Non-prominent positions

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Prominent Positions

• Markedness:
  – Heavy syllables and high-sonority segments are stress-attracting
  – Vowels occupy peak position in syllables

• Faithfulness:
  – protected against deletion
  – protected against change

Prominence

• Phonetic prominence:
  – e.g., syllables with primary stress

• Psycholinguistic prominence:
  – e.g., first syllables of roots

• Prominent positions have a privileged role in phonology.

Non-Prominent Positions

• Properties of non-prominent positions

• One common view:
  – No properties
  – The "elsewhere" case

• Goal of the talk today: To show that—
  – Non-prominent positions do have special properties
  – Not merely absence of prominence

Markedness


• P&S's syllable markedness theory refers to both prominent and non-prominent positions:

• Peak hierarchy: (Prominent positions)
  – Affinity between high-sonority items and peaks of syllables.

• Margin hierarchy: (Non-prominent positions)
  – Affinity between low-sonority items and margins of syllables.

Faithfulness

• "Max-Prominence" prominent → prominent
  – Elements occupying prominent positions in the input must remain so in the output.
  – Positional faithfulness = prominent positional faithfulness

• "DEP-Prominence" nonprominent → nonprominent
  – Elements occupying non-prominent positions in the input must remain so in the output.
  – “ultimately non-prominent” = “non-existent in the input”
  – Avoidance in many languages to place stress or accent on epenthetic vowels (HEAD-DEP-effects, Alderete 1999).
HEAD-DEP effects in Japanese loanwords

- Final voiceless stops in the source word are usually geminated:

  | 'stop' | suto'ppu |
  | 'flat' | fura'tto |
  | 'block' | buro'kku |

- But not when (regularly assigned antepenultimate) pitch accent falls on an epenthetic vowel: (Kubozono, Ito and Mester 2008).

  | 'help' | he'rupu |
  | 'duct' | da'kuuto |
  | 'mask' | ma'suku |

  *heru'ppu
  *daku'itto
  *masu'kku

Non-prominent positions

Today's focus:

- Weak position of a foot (foot-tail) vs.
- Strong position of a foot (foot-head)

- Stressed elements = foot-head
- Unstressed elements = foot-tail or unfooted

Schwa

Markedness:

- Schwa must occupy a foot-tail position.
- Schwa excluded as the nucleus of a stressed syllable.
- The schwa restriction comes in different flavors.

Schwa

- In Dutch or English, the ban is absolute:

  cut (x )
  [ˈkæt]

  market (x . )
  [ˈmækæt]

  No words like * (x )
  [ˈkæt]

  I.e., varieties of English that distinguish between (unstressed) [ə] and (stressed) [æ].

NoSTRESSED-ə

- Evidence for the existence of a constraint:

  NoSTRESSED-ə
  * x
  ə

  "x" indicates the head of a foot, its prominent position.

NoSTRESSED-ə

- Undominated in a language like English/Dutch.
- Dominated in another type of language (French, Tondano), where stressed schwa is permitted only under special conditions.
**NO STRESSED-ə in French**

- As a dominated constraint–
- Schwa-syllables constituting clitics can be bearers of phrase-final stress.

\[
\text{prens}-\text{la} \quad *\text{prens-la} \quad \text{take it}
\]

- Schwa-syllables in content words cannot, and stress is retracted to the penult:

\[
*\text{pren}\text{drə} \quad \text{prendrə} \quad \text{take}
\]

---

**Tondano: Stress avoidance for schwa**

Sneddon 1975, Ball 2003, and Piggott 2010

- Regular penult stress:
  – \text{kari}'\text{man}\text{ka?} \quad \text{spider}
- Antepenult stress (penult = schwa)
  – \text{wiŋ}'\text{katana} \quad \text{will be asked by him}
- Final stress (penult & antepenultimate = schwa)
  – \text{mararədej} \quad \text{intends to stand}
- Penult schwa stress (all vowels = schwa)
  – *\text{rəpət} \quad \text{fast}

---

**Schwa in German**

- Stressed schwa is categorically ruled out.
  – So, nothing more to say about schwa in German?
- No. Besides its unstressability, an interesting different restriction is at work:
  - Schwa must be the weak member of a foot
  - I.e., ruled out as the prominent member of a foot, AND as an unfooted syllable.

