal, David, ed. *The Cambridge Encyclopedia of the English Language.* Cambridge: Cambridge University Press, 2003.

Lecture 9
From Germanic to Old English

The Suggested Reading for this lecture is Albert C. Baugh and Thomas Cable's (eds.) *A History of the English Language,* chapters 1–2.

In the previous lecture we were able to place English in its context in the Indo-European family tree of languages: English is one of the Low Germanic languages of the West Germanic branch of the great Germanic language family. It is thus most closely related to the living languages of Frisian and Low German (Plattsdeutsch) and then Dutch, Flemish, and Afrikaans. Its nearest relatives on the High German branch of the West Germanic family are Modern German and Yiddish. More distant relations are the Scandinavian languages: Danish, Swedish, Norwegian, Faroese, and Icelandic.

The more recent ancestors of these modern Germanic languages are relatively well known. Old English, Old Norse, Old Frisian, Old Saxon, and Old High German all are recorded in written texts dating from the Middle Ages, so we have a fairly good idea of how people were speaking in the various Germanic branches somewhat less than fifteen hundred years ago. The earliest Old English dates from approximately 700. Before that time, we must rely on Latin chronicles and the techniques of the comparative method, *vergleichende Philologie,* because writing had not reached the Germans in the long period between the time that Germanic split from the main Indo-European tree and their contact with the Latin-speaking world. Thus only the reconstructions of comparative philology can give us any idea of the language of the Germanic peoples up until about the fourth century. Even then, the West and North branches of the Germanic family have no significant texts for several more hundred years.

Gothic

We are very fortunate, however, in having a small corpus of earlier texts in a Germanic language, although it is not in our own West Germanic branch. The Goths were a people who lived in the eastern part of Germanic Europe. In the fourth century a Christian missionary, Ulfilas (who was half Goth himself), translated the Gospels and a few other parts of the New Testament into Gothic. The vast majority of all remaining Gothic is preserved in the Codex Argenteus (the "Silver Bible") held in Uppsala, Sweden, and the Codex Ambrosianus in Milan. There are also a few scattered runic inscriptions and names and words in various manuscripts. A fragment of the Gothic translation of the Gospel of Luke was found in Egypt in 1907, but this was destroyed in 1945. We also possess some names (personal names and place names) from Burgundian and Vandalic, languages closely related to Gothic and part of the East Germanic family, but we do not have enough material to even attempt reconstruction of these lost languages.

Gothic was thought to have died out in the very early Middle Ages, but in the sixteenth century Ogier Ghiselin de Busbecq, the ambassador from the Habsburg Empire to Ottoman Empire in Istanbul was curious about the language of two speakers from the Crimea and took down some of their words. These turned out to be in a form of Gothic, indicating that an evolved version of the language was still being spoken in the Crimea a thousand years after it had been assumed to have become extinct.

A glance at the Germanic language family tree will show that Gothic is not a direct ancestor of English, as it is a member of the East Germanic branch of the family. However, because our written Gothic is several centuries earlier than the written records of other branches of the Germanic (and because it is really all that we have), scholars assume that Gothic is closer to the common Germanic ancestor language than any of the other ancient and modern languages. Here is *The Lord's Prayer* in Gothic to give you an idea of the language. Note that Gothic used its own alphabet, but for the purposes of this course I have used Roman characters with the exception of the Anglo-Saxon letters þ (thorn) and ð (eth). Both of these letters are used to transcribe the "th" sounds (both the voiced "th" in "feather" and the voiceless "th" in "theater"); they are based on Germanic runes and were used regularly in Anglo-Saxon manuscripts.

The Lord's Prayer (Gothic)

Atta unsar, þu in himinam,
weihnai namo þein,
Qimai þiudinassus þeins,
Wairþai wilja þeins,
swe in himina jah ana airþai.
Hlaif unsarana þana sinteinan gif uns himma daga,
Jah aflet uns þatei skulans sijáima,
swaswe jah weis afletam þaim skulam unsaraim,
Jah ni briggais uns in fraistubnjai,
ak lausei uns af þamma ubilin;
[unte þeina ist þiudangardi
jah mahts jah wulþus in aiwins.]
Amen.

~From Bright's *Grammar of the Gothic Language*

You will probably find that most of the above appears very foreign, and it is doubtful that most Modern English speakers would, upon seeing the passage, believe that they could make out more than a word or two of the Gothic. But let us examine the first two lines more closely. "Atta" is "father" and the source of the name "Attila" ("Little Father") who, although a Hun, was given this name by Goths who served in his army. "Unsar" is "our," "þu" is "thou," and "in himinam" is "in heaven." "Namo þein" is "thine name." "Weihnai" is indeed unfamiliar, but putting the two lines together we note a relatively robust correspondence with Modern English:

Atta unsar, þu in himinam,

[Father] our, thou in heaven

weihnai namo þein,

[holy] name thine

(I have deliberately left out the grammar of the above sentences to make the connections in vocabulary more obvious).

In fact, Germanic languages, ancient and modern, are often much less difficult than they appear and, when sounded out or even looked at closely, contain many parallels to Modern English that can allow us to decipher bits of them even without formal training.

Grammar

Not only does Gothic contain many words that are cognate with Old English words, but much of its grammar is the same as that of Old English. Both are *synthetic* languages that use *inflections* to indicate logical relationships (rather than word order, the way *analytic* languages like Modern English do). Like Old English, Gothic had *nominative*, *accusative*, *genitive,* and *dative* cases for nouns (nominative is for subject, accusative for object, genitive for possession, and dative for indirect objects and objects of prepositions) and pronouns. Gothic verbs are conjugated for first, second, and third persons, but as well as a singular and a plural, Gothic has a *dual* form, used for exactly two people, usually linked in some way (husband and wife, lovers, two men fighting). Old English retains the dual form in pronouns, but not for every verb. Gothic verbs also have indicative, imperative and subjunctive moods, as do Old English verbs (Modern English has mostly lost the subjunctive form and replaced it with modal auxiliaries like “could” and “would”). Gothic also had *strong verbs*, in which a vowel in the verb stem is changed to indicate changes in tense or number. Old English also has many strong verbs (which we will discuss more in a moment), and Modern English retains some of these, including “ring, rang, rung,” “buy, bought,” “give, gave.” Gothic also had weak verbs, which indicate changes in tense or number with a suffix. Old English also had weak verbs, and the great majority of verbs in Modern English are weak: “walk, walked,” “type, typed,” “fish, fished” all add “-ed” to mark the past tense. Like Modern German, Gothic has a tendency to have the verb at the end of the sentence, a tendency that is shared with Old English, but less visible in that language. Thus Gothic is an SOV (subject, object, verb) language, while Modern English has completed a shift to SVO.

Gothic also exhibits one of the most striking features of the Germanic languages, one that sets them apart from many others on the Indo-European tree: It has two separate adjective declensions. Remember that nouns and adjectives can be *declined* by adding a suffix or ending to indicate relationships such as subject, direct object, indirect object (the *declension* is the entire set of these endings). In Gothic and in Old English there are *strong adjectives* and *weak adjectives*. A strong adjective stands on its own, without a *determiner* (such as “the,” “a,” “this,” or “that”) in front of it. Because there is no determiner, the adjective itself has to signal its grammatical case,

and it does so by the means of a suffix, or inflection. Gothic also has *weak adjectives*, which do have "the" or "a" or "this" or "that" in front of them. In these cases, the ending on the adjective was considered superfluous, since all the information about number, gender, and case was coming from the determiner. But because the grammatical case of the adjective always agrees with that of the noun that the adjective is modifying, the inflection of the adjective (and the determiner, for that matter) was redundant information from the point of view of a person listening to a language: The grammatical function of the modified noun is still obvious, so eventually the "strong" declension of the adjective withers away in Modern English.

In general, Gothic was more irregular, with more exceptions, more synthetic (using more inflections), and more liable to use sound changes within a word rather than suffixes to indicate important information.

Vocabulary

Some Gothic words have come down to Modern English relatively unchanged (the Gothic nominative case ending was "s," so to find the closest comparison to a Modern English word, simply mentally delete the "s" from the Gothic words): Dags (day), hlaifs (loaf), akrs (field, acre), hunds (dog, hound), fisks (fish), stains (stone), láifs (leaf), gras (grass), daúr (door), skip (ship), tagl (hair, but survives as "tail"), managei (many), broþar (brother), frijonds (friend), beidan (to wait, to bide), hilpan (to help), and letan (to let). Gothic words have undergone several consonant and vowel shifts in coming into English. It is important to reemphasize that Gothic is not the direct ancestor of Old English. Rather, both languages have a common ancestor in Germanic; they are cousins rather than mother and daughter. Thus we do not usually apply a sound-shift to a Gothic word to come up immediately with the English word; instead we must work back from Gothic to Proto-Germanic and then down the West Germanic branch to English. Nevertheless, knowledge of Gothic is vitally important for language history because although the Goths did not migrate through Europe to Western Germany and then eventually invade England, people related to them did.

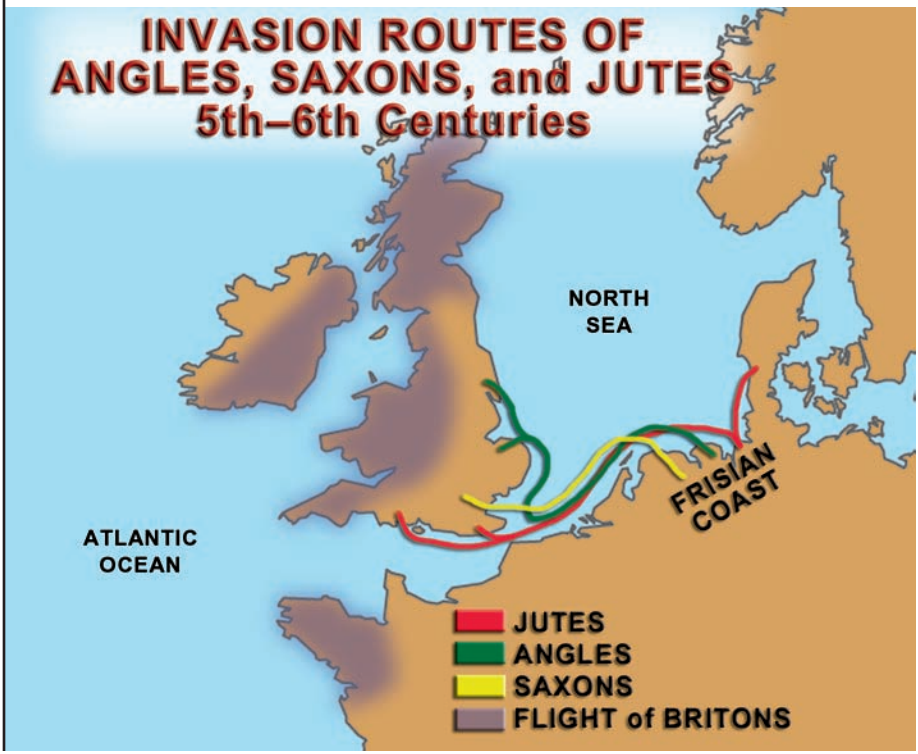
English History and Old English

The British Isles were originally settled by Celts, people who spoke languages that were part of the great Celtic branch of the Indo-European family tree. Celtic languages were once dominant in Europe, and the earliest peoples who crossed the English channel spoke related languages. Within the boundaries of what is now the main part of England, the ancestors of the Celtic languages (Welsh, Cornish, and Breton) were spoken. The ancestors of Irish and Scottish Gaelic and Manx were spoken in more peripheral areas. But in 55 BCE, Julius Caesar invaded Britain and made it part of the Roman Empire. Latin became the language of the military and the aristocracy in Roman Britain, where it dominated for approximately four hundred years. For a long time historians argued that Latin was spoken throughout Britain and that, had the Anglo-Saxon invasions not occurred, the English would still be speaking a Latinate tongue. More recently, other scholars have argued that while Latin may have been spoken in the towns, Celtic languages persisted in the countryside. The question has not yet been resolved.

