Segmenting clusters
(and a look at obstruent clusters)

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On Constituents Workshop, London, 2017-02-17
counting segments

- *chip tfip* — one or two skeletal slots?
counting segments

- *chip* tʃɪp — one or two skeletal slots?
- *tip* tɪp — one or two skeletal slots?
counting segments

- chip tip — one or two skeletal slots?
- tip thip — one or two skeletal slots?
- prince prints — two or three skeletal slots?
counting segments

- *chip tfip* — one or two skeletal slots?
- *tip thip* — one or two skeletal slots?
- *prince prints* — two or three skeletal slots?
- *loud lawd* — one or two constituents?
counting segments

- *chip tʃip* — one or two skeletal slots?
- *tip thɪp* — one or two skeletal slots?
- *prince prɪnts* — two or three skeletal slots?
- *loud lawd* — one or two constituents?

- notational conventions aimed at biasing counting:
  *chip tʃip, tʃip, tʃɪp, ɕɪp; tip tʰɪp; prince prɪnts; loud lawd*
counting segments

- chip \( t\text{ʃ}ip \) — one or two skeletal slots?
- tip \( t\text{h}ip \) — one or two skeletal slots?
- prince \( \text{prIn}ts \) — two or three skeletal slots?
- loud \( \text{l}awd \) — one or two constituents?
- notational conventions aimed at biasing counting:
  - chip \( t\text{ʃ}ip, \ t\text{ʃ}ip, \ t\text{ʃ}ip, \ \text{c}ip; \ tip \ t\text{h}ip; \ prince \ \text{prIn}ts; \ loud \ \text{l}awd \)

- \( xy = \overline{\circ} \circ \)
- \( x^y, \ xy = \overline{\circ} \)
as a cluster

**tʃ** vs **tr**

<table>
<thead>
<tr>
<th></th>
<th><strong>tʃ</strong></th>
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As a cluster

t\overrightarrow{f} vs tr

difference: \_\_C and \_\_\#
**tʃ** as a cluster

**tʃ vs tr**

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- **difference:** __C and __#
- **reason:** tr is a rising-sonority cluster
tʃ as a cluster

tʃ vs tr

difference: __C and —#
reason: tr is a rising-sonority cluster
how does tʃ compare to an obstruent cluster?

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**tʃ as a cluster**

**tʃ vs tr**

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- **difference:** __C and __#
- **reason:** tr is a rising-sonority cluster
- **how does tʃ compare to an obstruent cluster?**

**tʃ vs kʃ/ks**

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- **difference:** __C and __#
**tʃ as a cluster**

### tʃ vs tr

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- **difference:** ___C and ___#
- **reason:** tr is a rising-sonority cluster
- **how does tʃ compare to an obstruent cluster?**

### tʃ vs kʃ/ks

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1. **kʃ #**, so we use ks
tʃ as a cluster

tʃ vs tr

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Difference: __C and __#  
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1. *kʃ#, so we use ks  
2. luxury lákʃrɪj
as a cluster

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difference: __C and __#

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difference: __C and __#

reason: tr is a rising-sonority cluster

how does tʃ compare to an obstruent cluster?

1. *kʃ#, so we use ks
2. luxury lákʃrɪʃ
3. functional fəŋkʃnəl
**tʃ as a cluster**

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**how does tʃ compare to an obstruent cluster?**

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**1.** *kʃ #*, so we use ks

**2.** *luxury lókʃrij*

**3.** *functional fóŋkʃnɔl*

**4.** so tʃ and kʃ/ks are different only __#—V
as a segment

tʃ vs t

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different #__C

- different #__C
**tʃ** as a segment

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- different #__C
- the distributions of both tʃ–kʃ/ks and tʃ–t differ in one cell
**tʃ** as a segment

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- different **_#_**
- the distributions of both **tʃ–kʃ/ks** and **tʃ–t** differ in one cell

so far its distribution does not convincingly decide if **tʃ** is a segment or a cluster
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<tr>
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<tr>
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<td>4</td>
</tr>
<tr>
<td>n/ŋ__</td>
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<td>l__</td>
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</tbody>
</table>
the differences may be due to the coronality effect, cf word-final
The differences may be due to the coronality effect, cf. word-final

