

Assessment

- Attendance is mandatory.
- You will be marked on:
 - 1 mid-term examination
 - 1 final examination
 - 1 practical assignment on computer

Phonetics and phonology

Lecture 1: Introduction

KAMIYAMA Takeki

takeki.kamiyama@univ-paris8.fr

Course description - 1: Phonetics and Phonology?

- Ce cours se veut une initiation aux sciences phonétiques et à la phonologie, qui sont deux domaines complémentaires de la linguistique qui étudient la face sonore du langage.

Course description - 2: Phonetics

- La partie phonétique présentera les branches de la phonétique (phonétique articulatoire, phonétique acoustique, phonétique perceptive), les organes de la parole, l'API (Alphabet Phonétique International), les différences entre l'anglais et le français, les notions de fréquence fondamentale et de fréquences de résonance, etc.

Course description - 2: Phonetics (practice)

- Les étudiants approfondiront les connaissances acquises en cours pendant des **travaux pratiques sur ordinateur**, ce qui permettra de les initier à l'approche instrumentale de la phonétique, qui accroît son importance même dans les domaines appliqués des sciences phonétique (enseignements de la prononciation des langues étrangères, orthophonie, synthèse et reconnaissance de la parole, ...).

Course description - 3: Phonology

- La partie phonologie est consacrée à l'introduction des notions élémentaires en phonologie (étude des **systèmes** et des **fonctions** des sons dans les langues), qui seront indispensables pour comprendre toutes les approches récentes de phonologie : **phonème** et **allophone** , **distribution complémentaire et libre** , **traits distinctifs** , description des **règles phonologiques** , quelques **processus phonologiques** de base, etc.
- Les connaissances acquises en cours seront approfondies à travers des **exercices écrits** de phonologie.

Course description + (quick revision of) Prosody (<- former PHO4)

- Stress in compounds and phrases
- Intonation:
 - tones (fall, rise, fall-rise, rise-fall, level, ...)
 - tonality (how utterances are distributed into groups; where is the boundary?)
 - tonicity (where does the nucleus go?)

1. Phonetics and phonology?

- Both phoneticians and phonologists study speech sounds of human languages.

Phonetics and phonology: in the structuralist tradition

- **Phonetics** deals with **concrete physical realizations** of speech sounds (articulatory, acoustic, and perceptual characteristics).
- **Phonology** deals with the **sound system** of languages: how phonemes function, how they are used in a given language.

Some examples of topics treated in phonetics and phonology

- Phonetics deals with **concrete physical realizations**: word-final /l/ in RP is “dark” (articulatory, acoustic, perceptual characteristics). It is not the case in French.
- Phonology deals with the **sound system** of languages: /l m n ŋ r/ can be the nucleus (peak) of syllables in English. It is not the case in French.

2. Phonetics?

- Phonetics: a study of speech sounds used in languages.
- -> not about any kinds of sound

Phonetics?

Types of sound not treated in phonetics:

- Sound produced as natural phenomena (wind, rain, thunder, volcanoes, etc.)
- Sound produced by animals (language is unique to the human beings).
- Sound produced by the human beings unintentionally, as a physiological phenomenon (sneeze, hiccups, etc.)
- Sound produced by human intentionally, using an instrument (instrumental music, for instance)
- Sound produced by human intentionally with their body, but not as part of language (clap, whistle except in a ‘whistled language’)

Phonetics?

- Some sounds are used as part of the language in one language community, but not in another.
- E.g. Clicks in Khoisan languages and some Bantu languages, ingressive voiceless bilabial fricative in Swedish

Phonetics?

- Also, languages and varieties of languages (accents) choose different sounds to constitute their systems.
- Differences among various accents of English ?
- Differences between French and English?

Various accents of English

- 1. Suffolk, England
- 2. Glasgow, Scotland
- 3. Kilkenny, Ireland
- 4. Fresno, California
- 5. Beaumont, Texas
- 6. Brisbane, Australia
- 7. Nice, France

Phonetics of English compared with that of French?

- Demonstration 3

Phonetics of English compared with that of French?

- Demonstration 4
- Synthesis made from English or French?

Synthesis produced by Cédric Gendrot (Paris III) with Mbrola

3. Why study phonetics?

- Two main goals in language studies:
 - One as a learner of English (or other languages) as a Foreign Language
 - The other as an (aspiring) teacher of English as a Foreign Language, or a teacher of other languages.

Phonetics?

- Differences between French and English?
- Not only individual sounds ('h' absent in French, nasal vowels absent in English), but the syllable structure (more consonants) the rhythmic pattern and the intonation.
- Phonetics deals with all of these phenomena.

As a learner of EFL

- To improve listening comprehension.
- For better communication.
- To make yourself understood.
- To decrease the fatigue of the listener due to foreign accent.
- To learn to speak like a native speaker (if the learner is interested in being integrated in the language community: question of motivation)

-> mainly practical skills + some explicit, theoretical knowledge that will help to improve the performance.

As a teacher of EFL

- Good level of practical skills as a model.
- Solid theoretical background to analyse the pronunciation of the learners, explain how to pronounce, correct their pronunciation, and to organise exercises and activities to improve their performance.

4. How do we study phonetics?

- How do we study speech sounds in phonetics? Speech is '*verba volant*'. What instruments can be used?
 1. The ear of well-trained phoneticians.
 2. Reproduction of sounds and introspection (self-observation).
 3. Recordings (cassette, MD, computer).
 4. Transcription with phonetic symbols
 5. Phonetic analysis tools (visualisation of speech).
 6. Physiological measures (opening of the lips, endoscopy).
 7. Perceptual experiments (response to a stimulus).

Some other goals

- To be a speech therapist (*orthophoniste*).
- To work on speech recognition and synthesis.
- For broadcast, entertainment.
- To be a speech scientist and engage in fundamental research in phonetics.
- Etc.

How?

- How do we study speech sounds in phonetics? Speech is '*verba volant*'. What instruments can be used?
-> Demonstration.

Recording on Praat.

F0 curve

End of Lecture 1

Lecture 2: (quick revision of) Prosody