Major problems in Rome, however, brought about the withdrawal of the Roman legions in the late fourth century. The remaining Romano-British were sorely oppressed by the Celtic-speaking peoples whom they had for so long dominated. The story goes (given to us by the greatest of all early medieval historians, the Venerable Bede) that the Romano-British sent across the sea to tribes living in the part of Europe that is now north-western Germany and southern Denmark. These tribes were "invited" to come to England and protect the Romano-British from the Celts.

Whether it was an invitation or an invasion, around 449 Germanic tribes began migrating to England and rapidly took over the island. According to Bede, and to tradition, there were three tribes, the Angles, the Saxons, and the Jutes. The Jutes settled in Kent (the east of England) and on the Isle of Wight. The Angles settled the northeast of England, and the Saxons in the center and west. There are definitely dialect variations in Old English that basically correspond to those boundaries, so it is likely there is some truth to this story, at least to the point of different tribes with different language variants settling in specific areas.

The Angles, Saxons, and Jutes spoke a form of Old English, and this language rapidly replaced whatever language the Romano-British had spoken, Latin or Celtic. Although England was divided into many petty kingdoms, the people seem to have been able to communicate with each other without difficulty. However, we know very, very little of either the history or the culture of



England in the period between the migrations from Europe and the end of the sixth century.

But that changed in 597, when Pope Gregory the Great sent the missionary Augustine of Canterbury to England. Augustine was able to convert King Ethelberht of Kent and soon set up a Roman Catholic see in Canterbury (Kent – wara – byrig: the town of the dwellers in Kent).

England underwent a remarkably bloodless conversion over the next seventy years: There are no records of priests being martyred or pagans being killed, possibly because Pope Gregory had thought to tell Augustine not to destroy the pagan temples, but to enter into them and replace the idols with the Christian cross, therefore allowing people to maintain many of their traditional customs in their traditional places. There is some dispute as to whether England and Ireland would follow Roman church customs or Irish church customs (which were more similar to those of the church in Greece), but by the last third of the seventh century, all of England is Christian and unified under Roman practice.

With Christianity came both Latin and writing, and it is from the Christian era in Anglo-Saxon England that our first written records of language come. Here is *The Lord's Prayer* in Old English, from the West Saxon Gospels.

The Lord's Prayer (Old English)

Fæder ure þu þe eart on heofonum;
Si þin nama gehalgod
to becume þin rice
gewurþe ðin willa
on eorðan swa swa on heofonum.
Urne gedæghwamlican hlaf syle us todæg
and forgyf us ure gyltas
swa swa we forgyfað urum gyltendum
and ne gelæd þu us on costnunge
ac alys us of yfele soþlice.

~Corpus Christi College MS 14;
from Roy Liuzza's edition of
the West Saxon Gospels

As we did with the Gothic *Lord's Prayer*, let us examine the first few lines in detail.

Fæder ure þu þe eart on heofonum

father our thou [who] are in the heavens

Si þin nama gehalgod

[may] thine name holy-ed

"Fæder" is recognizable as "father," and "ure" is close enough to "our" for us to be able to guess that the two are related. "Þu" means "thou," "þe" is a relative particle which can be translated as "who." "Eart" is "art" and "on heofonum" means "in the heavens."

"Si" is a form of the verb "to be" but in the subjunctive mood; this form has been lost from Modern English. "Þin" is "thine" and "nama" is "name." For "gehalgod," if we delete the "ge" prefix, giving us "halgod," and then note that "g" in Old English can be either palatal (the way Modern English pronounces g) or velar (like the "y" sound in "yes"), we can possibly see "holy-ed." You should be able to note other correspondences throughout the prayer.

If we compare the first two lines in Gothic, Old English, and Modern English, you will be able to see some of the evolution of the language:

Atta unsar, þu in himinam, ... Gothic

Father our, you <(who are) in [the] heavens . . . . . Modern English

Fæder ure þu þe eart on heofonum; . . . . . Old English

weihnai namo þein, ... Gothic

be blessed name yours
may your name be blessed . . . . . Modern English

Si þin nama gehalgod . . . . . Old English

Old English, because it is West Germanic, is much closer to Modern English than is Gothic. Not only has an additional set of sound shifts come into play (for example, the vowel shift that changed the "i" in "himinam" to the "eo" in "heofonum," which is actually a two-part shift), making the words more like Modern English than those of Proto-Germanic or Gothic, but also the grammar of the language is slowly evolving toward that of Modern English.

Old English, like Gothic, still has strong verbs in which the vowel of the verb stem is changed to indicate changes in number or tense: Modern English "to bite, bit" comes from Old English "bitan," "bat." Old English also had weak verbs, in which an ending is added to indicate the past tense. Many irregular verbs were also irregular in Gothic, but overall Old English is somewhat more regular, with fewer exceptions to its rules. Old English also had the double (strong and weak) declension of adjectives, so characteristic of the Germanic languages but which would be lost in Modern English.

Like Modern English and Modern German, Old English very readily produced new compounds: The Germanic compounding tendency made such words out of the existing lexicon in all periods of Old English, as will be discussed in lecture 11. Old English, again like its Modern descendant, was also particularly open to borrowing and modifying new words; there seems to have been no hesitation to adopt Latin words either from Celtic or directly from the Church. Later we will see the enormous range of English borrowing.

Old English thus begins its tenure in the British Isles as an essentially Germanic language with a native vocabulary, much of which is held in common with Gothic due to a common ancestor. At its earliest stages it had been little influenced by other languages of which we are aware (though it had managed to pick up a few Latin words even before arriving in England; we know this because those particular words have undergone sound-shifts that did not affect words borrowed later). But Old English was poised to go

through several very significant contact periods in which foreign language influences would radically change the language. We will discuss this contact in the next chapter, but at this stage I think it is important to read and hear Old English and gain some subconscious understanding of its sound system and possibly its grammar. I have therefore concluded the chapter with some examples of Old English followed by Modern English translations. Try to read through (or listen to) the Old English without looking at the Modern English translation; you may surprise yourself as to how much you understand.

> þæs ymb .iiii. niht Æþelred Cyning ⁊ ælfred his brōþur þǣr micle fierd tō Readingum gelǣddon ⁊ wiþ þone here gefuhton. ⁊ þǣr wæs micel wæl geslægen on gehwæþre hond, ⁊ Æþelwulf Aldormon wearþ ofslægen, ⁊ þā Deniscan āhton wælstōwe gewald. ⁊ þæs ymb .iiii. niht gefeaht Æþelred Cyning ⁊ Ælfred his brōþur wiþ alne þone here on Æscesdūne, ⁊ hīe wǣrun on twǣm gefylcum: on ōþrum wæs Bachsecg ⁊ Halfdene þā hǣþnan cyningas, ⁊ on ōþrum wǣron þā eorlas. ⁊ þā gefeaht sē cyning æþelred wiþ þāra cyninga getruman, ⁊ þǣr wearþ sē cyning Bagsecg ofslægen.

From the *Anglo-Saxon Chronicle* entry for 871:

> Then four nights afterward King Athelred and Alfred his brother led a great army there into Reading and fought against the army [of the Danes]. And there was great slaughter on either hand, and Athelwulf the Ealdorman was slain, and the Danes had control over the place of slaughter. And after four nights King Athelred and Alfred his brother fought against the entire army at Ashdown, and they were in two groups: in the one was Bagsecg and Halfdane, the heathen kings, and in the other were the [Danish] earls. And then King Athelred fought against the troop of the kings, and there was King Bagsecg slain.

> þā hīe þā fela wucena sǣton on twā healfe þǣre, ⁊ sē cyng wæs west on Defnum wiþ þone sciphere, þā wǣron hīe mid metelīeste gewǣgde, ⁊ hæfdon miclne dǣl þāra horsa freten. ⁊ þā ōþre wǣron hungre ācwolen. þā ēodon hīe ūt tō þǣm monnum þe on ēasthealfe þǣre wīcodon, ⁊ him wiþ gefuhton, ⁊ þā Crīstnan hæfdon sige.

From the *Anglo-Saxon Chronicle* entry for 893:

> When they had sat on both sides of that [of the river] for many weeks, and the king was in the west in Devon [fighting] against the pirate-army, they suffered lack of food and had eaten the greater portion of their horses, and the others were perishing with hunger. Then they went out to the men who were camped on the east side, and fought against them, and the Christians had the victory.

FOR GREATER UNDERSTANDING

Questions

1. Why is Gothic's position in the East branch of the Germanic language family significant?
2. How did the Old English language arrive in England?

Suggested Reading

Baugh, Albert C., and Thomas Cable. *A History of the English Language.* 5th ed. New York: Routledge, 2002.

Other Books of Interest

Crystal, David, ed. *The Cambridge Encyclopedia of the English Language.* Cambridge: Cambridge University Press, 2003.

Jesperson, Otto. Chapters 1–2. *Growth and Structure of the English Language.* New York: Free Press, 1968.

Lecture 10:
Borrowing and Influence:
Romans, Celts, Danes (Latin, Celtic, Scandinavian)

The Suggested Reading for this lecture is Albert C. Baugh and Thomas Cable's (eds.) *A History of the English Language,* chapter 3.

All languages borrow words from other languages, but English has been especially prolific in its adoption of new words from outside sources. Even at the very beginning, when the Anglo-Saxons were an obscure group of continental "barbarians" at the fringes of the Roman Empire, a few Latin words managed to work their way into Old English. We recognize these particular words because they underwent the same sound-shifts as did native words. We surmise that the Anglo-Saxons took names from the Romans for things that they did not have in their own culture, in particular items of trade. Thus we find "win" ("wine," from Latin "vinus"; this word was borrowed again later, which is why "wine," which is consonant-shifted, comes from a "vineyard," which is not), "ceap" ("bargain," the origin of our Modern English "cheap"; Old English "c" before front vowels is pronounced "ch"), "linen," "cires" (cherry), "popig" (poppy; Old English "g" before and after front vowels is pronounced "y"), "cytel" (kettle), "pyle" (which becomes pillow), "gimm" (gem), "butere" (butter), "cealc" (chalk), and "copper."

The Anglo-Saxons also borrowed words for war, including "camp" (battle, later evolving to place of battle and then our modern meaning), "weall" (wall, fortification), "pytt" (pit), "stræt" (street), and "segn" (banner, later sign). A few of the remaining words that are most interesting are "draca" (dragon; the native Old English word was "wyrm"), "cirice" (church), "bisceop" (bishop), and even "Sæternesdæg" (Saturn's day, i.e., Saturday). From these words we can even reconstruct some of the culture of the Anglo-Saxon tribes on the continent: They traded with the Romans, fought with the Romans, and were influenced by some Roman customs and institutions.

Celtic

When the Anglo-Saxons finally arrived in England through invasion or invitation, they met a Romano-British population that, although it had been influenced by Latin for four centuries, still had deep Celtic roots. Yet Celtic languages had surprisingly little influence on Old English. Scholars used to think that Celtic languages might be so fundamentally different in phonology that words could not easily be adopted from them, but that conclusion is now mostly taken as being too speculative. Recent work by archaeologists and DNA-researchers suggests another, less wholesome possibility: Although the Anglo-Saxons did not practice widespread extermination of the native population, it is possible that they did create a social structure in which Anglo-Saxons did most of the marrying and producing of children, and native Celtic males were kept on the outskirts of society, many as slaves. Another possibility is that the

Romano-British inhabitants had been radically depleted by plague or economic decline: This interpretation does fit with some of the historical materials that we know. Possibly each explanation tells part of the truth.

