

The Course

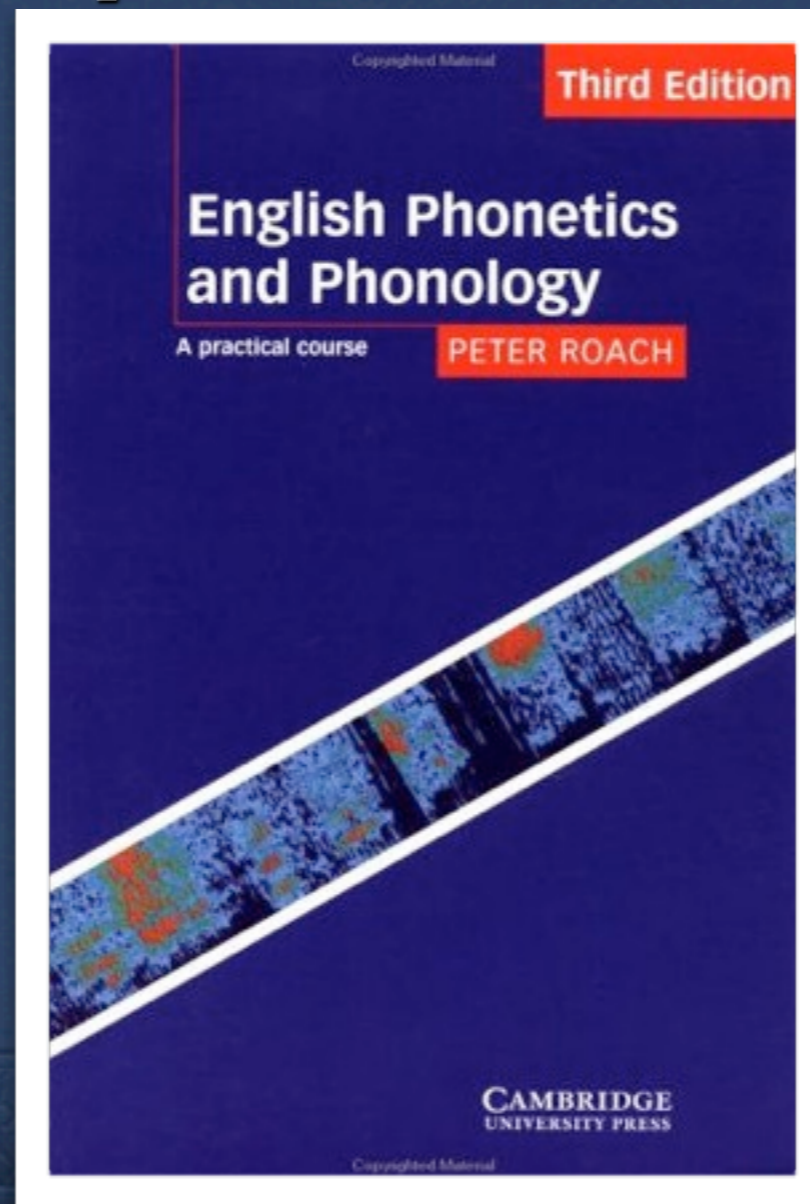
Phonetics & Phonology

Level (5)

Text Book

English Phonetics & Phonology

by Peter Roach



Course Plan

4 hours = 2 theoretical hours
2 practical
hours

Course Objectives:

1. To be introduced to field of *phonetics* and the purpose of studying it
2. To demonstrate knowledge on the three different kinds of phonetics: articulatory, acoustic and auditory
3. To acquire knowledge of the speech organs and how the sounds are produced
4. To know the places of articulation and manners of articulation

Course Objectives:

5. To be introduced to the consonants and vowels and their transcriptions
6. To distinguish *Phonetics* from *Phonology*
7. To acquire knowledge of *Phonology*, the phoneme, allophone, syllable, stress, weak forms and intonation
8. To shed light on the aspects of connected speech: elision, assimilation and rhythm

Division of Marks:

50 year work =

2 quizzes 20 + 20

Activities &

Attendance 10

Classroom Rules:

- 1. Students must be in class on time. No student is allowed to attend the class after the door is closed.**
- 2. Mobiles must be on silent.**
- 3. Students who talk aside during the class are considered absent.**
- 4. Students are expected to be active and participate during the class activities. Being absent in an activity class will deduct you a mark.**



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أخبار الجامعة

برنامج

لقاء أيام التهيئة لطلاب وطالبات السنة التحضيرية

بجامعة الدمام للعام الجامعي

1433 / 1434 هـ

MINISTRY OF HIGHER EDUCATION
UNIVERSITY OF DAMMAM
DEANSHIP OF PREPARATORY YEAR
AND SUPPORTING STUDIES

وزارة التعليم العالي
جامعة الدمام
عمادة السنة التحضيرية
والدراسات المساندة



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طالب وطالبة يحضرون لقاء أيام التهيئة للطلبة المستجدين 2000
بجامعة الدمام السبت

المزيد
كل الأخبار

تنظم عمادة السنة التحضيرية والدراسات المساندة بالتعاون مع عمادة شؤون الطلاب بجامعة الدمام لقاء تهيئة لطلاب والطالبات المستجدين وذلك ابتداء من يوم السبت الموافق 14/10/1433 هـ ولمدة أربعة أيام متواصلة لتعريف الطلاب والطالبات ببرنامج السنة التحضيرية والتعرف على برنامجها واستعراض تجارب بعض الطلبة السابقين

الطلاب الحاليون

نظام سجلات الطلاب

نظام تحديث البيانات

البريد الإلكتروني

التعليم الإلكتروني

نظام الدعم الفني

النماذج الإلكترونية

شؤون الطلاب

منتديات الجامعة

خدمات عامة

القبول والتسجيل

الطلاب الحاليون

طلاب المستقبل

أعضاء هيئة التدريس

الموظفون

الزوار

الخريجون

You will sign in by:

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as you log in to your university email.



