# Morphology:

Simultaneous morphology

Linguistics 200
Spring 2003

# Simultaneous morphology

- Morphemes realized simultaneously, not sequentially
- Rare. Found in:
  - Semitic
    - Arabic
  - ASL

### Background on Arabic

Afro-Asiatic family

Berber Chadic Cushitic Egyptian Omotic Semitic

(SIL classification)

Arabic

### Arabic

- Classical Arabic
- Modern Standard Arabic
- 'Colloquial' varieties

### Classical Arabic

- variety spoken 7<sup>th</sup>-8<sup>th</sup> century A.D.
- spoken over wide area of Middle East
- used as 'lingua franca' (language of communication by speakers of other languages)

### Modern Standard Arabic

- a.k.a. High Arabic, Modern Literary Arabic, Educated Spoken Arabic
- 'modern form of Classical Arabic', 'compromise'
   Arabic
- 'a written language, powerfully influenced by traditional norms, which nevertheless is required to express a multitude of new foreign concepts, not for one country only, but for many distributed over a vast geographical area'

### Modern Standard Arabic

- learned at school
- experience of speaker from Abu Dhabi (United Arab Emirates)
  - grew up speaking Gulf Arabic
  - started learning MSA at age 10
  - all middle, high school classes taught in MSA

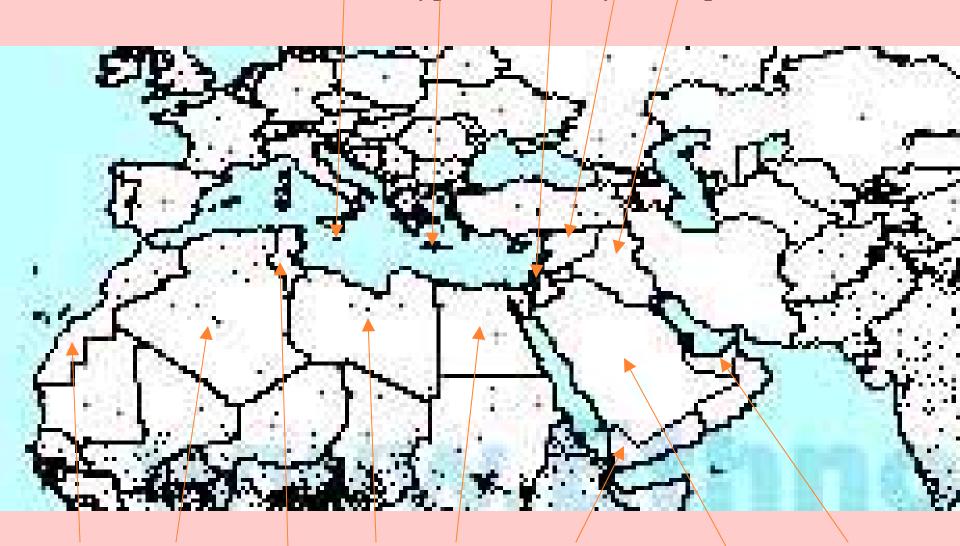
### Modern Standard Arabic

- 'high' functions, e.g.
  - broadcasting
  - giving a lecture
- needed to succeed in government
- generally regarded as superior to colloquial
- not universally known in Arabic world (literacy rates)

### Colloquial Arabic

- 'low' functions, e.g.
  - language of home
  - used among friends
- large number of dialects. major dialect areas:
  - Arabian peninsula, Persian Gulf, Jordan
  - Mesopotamia (Iraq, except south)
  - Syria-Lebanon-Palestine-Cyprus ('Levantine')
  - Egypt, Sudan
  - Maghrib (Maghrebi) (west of Egypt)
    - eastern (E. Algeria, Tunisia, Libya, Malta)
    - western (Morocco, W. Algeria)
  - Chad
- varieties at geographical extremes are mutually unintelligible