---

**Schwa in German**

- Observationally:
  - Schwa-syllables occur in post-stress positions.
- Preview of analysis:
  – a dominated constraint
  – violated under certain conditions
  – but many situations where it is operative.

1. Dichotomy of "stressed" and "unstressed"
2. Dichotomy between two kinds of unstressed syllables: the "footed" and the "unfooted"
  – McCarthy 2008, Bennett 2009
Background:
the stress system of German

- **Word stress** limited to the last three syllables of the word
  - with very few exceptions

- The familiar **Latin stress rule**
  - as in Dutch and English
  - with some variations and modifications

German stress

- **Word-final superheavy** syllables are stressed:
  1. **V:C₁** long vowel followed by one or more consonants,
  2. **VCC₂** short vowel followed by two or more consonants,
  3. **VVC₃** diphthong with or without following consonants.

Superheavy finals: more examples

<table>
<thead>
<tr>
<th>V:C₁</th>
<th>VCC₁</th>
<th>VVC₂</th>
<th>Glosses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ko'm:ct</td>
<td>O'lymp</td>
<td>Par'tei</td>
<td>comet, Olymp, party</td>
</tr>
<tr>
<td>Pa'dir</td>
<td>Pro'dukt</td>
<td>Poli'zi</td>
<td>paper, product, police</td>
</tr>
<tr>
<td>Para'dis</td>
<td>Re'zupt</td>
<td>Ra'dau</td>
<td>paradise, row</td>
</tr>
<tr>
<td>Pi'rat</td>
<td>Ta'len't</td>
<td>Samu'rai</td>
<td>pirate, talent, samurai</td>
</tr>
<tr>
<td>Ta'rif</td>
<td>Tu'mult</td>
<td>Thera'peut</td>
<td>tariff, riot, therapist</td>
</tr>
</tbody>
</table>

Analysis of superheavy finals

- **Word-final consonants** are non-moraic.
  - This means that in final position:
    - **superheavy syllables** (trimoraic status) count as heavy (bimoraic status), and
    - **heavy syllables** (bimoraic status) count as light (monoraic status)

Analysis

Notation:  \( \sigma \) = syllable (of any weight)

\[ \begin{align*}
\text{H} &= \text{heavy syllable} \\
\text{L} &= \text{light syllable}
\end{align*} \]

<table>
<thead>
<tr>
<th>Example</th>
<th>( \sigma )</th>
<th>( \sigma \text{H} )</th>
<th>( \sigma \text{L} )</th>
<th>Glosses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papa'gei</td>
<td>( \sigma )</td>
<td>( \sigma \text{H} )</td>
<td>( \sigma \text{L} )</td>
<td>parrot</td>
</tr>
<tr>
<td>Para'di:s</td>
<td>( \sigma )</td>
<td>( \sigma \text{H} )</td>
<td>( \sigma \text{L} )</td>
<td>paradise</td>
</tr>
<tr>
<td>... ( \sigma \text{H} )</td>
<td></td>
<td></td>
<td></td>
<td>Hibiskus</td>
</tr>
<tr>
<td>Hi'biskus</td>
<td>( \sigma )</td>
<td>( \sigma \text{H} )</td>
<td>( \sigma \text{L} )</td>
<td>rose mallow</td>
</tr>
<tr>
<td>'Tremolo</td>
<td>( \sigma )</td>
<td>( \sigma \text{H} )</td>
<td>( \sigma \text{L} )</td>
<td>quaver</td>
</tr>
</tbody>
</table>

Analysis

- A quantity-sensitive **trochee at the right word edge**, with final mora-less consonants
Standard OT analysis

FOOT=TROCHEE
"The foot is trochaic (left-prominent)."

WSP: Weight-to-Stress Principle
"If heavy, then stressed."

NONFINALITY
"No foot at the right edge of the prosodic word."

RIGHTMOST: ALIGN-RIGHT(σ, ω)
"The stressed syllables is rightmost in the prosodic word."