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Lecture 1

Outline

- 1. What is language?**
- 2. What is linguistics?**
- 3. levels of linguistics**
- 4. What is Phonetics?**
- 5. What are objectives of studying phonetics?**
- 6. Introductory concepts**

Introduction to Language & Linguistics

What is Linguistics?



It is the **scientific** study of human



What is

When we say that a linguist aims to be scientific, we mean that he attempts to study language in much the same way as a scientist studies physics or chemistry, that is **systematically**,

Cont.

It means **observing** language use, **forming** hypotheses about it, **testing** these hypotheses and then **refining** them on the bases

What is Language?



- When we study human language, we are approaching what some might call the “human essence, “the distinctive qualities of mind that are, so far as we know,

**Noam Chomsky, Language
and Mind**

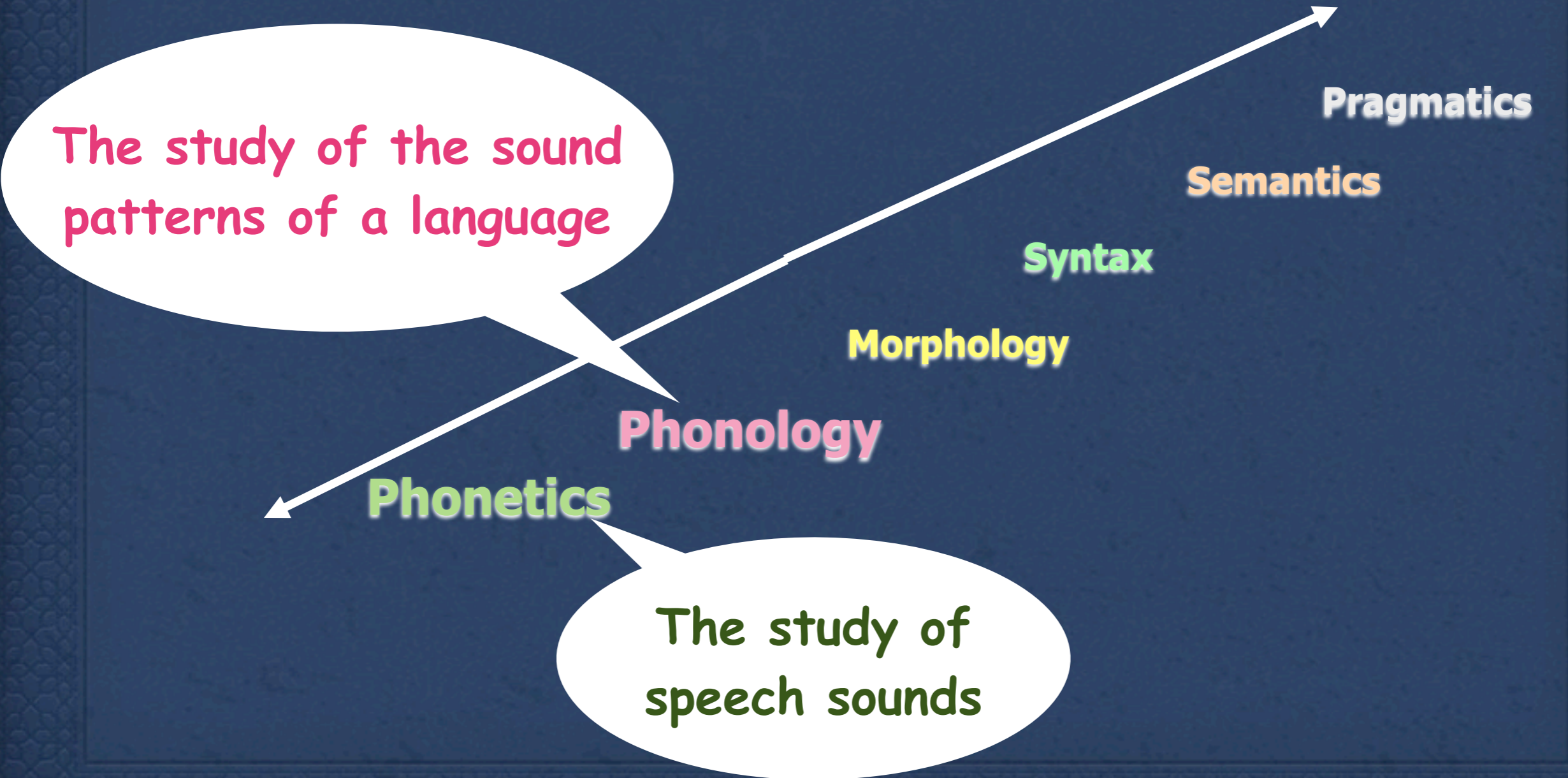
What is language?