Malta Cyprus Israel Syria Iraq



Morocco Algeria Tunisia Libya Egypt Yemen Saudia Arabic UAE

### Consonant inventory

generalized colloquial Arabic inventory

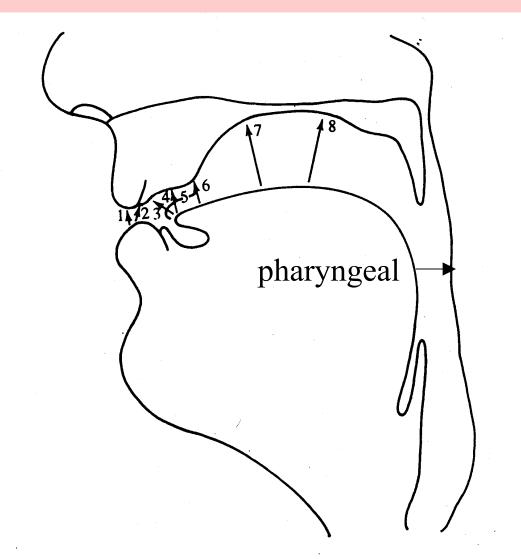
glide

W

| generalized colloquial madic inventory |     |              |                |      |     |     |     |     |      |      |
|--|-----|--------------|----------------|------|-----|-----|-----|-----|------|------|
|  | lab | lab-<br>dent | inter-<br>dent | dent | alv | pal | vel | uvu | phar | glot |
| stop                                   | b   |              |                | t d  |     |     | k g | q   |      | 3    |
| fric                                   |     | f            | θδ             | S Z  |     | Š   |     | ΧR  | ħΥ   | h    |
| aff                                    |     |              |                |      |     | čj  |     |     |      |      |
| nasal                                  |     |              |                |      | n   |     |     |     |      |      |
| lat                                    |     |              |                | 1    |     |     |     |     |      |      |
| trill                                  |     |              |                |      | r   |     |     |     |      |      |

upper articulator

lower articulator



**Figure 1.4** Places of articulation: 1 Bilabial; 2 Labiodental; 3 Dental; 4 Alveolar; 5 Retroflex; 6 Palato-Alveolar; 7 Palatal; 8 Velar.

### Pharyngeal fricatives

- Gulf Arabic speaker
- [ħ] = voiceless pharyngeal fricative
  - [ħabb] 'to kiss'

[s<sup>s</sup>aħan] 'plate'

- cf. [h] = voiceless glottal fricative
  - [habb] 'to blow'
- **(**)
- [sahal] 'meadow'

### Pharyngeal fricatives

- [ ] = voiced pharyngeal fricative
  - □ [ʕa:f] 'to feel disgust'
  - [kasab] 'heel'

**(**)

- $\bullet$  cf. [?] = glottal stop
  - [?akal] '(he) ate'

# Pharyngealized consonants ([C<sup>1</sup>])

- Syrian Arabic speaker
- Plain vs. pharyngealized consonants:
- [ti:n] 'figs' (t<sup>1</sup>i:n] 'mud'

- [dal] 'he pointed' [d<sup>9</sup>al] 'he stayed' •
- [tal] 'hill'
- [t<sup>s</sup>al<sup>s</sup>] 'he peeped'
- [su:s] 'licorice' 🍕 [s<sup>9</sup>u:s<sup>9</sup>] 'chick'

# U.S. forces going by the book, learning Iraq's dos and don'ts

The Seattle
Times,
April 5,
2003

On the doorstep of Baghdad, U.S. soldiers and Marines will need more than weapons and ammunition. They'll also need a basic understanding of Iraqi history, customs, and a few phonetic phrases, such as "good morning," sa-BA-heel-KHER, and "don't move," la ta-ta-HAR-rak.

The ability to interact with civilians — and win their hearts and minds — is perhaps more important now than at any time in the war as U.S. forces prepare to enter Iraq's sprawling capital.

To help troops, Army civil-affairs units have handed out thousands of pocket-books that offer basics on the Iraqi military and desert operations side by side with lessons on the country's past, politics, language and religion.