<table>
<thead>
<tr>
<th></th>
<th>__ṭʃ#</th>
<th>__ks#</th>
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</tr>
</tbody>
</table>
The table shows the differences between the sounds /tʃ/ and /ks/ in a specific context, likely related to coronal articulation and word-finally:

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<tr>
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</tr>
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</tbody>
</table>

The differences may be due to the coronality effect, cf word-final:

- nt 1422,ŋk 164; lt 133, lk 23
- jt 1606, jk 295; wt 399, wk 105
<table>
<thead>
<tr>
<th></th>
<th>tʃ#</th>
<th>ks#</th>
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<tr>
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- the differences may be due to the coronality effect, cf word-final
- nt 1422, ŋk 164; lt 133, lk 23
- jt 1606, jk 295; wt 399, wk 105
- we have :ntʃ, but not *:ŋks
### $t\bar{f}$ and $ks$ / C

<table>
<thead>
<tr>
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<td>$ij$</td>
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<tr>
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<td>0</td>
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<tr>
<td>$\omega w$</td>
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  - nt 1422, ŋk 164; lt 133, lk 23
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- We have :nt$\bar{f}$, but not *:ŋks.
- But also :nt vs *:ŋk!
### tʃ and ks / C__#

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**word-final plosive+fricative**

<table>
<thead>
<tr>
<th></th>
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</table>
word-initial rising-sonority clusters (aka branching onsets)

nonstrident obstruent (except v Ǿ)+approximant

<table>
<thead>
<tr>
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<td>✓</td>
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could it be that pin, tin, kin begin with a cluster?
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could it be that pin, tin, kin begin with a cluster?

- pin phìn vs bin pìn, prim phrím or pȑìm (vs brim prìm)
- distribution of aspirated plosives = distribution of h
word-initial rising-sonority clusters (aka branching onsets)

nonstrident obstruent (except v ð)+approximant

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we here ignore Cj (eg mj, lj, hj etc)

could it be that *pin, tin, kin* begin with a cluster?

- *pin phin vs bin pin, prim phrīm or p̥rīm* (vs *brim prīm*)
- distribution of aspirated plosives = distribution of h
- some consequences
word-initial rising-sonority clusters (aka branching onsets)

nonstrident obstruent (except $v$ $\emptyset$)+approximant

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we here ignore $Cj$ (eg $mj$, $lj$, $hj$ etc)

could it be that *pin, tin, kin* begin with a cluster?

- *pin phîn* vs *bin pîn, prim phrîm* or *prîm* (vs *brîm prîm*)
- distribution of aspirated plosives = distribution of $h$
- some consequences
  - E has no laryngeal distinction in obstruents ($p$ $t$ $t\emptyset$ $k$ $f$ $\emptyset$ $s$ $\emptyset$)
word-initial rising-sonority clusters (aka branching onsets)

nonstrident obstruent (except v ð) + approximant

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we here ignore Cj (e.g. mj, lj, hj etc)

could it be that *pin, tin, kin* begin with a cluster?

- *pin phín vs bin pín, prim phrím or pðm* (vs brim prím)
- distribution of aspirated plosives = distribution of h
- some consequences
  - E has no laryngeal distinction in obstruents (*p t tʃ k f θ s j*)
  - if pðm, E has two sets of approximants (*w l r j vs w l r j*)
word-initial rising-sonority clusters (aka branching onsets)

nonstrident obstruent (except v ð) + approximant

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we here ignore Cj (eg mj, lj, hj etc)

could it be that *pin, tin, kin* begin with a cluster?

- *pin phín vs bin pìn, prim phrím or prím* (vs brim prím)
- distribution of aspirated plosives = distribution of h
- some consequences
  - E has no laryngeal distinction in obstruents (*p t tʃ k f θ s ʃ*)
  - if *prím*, E has two sets of approximants (*w l r j vs w l r j*)
  - if *phrím*, E has CCC onset clusters
can we extend this analysis to fricatives?

- *frill fhrIL, thrill θhrIL, but *fr, *θr
can we extend this analysis to fricatives?