A language is a **set of signals** by which we communicate. Human beings are not the only species to have an elaborate communication system. Even if human languages do not differ in **essence** from animal communication, they certainly differ in **degree**. Nothing in the animal kingdom can be compared to human

Cont.

language is a systematic means of communicating ideas and feelings by

Levels of Linguistics



Levels of Linguistics

1. Phonetics and phonemic transcription:
introduces the physiology involved in the production of speech sounds as well as phonemic and phonetic transcription systems that are used to represent the

Levels of Linguistics

2. **Phonology**: surveys the organizational principles that determine the patterns of the speech sounds are subject to.

3. Morphology: is concerned with the properties of words and word-building

4. Syntax: presents a study of the structure of sentences and phrases.

5. Semantics: surveys the properties of

6. **Pragmatics:** explores some of the issues involved in describing human communication and proposes certain communication strategies that people use when they talk to each other.

Introduction **to** **Phonetics**

Definition

Phonetics is concerned with the study of the description of speech sounds .

Objectives of studying Phonetics

There are different reasons for studying phonetics which means there are many kinds of phoneticians:

1. Some are interested in the different sounds that occur in languages.

Objectives of studying Phonetics

2. Some are concerned with **pathological** speech.
3. Others help people speak a **particular form** of English.
4. Others are concerned with **getting computers to recognize speech.**

Speech Production

- ◆ Our interest is in how speech sounds are made.
- ◆ Most of them are the result of movements of the **tongue** and the **lips**.
- ◆ Making movements audible involves pushing air out of the lungs while producing a noise in the **throat** or **mouth**.

Speech Production

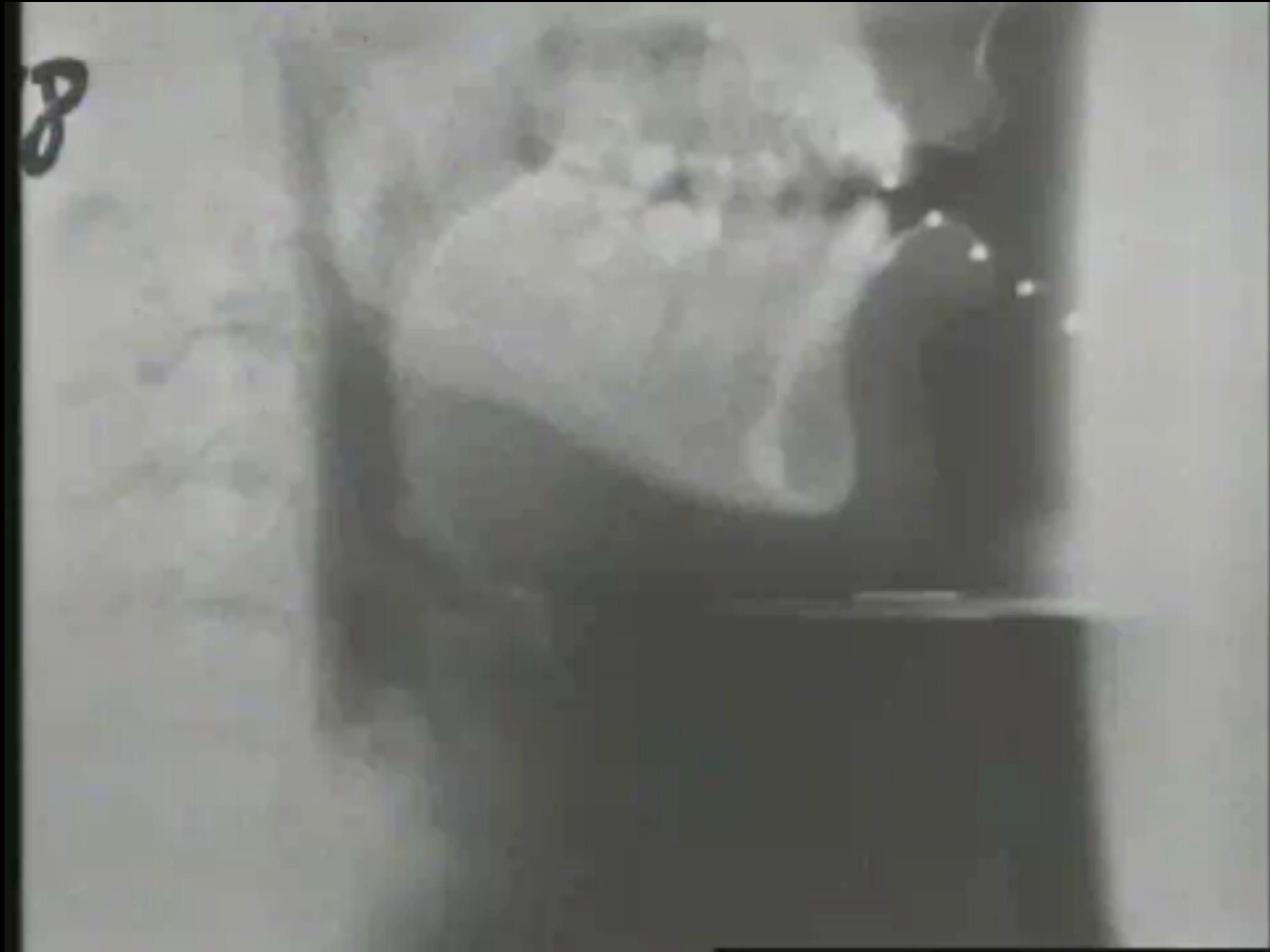
- ◆ These basic noises are changed by the actions of the tongue and lips.
- ◆ Later, we will study how the tongue and lips make about twenty-five different movements to form the sounds of English.