Illustration

Controversial issue: long vowels

- Behavior of open syllables with long vowels in German and Dutch
  1. Which is the operative feature, length or vowel quality (tense vs. lax)?
  2. Do long vowels lead to heavy syllables?

Controversial issue: long vowels

- For purposes of the stress system,
  1. Open syllables with long vowels behave as light.
  2. Open syllables with diphthongs behave as heavy, as do closed syllables.

Controversial issue: long vowels

- Zonnefeld, Trommelen, Jessen, Rice, Bruce and Árnason 1999:
  1. Long vowels per se do not make syllables heavy.

Controversial issue: long vowels

- Antepenultimate stress when the penult is open and has a long vowel (underlined),
  – provided the final is not superheavy.

E. 'li. sa beth
'Do.mi.no
'tre.mc.lo
'ko.li.bri
'gi.go.lo
'pa.pr.j.ka

'A. li.bi
'Ma.ra.bu
'A.ng.rak
Indi.'vi.du.um
A.'na.pho.ra
in.'kog.nl.to

'E.xo.dus
'Al.ba.tros
'Le.xi.kon
Kur.'ri.ku.lum

A. 'na pho ra
in. 'kog.nl.to
Controversial issue: long vowels

- This pattern is not exceptionless, but only a statistical tendency.
- Penult stress is also found under these circumstances:

| A. 'rʊ.ma | Mos. 'kɪ.to | Ar. 'θrɪ.tis |
| Bi'ki.ni | Mu. 'sɛ.um | Hl. 'a.tus |
| Ka'sj.no | Bo.'tɑ.nik | Abrak.'dɑ.bra |

The English equivalents are virtually identical to the German forms.

Statistics

- The choice is lexically determined, but antepenultimate pattern considerably more frequent.
- Basis:
  - Data in Fé 1998
  - Extracted from the large lexical database CELEX developed at the Max-Planck-Institute in Nijmegen.

Statistics

- Focusing on words with the following properties:
  1. Trisyllabic monomorphemic words [ooɔ]
  2. Full vowels in their last syllable
  3. Non-final stress
- What is the distribution of antepenult and penult stress?

<table>
<thead>
<tr>
<th></th>
<th>antepenult stress</th>
<th>penult stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>217</td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>(61%)</td>
<td>(39%)</td>
</tr>
</tbody>
</table>

Words ending in a schwa syllable

- Surprising result: Opposite tendency from words ending in full vowels
- Word stress is overwhelmingly penultimate, and the antepenultimate pattern is very rare.

| Apothe.'lo.ʊə | Lokomo.'ti.ʋə | Kara.'wa.ŋə |
| Me.'θo.ʣə | Zi.'tro.ŋə | Anti.'lo.ʊə |
| Ta.'pe.ʦə | West.'fa.ɫən | O.'bo.ʊə |
| A.'ka.[zio] | Ok.'to.ʊə | Tro.'pha.ʊə |

Statistics

- Distribution of antepenult and penult stress in words with final schwa vs. those with final full vowels
- After Fé 1998, focusing on trisyllabic monomorphemic words with non-final stress

<table>
<thead>
<tr>
<th></th>
<th>final schwa</th>
<th>final full vowel</th>
</tr>
</thead>
<tbody>
<tr>
<td>antepenult stress</td>
<td>38 (7%)</td>
<td>217 (61%)</td>
</tr>
<tr>
<td>penult stress</td>
<td>528 (93%)</td>
<td>136 (39%)</td>
</tr>
<tr>
<td>Total</td>
<td>566</td>
<td>353</td>
</tr>
</tbody>
</table>
Post-stress generalization for schwa:
Independent support

- Cases whose last vowel has historically been reduced to schwa:
- Stress shifts from antepenult to penult.

```
1Ge.ne.sis  >  Ge.'ne.s[ə]  genesis
1Vi.o.la    >  Vi.'o.l[ə]   viola
Di.'a.sto.[ə] >  Di.a.'sto[ə] diastole
```

Borrowings with stress shift to pre-schwa syllable

Source: Koepcke 1995

```
mormon  >  Mor'mon[ə]  English
'shaman >  Scha'man[ə]
'Iroquois >  Iro'kes[ə]
ca'nibal  >  Kanni'bal[ə]  Spanish
```

Post-stress preference

- Generalization:
- The schwa syllable must appear as the weak member of a trochaic foot.
- This is a subset of all unstressed positions, which also include unfooted occurrences.

