Variation, Tree and Wave Models

1. Variation

- Language variation is universal
- Occurs along two dimensions: geographic and social

Geographical

- Historically, gradual variation was the norm
- E.g. in rural speech from Galicia to Catalunya, there is a dialect continuum
- From Southern France to Alicante, there is another
- Hence, geographic variation can be two-dimensional
- Can ignore political boundaries
- However, it can be disrupted, and is sensitive to social factors

Social:

- Operates along any combination of many social variables: age, gender, social class, education, income, ...
- Example: -ado participles: [âð̊o], [â^0], [âo], [áw]
  - [áw] more common in working class speech
  - Women resist [ð] deletion
- Social variation is multi-dimensional
- It also varies in the speech of a single speaker (e.g. register)

Diachronic view:

- All languages change over time
- Change is usually fairly rapid
- Often viewed as new forms replacing old ones:
• [lá:tuːs] > [ládo] > [láðo] > [láð̩ o] > [láo] > [láw]

Variationist view:

• Different ranges of variation at different points in time:

Stage 1: [lá:tuːs] [ládo]
Stage 2: [lá:tuːs] [ládo] [láð̩ o]
Stage 3: [ládo] [láðo] [láð̩ o]
Stage 4: [láðo] [láð̩ o] [láo]
Stage 5: [láðo] [láð̩ o] [láo] [láw]
Stage 6: [láð̩ o] [láo] [láw]

• Diachronic variation can differ word to word

• A process seen in one word, may be reversed in another:

Stage 1: [níd̩ o] [níðo]
Stage 2: [níd̩ o] [níðo] [níð̩ o]
Stage 3: [níðo] [níð̩ o] [nío]
Stage 4: [níðo] [níð̩ o]
Stage 5: [níðo]

Neogrammarians: Sound laws suffer no exceptions.

Variationists: Each word has its own history.

2. Tree Model

• Developed in historical linguistics to represent shared features between varieties

• Only used for differences along the geographic parameter

• The tree model has an false analogy in the classification of species

• Less successful varieties often survive as non-standard varieties
• Problematic because of shared features - assumes that once varieties 'split', there will be no more shared features (e.g. Aragonese versus Catalan/Castilian)

• Sometimes explained as borrowing

• The tree model ignores variation in the trunk

*Western Romance*: Spanish, French, Portuguese
*Eastern Romance*: Italian, Romanian

• Based primarily on voicing of stops $V_–V$ ([lá:ts] [ládo]) – but:
• Pomeian graffiti shows g where you would expect c

• Tuscan varieties showed intervocalic voicing

• Central Pyrenean varieties often lack voicing

• Mozarabe lacked voicing

• Perhaps based on social variation

3. Wave Model

• Isoglosses spread out in a wave-like manner from a prestige source

• Yields the nuanced variation often found

• Nevertheless, difficult to represent social variation and non-categorical variation

**Paamese Dialects (Paama, Vanuatu)**

<table>
<thead>
<tr>
<th></th>
<th>North</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>ei : ai</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. eim : aim ‘house’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. keil : kail ‘they’</td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>i/∅ : l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. amai : amal ‘reef’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. a:i : a:l ‘stinging tree’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. tahe : tahel ‘wave’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. mea : mela ‘get up’</td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>k : g (#___)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. kea : gela ‘he crawled’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. keih : gaih ‘he is strong’</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>a … a : e … a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. atau : letau ‘woman’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. namatil : nematil ‘I slept’</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>m&lt;sup&gt;w&lt;/sup&gt; : m</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. m&lt;sup&gt;w&lt;/sup&gt;a:il : mail ‘left’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. m&lt;sup&gt;w&lt;/sup&gt;eatin : meatin ‘man’</td>
<td></td>
</tr>
</tbody>
</table>
- Isoglosses do not match - isoglosses associated with features (1), (3), and (5) separate the northern third of island:

- Isoglosses for features (2) and (4) separate the southern third:
• The \( m^w \): \( m \) isogloss further divides island into six sections, depending on how many words exhibit labiovelars (A – none, B through E each increasing, F – most):

If the varieties in these six regions were treated as six dialects, reconstruction becomes problematic:

(4) A  B  C  D  E  F
a. meatin : \( m^w \)eiatin : \( m^w \)eiatin : \( m^w \)eiatin : \( m^w \)eiatin : \( m^w \)eiatin ‘man’
b. ame : ame : am\( ^w \)e : am\( ^w \)e : am\( ^w \)e : am\( ^w \)e ‘married man’
c. meas : maes : meas : \( m^w \)eas : \( m^w \)eas : \( m^w \)eas ‘dust’
d. mail : mail : mail : mail : \( m^w \)ail : \( m^w \)ail ‘left’
e. mai : mai : mai : mai : mai : \( m^w \)ai ‘straightened’