Celtic languages were most influential on Old English in the realm of place names, hundreds of which are Celtic. The "Wor" in "Worcester," "Win" in "Winchester," "Ex" in "Exeter," and "Glou" in "Gloucester" are all Celtic. Rivers in England have a very high proportion of Celtic names, as do hills: "Bryn Mawr," which means "great hill" is Welsh, as is "Barr" (which also means "hill"). "Comb" at the end of various place names means "deep valley." It seems that Celts named the permanent features of the landscape and that these names were adopted by the Anglo-Saxons who later migrated to England. This little bit of linguistic history also shows that there was at least enough contact for the Anglo-Saxons to learn the names: They did not arrive in a completely empty landscape.

A few Celtic words from agriculture and landscape in general (rather than specific places) also entered into Old English. "Binn" is the source for "bin" (originally basket), "crag" is "rock" (and thus the name "Craig," whose consonants show that it is borrowed later from Welsh), "ass" (meaning donkey, which is originally from Latin but which passed through Celtic before reaching Old English), and "dun," "dark colored," are among these. One of the very few verbs to enter into Old English from Celtic is "cursian" (to curse).

Latin Again

The ancestors of the Anglo-Saxons had borrowed Latin words from the Romans while the tribes were still living on the continent, and a few more Latin terms had entered into the language via Celtic (the "-chester" in various place-names comes from Latin by way of Celtic, as do "port" and "mount" and place-names ending in "-wic"), but the greatest influence of Latin on Old English came from Christians rather than from Romans. After Pope Gregory the Great sent Augustine to Canterbury in 597, and particularly after the last heathen kingdom, Sussex, was converted in the middle of the seventh century, the Roman Catholic Church was an enormously important cultural presence in England. The English had been quick to convert to Christianity, and they almost immediately began to send missionaries to the continent to try to convert their heathen, Germanic cousins there (their success was mixed). Because Latin was the language of the Roman Church, this tongue began to have an enormous influence on Old English.

In the beginning of the Christian period, speakers of Old English translated key Latin terms into Old English, creating a variety of *neologisms* (newly invented words) and new compounds that are at times almost poetic. The words that were created this way are not precisely borrowings, and their being translated into Old English suggests that Latinity was not particularly widespread. There were enough Latin speakers to invent the words, but the Latin did not simply cross into English: That would happen later.

A good representation of the situation is the story of Cædmon, the first named poet in English. Cædmon was a herdsman. One evening, people were passing a harp around and taking turns singing. Cædmon left the feast and hid himself in the barn because he could not sing. He fell asleep, and in a

dream an angel came to him. “Cædmon, sing for me,” the angel said. “I cannot,” said Cædmon, explaining that this is why he had left the feast. “Nevertheless, you must sing,” said the angel, instructing Cædmon to sing about the creation. Cædmon then awoke with the power to be told a story that was translated from Latin and to produce it in Old English verse. His poem, “Cædmon’s Hymn,” is preserved in the manuscript of the Venerable Bede’s Ecclesiastical History of the English People, but there is some controversy as to whether we have the original Old English composition: Bede wrote down the poem in Latin, translating the original; at some point an Old English version was added to the manuscript. Here is the poem as we have it:

Nu sculon herian	heofon rices weard
meotodes meahte	ond his mod geþanc
weorc wuldorfæder	swa he wundra gehwæs
ece dryhten	or astealde
he ærest scop	ielda bearnum
heofon to hrofe	halig scyppend
þa middangeard	monncynnes weard
ece dryten	æfter teode
firum foldan	frea ælmihtig.

[Now we must praise the keeper of the heavenly kingdom the might of the lord and his mind-wisdom, the work of the wonder-father, as he, each of wonders, the eternal lord, first established. He first made for the race of men heaven as a roof, the holy shaper, then middle-earth, the guardian of mankind the eternal lord, afterwards established the earth for men, the almighty lord.]

Cædmon was supposedly able to translate any story into Old English poetry, once he had been told what the Latin source meant (he was himself illiterate). Similarly, Aldhelm, Bishop of Sherborne, supposedly stood on a bridge and recited Old English poetry to the people in order to gather them together and encourage them to come to church. A century and a half later, the Old English poems of Aldhelm were said to be King Alfred’s favorites, but none of them has survived to this day (as far as we know). Similarly, in the early years after the conversion we see Latin words translated into Old English. Some examples of this translation process include “Evangelist,” which became “godspellere” (teller of good stories) and “Trinity,” which becomes “þrynnes” (three-ness). A patriarch was an “ealdfæder” (old father) or “heahfæder” (high father). To baptize was translated as “dyppan” (to dip) or “fulwihan” (to consecrate completely). Later, Latin words were imported directly into English and many of these translations were replaced by the original Latin words.

During the eighth century, the church became even more significant in English culture, and here was obviously enough interaction between Latin speakers in the church and Old English speakers outside of it for a plethora of Latin terms to be borrowed by English. A large proportion of these were words for the church, its rites, clothing, buildings, and people: *abbot, angel,*

candle, chalice, cleric, hymn, mass, noon, nun, priest, rule, shrine, and *temple* all enter into English at this time and have never been replaced. Latin words for other articles of clothing and food also were borrowed by English, including such terms as *cap, sock, sack, beet, pear, radish, lobster,* and *mussel* (and the verb "to cook"). Words relating to education also suggest the vital influence of the church in this area: *school, grammatical, notary,* and the word *Latin* itself were borrowed at this time.

The Viking Invasions

By the end of the eighth century, England was the most prosperous country in Europe. The coincidence of the medieval warming period and the separation of the island from some of the continental wars allowed an unprecedented level of intellectual and artistic growth as well as economic development. But in 793, the Vikings, marauders from Scandinavia, sacked and burned the monastery of Lindisfarne, beginning a century of destruction and cultural collapse.

The Vikings were possessed of superior technology and military organization, and their warbands ravaged England (and much of the rest of Europe). At first the attacks were small-scale, leading to the destruction of individual monasteries, but in 850, large Danish fleets began to arrive in England, and the Vikings began to conquer as well as pillage. Eventually almost all of northern and eastern England was under their control, with York (Jarvik) and Dublin in Ireland being major Viking centers of control.

In the 870s it looked as if the Vikings would completely conquer England. Alfred, the king of Wessex, was reduced to skulking in the Somerset marshes with a small band of men. But Alfred was able to rally his kingdom and defeat the Vikings at the battle of Edington. This led to a treaty between the Viking king Guthrum and Alfred in which, among other things, Guthrum agreed to be baptized and Alfred recognized that the Danes would stay in England (though outside of his areas of control). The formation of the *Danelaw* in the east of England (so called because people living there were following Danish rather than English laws), did much to bring about the integration of Scandinavian language with Old English.

Although there were massacres on occasion, in general the English and the Danes

A Word on Names

Most of the Scandinavians who attacked and then settled in England were called "Danes" by the native populace, although they came from Denmark, Norway, and, perhaps, Sweden. Linguistic analysis suggests that some English words came from Danish while others came from Norwegian. In the discussion that follows I will often call the people "Danes" even though some of them came from Norway or other Scandinavian locations. Also, because even at this early stage "Old Norse" had begun to differentiate into its descendant languages (Danish, Norwegian, Swedish, and Icelandic), it is not entirely accurate to speak of borrowings as coming from "Old Norse." But this is a convenient label, since it is likely that most Scandinavian speakers in the ninth and tenth centuries would have been able to understand each other.

in the Danelaw thoroughly mixed with each other, both through intermarriage and in culture. The conversion of Guthrum to Christianity meant that the religion of the Danes and the English in England was the same, leading to greater cultural integration. In addition, the language of the Vikings was a North Germanic language and possibly was understandable to the people who spoke the Anglian dialect of Old English—a West Germanic language. Most of the English in the Danelaw were Anglian speakers.

The influence of Scandinavian on English was enormous. Not only were hundreds of individual nouns, verbs, and adjectives borrowed (as they had been, in smaller numbers, from Latin), but the pronouns, prepositions, adverbs, and even a form of the verb "to be" were incorporated from the language of the Danes. This kind of transference of these kinds of parts of speech is very rare historically. The pronouns "they" and "them" are Scandinavian, as is the word "are" (the standard Old English plural for "to be" was "syndon"). Prepositions "to," "fro," and the conjunction "though" were borrowed from the Danes as well.

In terms of grammar, using "-s" in the third person singular, present indicative form of verbs ("he walks," "she thinks") comes from Scandinavian. But far more significant was the influence of the Scandinavian languages on the inflectional system of Old English. There were many, many words in common between Old English and the language of the Danes (*man, wife, father, mother, winter, summer, smile, ride, stand, set, spin, over, under,* and many more); the major differences between words would be in the different endings added to them for grammatical purposes. Speakers of Old English and Scandinavian could thus more easily understand each other if they stripped away the inflections and relied upon other cues, most significantly word order, to indicate grammatical relationships. This reduction or elimination of the inflectional system was a major step toward modifying English from a synthetic language to the analytic language it is today (although it was the Norman Conquest that dealt the final blow to the inflectional system).

As noted, there were many identical words in Old English and the Scandinavian languages. But there were some sound shifts that had occurred differently in North Germanic and West Germanic. The most obvious of these is the "sk" versus "sh" distinction. The voiceless velar stop "k" in the "sk" sound was, in early Old English, *palatalizated*, meaning that the entire consonant cluster was pronounced "sh." Old English writers used "sc" rather than our "sh" to indicate the voiceless palatal fricative. We can see this sound shift in words like "scip" (pronounced "ship" as in Modern English), "sceall" (shall), and "fisc" (fish). Old Norse retained the ancestral "sk" pronunciation, so when we find an "sk" spelling, we can usually assume that the word has been borrowed from Old Norse. "Sky," "skin," "scrape," and "scrub" as all such borrowings. Old English had "scirt" (shirt) as a word for a garment; "skyrta" (skirt) was borrowed from Old Norse. Other sounds that had been palatalized in Old English include "g" in many words, so when we find velar g (or velar k) spellings, we know that the word has likely come from the Scandinavian languages: "get," "give," and "egg" are all such words.

Word borrowing from Scandinavian languages is not limited, as was Latin, to a few semantic fields. It has long been a truism of history of the language

study that Old Norse contributed many words for violence: “to die,” “to ransack,” “to rive,” “to scare,” and “to thrust” are all borrowings from Scandinavian, as are the nouns “slaughter” and “scab.” But in fact the words that entered into English via contact with the Danes are spread throughout the language. *Bank, birth, bull, dirt, fellow, guess, kid, leg, race, foot, sister, skill, want,* and *window* all come from Scandinavian, as do *flat, loose, crave, gape, get, give, raise, screech, snub,* and *take.* As Otto Jesperson noted, you cannot “thrive,” be “ill,” or “die” without Scandinavian words, nor can you even eat “bread” and “eggs.” The influence of Scandinavian languages on English is enormous and we should recognize that the language of the Danes not only greatly enriched English but also primed the language for some of the major steps in its future evolutions.

Even before the cataclysm of the Norman Conquest, England was well on its way toward evolving into its modern form as an analytic (rather than synthetic language) that promiscuously borrowed words from nearly any source. But all of the changes we have thus discussed, even the influence of Scandinavian languages, have been *evolutionary.* The events of 1066 were to prove *revolutionary* and would change English forever.

FOR GREATER UNDERSTANDING

Questions

1. Why do linguists think so few Celtic words entered into English?
2. Why were Scandinavian languages so influential in Old English?

Suggested Reading

Baugh, Albert C., and Thomas Cable. *A History of the English Language.* 5th ed. New York: Routledge, 2002.