Speech Production

◆ Example:

an x-ray movie of the phrase:

on top of his deck



✦ **The actions of the tongue are among the fastest and more precise physical movements that people can make.**

How do we produce sounds?

- ◆ Producing any sound requires energy.
- ◆ In all speech sounds, the basic source of power is the **respiratory system** pushing air out of the **lungs**.

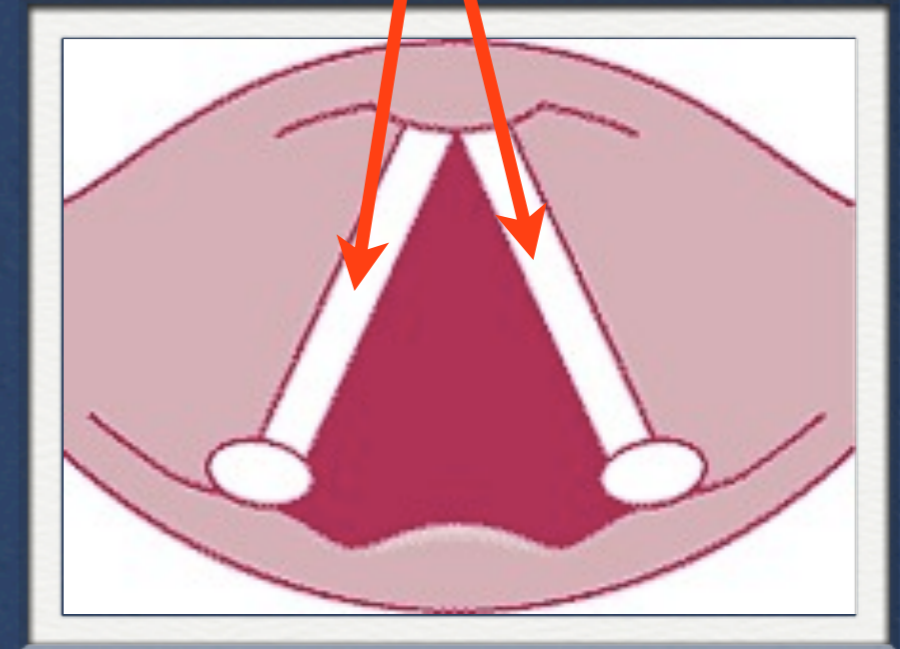
How do we produce sounds?

- ◆ When we talk, air from the lungs goes up the windpipe (**the trachea**) and into the **larynx**, at which point it must pass between two small muscular folds called the **vocal folds**.

How do we produce sounds?

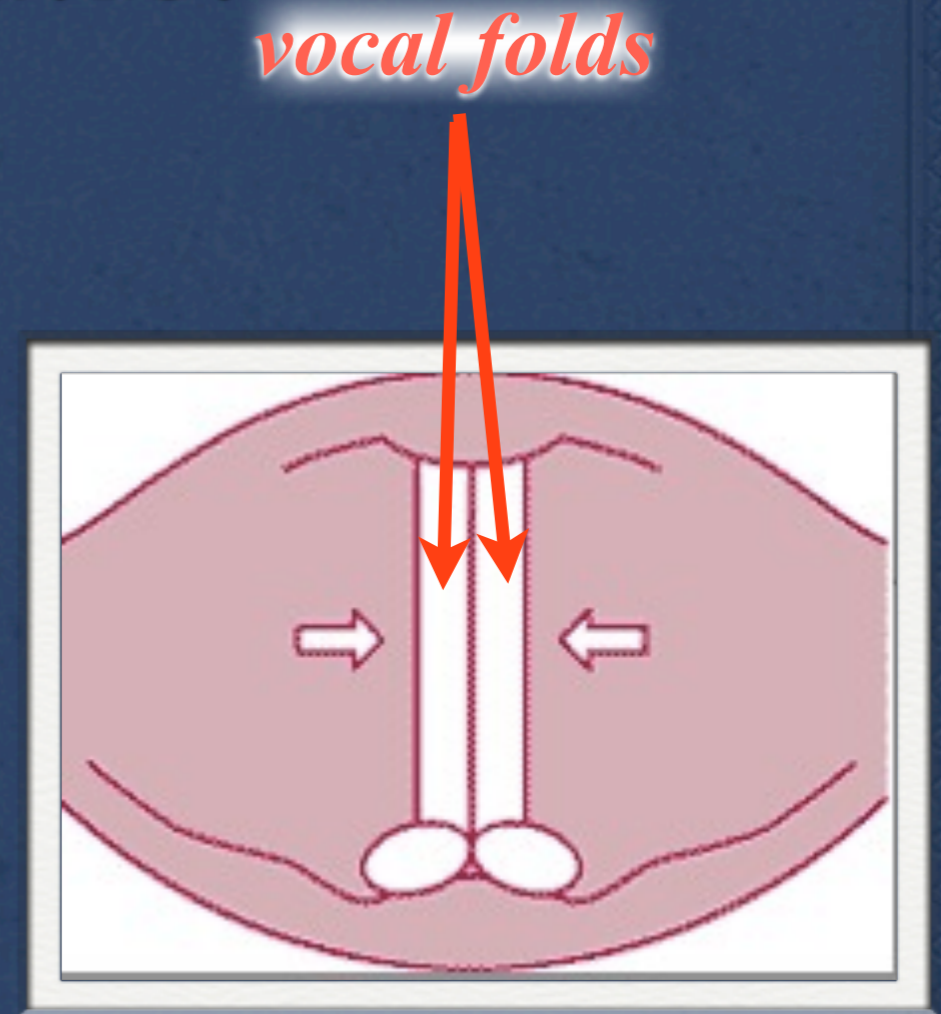
- ✦ If the vocal folds are apart, the air from the lung will have a relatively free passage into the pharynx and the mouth.

