Syllabification

• Question: What factors influence where syllables are divided?
  – What is the effect of X on Y?
  – What is the effect of morpheme boundary
    • rent+ing, out+age (vs. pontoon, attack)
      – types of boundaries
        » compound: playmate
        » transparent: prewar
        » opaque: zealous (vs. zeal, pronunciation difference)
Syllabification

- Question: What factors influence where syllables are divided?
  - What is the effect of X on Y?
  - What is the effect of morpheme boundary
    - blink+ing, out+age (vs. monkey, attack)
  - What is the effect of written geminates?
    - rabbit versus habit
Question: What factors influence where syllables are divided?

What is the effect of consonant legality?

- No word ends in -pr, so a syllable can't either?
- approve > *appr.ove, a.pprove
Syllabification

- Question: What factors influence where syllables are divided?
  - What is the effect of consonant legality?
    - No word ends in -pr, so a syllable can't either?
    - approve > *appr.ove, a.pprove
  - Effect of vowel legality
    - Words don't end in lax vowels, how about syllables?
      - lax: finish > *fi.nish, fin.ish
      - tense: phoenix > phoe.nix or phoen.ix
Syllabification

• How do you test it?
  – slash insertion
    • is *habit* ha / bit or hab / it?
Syllabification

• How do you test it?
  – slash insertion
    • is *habit* ha / bit or hab / it?
  – Problem: spelling doesn't reflect pronunciation
    • castle, cupboard
How do you test it?
  - slash insertion
    - is habit ha / bit or hab / it?
  - Problem: spelling doesn't reflect pronunciation
    - castle, cupboard
Syllabification

- Solution: show quasi-phonetic representation:
  - victim
    - VI / KTUHM
    - VIK / TUHM
    - VIKT / UHM
Syllabification

• Experiment
  – 4990 words
  – Online experiment
  – How many words can people do?
Syllabification

• Experiment
  – 4990 words
  – Online experiment
  – How many words can people do?
  – What about other dialects of English?
Syllabification

- Experiment
  - 4990 words
  - Online experiment
  - How many words can people do?
  - What about other dialects of English?
  - What about non-native speakers?
Syllabification

- Experiment
  - 4990 words
  - Online experiment
  - How many words can people do?
  - What about other dialects of English?
  - What about non-native speakers?
  - Could people sabotage the experiment?
Olive Garden: Could people give any answer just to get put in raffle?
  • Pop versus Soda. Look under state for “other” responses
What influences .C (vs. C.) syllabification?

<table>
<thead>
<tr>
<th>Type of medial consonant</th>
<th>Logodds</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstruent (attack)</td>
<td>1.12</td>
<td>37389</td>
<td>80</td>
</tr>
<tr>
<td>Nasal (anode)</td>
<td>0.35</td>
<td>7122</td>
<td>70</td>
</tr>
<tr>
<td>Lateral (alloy)</td>
<td>-0.03</td>
<td>5582</td>
<td>67</td>
</tr>
<tr>
<td>Rhotic (arrow)</td>
<td>-1.45</td>
<td>5087</td>
<td>43</td>
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</table>

<table>
<thead>
<tr>
<th>Legality of first vowel</th>
<th>Logodds</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal (follow)</td>
<td>0.60</td>
<td>30572</td>
<td>82</td>
</tr>
<tr>
<td>Illegal (fallow)</td>
<td>-0.60</td>
<td>24608</td>
<td>64</td>
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</table>
## Syllabification

What influences .C (vs. C.) syllabification?

<table>
<thead>
<tr>
<th>Type of morphological boundary by boundary placement</th>
<th>Logodds</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>(p = 1.41e-105)</td>
<td></td>
<td></td>
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<tr>
<td>Compound boundary before consonant</td>
<td>1.88</td>
<td>935</td>
</tr>
<tr>
<td>(play+mate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparent boundary before consonant</td>
<td>1.32</td>
<td>1949</td>
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<tr>
<td>(pre+war)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opaque boundary before consonant</td>
<td>0.84</td>
<td>135</td>
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<tr>
<td>(zeal+ous)</td>
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<td></td>
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<tr>
<td>Morphologically simple</td>
<td>0.05</td>
<td>43024</td>
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<tr>
<td>(aloof)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opaque boundary after consonant</td>
<td>-0.30</td>
<td>1355</td>
</tr>
<tr>
<td>(foot+age)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparent boundary after consonant</td>
<td>-0.77</td>
<td>7111</td>
</tr>
<tr>
<td>(fill+ing)</td>
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<td></td>
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<tr>
<td>Compound boundary after consonant</td>
<td>-3.03</td>
<td>671</td>
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<tr>
<td>(with+out)</td>
<td></td>
<td></td>
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</table>
Syllabification

What influences .C (vs. C.) syllabification?

**Stress**

(p = 2.31e-57)  

<table>
<thead>
<tr>
<th></th>
<th>Logodds</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>(attach)</td>
<td>0.51</td>
<td>12314</td>
</tr>
<tr>
<td>Initial</td>
<td>(attic)</td>
<td>-0.51</td>
<td>42866</td>
</tr>
</tbody>
</table>
Syllabification

• Other ways to elicit syllabification?
  – Verbally
    – Testing for ambisyllabicity
      – first part, second part
      – What is the first part of spirit?
      – What is the second part of spirit?
Syllabification

• Other ways to elicit syllabification?
  – verbally
  – first part, second part
  – What color is “g”? (count errors)
    • segment segment