Intrusive consonants and hiatus filling

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Outline

- **two processes of consonantal intrusion**
- **historically: analogy, rule inversion**
- **complementary relationship**
- **hiatus-filling, vowel space**
- **representation of (vocalic) melody**
- **trigger of (R-)intrusion**

two processes of consonantal intrusion taking place across morpheme boundaries in present-day English
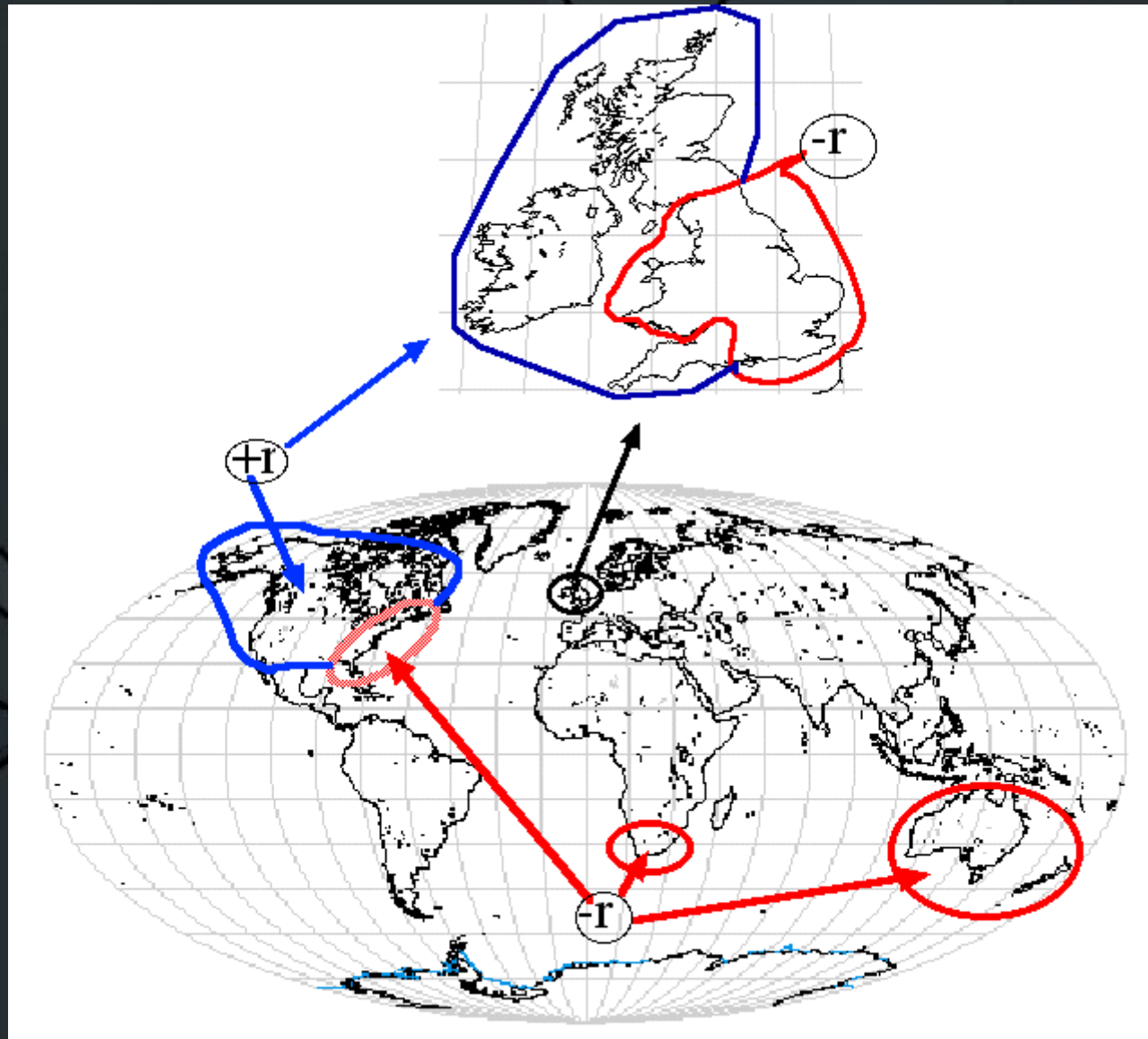
Consonantal intrusion #1

the appearance of the so-called intrusive-R in R-liaison in most non-rhotic accents of English (e.g., Advanced RP, Eastern Massachusetts English):

