THE STUDY OF LANGUAGE

gins of language · The development of writing · W
nan language · The sounds of language · The sound patterns of language · Syntax
rmation processes · Morphology · Phrases and sentences: grammar · Syntax
agmatics · Discourse analysis · Language and machines · Language and the
age acquisition · Second language acquisition/learning · Sign language · Lan
change · Language varieties · Language, society and culture · The origins o
he development of writing · The properties of language · Animals and human la
sounds of language · The sound patterns of language · Words and word-formati
hology · Phrases and sentences: grammar · Syntax · Semantics and pragmati
nalysis · Language and machines · Language and the brain · First language a
ond language acquisition/learning · Sign language · Language history and chan
· Language, society and culture · The origins of language · The develop
Animals and human language · The sounds of languag
word-formation processes · Morphology · Phra
gmatics · Dis

GEORGE YULE

The study of language

An introduction

George Yule

Louisiana State University

CAMBRIDGE
UNIVERSITY PRESS

Published by the Press Syndicate of the University of Cambridge
The Pitt Building, Trumpington Street, Cambridge CB2 1RP
40 West 20th Street, New York, NY 10011–4211, USA
10 Stamford Road, Oakleigh, Victoria 3166, Australia

First published 1985
Reprinted 1986 (twice), 1987 (twice), 1988 (twice), 1989, 1990, 1991, 1993

Printed in Great Britain at the University Press, Cambridge

Library of Congress catalogue card number: 85-5914

British Library cataloguing in publication data

Yule, George
The study of language: an introduction.
1. Language and languages
I. Title
400 P121

ISBN 0 521 30531 4 hardback
ISBN 0 521 31877 7 paperback

BS

Preface

In preparing this book, I have tried to present a survey of what is known about language and also of the methods employed by linguists in arriving at that knowledge. Many questions about the nature of language are still unanswered, and linguistics – often described as the scientific study of language – is a relatively new field. In fact, any individual speaker of a language has a more comprehensive 'unconscious' knowledge of how language works than any linguist has yet been able to describe. Consequently, as you read the following chapters, take a critical view of the effectiveness of the descriptions, the analyses, and the claims made, by measuring them against your own intuitions about how your language works. By the end of the book, you should feel that you do know quite a lot about both the internal structure of language (its form) and the varied uses of language in human life (its function), and also that you are ready to ask a lot of the kinds of questions that professional linguists ask.

To help you find out more about the issues covered in this book, each chapter ends with a set of further readings which will provide you with more detailed treatments than are possible in this introduction. Each chapter also has a set of Study questions and a set of Discussion topics/projects. The Study questions at the end of each chapter are presented simply as a way for you to check that you understood some of the main points or important terms introduced in that chapter. They should be answered without difficulty and an appendix of suggested answers for each Study question is provided at the end of the book. The set of Discussion topics/projects provides an opportunity to apply some of the analytic procedures presented, to consider some of the controversies which exist in the study of individual topics, and to try to focus your own opinions on different language-related issues.

The origins of this book can be traced to introductory courses on language taught at the University of Edinburgh and the University of Minnesota, and to the suggestions and criticisms of several hundred students who forced me to present what I had to say in a way they could understand. An early version of the written material was developed for Independent Study students at the University of Minnesota, whose

reactions prompted other changes in the direction of what I hope is greater relevance and clarity.

Naturally, a book like this does not come about without a lot of help from friends and colleagues. I would especially like to acknowledge my debt, for suggestions and advice, to Gill and Keith Brown, Penny Carter, Feride Erkü, Diana Fritz, Kathleen Houlihan, Tom McArthur, Jim Miller, Rocky Miranda, Eric Nelson, Sandra Pinkerton, Rich Reardon, Gerald Sanders, Elaine Tarone, Michele Trufant and, for my own introductory course, Willie and Annie Yule.

Contents

Chapter 1

The origins of language

> The genesis of language is not to be sought in the prosaic, but in the poetic side of life; the source of speech is not gloomy seriousness, but merry play and youthful hilarity ... In primitive speech I hear the laughing cries of exultation when lads and lassies vied with one another to attract the attention of the other sex, when everybody sang his merriest and danced his bravest to lure a pair of eyes to throw admiring glances in his direction. Language was born in the courting days of mankind.
>
> Otto Jespersen (1921)

Jespersen's proposal that human language originated while humans were actually enjoying themselves is one of the more endearing speculations concerning the origins of language. It remains, however, a speculation. We simply do not know how language originated. We do know that spoken language developed well before written language. Yet, when we uncover traces of human life on earth dating back half a million years, we never find any direct evidence relating to the speech of our distant ancestors. There are no dusty cassette tape fragments among the ancient bones, for example, to tell us how language was back in the early stages. Perhaps because of this absence of physical evidence, there has been no shortage of speculation about the origins of human speech. In this chapter, we shall consider the merits of some of those speculations.