Other Books of Interest

Crystal, David, ed. *The Cambridge Encyclopedia of the English Language.* Cambridge: Cambridge University Press, 2003.

Jesperson, Otto. Chapters 3–4. *Growth and Structure of the English Language.* New York: Free Press, 1968.

Lecture 11:
The Norman Conquest, the Influence of French, and the Development of Middle English

The Suggested Reading for this lecture is Albert C. Baugh and Thomas Cable's (eds.) *A History of the English Language,* chapter 4.

We concluded the previous lecture with a discussion of the deep influence of Scandinavian languages on Old English. The political influence of the Danes on England itself was also enormous through the century of Viking raids, the sacking of monasteries and cities, and later the establishment of the Danelaw. But even though English and Danes lived together for two centuries and eventually combined into one people, the difficulties with Scandinavian invasions were not over. In 991, Olaf Tryggvason, who would soon become king of Norway, led an invasion of England. In 994, Olaf allied himself with Svein Forkbeard, king of Denmark, and struck at London. Olaf and Svein allowed themselves to be bought off with the payment of the "Danegeld," an enormous ransom, but soon came back for more. Eventually, in 1014, Svein became king of England. Later that year he died and his son Cnut became king, eventually ruling England, Denmark, and Norway as well as Schlesweig and Pomerania. Cnut married Emma, the widow of Athelred, the king his father had deposed. Some scholars say that Cnut attempted to become more English than the English, forging a new identity in the Danelaw and throughout the country. He brought two decades of peace and prosperity to England and appears to have been much loved, but his fathering of two sons, one legitimate with Emma (Harthacanute) and one illegitimate (Harold) led to enormous strife later on. Harthacanute invited his half brother Edward the Confessor back into his household (Edward was the son of Emma and Athelred) and upon Harthacanute's death, Edward became king of England. But the seeds of destruction were sown. Edward was childless. William of Normandy claimed that Edward had promised him the throne of England, but the crown in fact went to Harold Godwinson, the son of the powerful Earl of Wessex. In 1066, William led an invasion of England and decisively defeated Harold at Hastings. This was the last time England was conquered by a foreign power.

William's Conquest was accomplished with very few men, and although he ravaged and burned some of the countryside, he did not massacre the inhabitants of England. Rather, he killed or exiled all of the nobles, replacing them with Normans loyal to him. It is important to note that although the Normans were ethnically Danish (they were "North-men" who had settled in the northwest part of France during the Scandinavian conquests), they were culturally and linguistically French. Thus when William completely replaced the English aristocracy, he did so with French speakers. William also replaced the leaders of the Church (the bishops and archbishops) with Normans who were loyal to him.

For the next century and a half, England and Normandy were one kingdom. The kings spent half their time in England and the other half in France, and nearly all of the nobles had holdings in both countries. Although English was not spoken at the court, it is likely that some members of the aristocracy learned the language, if only to better manage their estates. Interestingly enough, charters continued to be written in English and Latin, not French (the diplomatic language was Latin, the description of the boundaries of the land was English). We know that Old English continued to be spoken for some time after the Conquest because, among other evidence, the *Anglo-Saxon Chronicle* continued to be updated, in Old English, at Peterborough until 1154.

The famous Katherine Group texts also support the idea that Old English continued to be spoken rather widely after the Conquest. The Katherine Group includes the Lives of three virgin martyr saints (St. Katherine, St. Juliana, and St. Margaret), *Hali Meiðhad* (a discussion of the benefits of virginity), and *Sawles Warde* (a treatise on the care of the soul). These texts are also associated with *Ancrene Wisse* (a guide for nuns). J.R.R. Tolkien demonstrated that these writings showed the continued use of Old English (the Mercian rather than West Saxon dialect) as a literary language long after the Conquest: Tolkien showed that the language had continued to develop grammatically, making some new distinctions between certain types of verbs. He also argued that the person or persons who wrote these texts for a community of nuns in the west midlands were educated and knowledgeable, calling into question the traditional idea that Old English had remained only as a language of the uncultured. However, that idea, that English was spoken, but only by the lower classes, and was rarely written, is often used as an explanation for the further development of the language. The argument goes that because Old English was a completely oral language after the Conquest, it was free to evolve more quickly than it would have been if there was some written standard. There is probably truth in both arguments: Old English was certainly *primarily* oral in the context of the years between 1066 and 1204, but there were certainly people who could and did write in the language as well.

Despite its widespread use, Old English might still have been replaced by French if it were not for the events of 1204, when King John fell in love with the incredibly beautiful Isabel of Angoulême and married her. Unfortunately, Isabel was already engaged to Hugh of Lusignan, who complained to Philip, King of France (John was King of England and Duke of Normandy). John refused to attend his trial, and so Philip invaded Normandy. From this time on, England and France were politically separated, though the two countries were, of course, intimately involved in each other's affairs.

In a relatively short time the close connections between England and France were severed. Nobles were forced to choose which of their holdings to retain, and England and France entered into a long period of hostility culminating in the Hundred Years' War. French remained as the language of some of the aristocracy, but it is clear from many documents that it was no longer a regularly spoken language. Upper class individuals learned French for their visits to the continent and because it was one of the things that aristocrats needed to know, like heraldry, courtesy, or hunting. But regular speech in French among the English rather rapidly became rare, and those people who did speak

French were almost certainly, at this point, bilingual rather than the monoglot French speakers who had come to England with William.

Middle English

So after 1204, English was once again the language of England. But this was not the same English as had been spoken a hundred and fifty years before. Here is an example of Middle English. You may wish to compare this version of *The Lord's Prayer* with those in Gothic and Old English printed in lectures nine and ten.

The Lord's Prayer (Middle English)

Oure fadir þat art in heuenes halwid be þi name;
þi reume or kyngdom come to be.
Be þi wille don in herþe as it is doun in heuene.
Yeue to us today oure eche dayes bred.
And foryeue to us oure dettis þat is oure synnys as we foryeuen to oure dettouris þat is to men þat han synned in us.
And lede us not into temptacion but delyuere us from euyl.

You will note that the prayer is now basically understandable to a Modern English speaker, especially when it is read aloud, and that all of the words in the prayer are found in Modern English ("reume" is "realm"). The pronunciation of vowels is somewhat different, but only in the stressed syllables. This does not make Middle English very different from Old English, but it sets the stage for the enormous changes in vowel pronunciation that come at the end of the Middle English period. The consonants remained mostly the same during the change from Old to Middle English. "W" was lost when it was followed by an "o" and was preceded by another consonant, so the Old English "swa" became "so" and "hwa" became "who" (obviously pronounced "hoo"), and "sc" became "sh" in those words in which it had not already made the change, but otherwise the consonants remained largely unchanged. Another pronunciation change seems very small but ended up making an enormous difference in Middle English grammar: final "-m" (that is, "m" at the end of a word) became "n" and then the "n" was dropped, leaving a vowel at the end of the word. At the same time, the vowels in the inflectional endings were changing from their original forms into a uniform middle vowel, what we call "shwa" (the "e" sound in "the"). This change meant that speakers could no longer hear any difference between the various inflectional endings.

Old English to Middle English Grammar Changes

That sound change paved the way for the most momentous grammatical change in the evolution from Old to Middle English. By 1204, English was no longer a synthetic language. The inflectional system had become almost completely eliminated in favor of a word-order (analytic) system. The declensions of nouns and adjectives were mostly eliminated, as was the need for case agreement among nouns and adjectives. The "e" ending, which had been the inflected form for the dative singular, genitive plural, and dative plural became extended to all forms of the noun, giving spellings like "stone" (Old English "stan"), which was pronounced "ston-eh." In the fourteenth century the

terminal “e” stopped being pronounced, giving us a pronunciation of “stone” that lacks only the Great Vowel Shift to give us Modern English (and note that the spelling is the same). The plural “-s” is one of the inflections that remains in Modern English, but for a while this form was balanced between another Old English plural form, “-en” (the rare form found in “oxen”). Up to the thirteenth century, “-en” was popular throughout the south of England, but for some reason “-s” then took over completely. Also, to the lasting joy of those who have to learn English as adults, Middle English lost all grammatical gender. Even in the Old English period there were contradictions between grammatical gender and natural gender, with “wif-mann” (“woman”) being a masculine noun. In the Middle English period these contradictions were eliminated by dropping grammatical gender entirely.

Demonstrative pronouns were radically reduced, leaving only “the” and “that” from what had been one much larger, inflected group (se, seo þæt), and another group of Old English demonstratives was compressed to “this,” “those,” and “these.” Dual forms of personal pronouns were lost, and the Old English “heo” becomes “she” (though there is some dispute about the reasons why).

Among the verbs, the biggest change was the decay of the strong verb system (strong verbs, remember, are those in which a stem vowel changes to indicate tense and number). Many strong verbs were lost entirely, and another large group of strong verbs were transformed into weak verbs. Middle English is grammatically almost the same as Modern English. For reasons not completely understood, participles were more likely to survive than other forms of the verb, and so knowing an Old English participle will often give you a very good hint as to the Modern English word into which it has evolved.

Thus although they shared a core vocabulary, Middle English and Old English are grammatically different languages. It is unlikely that Old English and Middle English speakers would have understood each other even though a very large percentage of the words that they used were the same. It is very important to note that this change did *not* occur through English adopting French grammar. In fact, almost no French grammar managed to move into English. Rather, the influence of the Conquest, the movement of English from an elite language partially controlled through writing to (in general) an entirely oral language, and the continuation of processes begun by the mixing of languages in the Danelaw led to the massive grammatical changes that created Middle English.

French Borrowings

The Conquest provided the impetus for the grammatical changes, but in fact English and French did not mix very much until *after* 1204: The vast majority of French words that enter English are borrowed after this date. Why? Because when French was the main language, and even later when there was a significant bilingual population, there was no need to bring French words into English: A speaker could just switch to French. But once French and English separated, a massive influx of French words changed forever the English language, enriching its vocabulary with thousands of new words. Through the thirteenth and fourteenth centuries, hundreds of French words poured into English. Entire semantic fields became dependent upon French vocabulary. For example, nearly all English words dealing with government

and law (with the exception of the word "law," which is Scandinavian) come from French: *government, justice, crime, jury, felon, punishment, prison, attorney, mortgage, heir, legacy, sovereign, prince, princess, duke, duchess, count, countess, baron, squire,* and *page* are all French. Many words for war also come from French, including *army* and *navy* and *soldier.* Luxury goods and words for fashion are predominantly French, including all of the major gemstones (*diamond, ruby, sapphire, emerald, pearl,* and *amethyst*).

Food words also enter English from French, and it is here perhaps that the semantic spheres of French and English are most obvious. The words for domestic animals in English are all Old English words: *ox, pig, sheep.* But when these animals are cooked and their meat placed on the table, the words are French: *beef, pork, mutton,* as well as many, many other words for food and food preparation. Words for art, literature, philosophy, architecture, and medicine are also heavily French.

