

## ARBC0225/LNGT0225 ARABIC LINGUISTICS

علم اللسانيات العربية



Lecture #5  
Feb 27<sup>th</sup>, 2012

### Announcements

- No class this Wednesday. We'll schedule a make-up class in the next few weeks.
- Any questions on Homework #1?

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### Transition from last class

- Middle Arabic dialects developed from some form of Classical Arabic (used here in the broad sense) that was introduced during the Islamic conquests into what is today the Arab world.
- Theories abound: pidginization, learning Arabic as a second language, and the military Koiné (this last is discussed in the reading in Homework #1).
- Substratal effects have contributed to the emergence of Arabic dialects, but they are too often exaggerated.

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### Modern Arabic

- Arab-European contact upon the French invasion of Egypt in 1798.
- Muhammad Ali's era in Egypt.
- Arabic language academies.
- The emergence of MSA.
- Calls for Arabic simplification: simplify the grammar, or simply start using the dialects.

### Lexical differences in MSA: Car rental

المغرب



المشرق



### Lexical differences in MSA: Fruit

فواجه (المشرق) - غلال (المغرب)



### Lexical differences in MSA: Fruit فُنْدُق (المشرق) – نَزْل (المغرب)



### Diglossia as a continuum

- El-Said Badawi's 5 levels of 'Arabic.'
  - (Classical Arabic) فصحي التُّراث
  - (Modern Standard Arabic) فصحي العَصْر
  - (Educated Spoken Arabic) عامية المُتَقَفِين
  - (Semi-literate Spoken Arabic) عامية المُتَنَوِّرِين
  - (Illiterate Spoken Arabic) عامية الأُمِّيِين

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### Transition from the 'history' to the 'system'

- We will revisit the contemporary linguistic situation in the Arab world again at the end of the semester when we talk about diglossia and language level in Chapter 9.
- Until then, we focus on the study of the linguistic features of Arabic dialects.
- We start with the sound system.

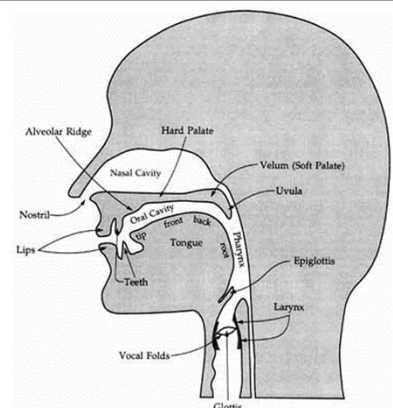
## Phonetics

### What's phonetics?

- Phonetics is the study of speech sounds in human language.
- In this class, we focus on articulatory phonetics: how speech sounds are articulated by the human vocal tract.
- We also learn the main symbols and diacritics used to transcribe human sounds in the **International Phonetic Alphabet**.
- We will focus first on the sound system of Classical Arabic, and move on to the dialects in later sessions.

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### The vocal tract



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## Consonants vs. Vowels

- There are two major types of sounds in human language: **consonants** and **vowels**. How do they differ?
- In terms of articulation, consonants are produced when the airflow is obstructed in the vocal tract, while vowels are produced with relative free flow of the airstream in the vocal tract.
- Both consonants and vowels can be described in terms of a number of individual articulatory features.
- We start with consonants.

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## Articulation of Classical Arabic consonants

- Consonant sounds can be characterized according to three main phonetic properties:
  - a) **place of articulation**,
  - b) **manner of articulation**, and
  - c) **voicing**.

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## Bilabial consonants

- **Bilabial** consonants are produced with both lips.
- In Classical Arabic, there are three bilabials:
  - ب/م/و
  - [b] as in باب
  - [m] as in مريض
  - [w] as in ولد

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## Labiodental consonants

- **Labiodental** consonants are produced with the upper teeth and the lower lip.
- Classical Arabic has only one such consonant:
  - [f] as in فرصة

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## Interdental consonants

- **Interdental** consonants are produced with the tip of the tongue between the upper and lower teeth.
- There are three interdental consonants in Classical Arabic:
  - ث/ذ/ظ
  - [θ] as in ثقافة
  - [ð] as in دُرّة (= 'corn')
  - [ðˤ] as in ظُهر

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## Alveolar consonants

- **Alveolar** consonants are produced when the front part of the tongue is in touch with the alveolar ridge, the area just behind the upper teeth.
- There are several alveolar consonants in Classical Arabic:

- |                     |                    |
|---------------------|--------------------|
| ت/ط/د/ض/س/ص/ن/ر/ز/ل |                    |
| - [t] as in تخرج    | - [tˤ] as in طائرة |
| - [d] as in دخول    | - [dˤ] as in ضعيف  |
| - [s] as in سياحة   | - [sˤ] as in صاحب  |
| - [n] as in نهار    | - [r] as in رأي    |
| - [z] as in زعلان   | - [l] as in لغة    |