- *frill* [fhrɪl], *thrill* [θhrɪl], but *fr*, *θr*
- the distribution of fortis fricatives is freer than that of *h* (eg *offer*, *off*, *often*)
can we extend this analysis to fricatives?

- *frill* /fhrɪl/, *thrill* /θhrɪl/, but *fr*, *θr*
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  - *sp*: eg *husband* hʌspənd (rare)
can we extend this analysis to fricatives?

➤ *frill* fhrı̯l, *thrill* əhrı̯l, but *fr*, *θr*

➤ the distribution of fortis fricatives is freer than that of h (eg offer, off, often)

➤ fricative+plosive clusters in English
  ➤ sp: eg *husband* həspənd (rare)
  ➤ sph: eg *gazpatcho* gaspháːtʃəw (very rare)
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- fricative+plosive clusters in English
  - *sp*: eg *husband* /hʌspənd/ (rare)
  - *sph*: eg *gazpatcho* /gasˈpætʃəʊ/ (very rare)
  - *shp*: eg *aspect* /ˈæspɛkt/ (most common)
can we extend this analysis to fricatives?

- frill $\text{fr} \text{rl}$, thrill $\text{th} \text{rl}$, but *fr, *th
- the distribution of fortis fricatives is freer than that of $\text{h}$ (eg offer, off, often)
- fricative-plosive clusters in English
  - sp: eg husband $\text{h} \text{sp} \text{end}$ (rare)
  - sph: eg gazpatcho $\text{gas} \text{p} \text{h} \text{t} \text{f} \text{ew}$ (very rare)
  - shp: eg aspect $\text{a} \text{shp} \text{ekt}$ (most common)
  - *shph: impossible
can we extend this analysis to fricatives?

- *frill* fhrɪl, *thrill* θhrɪl, but *fr*, *θr*
- the distribution of fortis fricatives is freer than that of *h* (eg *offer*, *off*, *often*)
- fricative+plosive clusters in English
  - sp: eg *husband* hɛsˈpænd (rare)
  - sph: eg *gazpatcho* gaspʰɑtʃəw (very rare)
  - shp: eg *aspect* əspɛkt (most common)
  - *shph*: impossible
- expectation based on complexity (*shph* ⊃ shp, sph ⊃ sp) is not borne out
can we extend this analysis to fricatives?

- *frill* fhrIl, *thrill* θhrIl, but *fr*, *θr*
- the distribution of fortis fricatives is freer than that of θ (eg offer, off, often)
- fricative+plosive clusters in English
  - sp: eg husband hˊspənd (rare)
  - sph: eg gazpatcho gasphátʃəw (very rare)
  - shp: eg aspect ˊashpɛkt (most common)
  - *shph: impossible
  - expectation based on complexity (shph ⊃ shp, sph ⊃ sp) is not borne out
- ⇒ no!
can we analyse plosives like this?

- some accents have \textit{ph}, \textit{th}, \textit{kh}, but not \textit{h}
can we analyse plosives like this?

- some accents have ph, th, kh, but not h
- why is bat path pronounced as [paʔt]?
can we analyse plosives like this?

- some accents have ph, th, kh, but not h
- why is bat path pronounced as [paʔt]?
  - cf bad pat [paat]
can we analyse plosives like this?

- some accents have *ph, th, kh*, but not *h*
- why is *bat path* pronounced as *[paʔt]?
  - cf *bad pat* *[paat]*
  - perhaps it is *paht*? ie, fortis devoices/shortens adjacent vowel
can we analyse plosives like this?

- some accents have ph, th, kh, but not h
- why is *bat* *path* pronounced as [paʔt]?
  - cf *bad* *pat* [paat]
  - perhaps it is paht? ie, fortis devoices/shortens adjacent vowel
  - but if their temporal order is not fixed, t and h can hardly be separate segments
can we analyse plosives like this?