FOOTTAIL-ə

- Referring to this position as "foot tail", the FOOTTAIL-ə constraint is violated by any schwa not occurring in this position.

FOOTTAIL-ə

Obligatory position for ə:

```
(x .
  ə
```

- Informally: A schwa syllable needs another syllable to depend on (lean against) inside a foot.
**FootTail-ə**

- NoSTRESS-ə is only violated by
  - stressed schwa  
    (English)

- FootTAIL-ə is violated by two kinds of schwa:
  - stressed schwa
  - unfooted (or loose) schwa  
    (German)

---

**Ot analysis: Add FootTAIL-ə**

- FOOT=TROCHEE
- WSP: Weight-to-Stress Principle
- FOOTTAIL-ə
  - “Schwa must occupy the weak position of a foot.”

---

**Ranking**

- WSP
- FootTAIL-ə
- NONFINALITY
- ALIGN-R
  - (σ, ω)

---

**Illustration**

<table>
<thead>
<tr>
<th>Tremolo</th>
<th>WSP</th>
<th>Foottail-ə</th>
<th>NonFin</th>
<th>Al-R(σ, PrWd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Tremolo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tre(molo)</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zitrone</th>
<th>WSP</th>
<th>Foottail-ə</th>
<th>NonFin</th>
<th>Al-R(σ, PrWd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Zitrone)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Schwa in foottail vs. unfooted schwa**

An interesting issue wrt. FootTAIL-ə

Two types of (unstressed) schwa:

1. Footed schwa  
   (schwa in foottail)  
   - required in German

2. Unfooted schwa  
   - but there are also languages where schwa-syllables prefer not to be footed at all!

---

**Indonesian**

- The variety of Indonesian described and analyzed in Cohn 1989 and Cohn and McCarthy 1998.
- Stress profile of a four-syllable word:

  (   x   )  
  ( x . ) ( x . )  
  (bijak) ('sana) 'wise'

  with secondary stress on the first syllable.
• Four-syllable words with schwa in second position have no initial secondary stress:

\[
\begin{align*}
&(x) & (x) \\
&.(x.) & (x.)(x.)
\end{align*}
\]

kopə('rasi) ‘cooperation’, not *(kopə)('rasi)

— Schwa-syllables are not just unstressable, they behave as if they stay outside of foot structure altogether.

• Cohn and McCarthy (1998:21):

– "Schwa-headed syllables do not project any structure in metrical representation."

• The fault lies here:

\[
\begin{align*}
&(x) \\
&(x.)(x.) \\
*&(kopə)(rasi)
\end{align*}
\]

Prosodic typology of schwa-syllables

• Does such preference for unfooled schwa undermine the existence of the constraint FOOTTAIL-∅.

• We think not—it is rather an issue of decisions at different levels.

Back to German:

Other FOOTTAIL-∅ effects

• The systematic stress shift in nouns ending in -or, when a schwa-syllable is added to form the plural.

\[
\begin{align*}
&(x.) & (x.) & *(x.) \\
&Dok.to.?url & Pro.ʃes.so.ɾan & Pro.ʃes.so.ɾan \\
&'Trak.to.ɾan & *'Trak.to.ɾan
\end{align*}
\]

doctor(s) professor(s) tractor(s)
More examples
(Ad.'duk.tor ~ Ad.duk.'to.rən, etc.)

Ad'duk.tor In'duk.tor 'Mentor 'Senior
Ag'gres.sor In'spek.tor Pro'jek.tor 'Sensor
'Aktor In'vestor 'Pro'ktor 'Tensor
'Curs.or 'Kan.tor Pro'tek.tor Tran'sis.tor
De'skrept.or Kom'pak.tor Pro'zes.sor 'Vektor
De'tektor Kor'rekt.or 'Quan.tor 'Zensor
Di'rekt.or Korrepe'titor Re'aktor
Ef'fektor Kol'lektor 'Reflektor
'Fakt.or 'Lektor 'Sektor

The English equivalents are virtually identical to the German forms.