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### Alveo-palatal consonants

- **Alveo-palatal** consonants are produced when the front part of the tongue touches the alveolar ridge and then the hard palate (that part of the mouth which is just behind the alveolar ridge).
- There are two alveo-palatal consonants in Classical Arabic: ش/ج  
 - [ʃ] as in شمس - [dʒ] as in جيد

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### Palatal consonants

- **Palatal** consonants are produced when the front part of the tongue raises towards the palate.
- Classical Arabic has only one palatal consonant: ي  
 - [j] as in يوم

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### Velar consonants

- Velar consonants are produced by raising the back part of the tongue towards the velum.
- Classical Arabic has three velar consonants: خ/غ/ك  
 - [x] as in خضار  
 - [ɣ] as in غريب  
 - [k] as in كم

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### Uvular consonants

- **Uvular** consonants are produced by raising the back of the tongue towards the uvula.
- There is only one uvular consonant in Classical Arabic: ق  
 - [q] as in قريب

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### Pharyngeal consonants

- **Pharyngeal** consonants are produced at the pharynx.
- There are two pharyngeals in Classical Arabic: ح/ع  
 - [ħ] as in حادث  
 - [ʕ] as in عُثْر

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### Glottal consonants

- **Glottal** consonants are produced at the glottis.
- Classical Arabic has two glottal consonants: ه/ء  
 - [ʔ] as in أسرة  
 - [h] as in هذا

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### Manner of articulation

- Speech sounds are also differentiated by the way the airflow is affected as it travels from the lungs up and out of the mouth and nose. This is referred to as the manner of articulation for the sound.

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### Stops (aka plosives)

- Stops:** These are produced by a complete obstruction of the airflow in the mouth, e.g., [b], [t], [tʰ], [d], [dʰ], [k], [q], and [ʔ].
- When the air escapes through the nasal, rather than the oral, cavity, **nasal stops** are produced, e.g., [m] and [n].

### Fricatives

- Fricatives:** These are produced by a partial obstruction of the airflow, where the passage in the mouth through which the air escapes is very narrow, causing friction, e.g., [f], [s], [sʰ], [z], [θ], [ð], [ðʰ], [ʃ], [x], [ç], [h], [ʁ], and [ħ].

### Affricates

- Affricates:** These are produced by a stop closure followed immediately by a slow release of the closure characteristic of the fricative. Classical Arabic has only one affricate: [dʒ].

### Liquids (aka Approximants)

- Liquids:** In the production of these sounds, there is some obstruction of the airflow in the mouth, but not enough to cause any real constriction or friction, e.g. [l].
- [l] is called a **lateral** approximant, because the air escapes through the sides of the tongue.

### Trill

- A **trill** is produced by vibrations between the front part of the tongue and the alveolar ridge.
- The Classical Arabic [r] is a trill, as in Spanish and Italian.

### Glides (aka Semi-vowels)

- **Glides:** These are produced with little or no obstruction of the air in the mouth, e.g. [j] and [w].
- When occurring in a word, they must always be either followed or preceded by a vowel, and in their articulation the tongue moves rapidly in a gliding fashion either toward or away from a neighboring vowel.

### Voicing

- Consonant sounds are also divided into two types, **voiced** and **voiceless**, based on whether they are produced with or without vibration of vocal cords. For example:  
 [d], [z], [x], and [ʔ] are voiced.  
 [t], [s], [ʃ], and [h] are voiceless.

### Classical Arabic consonant chart using the IPA symbols

	Labial	Labiodental	interdental	Alveolar	Alveo-palatal	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	ب			ت د ظ ط			ك	ق		ء
Nasal	م			ن						
Fricative	ف	ث	س ز	ش	خ	ح	ع	هـ		
Affricate				ج						
Approximant					ل					
Trill				ر						
Glide	و				ي					

### Holes' consonant chart (just for your reference, to be able to read the transcribed data in his book)

Table 2.1 Consonantal Inventory of Spoken MSA

Place of articulation	Manner of articulation				
	Plosive	Fricative	Affricate	Liquid	Nasal
labial	ب		و		م
labiodental		ف			
dental	ت د	س ز			ل
interdental	ظ ط	ث			
alveolar		ش		ج	ر ن
palatal		خ			
velar	ك				
uvular	ق				
pharyngeal		ح			
glottal	ء	هـ			

<http://www.uiowa.edu/~acadtech/phonetics/#>

- Link for the articulation of the consonants of American English, German, and Spanish. No Arabic ☹, unfortunately. Still, pretty useful to see how consonants are articulated.

### Next class agenda

- Vowels in Classical Arabic.
- Introducing phonemes and allophones. Syllable structure. Follow the link online for the reading from O'Grady et al.
- Continue to read Holes' Chapter 2, pp. 56-69.