- some accents have \textit{ph}, \textit{th}, \textit{kh}, but not \textit{h}
- why is \textit{bat path} pronounced as [paʔt]?
  - \textit{cf bad pat [paat]}
  - perhaps it is \textit{paht}? ie, fortis devoices/shortens adjacent vowel
  - but if their temporal order is not fixed, \textit{t} and \textit{h} can hardly be separate segments: a further argument for cluster \textit{tʃ}!
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  - unless we have rule ordering: píjpa → píjbə ordered before the “deaspiration” rule
an excursus: obstruent clusters in English

two sets of obstruents: 1. marked, 2. unmarked

<table>
<thead>
<tr>
<th>Marked Obstruents</th>
<th>Unmarked Obstruents</th>
</tr>
</thead>
<tbody>
<tr>
<td>pin</td>
<td>tin</td>
</tr>
<tr>
<td>bin</td>
<td>din</td>
</tr>
</tbody>
</table>
an excursus: obstruent clusters in English

two sets of obstruents: 1. marked, 2. unmarked

1. \( p \quad t \quad tʃ \quad k \quad f \quad θ \quad s \quad ð \)
   - pin  tin  chin  kin  fin  thin  sin  shin

2. \( b \quad d \quad dʒ \quad g \quad v \quad ō \quad z \quadʒ \)
   - bin  din  gin  Ginn  Vince  this  zinc  Gide

three types of two-obstuent clusters
an excursus: obstruent clusters in English

two sets of obstruents: 1. marked, 2. unmarked

1. \(p\) \(t\) \(\text{f}\) \(k\) \(f\) \(\emptyset\) \(s\) \(\text{ʃ}\)
   - pin, tin, chin, kin, fin, thin, sin, shin

2. \(b\) \(d\) \(\text{ʒ}\) \(g\)
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an excursus: obstruent clusters in English

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   \begin{align*}
   \text{pin} & \quad \text{tin} & \quad \text{chin} & \quad \text{kin} & \quad \text{fin} & \quad \text{thin} & \quad \text{sin} & \quad \text{shin} \\
   \text{bin} & \quad \text{din} & \quad \text{gin} & \quad \text{Ginn} & \quad \text{Vince} & \quad \text{this} & \quad \text{zinc} & \quad \text{Gide} \\
\end{align*}

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3. fortis+lenis: \( \text{sg} \) (school), \( \text{fd} \) (after), \( \text{kd} \) (anecdote)
an excursus: obstruent clusters in English

two sets of obstruents: 1. marked, 2. unmarked

1.  
   | p | t | tʃ | k | f | θ | s | ʃ |
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2.  
   | b | d | dʒ | g |
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three types of two-obstuent clusters

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3. fortis+lenis: sg (school), fd (after), kd (anecdote)

fortis+fortis clusters ruled out (← marked!)

apparent fortis+fortis clusters: pt kt tʃt ft fk sp st stʃ sk ps ts ks
apparent fortis+fortis clusters

initial
apparent fortis+fortis clusters

initial

- s+plosive, plosive not aspirated (＝ lenis): sb sd sdʒ sg
apparent fortis+fortis clusters

initial

- s+plosive, plosive not aspirated (= lenis): sb sd sdʒ sg

final
apparent fortis+fortis clusters

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- s+plosive, plosive not aspirated (＝ lenis): sb sd sdʒ sg

final

- past/3sg/plur: tacked takd, tacks takz
apparent fortis+fortis clusters

initial

- s+plosive, plosive not aspirated ( lenis): sb sd sdʒ sg

final

- past/3sg/plur: tacked takd, tacks takz (→ tact takd, tax takz)
apparent fortis+fortis clusters

initial

► s+ plosive, plosive not aspirated (≈ lenis): sb sd sdʒ sg

final

► past/3sg/plur: tacked takd, tacks takz (→ tact takd, tax takz)
► advantage: two allomorphs only (d/əd, z/əz)
apparent fortis+fortis clusters

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- past/3sg/plur: tacked takd, tacks takz (→ tact takd, tax takz)
- advantage: two allomorphs only (d/əd, z/əz)

medial
apparent fortis+fortis clusters

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final

- past/3sg/plur: tacked takd, tacks takz (→ tact takd, tax takz)
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medial

- kasbah kázba, Casper kásba, gazpatcho gazpátʃəw, Azkaban ázkəban
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medial