FOOTTAIL-ə active in inflection

• Some inflectional suffixes have allomorphs with and without schwa.

des 'Manns des 'Mannəs man
des 'Tags des 'Tagəs day
des Er'folgs des Er'folgəs success
des Er'tragəs des Er'tragəs yield

One consequence of FOOTTAIL-ə

Schwa should not be able to follow another schwa-syllable: *... əC₀ə ...
In the inflectional system, sequences of schwa syllables can arise, leading to violations of FOOTTAIL-ə.

FOOTTAIL-ə as a dominated constraint

• What gives rise to this?

'troc.kə.nər ADJ+COMPARATIVE

• Constraints dominating FOOTTAIL-ə
  – IDENT-V-PLACE
  – NOSTRESSED-ə
  – MAX

• preclude any other outcome.

FOOTTAIL-ə active in German derivational morphology

• Country demonyms
  – Names for inhabitants of countries
  • Two main allomorphs to derive country demonyms, -ə and -ər.

• These schwa-suffixes are strictly required to follow a stressed syllable (Fuhrhop 1998).
Country demonyms in -ər

Adjustments for stress to lodge on the pre-schwa syllable.

<table>
<thead>
<tr>
<th>Country</th>
<th>Demonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ägypten</td>
<td>Ägypt-ər</td>
</tr>
<tr>
<td>Bangla desch</td>
<td>Bangla desch-ər</td>
</tr>
<tr>
<td>Guinea</td>
<td>Guîne-ər</td>
</tr>
<tr>
<td>Herzegowina</td>
<td>Herzego win-ər</td>
</tr>
<tr>
<td>Indien</td>
<td>Ind-ər</td>
</tr>
<tr>
<td>Ja,pan</td>
<td>Ja'pan-ər</td>
</tr>
<tr>
<td>Kanada</td>
<td>Ka'nad[</td>
</tr>
<tr>
<td>Niger</td>
<td>Nigr-ər</td>
</tr>
<tr>
<td>O'man</td>
<td>O'man-ər</td>
</tr>
<tr>
<td>Syrien</td>
<td>Syr-ər</td>
</tr>
</tbody>
</table>

63 more cases

Pseudo-compound country demonyms

- Special set of cases with secondary stress, securing a foottail-status for -ər.

<table>
<thead>
<tr>
<th>Country</th>
<th>Demonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Eng,land</td>
<td>'Eng,land-ər</td>
</tr>
<tr>
<td>'Liechten,stein</td>
<td>'Liechten,stein-ər</td>
</tr>
<tr>
<td>'Luxemburg</td>
<td>'Luxem,burg-ər</td>
</tr>
<tr>
<td>'Nor, wegen</td>
<td>'Nor, weg-ər</td>
</tr>
<tr>
<td>'Österreich</td>
<td>'Öster,reich-ər</td>
</tr>
<tr>
<td>Neu'seland</td>
<td>Neu'see,länd-ər</td>
</tr>
<tr>
<td>Para, guay</td>
<td>Para, guay-ər</td>
</tr>
<tr>
<td>Singapur</td>
<td>Singa,pur-ər</td>
</tr>
</tbody>
</table>

Country demonyms in -ə

<table>
<thead>
<tr>
<th>Country</th>
<th>Demonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>Af'ghan-ə</td>
</tr>
<tr>
<td>Bul'garien</td>
<td>Bul'gar-ə</td>
</tr>
<tr>
<td>Dänemark</td>
<td>Dän-ə</td>
</tr>
<tr>
<td>'Deutschland</td>
<td>'Deutsch-ə</td>
</tr>
<tr>
<td>'Estland</td>
<td>'Est-ə</td>
</tr>
<tr>
<td>'Finnland</td>
<td>'Finn-ə</td>
</tr>
<tr>
<td>Mada'gaskar</td>
<td>Mada'gass-ə</td>
</tr>
<tr>
<td>Guat'mala</td>
<td>Guat'mal'ek-ə</td>
</tr>
<tr>
<td>'Irland</td>
<td>'Ir-ə</td>
</tr>
<tr>
<td>Jugo'slawien</td>
<td>Jugo'slaw-ə</td>
</tr>
</tbody>
</table>

25 more

Country demonym interfixes

- Depending on the base word, the country demonym allomorphs, -ə and -ər
  - occurs either alone, or
  - with an additional interfix (-es-, -an-).

