

The Study of Language

Sixth Edition

GEORGE YULE



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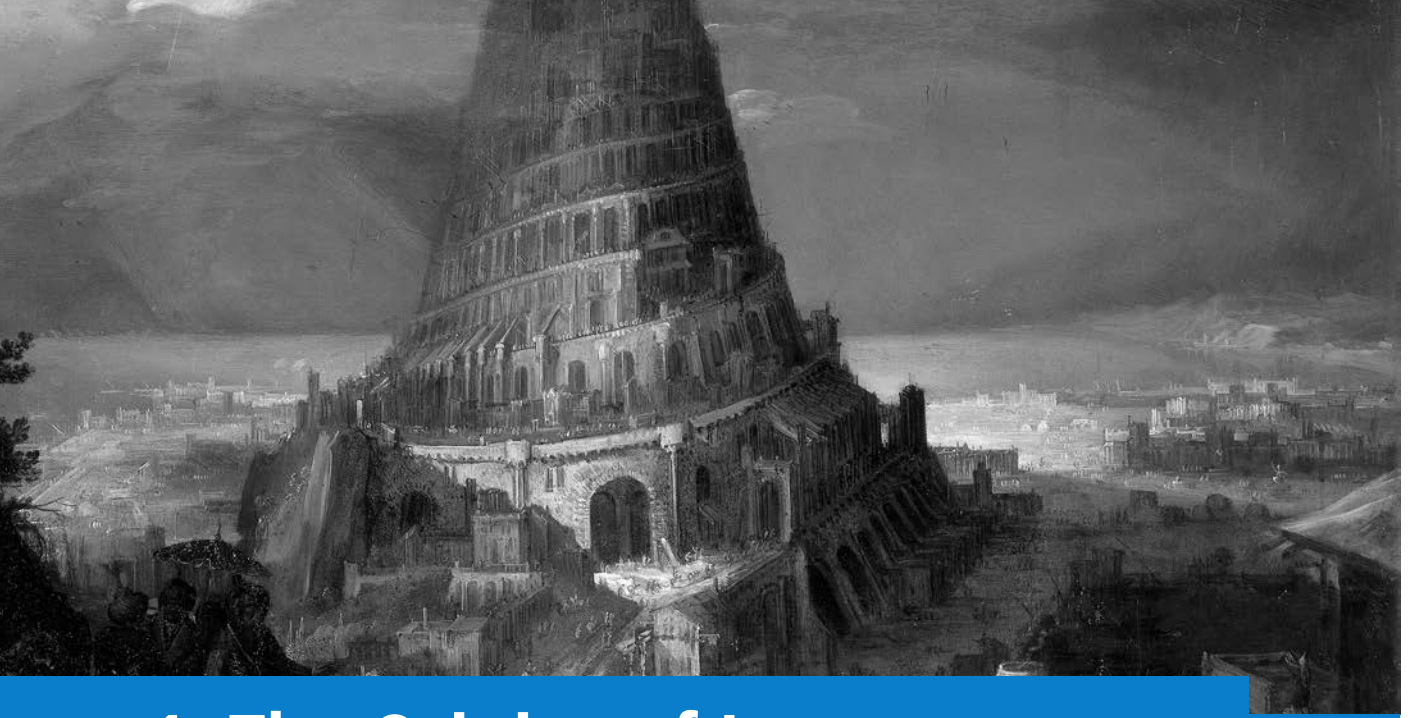
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1 The Origins of Language

The suspicion does not appear improbable that the progenitors of man, either the males or females, or both sexes, before they had acquired the power of expressing their mutual love in articulate language, endeavoured to charm each other with musical notes and rhythm.

Darwin (1871)

In Charles Darwin's vision of the origins of language, early humans had already developed musical ability prior to language and were using it "to charm each other." This may not match the typical image that most of us have of our early ancestors as rather rough characters wearing animal skins and not very charming, but it is an interesting speculation about how language may have originated. It remains, however, a speculation.

We simply don't know how language originated. We do know that the ability to produce sound and simple vocal patterning (a hum versus a grunt, for example) appears to be in an ancient part of the brain that we share with all vertebrates, including fish, frogs, birds and other mammals. But that isn't human language. We suspect that some type of spoken language must have developed between 100,000 and 50,000 years ago, well before written language (about 5,000 years ago). Yet, among the traces of earlier periods of life on earth, we never find any direct evidence or artifacts relating to the speech of our distant ancestors that might tell us how language was back in the early stages. Perhaps because of this absence of direct physical evidence, there has been no shortage of speculation about the origins of human speech.