The Enrichment of the Language

There are those who deplore the addition of French words to the English language. Writing manuals encourage students to use simple, "Anglo-Saxon words" rather than French or Latinate forms (though such "simple" words as *face, cruel, grain, carry, tempt, strife, spirit, pure, real,* and *stout* are French borrowings. But French did in fact enormously enrich the English language. France was the leading culture of Europe at this time, and the words that come in from French give English a greater semantic range and more poetic power. Yes, there is a spare beauty about Old English, and it deserves to be more widely read and enjoyed. But Middle English became a beautiful language in its own right, and in the hands of a genuine master like Geoffrey Chaucer, one of the three greatest poets in the history of English, Middle English becomes both beautiful and poignant. Here are just Chaucer's most famous lines, but he wrote thousands of others that are also works of beauty, drawing as they do both on the English tradition and the techniques and vocabulary of the continent. Chaucer spoke French well and in fact could not have created his art without the contribution of French. Yet he was proudly English, as he demonstrates when he describes "all God's plenty" in his "General Prologue" to the *Canterbury Tales,* using a mix of French and English words in a new, simplified Middle English grammar, that in later centuries would go on to take over the linguistic globe:

Whan that April with his shoures soote
The droghte of March hath perced to the roote,
And bathed every veyne in swich licuor,
Of which vertu engendred is the flour;
Whan Zephyrus eek with his sweete breeth
Inspired hath in every holt and heeth
The tender croppes, and the yonge sonne
Hath in the Ram his halve cours yronne,
And smale foweles maken melodye,
That slepen al the night with open ye

(So priketh hem Nature in hir corages)
Thanne longen folk to goon on pilgrimages

And Chaucer was not the only great poet. William Langland's *Piers Plowman* is known more for its social commentary, but at times Langland soars to poetic heights. Likewise the anonymous author of *Sir Gawain and the Green Knight* was able to create beautiful art without ever avoiding French:

Sumwhyle wyth wormeȝ he werreȝ, and with wolues, als,
Sumwhyle with wodwos, þat woned in þe knarreȝ
Boþe wiyth bulleȝ and bereȝ, and boreȝ oþerquyle,
And etayneȝ, þat him anelede of þe heȝe felle.

FOR GREATER UNDERSTANDING

Questions

1. What support is there for the idea that Old English continued to be spoken long after the Norman Conquest?
2. What was the most momentous grammatical change in the evolution from Old to Middle English?

Suggested Reading

Baugh, Albert C., and Thomas Cable. *A History of the English Language.* 5th ed. New York: Routledge, 2002.

Other Books of Interest

Crystal, David, ed. *The Cambridge Encyclopedia of the English Language.* Cambridge: Cambridge University Press, 2003.

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Drout, Michael D.C. *Bard of the Middle Ages: The Works of Geoffrey Chaucer.* Modern Scholar series. Prince Frederick, MD: Recorded Books, LLC, 2005. 14 lectures/7 cassettes or 7 compact discs/3.5 hours.

Lecture 12:
To Modern English:
The Great Vowel Shift

The Suggested Reading for this lecture is Albert C. Baugh and Thomas Cable's (eds.) *A History of the English Language,* chapter 8.

The Norman Conquest was the most monumental external influence on the English language. Although English did not adopt French grammar, the various pressures put upon the language caused it to evolve very rapidly from its old synthetic, inflected form into the analytic language that we know today. The influx of French words after the loss of Normandy in 1204 radically enriched the vocabulary of English, making it nearly as much a Romance language (that is, descended eventually from Latin) as it was a Germanic one. Much of the historical change in English was accomplished by the thirteenth century: Middle English grammar is very close to Modern English grammar, and while it takes a full semester to learn Old English, a student can pick up Chaucer's Middle English with three weeks of relatively intensive study. But why is Chaucer's Middle English different from Modern English in any way at all? Why do we have to work to read Chaucer at all. As noted, England was never again conquered, so there was no cataclysm to cause any kind of massive change in English. And yet anyone who listens to Chaucer knows that there is a bigger difference between him and Shakespeare in language than there is between Shakespeare and us. Yet Shakespeare and Chaucer were closer to each other in time by far than Shakespeare is to us. What happened?

A slightly oversimplified answer is *The Great Vowel Shift*. In a relatively short time toward the beginning of the sixteenth century, the pronunciation of many English vowels changed. This was the most thoroughgoing *phonetic* change in English since it separated from Proto-Germanic. Although the Great Vowel Shift did not really change the *spelling* of words, it changed the way almost all of them were pronounced. We will examine this shift in some detail because it explains so much, from rhymes in Chaucer to word-play in Shakespeare to why the English spelling system seems to be so bizarre. The Great Vowel Shift was the most momentous linguistic change since the Normal Conquest.

The Great Vowel Shift Itself

The simplest description of the Great Vowel Shift is that the seven *tense* or, more commonly, *long* vowels of Middle English shifted higher (that is, the tongue was raised somewhat more) with greater closing of the mouth. Those vowels that were already raised as far as they could be became diphthongs.

I recommend that you refer back to the chart in lecture three where we looked at the Modern English vowel system. Remember that we classified the vowels by the position of the tongue in the mouth (high, middle, and low) and

the relative position from the back of the mouth to the front (back, central, and front). Thus vowels can be described in such forms as "high front" (the "ee" found in "beet") or "low central" (the "a" sound in "bat").

Using these terms, we see that in the Great Vowel Shift, the high front vowel becomes a diphthong: "fif" (which was pronounced "feef") becomes "five" (with the "iy" diphthong pronunciation in Modern English). This left an open spot in the high front vowel space, into which the vowel that had previously been a mid front vowel moved (i.e., the mid front vowel became a high front vowel after the high front vowel became a diphthong): mede (which was pronounced "maid – eh") became "meed." Now there was an opening for a mid front vowel, and into that slot moved the previous low front vowel: "breke" (which was pronounced "bray – keh") became "break." Here things get a little more complicated, as another vowel, this time from the back of the mouth, also jumped into this spot: "name" (which was pronounced "nahm – he") becomes "name." You will note that "break" and "name" have the same pronunciation but different spellings.

A similar shuffle happened in the back of the mouth. The high back vowel in Middle English "mus" (pronounced "moose," but meaning "mouse") became a diphthong, giving us Modern English "mouse." Into that open high back vowel slot moved the sound that had been a mid back vowel: "roote" (pronounced "row – teh") became "root." That in turn left an opening for a mid back vowel into which the previous low back vowel moved: "goote" (which in English was pronounced something like "gaw – teh") becomes "goat."

fif	(pronounced "feef")	five
mede	(pronounced "maid – eh")	meed
breke	(pronounced "bray – keh")	break
name	(pronounced "nahm – eh")	name
goot	(pronounced "gawt")	goat
roote	(pronounced "row – teh")	root
mus	(pronounced "moose")	mouse

(Table influenced by Baugh and Cable, p. 238; Fromkin and Rodman, p. 466)

As you can see, this is a very thoroughgoing shift, but it is only applicable to the long vowels. The short vowels did not change very much at all. And since short vowels are unstressed vowels, you can see why our talk of changing stress patterns and the elimination of inflectional suffixes was so important: Word elements that were not stressed did not undergo vowel changes.

It is useful at this point to compare the Great Vowel Shift with Grimm's Law, which we discussed in such detail in lecture five. Remember that Grimm's Law described the changes in *consonants* in the evolutionary split between Indo-European and Germanic. When the first part of the shift occurred, the voiceless stops became voiceless fricatives; the language would have been left with no voiceless stops. But that gap was filled by the voiced stops becoming voiceless. That left another gap, since there would then be no voiced stops, but that gap was filled by the aspirated voiced stops becoming unaspirated

voiced stops. There is a significant cascade of sound changes, all related to one another across many, many words. The same is true of the Great Vowel Shift. Linguists have been arguing for nearly a century about whether the Shift happened in the front of the mouth and the back of the mouth separately or at the same time and whether the shuffle occurred via *pushing* or *pulling*. Some theorize, for example, that the high vowels becoming diphthongs opened up gaps that pulled all the other vowels along. Others argue that the first changes happened at the bottom, with these new vowels thus pushing the other vowels up and, in the case of the vowels that were already high vowels, into diphthongs. The movement of the one type of low back vowel to a mid front vowel is taken as supporting evidence by both sides.

Why the Vowels Shifted

Equally controversial (possibly even more controversial) is the explanation for why the Great Vowel Shift happened. In one sense the name, coined by the great linguist Otto Jesperson (he was Danish, but is still possibly the greatest *English* linguist who ever lived), is misleading, as it tends to suggest rapid or immediate change. And indeed, the Shift occurred at lightning speed for a linguistic event: It is usually dated from approximately 1500 to 1600, and traditionally has been seen as occurring mostly from 1500 to 1550 (although newer linguistics textbooks hedge a bit and spread it out over the 1500 to 1600 period). The traditional view, which has not been overturned so much as questioned, was that the Shift occurred over the course of a generation. But why? A number of theories have been proposed.

At the time of the Shift, a major demographic change was affecting England. There was mass immigration from the north to the south of England after the Black Death and a similar shift in living patterns from rural to urban environments. Although the plague had spread more rapidly in cities and towns, these began to grow rapidly in size while many villages were completely abandoned. Linguists theorize that the sudden arrival in the south of many individuals with northern accents or the arrival of many rural dwellers in urban areas triggered, somehow, a major pronunciation change.

Another related theory is that the rise of the Middle Class in London required the creation of a common dialect. Because there was continual growth in the importance of trading and commerce from the end of the fourteenth through the sixteenth centuries, people needed to be able to communicate more clearly in English. Thus a new kind of English pronunciation evolved that would split the differences between various dialects in England, with the London dialect (spoken by Chaucer, among many others) eventually winning out, but adopting many of the pronunciations of the other dialects.

Others argue that it was not so much immigration but social mobility that changed the language. After the Black Death there was such a labor shortage, the argument goes, that many more people were able to move into the middle and even the upper class. These people had other, class-based ways of talking, and in the process of modifying their own speech, also ended up causing the modifications of previously existing standard speech. The result was a new pronunciation for everyone.

A related possibility is to interpret the Shift as a form of *hypercorrection*, an

attempt to seem more English at a time when England was at war, on and off, with France. English speakers, it is thought, would make every effort to sound less continental, and a new vowel system would do just that. Unfortunately for this hypothesis, linguists seem to have found just as much evidence that the pronunciation shift could be an attempt to sound *more French,* as French was still associated with the upper classes: So all those newly rich families changed their pronunciation in order to sound as if they had always been rich.

Finally, some scholars argue that the arrival of the printing press at the end of the fifteenth century worked to lock in a particular pronunciation (that most familiar to the printers in London) and then disseminate it throughout England. The problem with this theory is that early printers were anything but consistent in spelling; they even deliberately spelled words two different ways *in the same line* in order to get the spacing right. And although London English was the favorite of printers, one needs only to compare Chaucer's London English with the English printed in the middle of the sixteenth century to know that something major had already changed by the time William Caxton set up the first printing press in England in 1476.

All of the above explanations have some plausibility, but all of them also have flaws, great and small. So what really caused the Great Vowel Shift? There is no consensus among linguists, who are of course famously fractious about questions like these. My own view is that the Great Vowel Shift was caused, not by any one large change, but by the harmonious convergence of many small changes. Minor shifts in pronunciation occur all the time: One generation will pronounce a word with one accent or one stress pattern and another, to mark itself as separate, will pronounce things differently. There are also processes that retard change: People can rather aggressively police the boundaries of acceptable speech when it is an important part of their identities. Social rank is also associated with certain kinds of speech. For some reason in the early sixteenth century, these various stabilization processes did not hold change back, and once the change got going, the cascade effect was enough to create the Great Vowel Shift.

I come to this conclusion because we can see very similar processes in biology, and in both biology and language there is a process of inheritance and adaptation to the environment. Peter and Rosemary Grant studied the Cactus Finches of the Galapagos Islands. Over time they noticed an oscillation in the size of finch beaks: Several dry years in a row seem to favor certain beak sizes, and the Grants started seeing more of these in the population. But then some wet years occurred and the average beak size shifted back. It takes a very long run of similar conditions for one species actually to split off from another. Similarly, at one time or another certain pronunciations will be favored, either due to fashion or comparison with other languages or solidarity or the desire to set oneself apart. Usually these sound changes will shift back and forth, but occasionally all of the various push-pull effects will line up and we will get something like the Germanic consonant shift or the Great Vowel Shift. Note that this is my own interpretation and is not necessarily endorsed by linguists, almost all of whom, as far as I can tell, have their own theories that they vigorously support.