The spar seems to be broken – **R-dropping**

The spar is broken – **Linking-R**

The spa (r) *is broken* – **Intrusive-R**

(cf. Kahn 1976, Wells 1982, Broadbent 1991, McCarthy 1991, 1993, Harris 1994, Halle-Idsardi 1997, Sebregts 2001, Bermúdez-Otero 2005, Krämer 2005, 2008, Heselwood 2006, Uffmann 2007, 2008, etc.)

(http://www.hi.is/~peturk/KENNSLA/02/TOP/rhoticism.html)

Consonantal intrusion #2

the insertion of /l/ in similar contexts in, e.g., Bristol English* and southern Pennsylvania:

drawl = *draw* – L-vocalization

drawling – Linking-L

draw (l) *ing* – Intrusive-L

(cf. Wells 1982, Gick 1999, 2002, Sebregts 2001, Bermúdez-Otero 2005, etc.)

* Intrusive /l/ in Bristol is probably a different phenomenon (as it is also found utterance-finally) and therefore will be ignored in the following discussion.

Consonantal intrusion #2

- **two systems attested:**

- **(1)**

- Linking *l* after all vowels

  e.g.
  - /ɔː/   *drawl* [dɹɔː]   *drawling* [dɹɔːlɪŋ]
  - /ə/   *cruel* [kɹuːwə]   *cruel act* [kɹuːwəl ækt]
  - /ɑː/   *Dahl* [dɑː]   *Dahl is* [dɑːl ɪz]
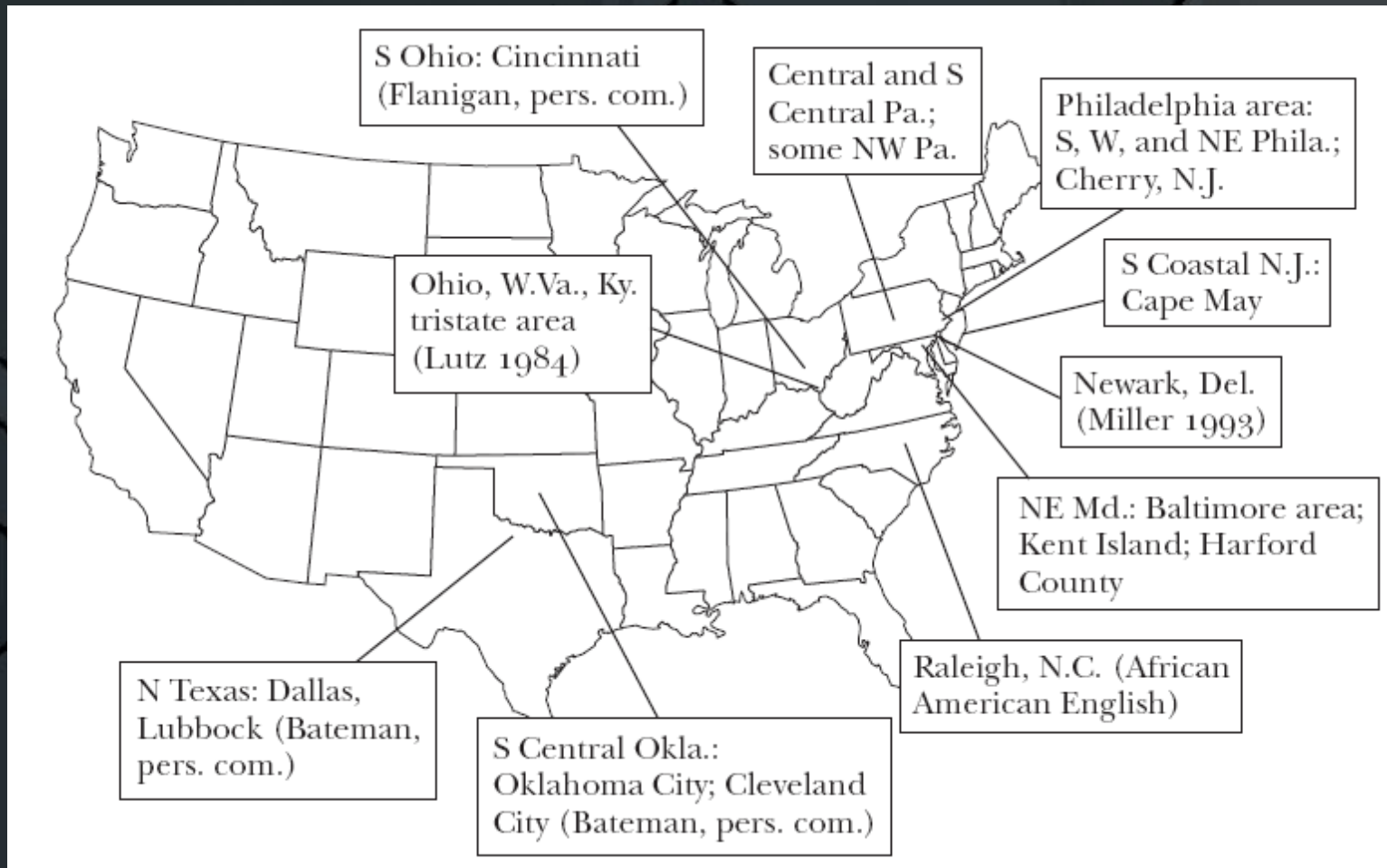 - etc.