vocal folds



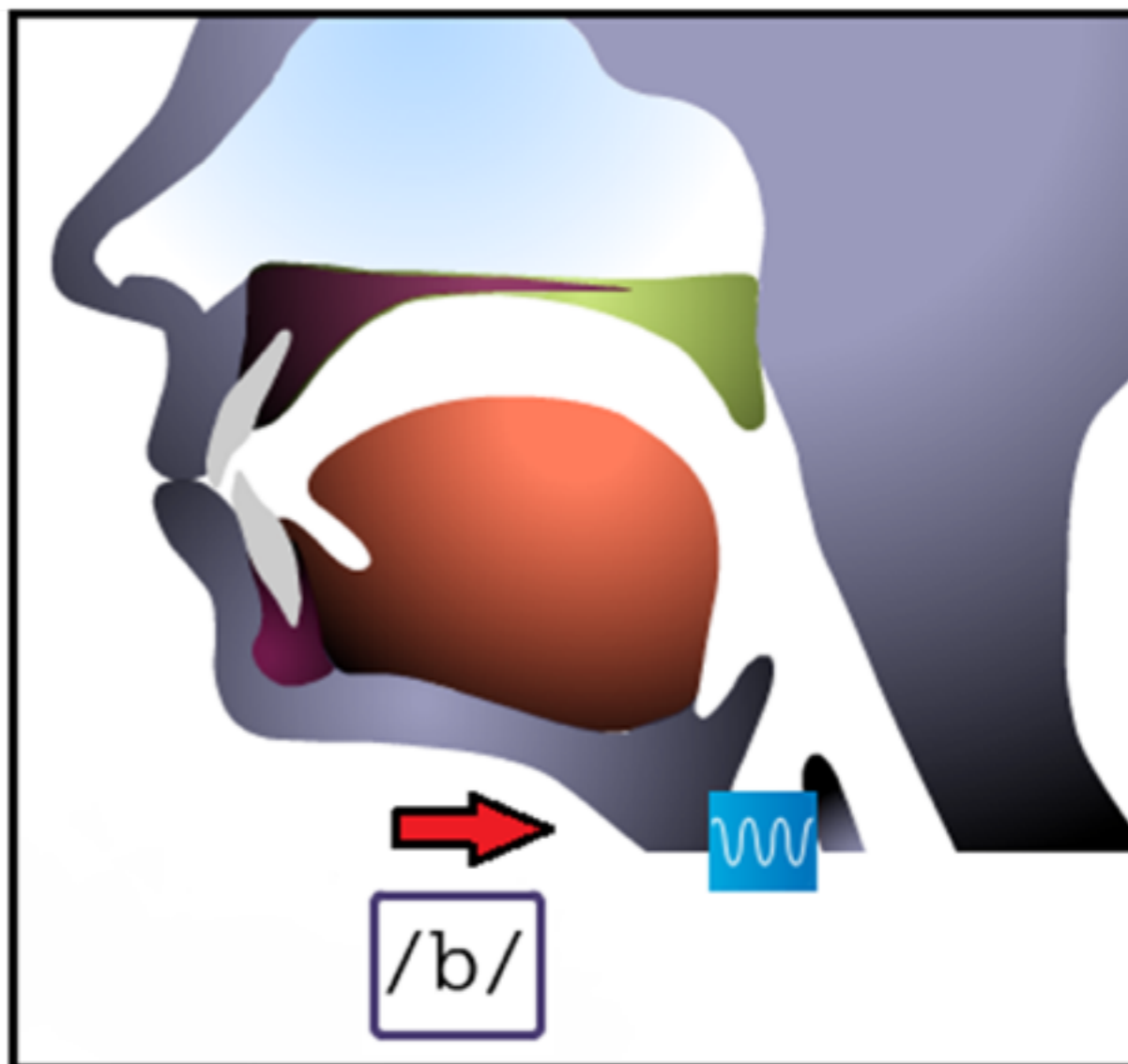
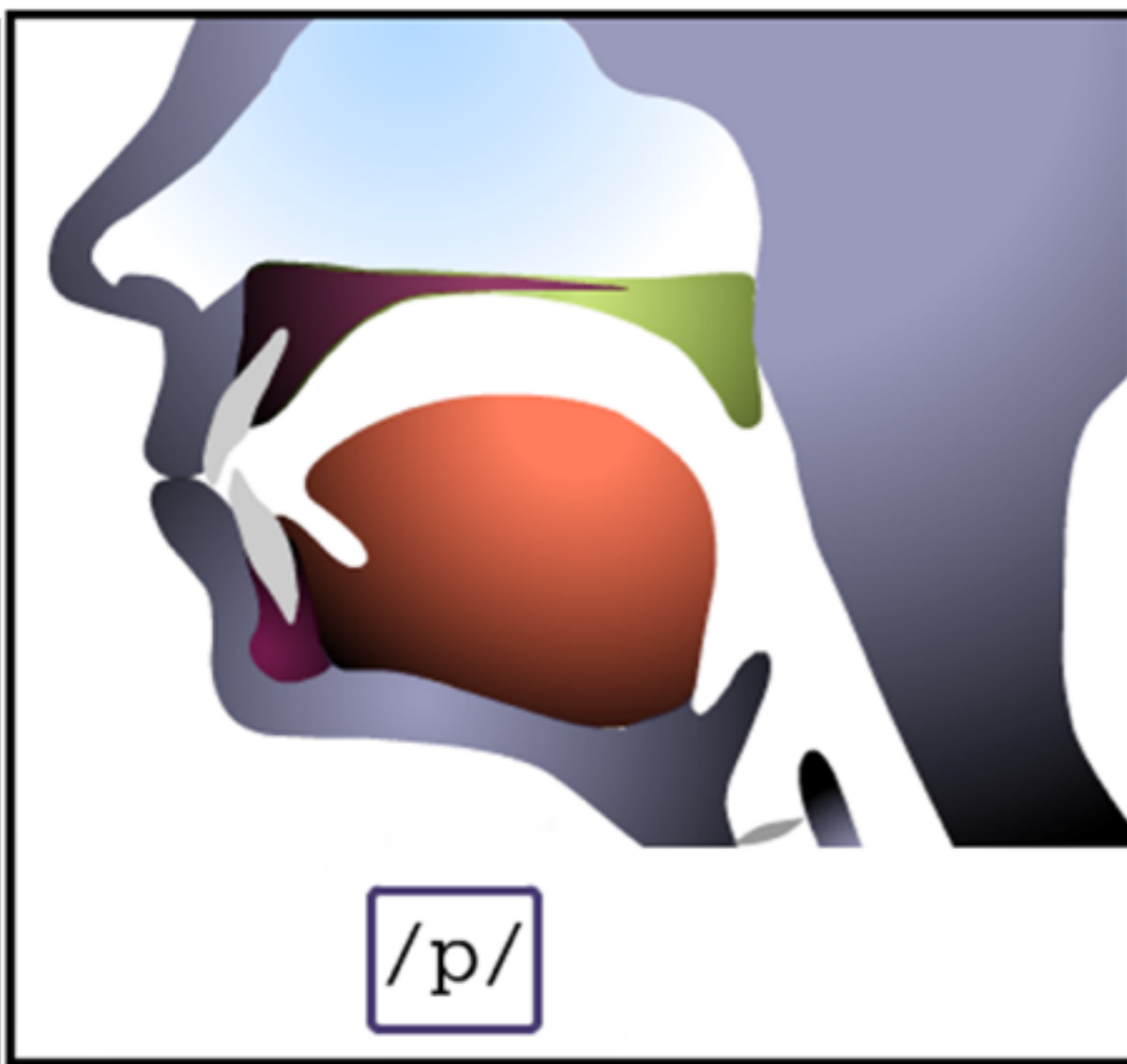
How do we produce sounds?