The 50-page tome is part military training manual, part "Lonely Planet" travel guide.

"It teaches a lot of basic greetings and the do's and don'ts of their customs and culture," said Spc. Faucher, a member of the 555th Engineering Group at Fort Lewis, as he was preparing to deploy re-

#### 'A Soldier's Guide, Republic of Iraq'

Sample phrases, with phonetic spellings.

God willing: Insha Allah

Do you speak English?: Hal ta-ta-KEL'-

lam al-een-GLEE-zee?

Food warehouse: Moo-STOW-da' il-ta-

AAM

Don't be afraid: la-ta-KHAF

Hands up: IR-fa' yed-ay-yick

Give up/surrender: is-TES-lim NEF-sick

Who is in charge?: Man al-mas-ool?

orders at the contract and the later of the contract of the co

### Arabic verbal morphology

'write'

|                 | perjective |         | imperjective |         | participie |          |  |
|-----------------|------------|---------|--------------|---------|------------|----------|--|
|                 | active     | passive | active       | passive | active     | passive  |  |
| I               | katab      | kutib   | aktub        | uktab   | kaatib     | maktuub  |  |
| $\overline{II}$ | kattah     | kuttih  | ukattih      | ukattah | mukattih   | mukattah |  |

Nullio unaiuo

11 III

kuutib ukaatib mukaatib mukaatab kaatab ukaatab

u?aktib mu?aktib mu?aktab **?aktab ?uktib** u?aktab IV

Vtakattab tukuttib atakattab utakattab mutakattib mutakattab

VItakaatab atakaatab utakaatab mutakaatab tukuutib mutakaatib

nkatab nkutib ankatib VIIunkatab munkatib munkatab

|      | perfective |         | imperfective |          | participle |           |
|------|------------|---------|--------------|----------|------------|-----------|
|      | active     | passive | active       | passive  | active     | passive   |
| VIII | ktatab     | ktutib  | aktatib      | uktatab  | muktatib   | muktatab  |
| IX   | ktabab     |         | aktabib      |          | muktabib   |           |
| X    | staktab    | stuktib | astaktib     | ustaktab | mustaktib  | mustaktab |
| XI   | ktaabab    |         | aktaabib     |          | muktaabib  |           |
| XII  | ktawtab    |         | aktawtib     |          | muktawtib  |           |
| XIII | ktawwab    |         | aktawwib     |          | muktawwib  |           |
| XIV  | ktanbab    |         | aktanbib     |          | muktanbib  |           |
| XV   | ktanbay    |         | aktanbiy     |          | muktanbiy  |           |

# Morphemes

| Each Arabic verb contains 3 intercalated morphemes:          |  |  |  |  |
|--|--|--|--|--|
| phonological component                                       | semantic component   |  |  |  |
| 1. consonants  | verb root: lexical verb meaning  |  |  |  |
| 2. vowels  | tense (aspect) (imperfective, perfective)/ voice (active, passive)/ participle or non-participle |  |  |  |
| 3. syllable structure (arrangement of consonants and vowels) | "binyanim": causative, reciprocal, reflexive, etc.   |  |  |  |

### Verb root (consonants)

| # of Cs | example |                         |
|---------|---------|-------------------------|
| 3       | /ktb/   | 'to write'              |
|         | /ksb/   | 'to earn'               |
|         | /Slm/   | 'to know'               |
| 2       | /sm/    | 'to poison'             |
| 4       | /dħrjੱ/ | 'to roll'               |
| 1       | /y/     | 'to write the letter y' |

 $[\hbar]$  = voiceless pharyngeal fricative;  $[\Gamma]$  = voiced pharyngeal fricative

# Tense/voice/participle (vowels)

```
/a/
                         perfective active
/u i/
                         perfective passive
                         imperfective active
/a/-, /a i/, /a u/, /a/
                         imperfective passive
/u/-, /a/
/mu/-, /a i/
                         active participle
                         passive participle (1st
/mu/-, /a/
      binyan: /ma/-, /u/)
```

### Binyanim (arrangement of consonants and vowels)

| (arrangement of consonants and vo      | JWC18) |
|--|--------|
| causative, reciprocal, reflexive, etc. |        |

 $/\Omega$ 

'know'

'teach'

know')

'study,

oneself'

learn, teach

(='cause to

/ktb/

'write'

write'

'cause to

'correspond'

'cause to

write'

(frequently overlaps with Form IV) 'to direct, strive to, act in conjunction with...'

