SEGMENTAL vs. SUPRASEGMENTAL FEATURES

LENGTH

PITCH

STRESS

SUMMARY

PHONETICS

SUPRASEGMENTAL FEATURES

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Linguistics 101
OUTLINE

1. SEGMENTAL VS. SUPRASEGMENAL FEATURES

2. LENGTH

3. PITCH
   - Intonation
   - Tone

4. STRESS

5. SUMMARY
Segmental vs. Suprasegmental Features

- Segmental features are (generally) easy to determine in isolation.
- Suprasegmental features are relative and determined across segments.
- Single suprasegmental features may occur over a single segment or a sequence of segments.
The length of individual phones may differ.
The length of a phone may depend on pragmatic reasons, phonetic reasons, or phonemic reasons (i.e. to distinguish words).
Non-distinctive Length

- In English, vowels preceding voiced consonants are longer than vowels preceding voiceless consonants
  
  bead > beat
  bag > back

- When identical phones end up adjacent to each other, they may be pronounced as a single, long sound
  
  two plus seven > two plus eight
  ghos(t)s → [gouss]
In some languages, changing the length of a phone can change a word’s meaning.

**Korean (Older Generation)**

<table>
<thead>
<tr>
<th>[mal]</th>
<th>‘horse’</th>
</tr>
</thead>
<tbody>
<tr>
<td>[maːl]</td>
<td>‘speech’</td>
</tr>
<tr>
<td>[nun]</td>
<td>‘eye’</td>
</tr>
<tr>
<td>[nuːn]</td>
<td>‘snow’</td>
</tr>
</tbody>
</table>

**Chesk**

<table>
<thead>
<tr>
<th>[bit]</th>
<th>‘apartment’</th>
</tr>
</thead>
<tbody>
<tr>
<td>[biːt]</td>
<td>‘to be’</td>
</tr>
<tr>
<td>[dal]</td>
<td>‘gave’</td>
</tr>
<tr>
<td>[daːl]</td>
<td>‘further’</td>
</tr>
</tbody>
</table>

**Question**

In English, some vowels are pronounced longer than others. Why is this not *distinctive*?
Pitch and Speech

- All speakers have different average pitch.*
- A speaker’s pitch may be culturally (and situationally) influenced.*
- Pitch as part of language includes both intonation and tone.

*These facts are not related to ‘language’ proper, though sociolinguists and anthropologists may study these...
INTONATION

- pitch as it operates over phrases and sentences
- does not distinguish individual words
- plays a role in determining utterance meaning
Edge Tones

- occur at the end of phrases (including sentences).
- shape the meaning in various ways
- aid in processing sentence structure

(1) a. You got an A on the test.
   b. You got an A on the test?
   c. You got an A on the test, a C on the homework, and a B on the quiz.

(2) a. Yes. (answer)
   b. Yes? (guessing)
   c. Yes. (‘What do you want?’)
   d. Yes. (‘I see...' said evilly)
## Pitch Accent

- refers to the use of pitch used to give prominence to a word
- used in English to focus words

(3)  
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Who kissed Peter?</td>
</tr>
<tr>
<td>b.</td>
<td>MARY kissed Peter.</td>
</tr>
</tbody>
</table>

(4)  
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Who did Mary kiss?</td>
</tr>
<tr>
<td>b.</td>
<td>Mary kissed PETER.</td>
</tr>
</tbody>
</table>

(5)  
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>What did Mary do to Peter?</td>
</tr>
<tr>
<td>b.</td>
<td>Mary KISSED Peter.</td>
</tr>
</tbody>
</table>

note that ‘pitch accent’ may also be used to describe a type of distinctive use of tone over a syllable
Tone

- pitch operating over syllables to distinguish words
- found in ‘tone languages’
- tones can be *level* or *contour*
- tone languages may use both types of tones, or just one
Cantonese Tones

- Cantonese (spoken in and around Hong Kong) has six tones
- Cantonese has both level and contour tones

### Applying Tones to [si]

<table>
<thead>
<tr>
<th>Pronunciation</th>
<th>Meaning</th>
<th>Tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ 'ysi ]</td>
<td>'poem'</td>
<td>53</td>
</tr>
<tr>
<td>[ -ysi ]</td>
<td>'to try'</td>
<td>33</td>
</tr>
<tr>
<td>[ -ysi ]</td>
<td>'matter'</td>
<td>22</td>
</tr>
<tr>
<td>[ -ysi ]</td>
<td>'time'</td>
<td>11</td>
</tr>
<tr>
<td>[ ysi ]</td>
<td>'to cause'</td>
<td>45</td>
</tr>
<tr>
<td>[ lysi ]</td>
<td>'city'</td>
<td>13</td>
</tr>
</tbody>
</table>
Stress

- refers to prominence due of a particular syllable due to increased amplitude, pitch, and length
- Stress placement may be predictable or unpredictable.
- Predictable stress need not be memorized with words.
- Languages frequently have some predictable and some non-predictable stress.
In Czech, stress always falls on the first syllable.

In Polish, stress falls on the penultimate syllable.
Non-predictable Stress Placement

- In Dutch, stress placement is sometimes distinctive:
  - *vóórkomen* ’to occur’, *voorkómen* ’to prevent’
- In English, stress is sometime non-predictable, sometimes predictable.
  - Stress placement on words must be memorized:
    - *convoy*, *convey*, *magazine*
  - Distinguishes some nouns from verbs:
    - *insult* vs *insult*
  - Affixes affect stress in regular ways:
    - *communicate* → *communication*, *implicate* → *implication*
All languages make use of segmental and suprasegmental features.
All languages use at least segmental features distinctively.
Some languages use suprasegmental features distinctively.