- kasbah kázbə, Casper kásbə, gazpatcho gaspátʃəw, Azkaban ázkəban
- exam əgzám, excite əgsájt, octet ɔgtét, actor ágtə
apparent fortis+fortis clusters

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- problem: act akd vs actor agtə, acted ágtəd (no other fortis–lenis alternation in English)
apparent fortis+fortis clusters

initial

- s+plosive, plosive not aspirated (=lenis): sb sd sdʒ sg

final

- past/3sg/plur: tacked takd, tacks takz (→ tact takd, tax takz)
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medial

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- exam əgzáim, excite əgsájt, octet əgtət, actor ágtə
- problem: act akt vs actor ágtə, acted ágtəd (no other fortis–lenis alternation in English)

back to counting segments...
epenthesis of fortis plosive between nasal & fortis fricative

- ancient éj̥n⟨t⟩ʃənt, censure sén⟨t⟩ʃə, mensch mén⟨t⟩ʃ
epenthesis of fortis plosive between nasal & fortis fricative

- *ancient éjn⟨t⟩ʃənt, censure sén⟨t⟩ʃə, mensch mén⟨t⟩ʃ*
- Fortition of fricative to affricate?
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- fortition of fricative to affricate?
- answer áːn⟨t⟩sə, censor sén⟨t⟩sə, prince prín⟨t⟩ʃ
epentheses of fortis plosive between nasal & fortis fricative

- *ancient* éjn⟨t⟩ʃɔnt, *censure* sén⟨t⟩ʃə, *mensch* mén⟨t⟩ʃ
- fortition of fricative to affricate?
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- answer á:n⟨t⟩ʃə, censor sén⟨t⟩ʃə, prince prín⟨t⟩s
- amphora ám⟨p⟩ʃərə, Samson sám⟨p⟩ʃən, infant ín⟨t⟩ʃənt,
anthem án⟨t⟩ʃəm, ninth nójn⟨t⟩θ, warmth wom⟨p⟩θ,
length léŋ⟨k⟩θ, youngster jéŋ⟨k⟩ʃtə (data from LPD3)
- ⇒ the result is not an affricate
epenthesis of fortis plosive between nasal & fortis fricative

- ancient ējn⟨t⟩ʃənt, censure sēn⟨t⟩ʃə, mensch mēn⟨t⟩ʃ
- fortition of fricative to affricate?
- answer áːn⟨t⟩ʃə, censor sēn⟨t⟩ʃə, prince prín⟨t⟩ʃ
- amphora ám⟨p⟩ʃərə, Samson sám⟨p⟩ʃən, infant ín⟨t⟩ʃənt, anthem án⟨t⟩θəm, ninth nájn⟨t⟩θ, warmth wɔːm⟨p⟩θ, length lέŋ⟨k⟩θ, youngster jéŋ⟨k⟩ʃtə (data from LPD3)
- ⇒ the result is not an affricate
- occurs only before unstressed vowel and word finally, not before a stressed vowel: eg ensure ín*⟨t⟩ʃə, incest ín*⟨t⟩ʃəst, confess kən*⟨t⟩fés
epenthesis of fortis plosive between nasal & fortis fricative

- ancient éjn\langle t\ranglẹʃənt, censure sén\langle t\ranglẹʃə, mensch mén\langle t\ranglẹʃ
- fortition of fricative to affricate?
- answer áːn\langle t\ranglẹʃə, censor sén\langle t\ranglẹʃə, prince prín\langle t\ranglẹʃ
- amphora ám\langle p\ranglẹʃərə, Samson sám\langle p\ranglẹʃən, infant ín\langle t\ranglẹʃənt, anthem án\langle t\rangleθəm, ninth nójn\langle t\rangleθ, warmth woːm\langle p\rangleθ, length lén\langle k\rangleθ, youngster jén\langle k\rangleʃtə (data from LPD3)
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- ⇒ the process is not fortition
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- ancient éjn⟨t⟩ʃənt, censure sén⟨t⟩ʃə, mensch mén⟨t⟩ʃ
- fortition of fricative to affricate?
- answer á:n⟨t⟩ʃə, censor sén⟨t⟩ʃə, prince prin⟨t⟩ʃ
- amphora ám⟨p⟩ʃərə, Samson sám⟨p⟩ʃən, infant in⟨t⟩ʃənt, anthem án⟨t⟩θəm, ninth nújn⟨t⟩θ, warmth woːm⟨p⟩θ, length léŋ⟨k⟩θ, youngster jéŋ⟨k⟩ʃtə (data from LPD3)
- ⇒ the result is not an affricate
- occurs only before unstressed vowel and word finally, not before a stressed vowel: eg ensure in*⟨t⟩ʃɔː, incest in*⟨t⟩ʃəst, confess kəŋ*⟨t⟩ʃɛs
- ⇒ the process is not fortition
- so what is happening here? is an extra skeletal slot inserted?
minimal pairs