'to shape into..., induce, cause to do...' IV (causative)

'to do frequently or intensively, to

consider somebody as...' (causative)

II

 $\Pi$ 

V

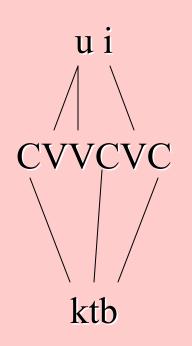
'to become..., to do to oneself, to claim to be...'

# More binyanim

|      |   | /ktb/                  | /Slm/ |
|------|---|------------------------|-------|
| VI   | 'to act mutually, to simulate' (reciprocal)   | 'write to each other'  |       |
| VII  | 'to let action be done to oneself' (reflexive)  | 'subscribe'            |       |
| VIII | reflexive of I; may be used instead of VI or VII  | 'write, be registered' |       |
| IX   | 'to be or become a certain color, or marked by a certain defect'                        |                        |       |
| X    | 'to ask somebody for something, to force oneself, to do unto oneself' (reflexive of IV) | 'write, make<br>write' |       |

# Simultaneous morphology

Morphological structure of [kuutib] 'was corresponded with'



perfective passive

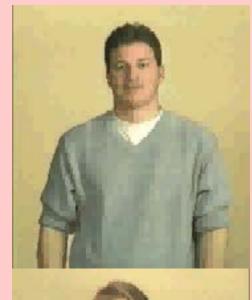
III binyan: 'to direct, strive to, act in conjunction with'

'write'

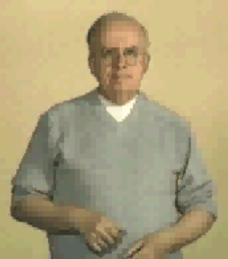
# Simultaneity in ASL



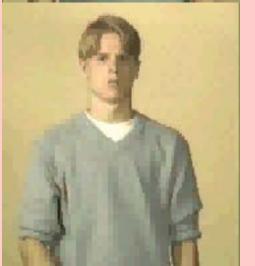
**MOTHER** 



**GIRL** 



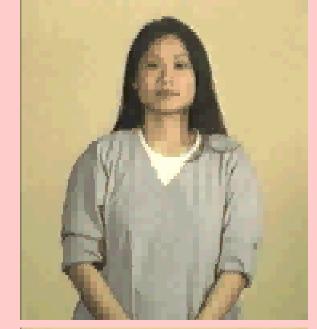
**AUNT** 



WOMAN



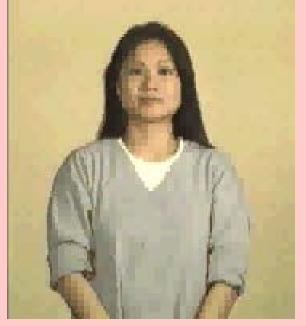
FATHER



BOY



UNCLE



MAN

### Some ASL morphemes

chin (location)

'female'

forehead (location) 'male'

# Simultaneity in ASL

the morphemes in the sign MOTHER:

chin (location) 'female'

5 (handshape) 'parent'

### Morphology summary

- Morphological competence
  - native speakers know which words are well-formed, properties of words (e.g. lexical category)
- Types of morphemes: root, affix, bound, free
- Types of morphology (word formation)
  - affixation
  - compounding
  - reduplication
  - simultaneous
- Examples from English, Sahaptin, Witsuwit'en, Sekani, Arabic, ASL and other languages