- ◆ But if the vocal folds are adjusted so that there is only a narrow passage between them, the airstream from the lungs will set them vibrating.



How do we produce sounds?

- ◆ Sounds produced when the **vocal folds are vibrating** are called **voiced**, as opposed to those in which the **vocal folds are apart**, which are said to be **voiceless**.



- See how the **lips** are pressed **together**
- Watch that the **vocal cords vibrate** for **/b/**

Speech Production

◆ Example:

1. the voiced [z] and voiceless [s]

[SSSSSZZZZZSSSSSSSZZZZZ]

2. the voiced [v] and voiceless [f]

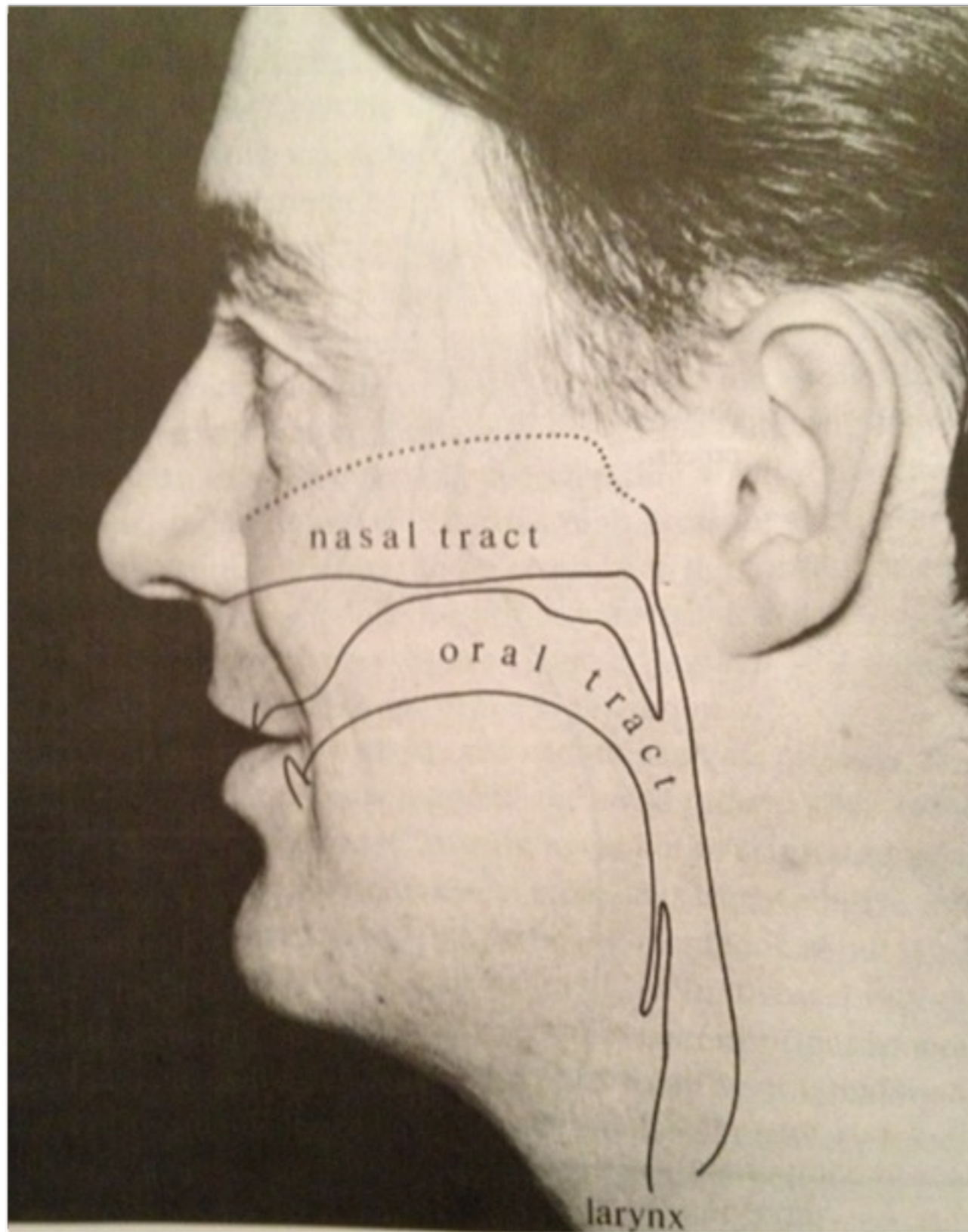
[fffffvvvvffffvvvvvv]