Other Changes That Brought About Modern English

The Great Vowel Shift rightfully dominates discussion of the change from Middle English to Modern English because it is systematic, logical, and comprehensive (all of the long vowels in words that were in Middle English were affected). But the Shift is not the only factor in changing Middle English into the language that we now speak.

Grammatically the language changed little. The old "-n" plural continued to lose ground: Chaucer uses "eyen" (for "eyes") and even Shakespeare uses a few "-n" plurals, but "-s" had won the battle. One additional inflectional ending that deserves some discussion is the development of apostrophe s ('s) as the genitive ending. The genitive case was the Old English method of indicating possession. For strong nouns, the genitive singular ending was "-es," thus "stan" (stone), "stanes" (pronounced "stahn – ehs"; "of the stone"). Because in Middle English the genitive ending was unaccented (that lack of stress is one reason most of the inflectional endings were lost), it ends up being spelled with a variety of vowels, such as "-is" or "-ys" (the unstressed, mid central vowel in English, schwa, does not have a specific orthographic symbol). The pronoun "his" in English was pronounced "-is" because the h was not pronounced when it was not stressed. Thus "stonis" (stone's) and "ston [h]is" would be pronounced exactly the same. Some early grammarians, ignorant of Old English, were confused, and argued that the apostrophe s was a shortening of "his," and so the genitive was really a contracted form of the pronoun. This makes absolutely no sense when applied to forms like "the queen's dress" ("the queen, his dress"?), but the error has persisted even to the point where it is repeated in the popular (and very good) book on grammar *Eats, Shoots & Leaves* by Lynne Truss. The real reason for the apostrophe is that it marks the missing "e" in the "-es" ending.

The only other grammar changes of significance are in the pronouns and the verbs. In Old English, "ge" (pronounced "ye") and "þu" (pronounced "thoo") indicated different numbers in the second person ("ge" was plural and "þu" was singular). In the thirteenth century, however, the "th-" forms (thou, thy, thee) became *familiar*; they were used when addressing social inferiors, children, and close friends. The "ye" forms (ye, your, you) were used as a sign of respect. It was either a social error or a form of rudeness accidentally to use "thou" in a formal situation: It either marked you as a boor or as being deliberately rude to an inferior. There are some Shakespearean jokes to this effect, for example in *Twelfth Night*, when Sir Toby Belch encourages Sir Andrew Aguecheek to write an insulting letter: "if thou thou'st him some thrice, it shall not be amisse." Eventually the "thou" forms disappeared from polite speech and then from all speech (though they persisted longer in America among the Quakers than they did in England).

The ending of the third person singular verb was consistently "-eth" in Middle English. In Shakespeare's time it is becoming "-s," but Shakespeare actually uses "-eth" and "-s" in the same line, indicating that the two are interchangeable. By the first half of the eighteenth century, "-eth" had almost certainly been lost from all speech, but it continued to be written for many years afterwards, particularly in formal prose.

There are still some minor changes from Shakespeare's English to today, but when you compare, say, *Beowulf*, *The Canterbury Tales,* and *Hamlet*, you see that Shakespeare was far closer to Modern English. English would continue to be enriched by new words—there was a massive influx of Greek and Latin terms into English in the sixteenth through eighteenth centuries as these languages became standards of a widespread school curriculum—but the basic structure and pronunciation of English was now set. As we will see, there was great *growth* in English, but not as much change.

FOR GREATER UNDERSTANDING

Questions

1. What was the Great Vowel Shift?
2. What are some of the theories for why the Great Vowel Shift occurred?

Suggested Reading

Baugh, Albert C., and Thomas Cable. *A History of the English Language.* 5th ed. New York: Routledge, 2002.

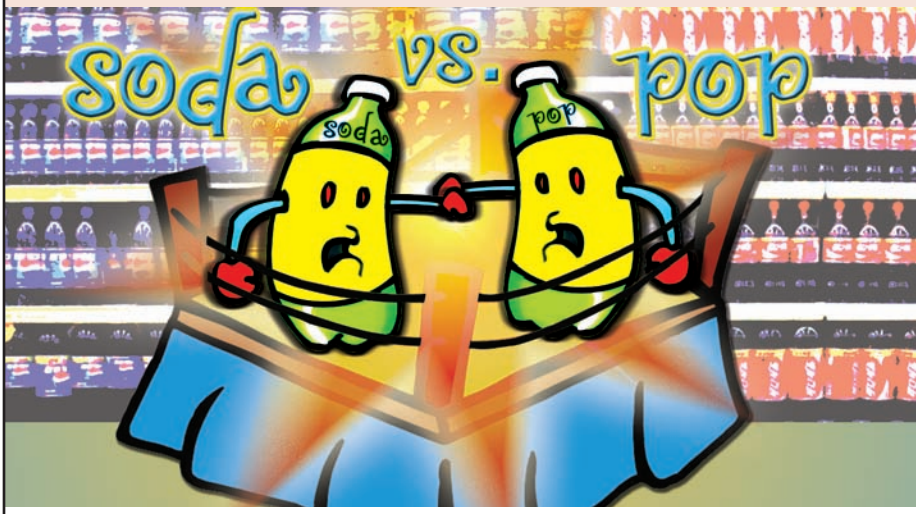
Other Books of Interest

Crystal, David, ed. *The Cambridge Encyclopedia of the English Language.* Cambridge: Cambridge University Press, 2003.

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. Chapter 11. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Lecture 13:
You Say Soda, I Say Pop:
Dialect, Variants, and the Development of American English

The Suggested Reading for this lecture is Victoria Fromkin, Robert Rodman, and Nina Hyams's (eds.) *An Introduction to Language,* chapter 10.



In one technical sense, once we get past the Great Vowel Shift, almost everything interesting has already happened in the history of English. After 1600, when the Shift was basically complete, there were no major developments in the phonology or grammar. The English lexicon kept expanding as English adopted new words from a variety of sources, but it was nothing compared to what had already happened with Scandinavian, Latin, and especially French. There have been no more Norman Conquests or Great Vowel Shifts in the past four hundred years, and we can read Shakespeare's English almost as well as we read our own. The closest English has ever come to such a long period of stability is the beginning of the Old English period, from the fifth century to the beginning of the ninth, and even then it is rather a stretch to put together four hundred years without a major change.

But the story of English from the Great Vowel Shift to the present is anything but boring. It is also unprecedented. Although Latin conquered Europe with the soldiers of the Roman army, its spread was trivial compared to that of English, which is spoken now on every continent. How this came to be, and how English continued (and continues) to expand even after the end of the years of British military conquest is the story of our final two lectures. Up until this point we have been examining the unity of English; now it is time to look at the internal diversity of this largest of languages. In this lecture we will be examining dialects and variations within England and America.

Spread to the New World

Undoubtedly the most significant political development in the history of English after the Norman Conquest was the spread of English to the new world. And just as the development of the British Empire was a process of happenstance, so too the conquest of English was unplanned and haphazard. England was not as early or effective as Spain or France at amassing territories. By the time the settlements on the east coast of America were founded, the Spanish, Portuguese, and French had already acquired the most desirable colonies for the purposes of exploitation. England ended up settling in North America and India, putting down institutions and the English language. Colonies in Australia, New Zealand, and parts of Africa and East Asia came later. The colonies did three important things for the language: First, they increased the spread of English (increasing both the number of English speakers and the regions in which English was spoken); second, they brought English into close contact with a wider variety of other cultures; third, they created more opportunities for variation. All of these processes led to the evolution of different English *dialects*.

Dialects and Dialectology

There have always been English dialects. Even in the Old English period we can recognize Anglian, Kentish, and Saxon variations of Old English (from, respectively, the northern, the eastern, and the western sections of England). Although there was broad dialect mixing after the Black Death, we know that there were recognizable dialects in Middle English not only from our own analysis of texts, but from the testimony of individuals who lived at the time. Much of the humor of Chaucer's *The Reeve's Tale*, for instance, is based on the accents of the two main characters, Allen and John, who are northerners at Cambridge. This is the same sort of joke that would be made by an author depicting two students with strong Mississippi accents getting the best of the townsfolk in Cambridge, Massachusetts. Chaucer himself later makes fun of northern accents, or at least the tradition of alliterative poetry that he locates in the north, having his Parson say that he is a southern man and does not speak "rum, ram, ruf."

Dialects in Britain have been among the most studied linguistic phenomena since the nineteenth century. George Bernard Shaw was only somewhat exaggerating when he wrote, in *Pygmalion*, that Henry Higgins could, through a short sample of speech alone, "place a man within six miles. I can place him within two miles in London. Sometimes within two streets." Or perhaps Shaw was just a little ahead of his time. In the late 1970s, Peter Sutcliffe, the "Yorkshire Ripper," murdered thirteen women (and attempted to murder seven others). During this time a number of tapes were sent to the British police from "Wearside Jack" claiming to be responsible for the crimes. Because in part Sutcliffe's accent did not match that of the man on the tapes, he was released after being picked up for questioning and went on to murder three additional women before being caught and sent to prison for life in 1981. Stanley Ellis, a British dialectologist at the University of Leeds, later analyzed the tapes of "Wearside Jack" and was able to trace the accent of the hoaxer to the specific village of Castletown in Sunderland. Police arrested the person who made the tapes for "perverting the course of justice" and

sending police on a wild-goose chase that perhaps allowed Sutcliffe to kill several additional victims.

Henry Higgins and Stanley Ellis are just extreme examples of what most of us can do when we hear someone use our native tongue in a way different from us, and even within strictly set geographic boundaries such as London or the area around Boston, language can have such obvious (to insiders) variations that people can localize an accent to within a town or two. I know many people in the Boston area who can tell if a person comes from South Boston, Lynn, or Fall River with no effort whatsoever, and likewise there are people in London who are proud of being able to localize an accent to specific London Underground stops (and are correct surprisingly often, especially given the increased geographic mobility in today's world).

We can start with large groupings and slowly make finer distinctions. The first would be between England and everywhere else. You would think that the English of England, being the original source of all the other variants of English, would be the most traditional, but this is almost exactly the opposite of the truth. English, particularly London English, has evolved more rapidly in pronunciation than has American English. Let us take the word "stone" as an example. In Anglo-Saxon this was pronounced "stahn." The vowel changed somewhat around 1100 to be pronounced more like "stawn" before the Great Vowel Shift, after which it became "stone." But in the English of England, a further evolution occurred, producing a vowel with a slight u-glide: sto^{u}n (this is difficult to transcribe here but will be easy to hear on the audio for this lecture). The American pronunciation remains like that of Shakespeare's post–Great Vowel Shift "stone." Linguists now go out of their way to challenge the idea that Shakespeare's English sounded particularly similar to contemporary speech in the West Virginia mountains (for a while it was argued that Elizabethan speech survived there), but it is not incorrect to say that American English preserves a great many pronunciations that have further evolved in British English. American English is in fact much more "conservative" than London English, which has changed rapidly even since World War II.