The divine source

According to one view, God created Adam and "whatsoever Adam called every living creature, that was the name thereof" (Genesis, 2:19). Alternatively, following a Hindu tradition, language came from the goddess Sarasvati, wife of Brahma, creator of the universe. In most religions, there appears to be a divine source who provides humans with language.

In an attempt to rediscover this original, divine language, a few experiments have been carried out, with rather conflicting results. The basic hypothesis seems to have been that, if infants were allowed to grow up without hearing any language, then they would spontaneously begin using the original God-given language. An Egyptian pharaoh named Psammetichus tried the experiment with two newborn infants around 600 B.C. After two years in the company of sheep and a mute shepherd, the children were reported to have spontaneously uttered, not an Egyptian word, but the Phrygian word *bekos*, meaning 'bread'. The children may not have picked up this 'word' from any human source, but, as several commentators have pointed out, they must have heard what the sheep were saying.

James IV of Scotland carried out a similar experiment around A.D. 1500 and the children were reported to have started speaking Hebrew. It is unfortunate that all other cases of children who have been discovered living in isolation, without coming into contact with human speech, tend not to confirm the results of either of these 'divine-source' experiments. Children living without access to human speech in their early years grow up with no language at all. (We shall consider the case of one such child later in Chapter 14.) If human language did emanate from a divine source, we have no way of reconstructing that original language, especially given the events in a city called Babel, "because the Lord did there confound the language of all the earth" (Genesis, 11:9).

The natural sounds source

A quite different view of the beginnings of human speech is based on the concept of 'natural sounds'. The suggestion is that primitive words could have been imitations of the natural sounds which early men and women heard around them. When an object flew by, making a CAW-CAW sound, the early human imitated the sound and used it to refer to the object associated with the sound. And when another flying object made a CUCKOO sound, that natural sound was adopted to refer to that object. The fact that all modern languages have some words with pronunciations which seem to 'echo' naturally occurring sounds could be used to support this theory. In English, in addition to *cuckoo*, we have *splash*, *bang*, *boom*, *rattle*, *buzz*, *hiss*, *screech*, and forms such as *bow-wow*. In fact, this type of view has been called the "bow-wow theory" of language origin. While it is true that a number of words in any language are **onomatopoeic** (echoing natural sounds), it is hard

to see how most of the soundless, not to mention abstract, entities in our world could have been referred to in a language that simply echoed natural sounds. We might also be rather skeptical about a view which seems to assume that a language is only a set of words which are used as 'names' for entities.

It has also been suggested that the original sounds of language came from natural cries of emotion, such as pain, anger and joy. By this route, presumably, OUCH came to have its painful connotations. However, it has been noted that the expressive noises people make in emotional reactions contain sounds which are not otherwise used in their language, and, consequently, seem to be unlikely candidates as source-sounds.

One other 'natural sound' proposal has come to be known as the "yo-heave-ho theory". The sounds of a person involved in physical effort could be the source of our language, especially when that physical effort involved several people and had to be coordinated. So, a group of early humans might develop a set of grunts and groans and swear words which they used when lifting and carrying bits of trees or lifeless mammoths. The appeal of this theory is that it places the development of human language in some social context. Human sounds, however produced, may have had some principled use within the social life of the human group. This is an interesting idea, though still a speculation, which may relate to the use of humanly produced sounds. It does not, however, answer the question regarding the origins of the sounds produced. Apes and other primates have grunts and social calls, but they do not seem to have developed the capacity for speech.

The oral–gesture source

One suggestion regarding the origins of the sounds of language involves a link between physical gesture and orally produced sounds. It does seem reasonable that physical gesture, involving the whole body, could have been a means of indicating a wide range of emotional states and intentions. Indeed, many of our physical gestures, using body, hands and face, are a means of nonverbal communication still used by modern humans, even with their developed linguistic skills.

The "oral–gesture theory", however, proposes an extremely specific connection between physical and oral gesture. It is claimed that originally a set of physical gestures was developed as a means of communication. Then a set of oral gestures, specifically involving the mouth, developed,

in which the movements of the tongue, lips and so on were recognized according to patterns of movement similar to physical gestures. You might think of the movement of the tongue (oral gesture) in a 'goodbye' message as representative of the waving of the hand or arm (physical gesture) for a similar message. This proposal, involving what was called "a specialized pantomime of the tongue and lips" by Sir Richard Paget (1930), does seem a bit outlandish now. We can, indeed, use mime or specific gestures for a variety of communicative purposes, but it is hard to visualize the actual 'oral' aspect which would mirror many such gestures. Moreover, there is an extremely large number of linguistic messages which would appear to defy transmission via this type of gesturing. As a simple experiment, try to communicate, using only gesture, the following message to another member of your species: *My uncle thinks he's invisible*. Be prepared for a certain amount of misunderstanding.