<table>
<thead>
<tr>
<th>Interfix</th>
<th>-ə</th>
<th>-ər</th>
</tr>
</thead>
<tbody>
<tr>
<td>without interfix</td>
<td>-ə</td>
<td>-ər</td>
</tr>
<tr>
<td>with interfix</td>
<td>-es-</td>
<td>-an-ər</td>
</tr>
</tbody>
</table>

Country demonyms in -'an-ər

- Interfix -an- attracts the stress to the pre-ə syllable.

<table>
<thead>
<tr>
<th>Country</th>
<th>Demonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>An'gola</td>
<td>Ango'l-an-ər</td>
</tr>
<tr>
<td>Ber'mudas</td>
<td>Bermu'dan-ər</td>
</tr>
<tr>
<td>Bra'siliën</td>
<td>Brasili[i]an-ər</td>
</tr>
<tr>
<td>Do'minica</td>
<td>Domin'i-can-ər</td>
</tr>
<tr>
<td>Ecua'dor</td>
<td>Ecuadori'an-ər</td>
</tr>
<tr>
<td>Ja'maïka</td>
<td>Jamai'k-an-ər</td>
</tr>
<tr>
<td>Ko'rea</td>
<td>Kore'i-an-ər</td>
</tr>
<tr>
<td>'Mexiko</td>
<td>Mex'i-k-an-ər</td>
</tr>
<tr>
<td>Pe'rū</td>
<td>Peru'an-ər</td>
</tr>
<tr>
<td>Puerto'Rico</td>
<td>Puerto Ri'c-an-ər</td>
</tr>
</tbody>
</table>

35 more
Country demonyms in -'es-ə

- Interfixes (-es-, etc.) allowing FOOTTAIL-ə to be fulfilled.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>'China</td>
<td>Chi'n-es-ə</td>
</tr>
<tr>
<td>Ka'labrien</td>
<td>Kala'br-es-ə</td>
</tr>
<tr>
<td>'Kongo</td>
<td>Kongo'1-es-ə</td>
</tr>
<tr>
<td>'Libanon</td>
<td>Liba'n-es-ə</td>
</tr>
<tr>
<td>Ne' pal</td>
<td>Nepa'l-es-ə</td>
</tr>
</tbody>
</table>

Other interfixes + ə:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>'Chile</td>
<td>Chi'l-en-ə</td>
</tr>
<tr>
<td>'Portugal</td>
<td>Portu'gies-ə</td>
</tr>
<tr>
<td>Sa'voyen</td>
<td>Savo'y-ard-ə</td>
</tr>
</tbody>
</table>

Few exceptions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ba'hamas</td>
<td>Ba'hama-ər</td>
</tr>
<tr>
<td>'Ghana</td>
<td>'Ghana-ər</td>
</tr>
<tr>
<td>'Litauen</td>
<td>'Litau-ər</td>
</tr>
<tr>
<td>'Marshallinseln</td>
<td>'Marshall-ər</td>
</tr>
<tr>
<td>'Panama</td>
<td>'Panama-ər</td>
</tr>
<tr>
<td>Saudi-Arabien</td>
<td>Saudi-'Arab-ər</td>
</tr>
<tr>
<td>St. 'Vincent</td>
<td>St. 'Vincent-ər</td>
</tr>
<tr>
<td>'Timor</td>
<td>'Timor-ər</td>
</tr>
<tr>
<td>To'bago</td>
<td>To'bago-ər</td>
</tr>
<tr>
<td>'Tonga</td>
<td>'Tonga-ər</td>
</tr>
<tr>
<td>'Trinidad</td>
<td>'Trinidad-ər</td>
</tr>
</tbody>
</table>

Regularization

- Most of these exceptions have alternate variants which conform to the generalization.
- Even a form like Saudi-'Arab[j]-ər, which sounds outlandish because of the well-established word Arabər, is attested in non-facetious uses.