- are loud lawd and land land a minimal pair? no
minimal pairs

- are *loud* lawd and *land* land a minimal pair? no
- are *loud* lawd and *laid* lɛjd a minimal pair? yes
minimal pairs

- are loud lawd and land land a minimal pair? no
- are loud lawd and laid ʌjd a minimal pair? yes
- are loud lawd and lad lad a minimal pair? yes
minimal pairs

- are *loud lawd* and *land land* a minimal pair? no
- are *loud lawd* and *laid lɛjd* a minimal pair? yes
- are *loud lawd* and *lad lad* a minimal pair? yes
- this follows from the idea that *aw* and *ɛj* are one segment
minimal pairs

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- are *loud lawd* and *lad lad* a minimal pair? yes
- this follows from the idea that *aw* and *εj* are one segment
- but *aw* and *εj* take up *two* skeletal slots
minimal pairs

- are loud lawd and land land a minimal pair? no
- are loud lawd and laid lexjd a minimal pair? yes
- are loud lawd and lad lad a minimal pair? yes
- this follows from the idea that aw and ej are one segment
- but aw and ej take up two skeletal slots
- so what exactly are we comparing in a minimal pair?
minimal pairs

- are *loud* lawd and *land* land a minimal pair? no
- are *loud* lawd and laid lejd a minimal pair? yes
- are *loud* lawd and lad lad a minimal pair? yes
- this follows from the idea that aw and ej are one segment
- but aw and ej take up two skeletal slots
- so what exactly are we comparing in a minimal pair?
- do we give the same answers to the first three questions if English was a language with no writing and unknown history?
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similar problems
minimal pairs

- are loud lawd and land land a minimal pair? no
- are loud lawd and laid lexjd a minimal pair? yes
- are loud lawd and lad lad a minimal pair? yes
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- but aw and ej take up two skeletal slots
- so what exactly are we comparing in a minimal pair?
- do we give the same answers to the first three questions if English was a language with no writing and unknown history?

similar problems

- are tip–trip, tip–chip, trip–chip minimal pairs?
minimal pairs

- are *loud lawd* and *land land* a minimal pair? no
- are *loud lawd* and *laid Iejd* a minimal pair? yes
- are *loud lawd* and *lad lad* a minimal pair? yes
- this follows from the idea that *aw* and *ej* are one segment
- but *aw* and *ej* take up two skeletal slots
- so what exactly are we comparing in a minimal pair?
- do we give the same answers to the first three questions if English was a language with no writing and unknown history?

similar problems

- are *tip–trip*, *tip–chip*, *trip–chip* minimal pairs?
- are *print print* and *prince prints* a minimal pair?
it is not consistent to say

that $[O \, t \, r] \quad [N \, i] \quad [o \, p]$ are not a minimal pair,

but $[O \, l] \quad [N \, a \, w] \quad [o \, d]$ are a minimal pair
another problem with diphthongs

- is *now* *naw* CVV or CVC?
another problem with diphthongs

is now *naw* CVV or CVC?