The Genetic Source

We can think of the human baby in its first few years as a living example of some of these physical changes taking place. At birth, the baby's brain is only a quarter of its eventual weight and the larynx is much higher in the throat, allowing babies, like chimpanzees, to breathe and drink at the same time. In a relatively short period of time, the larynx descends, the brain develops, the child assumes an upright posture and starts walking and talking.

This almost automatic set of developments and the complexity of the young child's language have led some scholars to look for something more powerful than small physical adaptations over time as the source of language. Even children who are born deaf (and do not develop speech) become fluent sign language users, given appropriate circumstances, very early in life. This seems to indicate that human offspring are born with a special capacity for language. It is innate, no other creature seems to have it and it is not tied to a specific variety of language. Is it possible that this language capacity is genetically hard-wired in the newborn human?

The Innateness Hypothesis

As a solution to the puzzle of the origins of language, the **innateness hypothesis** would seem to point to something in human genetics, possibly a crucial mutation or two, as the source. In the study of human development, a number of gene mutations have been identified that relate to changes in the human diet, especially those resulting in an increase in calorie intake, possibly tied to the ability to digest starch in food and a substantial increase in glucose production. These changes are believed to have enhanced blood flow in the brain, creating the conditions for a bigger and more complex brain to develop. We are not sure when these genetic changes might have taken place or how they might relate to the physical adaptations described earlier. However, as we consider this hypothesis, we find our speculations about the origins of language moving away from fossil evidence or the physical source of basic human sounds toward analogies with how computers work (e.g. being pre-programmed or hard-wired) and concepts taken from the study of biology and genetics. The investigation of the origins of language then turns into a search for the special "language gene" that only humans possess. In one of the tasks at the end of this chapter (Task G on page 9), you can investigate the background to the discovery of one particular gene (FOXP2) that is thought to have a role in language production.

If we are indeed the only creatures with this special capacity for language, then will it be completely impossible for any other creature to produce or understand language? We will try to answer that question in Chapter 2.

- E In the study of the relationship between brain, tools and language in human development, two distinct types of stone tools are typically mentioned. They are described as Oldowan tools and Acheulean tools. What is the difference between them, when were they used, and which of them was investigated in the recent study involving blood flow in the brain, as described in the chapter?
- F The idea that “ontogeny recapitulates phylogeny” was first proposed by Ernst Haeckel in 1866 and is still frequently used in discussions of language origins. Can you find a simpler or less technical way to express this idea?
- G When it was first identified, the FOXP2 gene was hailed as the “language gene.” What was the basis of this claim and how has it been modified?
- H In his analysis of the beginnings of human language, William Foley comes to the conclusion that “language as we understand it was born about 200,000 years ago” (1997: 73). This is substantially earlier than the dates (between 100,000 and 50,000 years ago) that other scholars have proposed. What kinds of evidence and arguments are typically presented in order to choose a particular date “when language was born”?
- I What is the connection between the innateness hypothesis, as described in this chapter, and the idea of a Universal Grammar?

Discussion Topics/Projects

- I In this chapter we didn’t address the issue of whether language has developed as part of our general cognitive abilities or whether it has evolved as a separate component that can exist independently (and is unrelated to intelligence, for example). What kind of evidence do you think would be needed to resolve this question?
(For background reading, see chapter 4 of Aitchison, 2000.)
- II A connection has been proposed between language, tool-using and right-handedness in the majority of humans. Is it possible that freedom to use the hands, after assuming an upright bipedal posture, resulted in certain skills that led to the development of language? Why did we assume an upright posture? What kind of changes must have taken place in our hands?
(For background reading, see Beaken, 2011.)

- E In some phonetic descriptions, particularly in traditional North American studies, the following four symbols are used: [š], [ž], [č], [j]. The small v-shaped mark, called *haček* (“little hook”) or *caron*, indicates some common feature in the pronunciation of these sounds. Based on the following examples, can you work out what that common feature is? What are the four equivalent symbols used in the International Phonetic Alphabet, as illustrated in Table 3.3?