How do we produce sounds?

- ◆ The difference between voiced and voiceless sounds is important in distinguishing sounds.
- ◆ Example: *fat, vat* / *thing, thy* / *Sue, zoo*

How do we produce sounds?

- ✦ The air pressure above the larynx is known as the **vocal tract**.



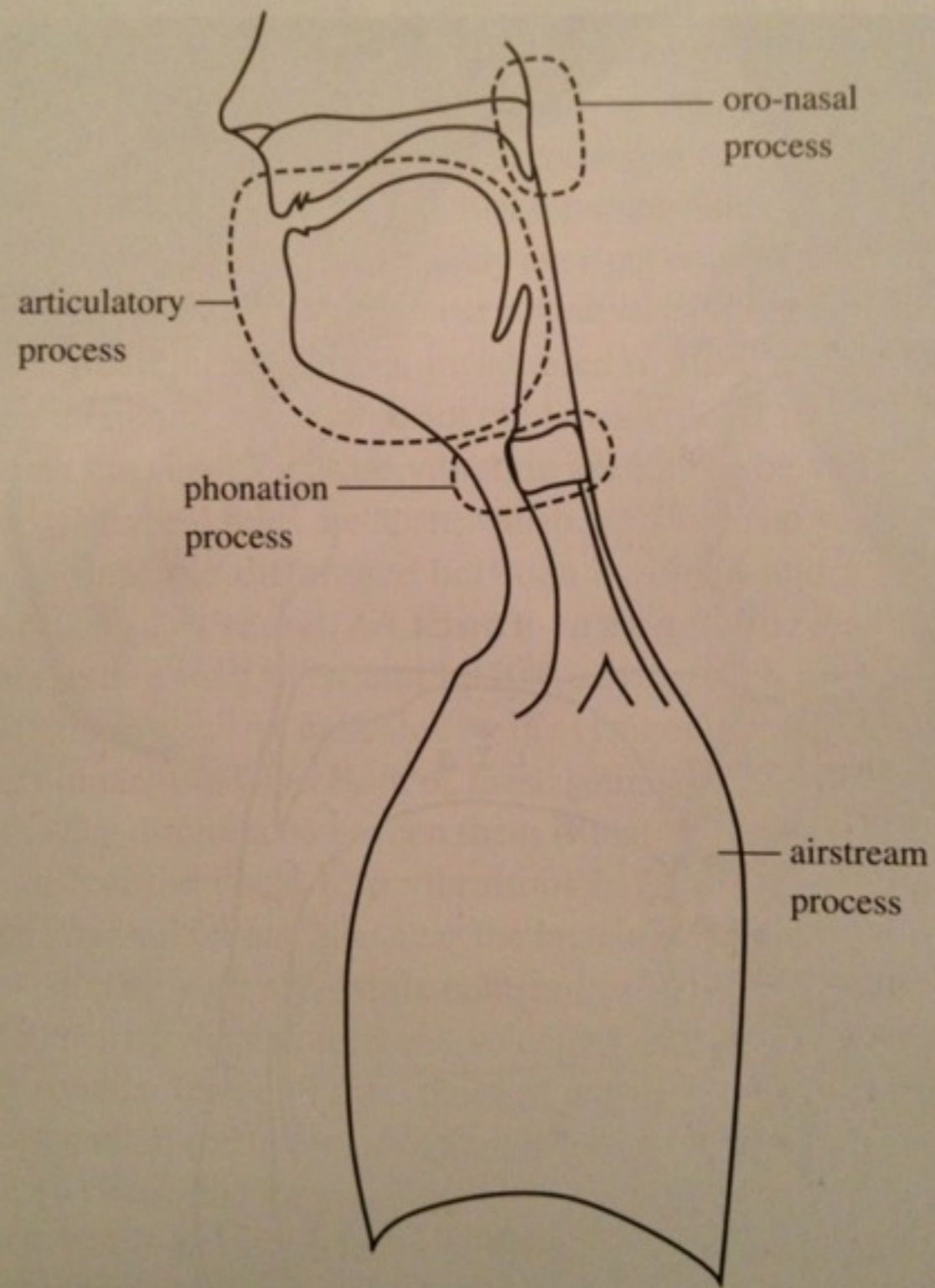
How do we produce sounds?