<table>
<thead>
<tr>
<th>FOOTTAIL-ə violating forms:</th>
<th>Alternate FOOTTAIL-ə conforming variants:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ba'ham-ər</td>
<td>Baha'm-an-ər</td>
</tr>
<tr>
<td>'Ghana-ər</td>
<td>Gha'n-es-ə</td>
</tr>
<tr>
<td>'Litau-ər</td>
<td>Gibral't-an-ər</td>
</tr>
<tr>
<td>'Marshall-ər</td>
<td>Marchall'an-ər</td>
</tr>
<tr>
<td>'Panama-ər</td>
<td>Pana'm-es-ə ~Pana'm-en-ə</td>
</tr>
<tr>
<td>Saudi-'Arab[ə]-r</td>
<td>Saudi-'Arab[j]-ər</td>
</tr>
<tr>
<td>St. 'Vincent-ər</td>
<td>St. Vin'cent-ər</td>
</tr>
<tr>
<td>'Timor-ər</td>
<td>Timo'r-an-ər ~ Timo'r-es-ə</td>
</tr>
<tr>
<td>To'bago-ər</td>
<td>To'bag'o-l-es-ə</td>
</tr>
<tr>
<td>'Tonga-ər</td>
<td>Ton'g-an-ər ~ Tonga'n-es-ə</td>
</tr>
<tr>
<td>'Trinidad-ər</td>
<td>Trinida'n-es-ə</td>
</tr>
</tbody>
</table>

Metalinguistic awareness

- This is not simply some kind of internet noise—
- Rather, speakers are explicitly aware of the prosodically problematic status of forms like 'Panama-ər.

Cf. blog entries such as the following:

- "[W]ie nennt man auf Deutsch wohl einen Menschen aus Guinea-Bissau? Guinea-Bissauer, Guineer (Bissau), Guinea-Bissauauer oder gar Guinea-Bissaul? Das ist keine Scherzfrage. Ich muss einen Bericht schreiben..."
- ("What does one call a person from Guinea-Bissau in German? Guinea-Bissauer, Guineer (Bissau), Guinea-Bissauauer, or even Guinea-Bissaul? This question is not a joke. I have to write a report...")

(http://www.wer-weiss-was.de/theme143/article 4660166.html)
Or this one:

- "hallo leute 😊 wollte mal hallo sagen bin neu hier und hab einen club in litauen übernommen 😊 [...] was bin ich den[n] nun...? ein litauaner..., litauense..., litauippizaner.....?"
- "hello people 😊 wanted to say hi am new here and have taken over a club in lithuania 😊 [...] so what am I now? a litauaner..., litauense..., litauippizaner...,?"

(http://board.12min.eu/showthread.php?t=20&page=12, both retrieved on 11/19/2010)

Demonyms in -ør derived from city names: no stress restriction

<table>
<thead>
<tr>
<th>City</th>
<th>Demonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altona</td>
<td>'Altona-ør</td>
</tr>
<tr>
<td>Berlín</td>
<td>'Berlín-ør</td>
</tr>
<tr>
<td>Düsseldorf</td>
<td>'Düsseldorf-ør</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>'Frankfurt-ør</td>
</tr>
<tr>
<td>Göttingen</td>
<td>'Götting-ør</td>
</tr>
<tr>
<td>Potsdam</td>
<td>'Potsdam-ør</td>
</tr>
<tr>
<td>Wuppertal</td>
<td>'Wuppertal-ør</td>
</tr>
</tbody>
</table>

Conclusion

The theory of prosodic constituent structure is built on a three-way distinction between

- one kind of strong position:
  - foot-head,
- two kinds of weak position:
  - footed: foot-nonhead,
  - unfooted.

References


Bennett, Ryan (2009) Irish plural allomorphy and output optimization. Ms. UC Santa Cruz.