- i. O N  
  n a w
- ii. O N O O N

standard GP:  

- or  
  n a w
another problem with diphthongs

► is *now* *naw* CVV or CVC?
  i. O N  ii. O N O N

► standard GP:
  \[
  \begin{array}{c}
  \text{n a w} \\
  \text{n a w}
  \end{array}
  \]
  i. C V C V  ii. C V C V

► standard CV:
  \[
  \begin{array}{c}
  \text{n a w} \\
  \text{n a w}
  \end{array}
  \]
another problem with diphthongs

► is now naw CVV or CVC?
   i. O N or ii. O N O N

► standard GP:  
    naw or naw

   i. C V C V or ii. C V C V

► standard CV:  
    naw or naw

► in case (i), in what sense is the offglide vocalic?
ceterum censeo: diphthongal offglides are consonantal

- ə-epenthesis: feel fiəl, fail feəl, file faəl, foil foəl, hour awə(ə)(r): the diphthongal offglides are consonants
ceterum censeo: diphthongal offglides are consonantal

- ø-epentheses: feel fij(ə)l, fail fεj(ə)l, file faj(ə)l, foil foj(ə)l, hour aw(ə)(r): the diphthongal offglides are consonants

- NZ Acrolect flapping: factor faktə, faster fastə, Fanta fantə, fighter fajtə, pouter pawtə, farter faːtə vs fatter farəː: only after vowel, so j wː are consonants
ceterum censeo: diphthongal offglides are consonantal

- ο-epenthesis: feel fiŋ(ə)l, fail feŋ(ə)l, file faŋ(ə)l, foil foŋ(ə)l, hour awŋ(ə)(r): the diphthongal offglides are consonants

- NZ Acrolect flapping: factor faktə, faster fastə, Fanta fantə, fighter fajtə, pouter pawtə, farter fa:tə vs fatter fa:rə: only after vowel, so j w : are consonants

- *ŋŋ/ŋŋ/aw+w, but ñŋ/ŋŋ/ŋŋ+j (eg Ewok, kiwi, Awacs, Tewa, Taiwan), ŋŋ/ŋŋ/aw+j (eg alleluia, Kikuyu, cocoyam, yoyo): no geminate consonants
ceterum censeo: diphthongal offglides are consonantal

- epenthesis: feel fiʃ⟨ə⟩l, fail fej⟨ə⟩l, file faʃ⟨ə⟩l, foil foʃ⟨ə⟩l, hour aw⟨ə⟩(r): the diphthongal offglides are consonants

- NZ Acrolect flapping: factor faktə, faster fastə, Fanta fantə, fighter fajtə, pouter pawtə, farter faːtə vs fatter faːtə: only after vowel, so j w : are consonants

- *ɪj/ɛj/ɑj/oj+j, *ʊw/əw/aw+w, but ɪj/ɛj/ɑj/oj+w (eg Ewok, kiwi, Awacs, Tewa, Taiwan), ʊw/əw/aw+j (eg alleluia, Kikuyu, cocoyam, yoyo): no geminate consonants

- no glide after checked vowel, only after long ːj (eg sawyer soːjə), ːw (eg narwhal naːwəl) and unstressed vowel əj (eg Karayan káɾəjən) and əw (eg Ottawa ˈotəwə): checked vowel+glide = “diphthong”
ceterum censeo: diphthongal offglides are consonantal

- e-epenthesis: feel fiʃəl, fail feʃəl, file faʃəl, foil foʃəl, hour awə(ɹ): the diphthongal offglides are consonants

- NZ Acrolect flapping: factor faktə, faster fastə, Fanta fantə, fighter fajtə, pouter pawtə, farter fa:tə vs fatter farə: only after vowel, so j w : are consonants

- *iʃ/ɛʃ/ɑʃ/ɔʃ+ʃ, *ʉw/əw/aw+w, but iʃ/ɛʃ/ɑʃ/ɔʃ+w (eg Ewok, kiwi, Awacs, Tewa, Taiwan), ʉw/əw/aw+j (eg alleluia, Kikuyu, cocoyam, yoyo): no geminate consonants

- no glide after checked vowel, only after long :ʃ (eg sawyer soʃə), :w (eg narwhal naːwəl) and unstressed vowel əj (eg Karayan kárəjan) and əw (eg Ottawa ˈotəwə): checked vowel+glide = “diphthong”

- unstressed vowels: only ɪ ə r and ɪʃ əw ʉw (eg happy, motto, value)
thanks to

- you all
- Faith Chiu
- UCL
- NKFI #119863