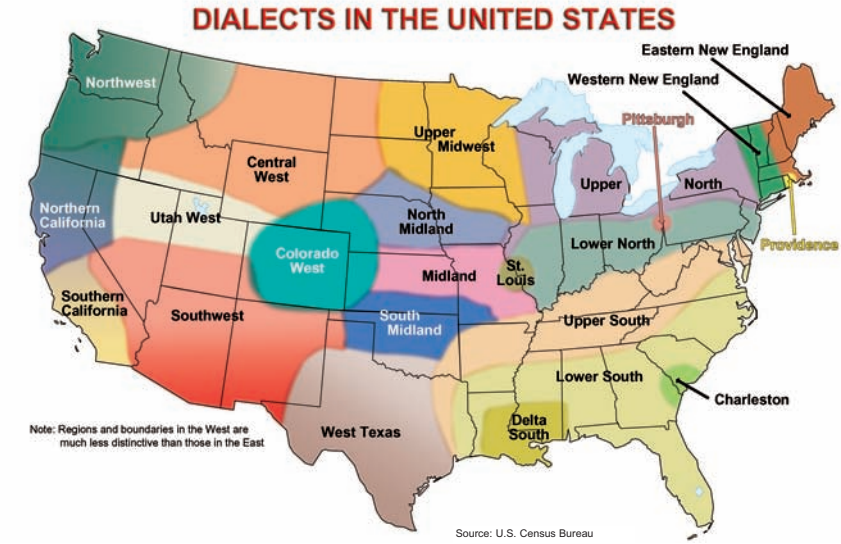
The great divisions in worldwide English pronunciation are nevertheless geographic (even if the most traditional forms are not necessarily found in England). The major regions are North America (the United States and Canada are classed together, although there are differences), Caribbean/South America, Australia/New Zealand, South Asia (India, Pakistan, Bangladesh), East Asia (Hong Kong, Singapore, and other former British colonies), and Africa (particularly South Africa). Speakers are generally much better at localizing dialects *within* their own regions than they are at determining which region a person comes from. Thus Americans are notoriously unable to separate Australian from New Zealand accents and South African speakers often do not easily hear the difference between American and Canadian accents, particularly if the American accents being compared are from the Upper Midwest.

Within America

Dialects are generally shaped by the same processes that drive linguistic evolution: inheritance from specific sources and geographic and social isolation and evolution. For example, the distinctive New England accent probably

owes quite a bit to the fact that most of the people who originally settled in New England were from locations within a sixty-mile radius in East Anglia. By 1776 there were three major varieties of North American English: *Northern*, which was spoken in New England and New York State, *Midland*, spoken in Pennsylvania and New Jersey, and *Southern*, spoken from Maryland to Georgia. The famous dropped "r" in New England speech was already present at this time, inherited from pronunciation in the south of England, and this form was also spoken in the South. Later settlers came from the north of England, where "r" was still pronounced. Geographic expansion westward carried along dialects, and American English is still divided into bands of northern, middle, and southern forms.

However, there was some additional diversification. For example, the *Northern* dialect area is split, with an eastern and a western form with the dividing line in the Connecticut River Valley. West of this line is further separated into *Upper North*, including southern Vermont, parts of New York state, the very uppermost portions of Pennsylvania and Ohio, Michigan, northern Illinois, and eastern Wisconsin. Then Upper Midwest includes the rest of Wisconsin, all of Minnesota, and the northern half of Iowa. *Lower North*, which is based upon the old *Midland* dialect range, includes New Jersey, most of Pennsylvania and Ohio (excepting the very northern parts of those states), Indiana, and southern Illinois. The *Upper South* includes most of western Maryland, western Virginia, West Virginia, Kentucky, Tennessee, northern Arkansas, and the very northernmost parts of Georgia, Alabama, Mississippi, Louisiana, and a tiny bit of east Texas. *Lower South* includes most of North Carolina, all of South Carolina, and nearly all of Georgia, Alabama, Mississippi, and Louisiana, as well as part of southern Arkansas and east Texas. Within the Lower South, there are divisions between the *Atlantic South, Southern Florida, Alabama, the Delta South*, and *Northern* and *Southern Louisiana*. Things get less clear cut as one moves further west, but there are differences between *Southwest, California, Colorado*, the *Utah West,* and the *Northwest*.



Linguists mark these dialect areas by constructing *isoglosses*: They interview many subjects and record their pronunciations and word usage, plotting the responses on a map. A boundary beyond which a form is never or always used is an isogloss. When many isoglosses line up, we can identify a dialect region. For example, the boundary between the Upper North and the Lower North dialect is marked by isoglosses for the pronunciation of "greazy" (with a z pronunciation) versus "greasy" (with the "s" unvoiced), calling an insect a "snake feeder" versus a "dragonfly," calling "Sook!" to the cows or not, and calling a tree whose sap you get syrup from a "sugar tree" rather than a "maple tree." In each of these cases, the more southern term is listed first, and none of these are consistently found above that Upper North/Lower North isogloss (and the southern forms are found much more consistently in the southern dialect areas).

Here is an experiment: Ask various people whom you know to say the name of the canine animal the "wolf" (you will have to figure out a clever way to do this without saying the name yourself). Listen carefully to how your respondents pronounce the word: If you have a big enough sample that covers a variety of regions, some will pronounce the word "wolf" and others "woof" (without the l). Those who drop the l will almost certainly be from the Upper North dialect zone. There may actually be quite a few speakers in the Upper North area who say "wolf" rather than "woof," but nearly all who do say "woof" will be Upper Northern speakers.

Since the 1930s, linguists have been collecting isoglosses throughout America. Some seem to match up very well with settlement patterns. For example, my home dialect region, in Monmouth County, NJ, is on the one hand part of the Philadelphia dialect region. On the other hand it is linked to New York City. We say, for example, "water" as "wood-er," we do not pronounce the "h" in "huge" or "human," and we pronounce the words "orange," "horrible," and "forest" as if they were spelled "arr-inge," "harr-ible," and "farr-est." The last two pronunciations are linked to New York and the first to Philadelphia, just as you might expect from the migratory patterns of the people who settled Monmouth County (some came south from New York, some came east from Philadelphia).

Other famous isoglosses are "bucket"/"pail," "faucet"/"tap," and "quarter of" versus "quarter to." Various alternative names for "See-Saw" provide a particularly interesting example. Although the *unmarked* term "See-Saw" is recognized throughout America, there are alternative forms on the East Coast. "Teeter-totter," for example, is a heavily Northern word; the form is "Teeter" or "Teeter Board" in New England and New York state and "Teeter-Totter" in New Jersey. There are almost no "Teeter-" forms in Pennsylvania, and if you go to western West Virginia and down into western North Carolina there is a band of "Ridey-Horse" that heads almost straight south. This pattern suggests a New England origin or importation of the term that spread down the coast and a separate development in Appalachia, where Scotts-Irish settlers did not come from New England. "Hickey-horse" in the coastal regions of North Carolina is consistent with other linguistic and ethnic variations.

For whatever reasons, the insect known most commonly as the dragonfly has a variety of names. In northern and eastern New Jersey it is a "Darning

Needle" (my grandmother's name for it), but in Pennsylvania and West Virginia it is a "Spindle," in Virginia a "Snake Doctor" and on the coast through Delaware, Maryland, Virginia, and North Carolina, a "Snake Feeder." Some migration patterns into Tennessee and even Texas are consistent with the variation in dragonfly names.

When dialectologists plot all of their collected isoglosses—both those for word use and for pronunciation on the map—they generally confirm the major divisions discussed above. But there are some particularly interesting small areas of dialects that are highlighted by the map (though early dialectologists, and simple observers of American English, had already noticed them). The first is a pocket on the East Coast that includes the cities of Charleston, SC, and Savannah, GA, and is called the Charleston Dialect. One of its characteristic features is a pronunciation of "lawyer" that sounds so much like "liar" as almost to be a social commentary. Charleston Dialect is often considered to be the highest prestige dialect of all Southern English and has more in common with upper-class British English of the eighteenth century than other dialects (New England dialects, despite their prestige in America, have more in common with middle- and lower-class East Anglian settlers). Other distinctive dialect pockets include Providence, RI, with its very characteristic naming of a milkshake a "cabinet," and Pittsburgh, PA, with a variety of nonstandard lexical items and pronunciations. There is also a dialect region around St. Louis, MO, that separates this metropolitan area very firmly from the surrounding countryside.

All of this leads us to that earthshaking question debated by millions of American college students: Is a fizzy drink "soda" or "pop"? As the map at http://www.popvssoda.com shows, "soda" is used mainly on the East Coast, in California, and from Chicago north along Lake Superior and around St Louis, MO. "Pop" is Midwestern and Northwestern, and "coke" is used in the south. But all forms are used at least somewhat in all regions, not only demonstrating geographic mobility, but also suggesting that the reasons for preferring one term to another might be complex. Some studies suggest that "soda" is urban and suburban while "pop" is rural, but not in each term's home range (i.e., in the Midwest, those who do use "soda" are far more likely to be found in the cities than in the countryside; likewise on the East Coast, "pop" is found in small towns more than in cities). "Soda" is often considered the term with more prestige or social cachet, but it can also be interpreted as a pretentious or, in the South, a "Yankee" word. Pop versus soda has led to many a vigorous late-night debate over pizza and is related to other disputed topics such as the hero versus the grinder versus the sub.

This is all good fun (and useful for excellent cocktail party repartee if you have some linguistic knowledge or have listened to this course), but it leads us to a much more serious subtext, which we will discuss in the next lecture, on the politics and social implications of language variation. English is the first global language, and its variations are an incitement to study. But the various word choices that people make (or make unconsciously) can have social consequences in both the small and the large scale: Some variations may be neutral, but others have the ability to express social class, cultural solidarity, and ethnic identity.

FOR GREATER UNDERSTANDING

Questions

1. What led to the evolution of different English dialects?
2. What are the forces that shape dialects and linguistic evolution?

Suggested Reading

Fromkin, Victoria, Robert Rodman, and Nina Hyams, eds. *An Introduction to Language.* 7th ed. Belmont, CA: Heinle Publishing, 2002.

Other Books of Interest

Wolfram, Walt, and Natalie Schilling-Estes. "American Dialects." Part 5. *The Cambridge Encyclopedia of the English Language.* Ed. David Crystal. Cambridge: Cambridge University Press, 2003.

Lecture 14:
A Global Language:
The Present and Future of English

The Suggested Reading for this lecture is David Crystal's *The Stories of English.*

> "You see this creature with her kerbstone English: the English that will keep her in the gutter to the end of her days. Well, sir, in three months I could pass that girl off as a duchess at an ambassador's garden party. I could even get her a place as a lady's maid or shop assistant, which requires better English."
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> ~Henry Higgins in George Bernard Shaw's *Pygmalion*

Pygmalion (and its even more entertaining musical adaptation, *My Fair Lady*) is a play about the interaction of language—from phonetics to grammar to syntax to word choice—and social class. It illustrates beautifully the complex nexus between what we speak and who we are and the difficulties of trying to change either. The connection between language and identity, which is not a simple one, lies along a fault line in linguistics, one that is evident in the character of Henry Higgins as well, and it is a fitting topic for the end of our course, for as English has become a world language with more variants than even scholars can track, the problems of identity and language change have become more and more evident.

On the one hand, Henry Higgins is a brilliant *descriptive* linguist. He has invented "Higgins's Universal Alphabet" in order to transcribe accurately the speech of any person. Even Higgins's friend and admirer Colonel Pickering (author of *Spoken Sanscrit*) cannot match Higgins's ability to make fine discriminations among sounds: "I rather fancied myself because I can pronounce twenty-four distinct vowel sounds," says Pickering, "But your one hundred and thirty beat me. I can't hear a bit of difference between most of them."

On the other hand, Higgins is a *prescriptive* linguist. He notes that Eliza's lower-class speech patterns will "keep her in the gutter to the end of her days," but he is not troubled existentially by this, arguing that she simply needs to change. That people judge others on language is simply a fact of life to Higgins, and in fact, although he is aware of the language and social systems at play, he also supports them: "A woman who utters such depressing and disgusting sounds has no right to be anywhere—no right to live. Remember that you are a human being with a soul and the divine gift of articulate speech: that your native language is the language of Shakespeare and Milton and the Bible; and don't sit there crooning like a bilious pigeon."