Physiological adaptation

One further speculative proposal about the origin of human speech concentrates on some of the physical aspects of humans which are not shared with other creatures, not even with other primates. These physical features are best thought of as partial adaptations which, by themselves, would not lead to speech production, but which are good clues that a creature possessing such features probably has the capacity for speech.

Human teeth are upright, not slanting outwards like those of apes, and they are roughly even in height. Such characteristics are not needed for eating, but they are extremely helpful in making sounds such as *f*, *v* and *th*. Human lips have much more intricate muscle interlacing than is found in other primates and their resulting flexibility certainly helps with sounds like *p*, *b* and *w*. The human mouth is relatively small, can be opened and closed rapidly, and contains a very flexible tongue which can be used to shape a wide variety of sounds.

The human larynx, or the 'voice box' (containing the vocal cords), differs significantly in position from that of monkeys. In the course of human physical development, the assumption of an upright posture by the human moved the head forward and the larynx lower. This created a longer cavity, called the pharynx, above the vocal cords, which can act as a resonator for any sounds produced via the larynx. One unfortunate consequence is that the position of the human larynx makes it much more possible for the human to choke on pieces of food. Monkeys

may not be able to use the larynx to produce speech sounds, but they do not suffer from the problem of getting food stuck in the windpipe.

The human brain is **lateralized**, that is, it has specialized functions in each of the two hemispheres. Those functions which are analytic, such as tool-using and language, are largely confined to the left hemisphere of the brain for most humans. It may be that there is an evolutionary connection between the tool-using and language-using abilities of humans, and that both are related to the development of the human brain. Most of the other theories of the origin of speech have humans producing single noises or gestures to indicate objects in their environment. This activity may indeed have been a crucial stage in the development of language, but what it lacks is any 'manipulative' element. All languages, including sign language, require the organizing and combining of sounds or signs in specific constructions. This does seem to require a specialization of some part of the brain. (We shall return to this topic in Chapter 14.)

In the analogy with tool-using, it is not enough to be able to grasp one rock (make one sound); the human must also be able to bring another rock (other sounds) into proper contact with the first. In terms of linguistic structure, the human may have first developed the naming ability, producing a specific noise (e.g. *bEEr*) for a specific object. The crucial additional step which was then accomplished was to bring another specific noise (e.g. *gOOd*) into combination with the first to build a complex message (*bEEr gOOd*). A few hundred thousand years of evolution later, man has honed this message-building capacity to the point where, on Saturdays, watching a football game, he can drink a sustaining beverage and proclaim *This beer is good*. Other primates cannot do this.

Speech and writing

In developing speech, humans have obviously incorporated versions of naturally occurring sounds such as *cuckoo* and *ding-dong*. They have also incorporated cries of emotional reaction, such as *Wow*, *Ugh* and *Oops*, and accompany much of their speech with physical gestures such as pointing and raising of the outstretched forearm, bent at the elbow. All this noise-making and gesturing, however, seems to be characteristic of only one of the major functions of language use, which we may describe as the **interactional** function. It has to do with how humans use language to interact with each other, socially or emotionally; how they indicate friendliness, cooperation, or hostility, or annoyance, pain, or

pleasure. But there is another major function of language, the **transactional function**, whereby humans use their linguistic abilities to communicate knowledge, skills and information. It is unfortunate that we tend to imagine our cave-dwelling ancestors solely as hairy, grunting, bone-chewing individuals who mugged their mates, when a lot of that grunting may actually have been in the form of messages informing the junior caveboys and girls on the best way to hold the bones while chewing. The transactional function must have developed, in part, for the transfer of knowledge from one generation to the next. This transfer function of language remains fairly restricted in time and space as long as it can only be realized in speech. By its nature, speech is transient. The desire for a more permanent record of what was known must have been the primary motivation for the development of markings and inscriptions and, eventually, of written language.

Study questions

1. What is the name given to the theory which holds that the origin of human speech comes from the sounds heard by humans in their environment?
2. What is the basic idea behind the "yo-heave-ho theory"?
3. What specific type of claim is made by the "oral–gesture theory"?
4. What special features of human teeth and lips make them useful in the production of speech sounds?
5. What are the two major functions of language, and how do they differ?

Discussion topics/projects

A. It has been claimed that the development of the young human child may offer insights into how language originally developed. Are there any parallels between the behavior of infants and the proposals presented in this chapter about the behavior of early humans which leads to language use? (If you want to do some background reading, Lenneberg, 1967, and Bickerton, 1983a, present some relevant arguments.)

B. The limitations of a purely gestural theory of language origin may be related to differences in the range of message types. Consider these two messages: *The dog is eating a chicken* and *My brother believes he's a chicken*. Which message would be easier to convey via gesture (plus primitive grunting, if required), and why?