[eɪ̯], [jɪ̯n], [trežər], [ruž], [čip], [rouč], [šu], [fiš]

- F The terms “obstruent” and “sonorant” are sometimes used in descriptions of how consonants are pronounced. Among the types of consonants already described (affricates, fricatives, glides, liquids, nasals, stops), which are obstruents, which are sonorants and why?
- G (i) How would you make a retroflex sound?
 (ii) How are retroflex sounds identified in phonetic transcription?
 (iii) With which varieties of English are retroflex sounds generally associated?
- H What is forensic phonetics?
- I When we change the English word *secret* [sikrət] to *secrecy* [sikrəsi], the pronunciation of the final consonant changes ([t] > [s]). This type of change is an example of lenition (“softening” or “weakening” from Latin *lenis* (“soft”)).
- (i) Look at the four sets of examples presented here and try to describe the change that takes place in the pronunciation of the final consonant in each set.
- (ii) Thinking in terms of manner of articulation, can you provide a general description of the pattern of change found in all four sets?
- | | |
|--|---|
| (a) <i>democrat</i> > <i>democracy</i> | (b) <i>act</i> > <i>action</i> |
| <i>diplomat</i> > <i>diplomacy</i> | <i>inert</i> > <i>inertia</i> |
| <i>patient</i> > <i>patience</i> | <i>integrate</i> > <i>integration</i> |
| (c) <i>electric</i> > <i>electrician</i> | (d) <i>conclude</i> > <i>conclusion</i> |
| <i>magic</i> > <i>magician</i> | <i>decide</i> > <i>decision</i> |
| <i>music</i> > <i>musician</i> | <i>explode</i> > <i>explosion</i> |

Ilocano

When we look at Ilocano, a language of the Philippines, we find a quite different way of marking plurals.

	Singular	Plural	
("head")	<i>úlo</i>	<i>ulúlo</i>	("heads")
("road")	<i>dálan</i>	<i>daldálan</i>	("roads")
("life")	<i>bíag</i>	<i>bibíag</i>	("lives")
("plant")	<i>múla</i>	<i>mulmúla</i>	("plants")

In these examples, there seems to be repetition of the first part of the singular form. When the first part is *bí-* in the singular, the plural begins with this form repeated *bibí-*. The process involved here is technically known as **reduplication** (= "repeating all or part of a form"). Having seen how plurals differ from singular forms in Ilocano, you should be able to take this plural form *taltálon* ("fields") and work out what the singular ("field") would be. If you follow the observed pattern, you should get *tálon*.

Tagalog

Here are some examples from Tagalog, another language of the Philippines.

<i>basa</i> ("read")	<i>tawag</i> ("call")	<i>sulat</i> ("write")
<i>bumasa</i> ("Read!")	<i>tumawag</i> ("Call!")	<i>sumulat</i> ("Write!")
<i>babasa</i> ("will read")	<i>tatawag</i> ("will call")	<i>susulat</i> ("will write")

If we assume that the first form in each column can be treated as a stem, then it appears that, in the second item in each column, an element *-um-* has been inserted after the first consonant, or more precisely, after the syllable onset. It is an example of an **infix** (described in Chapter 5, page 62).

In the third example in each column, the change involves a repetition of the first syllable, as *basa* becomes *babasa*. So, referring to the future in Tagalog is done via reduplication. Using this information, we can complete these examples:

<i>lakad</i> ("walk")	("Walk!") _____	("will walk") _____
<i>lapit</i> ("come here")	("Come here!") _____	("will come here") _____

In the second column, with the infix *-um-*, we would write *lumakad* and *lumapit*. In the third column, with reduplication, we would write *lalakad* and *lalapit*. So, next time you're enjoying a stroll through the streets of Manila and you hear *lumapit!*, you'll know what to do. Learn more about Tagalog in Task D, on page 82.



7 Grammar

Diagramming sentences is one of those lost skills, like darning socks or playing the sackbut, that no one seems to miss. When it was introduced in an 1877 text called *Higher Lessons in English* by Alonzo Reed and Brainerd Kellogg, it swept through American public schools like measles, embraced by teachers as the way to reform students who were engaged in (to take Henry Higgins slightly out of context) “the cold-blooded murder of the English tongue.”

Florey (2006)

We have already looked at two levels of description used in the study of language. We have described linguistic expressions as sequences of sounds that can be represented in the phonetic alphabet and described in terms of their features. That is, we can identify a voiced fricative /ð/, a voiceless stop /k/ and a diphthong /ɔɪ/ as segments in the transcription of a phrase such as /ðəlʌkɪbɔɪz/.

We can take the same expression and describe it as a sequence of morphemes.

<i>the</i>	<i>luck</i>	<i>-y</i>	<i>boy</i>	<i>-s</i>
functional	lexical	derivational	lexical	inflectional

With these descriptions, we could characterize all the words and phrases of a language in terms of their phonology and morphology.