Most linguists today would be (and are, when they watch the film or read the play) rather horrified by Higgins's attitude toward language. Hardcore *de*scriptive linguistics is pretty much the reigning paradigm. Linguists essentially

believe that their job is to examine and understand what speakers say, not to tell those speakers how to speak. The analogy I have heard a few linguists use is to field biologists: you study the animals; you do not try to teach them better ways to hunt or fish or groom their fur. The kinds of linguists who do actually try to change people's pronunciation have been pushed out into their own little enclave and called Speech Therapists. They do an enormous amount of good for people with genuine articulation problems, but as far as mainstream linguistics textbooks go, they might as well be invisible, and the linguists I know would be very unwilling to work with someone to change a nonstandard accent. Linguists have an ideological commitment to being descriptive rather than prescriptive.

In one sense, I agree very much with this approach. The development of English as a world language has probably destroyed once and for all any possibility of enforcing one "standard" English. Speakers of different dialect varieties of English can express thoughts of the same richness and complexity as those who use the Queen's English (or the American variant, Broadcaster's English), so there is no particular *need* for anyone to change his or her speech to meet some kind of norm. But if you read a variety of current linguistics textbooks, you will see that linguists view their roles as public intellectuals as working to convince the public that all variants of speech are interesting and worthy of respect. This is a noble approach, but I would like to see linguists do more. The nonjudgmental pose often does a disservice to people who wish to *change* their social positions and cultural identities. No less a hoary old socialist than George Bernard Shaw, in his Preface to *Pygmalion,* encourages people to study phonetics (only with a qualified teacher! he exhorts) in order to improve their social situations. Most laypeople see nothing wrong with such an action (I do not, myself), and linguists have the tools and knowledge to help people to make those changes they desire. My own argument, which I must emphasize is extremely heterodox and would be looked upon with scorn by some of the linguists I know, is that regional variations would be *more* likely to be preserved if people were given more tools to be able to switch easily between "standard" dialects and their home forms.

Prestige and Solidarity

As English has spread throughout the world and diversified throughout the major areas in which it is spoken, certain dialects and speech forms have become more prestigious than others. In England *Received Pronunciation* (RP) is the dialect form of the Royal Family, the elite schools, the government, and the courts. Although it is somewhat less influential than it was in past decades, *RP* still marks the speaker as educated and socially important. However, *RP* is also viewed with hostility or suspicion in some places. Politicians who speak in *RP* in Parliament switch to the dialects of their own regions when speaking for the home audience. Some research has shown that people evaluating oral arguments in legal cases rated the arguments made in *RP* as being of a higher quality than identical arguments made in a regional accent. However, they rated the arguments made in the regional accent as more persuasive.

This last is exceptionally important and explains why prestige dialects have not overwhelmed other regional variants throughout the world, why, in fact,

people persist in using stigmatized forms of language when they could conceivably switch to those, like Eliza's learned pronunciation in *Pygmalion*, that would open up additional social opportunities for them. I can perhaps illustrate with a few examples:

- A child of Jamaican descent said something to a friend in the dialect form that speakers from outside of the Caribbean would think of as "Jamaican" (which Jamaicans call "patois"). Her mother turned to her and said "Don't speak patois!" A few minutes later the mother was speaking on her cell phone, in perfect Jamaican patois.
- The accent of presidential candidate John Kerry is that of a Boston Brahmin. It is the regional accent of an exceptionally high-prestige, privileged group in Massachusetts. Yet you could listen to radio commercials in Massachusetts all day and not hear one minute of Boston Brahmin speech. Instead, you would often hear the local accents of South Boston, Dorchester, Lynn, or Chelsea being used to sell cars, mattresses, and furniture.
- In the Boston area, the stage in school before first grade is pronounced "kindy-garden," and topsoil, spelled "loam," is pronounced "loom." In Pittsburgh English, the words "to be" can be dropped after the word "needs": for example, "that homework needs done" or "that room needs cleaned," and the plural of "you" is not "you" (or even "y'all"), but "younz." In parts of the Chicagoland area, the university I attended, Loyola Chicago, is pronounced "Ly-ola." I have lived in all of these areas (for a cumulative eleven years in Boston, four in Pittsburgh, and four in Chicago) and yet I have never pronounced any of these words this way.

The complicated ties between language and identity can explain these three seemingly separate sets of observations. In each case, the individuals involved recognize that there is a trade-off between *prestige* and *solidarity*. On the one hand, you can adopt the prestige dialect or avoid the more stigmatized form (such as, for example, when the mother told her daughter not to speak patois to her friend). This signals social goods such as education, discipline, and cultural connections. On the other hand, you can choose the dialects of solidarity, expressing trustworthiness, friendliness, and being from the same locality. When people change the forms of dialect that they use, they are said to practice *code switching*.

Code switching is a very complicated process that allows individuals to mediate their own identities. One of the reasons I never say "loom" or "Ly-ola" or "that needs done" is that to adopt the regionalism of an area I was not from seemed to me phony—and this may even be a defensive rationalization, because speakers native to the region might very well catch the fact that I was not a native speaker from some other cues in my language and think that I was mocking them or putting on airs by using a dialect not my own. A person's *attitude* toward identity is also extremely significant in regional dialect performance. The great socio-linguist William Labov first made a name for himself by doing research on accent on the island of Martha's Vineyard. Labov found that the traditional Martha's Vineyard accent, to his surprise, did not reflect gender, ethnicity, or class. Instead, it was closely correlated to a person's attitude toward traditional Martha's Vineyard life. The accent was weakest in those individuals who were planning on leaving the

island and resettling on the mainland. It was strongest in those individuals who had left the island, lived on the mainland, and decided to re-settle on the Vineyard. This conclusion was so extraordinary in part because Labov was able to mark specific, non-subjective linguistic features (i.e., they were phonetic), but also because most researchers had supposed that individuals who had left the island for a time and mingled with other speakers would have *less* of a traditional Martha's Vineyard accent. Instead, those who did come back had *more* of one, suggesting that even accent was closely tied to individual attitudes toward identity rather than individual experiences. These attitudes toward identity explain why dialect forms whose speakers are discriminated against nevertheless persist.

"Patois" and African-American English (Black English Vernacular)

"Patois" is an originally French term meaning "broken speech." For many years it was a dismissive term used to describe vernacular Caribbean English as distinct from the more British English used by the elite, educated classes of the various Caribbean countries. Although there have been attempts in recent years to relabel it "Creole English" or "West Indian Creole," speakers of the dialect form itself have retained the term "patois" (and the Creole designation is problematic, because *creole* is a technical term that means a language usually created from multiple languages that were not mutually understandable). Patois has distinctive phonological, grammatical, and lexical features. For example, there is strong consonant cluster simplification at the ends of words, producing "tek" for "talked," "wek" for "walked," and "bes" for "best." There is also a sound shift, where both voiced and voiceless interdental fricatives are shifted to voiced or voiceless alveolar stops: "think" thus become "tink," "this" becomes "dis," and "that" becomes "dat." Metathesis is also apparent in "aks" for "ask," "deks" for "desk," and "flim" for "film." Grammatically, one of the more distinctive features is the use of "get" as a passive: "it get break." Vocabulary includes nearly fifteen thousand items in a Jamaican/English lexicon, including "foot-bottom" for "sole," "hand-middle" for "palm," and "duppy" for "ghost." It should not be at all surprising that many of the lexical items can at least plausibly be linked to West African roots.

In recent years the idea of a "Standard West Indian English" has grown, distinct from Standard British English but still of high prestige. "Patois" has been used as an insult; some educated West Indians often will not use it in mixed company (i.e., West Indians and outsiders), and they attempt to make their children speak standard English. But among friends and in situations of social comfort, they use patois freely, almost certainly because its use communicates social cohesion and solidarity.

Black English Vernacular or African-American English (or African-American Vernacular English) is almost certainly the most stigmatized dialect form in modern America, partially because it is in fact very close to the next most-stigmatized form, the speech of lower-middle and working-class southern whites. Like patois, Black English Vernacular has characteristic phonological, morphological, lexical, and syntactic features. The most significant of these is probably consonant cluster simplification, which happens much more frequently in African-American English than in most other regional varieties. "Tol" for "told" and "fitty" for "fifty" are just among the most obvious examples.

African-American English also regularly deletes final consonants if they are stops, so “tired” becomes “tire.” In recent years another deletion rule has led to more and more speakers pronouncing “all right” as “a–ight,” with a glottal stop replacing the two liquids, the first of which has already been deleted from most casual American speech.

One of the most distinctive grammatical features of African-American English is the complete deletion of the *copula* (forms of the word “to be”) in situations in which in Standard English the form can be contracted. For example:

Hyper-correct	Standard English	African American English
This is my friend.	That’s my friend.	That my friend.
The girl is late.	The girl’s late.	The girl late.

African-American English uses the verb “be” instead to indicate the *aspect* of a verb: “The girl be late” means that the girl is regularly or habitually late. The “be” form is then inflected as a regular rather than an irregular verb, as in “I listen to the radio when I bees on my way to work” instead of changing the “be” to “am,” it gets an “-s” inflection. Double and triple negatives are also regular forms in African-American English, as they were in Old and Middle (and Shakespearean) English, indicating emphasis.

African-American English can communicate “authenticity,” honesty, or personal connection. In the entertainment industry it is obviously linked to the popularity and appeal of many figures. The dialect is certainly stigmatized in many sectors of society, and many African-Americans practice code switching, speaking one way in mixed-race groupings and another in mono-racial groups.

The Future of English

The development of regional and class-based variations of English, and the persistence of even those forms that are stigmatized, tells us something very important about the future of English, a language spoken in one form or another by nearly one fifth of the population of the earth. And there is a *network effect* with any one dominant language: The more people who speak it, the more valuable it is to learn to speak it. For native English speakers this is obviously a good thing, as their natural linguistic ability, acquired with no effort in childhood, provides advantages in the worlds of commerce, entertainment, and technology, to name only three areas in which English is rapidly becoming a global standard. But the success of English has come at the expense of many other languages: Scholars and speakers rightly worry that the more than six thousand living languages will be radically reduced in the next century, with only relatively few major languages (perhaps the top one hundred in numbers of speakers) surviving the next five hundred years. This would be a tragedy, a loss of human accomplishment and invention no less important than the loss of species from the rainforests and tropical seas of the world.

But the spread of new dialect forms, the diversification of English, and the persistence of even the most stigmatized variants are cause for some optimism. It seems that we humans will preserve, even in the face of incessant and intense pressure, our home languages. We may switch codes, we may even choose to adopt prestige dialects, but somehow we retain the ability and the desire to speak in the languages that make us feel solidarity and

comfort. Even if our language starts from the same root, it seems to have built in a drive to branch out, to diversify, and to change continually. The story of English has been one of change and diversity, and I expect that its future will be also.

FOR GREATER UNDERSTANDING

Questions

1. What is “patois”?
2. What does the development of regional and class-based variations of English, and the persistence of stigmatized forms, tell us about the future of English?

Suggested Reading

Crystal, David. *The Stories of English*. New York: Overlook Press, 2005.

Other Books of Interest

Cassidy, Frederic G. *Jamaica Talk: Three Hundred Years of the English Language in Jamaica.* Kingston, Jamaica: University of the West Indies Press, 2006.

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Maalouf, Amin. *In the Name of Identity: Violence and the Need to Belong.* New York: Penguin, 2003.

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———. *Words and Rules: The Ingredients of Language.* New York: HarperCollins Publishers, 2000.

Shaw, George Bernard. *Pygmalion.* Mineola, NY: Dover Publications, 1994.

Wolfram, Walt, and Natalie Schilling-Estes. “American Dialects.” Part 5. *The Cambridge Encyclopedia of the English Language.* Ed. David Crystal. Cambridge: Cambridge University Press, 2003.

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