C. Jeremy Campbell (1982:156) has written: "The idea that tool making, the technology of subsistence, was the driving force behind the evolution of intelligence and language is open to serious question." Do you too have doubts about the proposal that the evolution of language can be tied to

the evolution of tool-using skills? How does the concept of 'intelligence' fit into this discussion?

D. It has been suggested that speech is, in fact, an 'overlaid' function, employing physical attributes of the human which were developed for other, more basic, functions (e.g. breathing, eating). What evidence would you use to support or refute such a proposal?

Further reading

For a fuller introductory account of views on language origin, chapter 10 of Bolinger (1975) provides an accessible treatment. A full account of the natural sounds source can be found in Diamond (1965), and more technical accounts of physiological development are presented in Lenneberg (1967) and Lieberman (1975). On some of the more specific points, a collection of readings edited by Salus (1969) contains selections from Plato (on 'natural sounds'), Rousseau (on 'cries of emotion'), Herder (against the 'natural cries' approach), plus a translated extract from Herodotus, describing the experiment conducted by Psammetichus. The original arguments for a 'gesture theory of speech' are to be found in Paget (1930), and for the distinction between interactional and transactional functions, see Brown & Yule (1983a).

Chapter 2

The development of writing

> The writings of divines are nothing else but a preaching the gospel to the eye as the voice preacheth it to the ear. Vocal preaching hath the pre-eminence in moving the affections, and being diversified according to the state of the congregations which attend it. This way the milk cometh warmest from the breast. But books have the advantage in many other respects. You may be able to read an able preacher when you have but a mean one to hear. Preachers may be silenced or banished, when books may be at hand. Books may be kept at a smaller charge than preachers. Books are, if well chosen, domestic, present, constant, judicious, pertinent, yea and powerful sermons, and always of very great use to your salvation.
>
> Richard Baxter (1673)

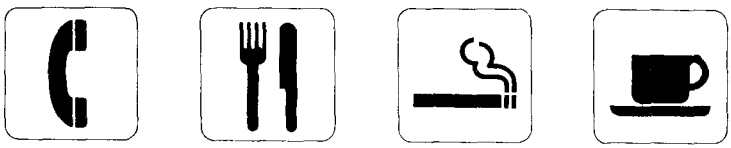
When we consider the development of writing, we should bear in mind that a very large number of the languages found in the world today are only used in the spoken form. They do not have a written form. For those languages which do have writing systems, the development of writing, as we know it, is a relatively recent phenomenon. We may trace human attempts to represent information visually back to cave drawings which were made at least 20,000 years ago, or to clay tokens from about 10,000 years ago which appear to have been an early attempt at bookkeeping, but these artifacts are best described as ancient precursors of writing. Writing which is based on some type of alphabetic script can only be traced back to inscriptions dated around 3,000 years ago.

Much of the evidence used in the reconstruction of ancient writing systems comes from inscriptions on stone or tablets found in the rubble of ruined cities. Many of these inscriptions have never been deciphered. It may be that some of this evidence is not the significant documentation of great events, but is the remains of scribbles and the graffiti of the day. Yet, tracing the development of those inscriptions allows us to discover the roots of a writing tradition going back a few thousand years

whereby the human has sought to create a more permanent record of what was thought and said.

Pictograms and ideograms

Cave drawings may serve to record some event (e.g. Humans 3, Buffaloes 1), but they are not usually thought of as any type of specifically linguistic message. They are normally considered as part of a tradition of pictorial art. When some of the 'pictures' came to represent particular images in a consistent way, we can begin to describe the product as a form of picture-writing, or **pictograms**. Thus, a form such as ☼ might come to be used for the sun. An essential part of this use of a representative symbol is that everyone should use similar forms to convey roughly similar meaning. In time, this picture might take on a more fixed symbolic form, such as ⊙, and come to be used for 'heat' and 'daytime', as well as for 'sun'. This type of symbol is considered to be part of a system of idea-writing, or **ideograms**. The distinction between pictograms and ideograms is essentially a difference in the relationship between the symbol and the entity it represents. The more 'picture-like' forms are pictograms, the more abstract, derived forms are ideograms. A key property of both pictograms and ideograms is that they do not represent words or sounds in a particular language. Modern pictograms, such as those represented in the accompanying illustration, are language-independent.



It is generally thought that there are pictographic or ideographic origins for a large number of symbols which turn up in later writing systems. For example, in Egyptian hieroglyphics, the symbol 𓉔 is used to refer to a house and derives from the diagrammatic representation of the floor-plan of a house. In Chinese writing, the character 川 is used for a river, and has its origins in the pictorial representation of a stream flowing between two banks. However, it should be noted that both these Egyptian and Chinese written symbols are not in fact pictures of a house or a river. There is an abstraction away from the form of the real-world entity in producing the symbol.