- ✦ The parts of the vocal tract that can be used to form sounds, such as the tongue and the lips, are called **articulators**.

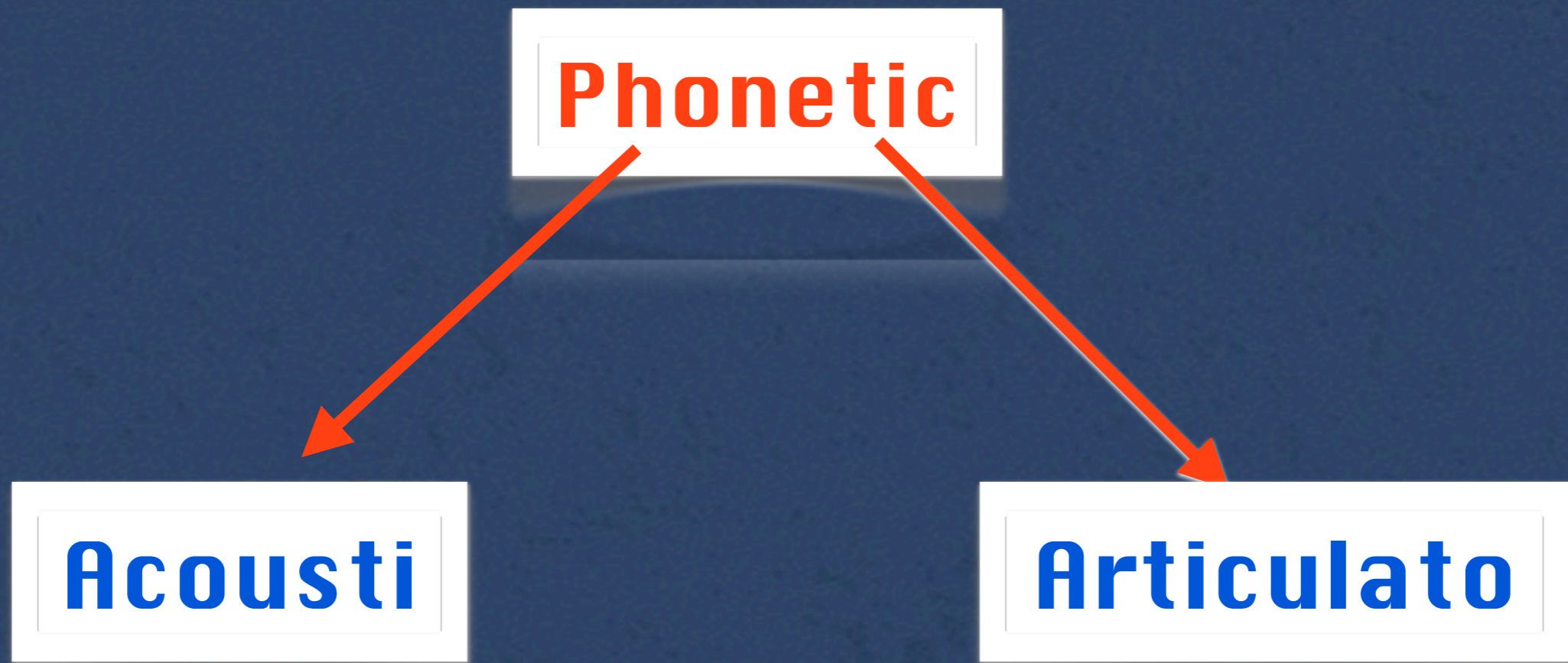
Summary of the speech production

- ◆ There are four main components:
 1. the airstream process
 2. the phonation process
 3. the oral-nasal process
 4. the articulatory process

Figure 1.3 The four main components of the speech mechanism.



There are two areas in the study of



Acoustic Phonetics

So far, we have been describing speech sounds by stating *how they are made*, but it is also possible to describe them in terms of *what we can hear*.

Acoustic Phonetics

- ✦ The way in which we hear a sound depends on its acoustic structure. Linguists and speech pathologist need to understand how certain sounds become confused with one another.

Acoustic Phonetics

- ◆ **Speech sounds, like other sounds, can differ from one another in three ways.**
- ◆ **They can be the same or different in**
 - (1) pitch,**
 - (2) loudness, and**
 - (3) quality.**

Acoustic Phonetics

- ✦ Thus, two vowel sounds may have exactly the same pitch, and may have the same loudness, yet still may differ in the quality.

Acoustic Phonetics

- ◆ Vibrations in air pressure in the form of sound waves move through the air somewhat like the ripples on a pond. When they reach the ear of a listener, they cause the eardrum to vibrate. A graph of a sound wave is very similar to a graph of the movements of the eardrum.

Figure 1.4 The variations in air pressure that occur during Peter Ladefoged's pronunciation of the vowel in *father*.