- Intrusive l after /ɔː/ only

  e.g.   /ɔː/   *the law*[l] *is...*

  but   /ə/   *the idea*[∅] *is...*

         /ɑː/   *the bra*[∅] *is...*

- **(Bermúdez-Otero 2005: 6)**

- **(2) Intrusive-L after all non-high vowels**

Geographical distribution of Intrusive-L in the USA

Map of the USA with labels:

- S Ohio: Cincinnati (Flanigan, pers. com.)
- Central and S Central Pa.; some NW Pa.
- Philadelphia area: S, W, and NE Phila.; Cherry, N.J.
- Ohio, W.Va., Ky. tristate area (Lutz 1984)
- S Coastal N.J.: Cape May
- Newark, Del. (Miller 1993)
- NE Md.: Baltimore area; Kent Island; Harford County
- N Texas: Dallas, Lubbock (Bateman, pers. com.)
- S Central Okla.: Oklahoma City; Cleveland City (Bateman, pers. com.)
- Raleigh, N.C. (African American English)

(Gick 2002: 176)

parallels in historical development between
Intrusive-R and Intrusive-L

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- condition on the emergence of intrusive liquid: deletion/vocalization of the same liquid

generally accepted (?)* historical explanation:
rule inversion:
deletion:

$$r \rightarrow \varnothing$$

$$l \rightarrow \varnothing$$

* criticized by, e.g., Bermúdez-Otero (2005)

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- the role of analogy:

pore	*paw*	*spar*	*spa*	*manner*	*manna*
/pɔː/	/pɔː/	/spɑː/	/spɑː/	/ˈmænə/	/ˈmænə/
/pɔː/	/pɔː/	/spɑː/	/spɑː/	/ˈmænə/	/ˈmænə/
/pɔːr/	/pɔːr/	/spɑːr/	/spɑːr/	/ˈmænər/	/ˈmænər/

- motivation: linking across morphemes (to resolve hiatus): *the paw (r/l) is*

- /l/ corresponds to PAW (e.g., *paw = Paul, saw = Saul*) in exactly the same way as /r/ corresponds to schwa (e.g., *Korea = carreer, tuna = tuner*) in intrusion

That is, both liquids take part in cross-morpheme hiatus filling in the form of a kind of glide formation

but:

intrusive-R only characterizes non-rhotic accents, intrusive-L is only found in rhotic varieties:

Complementary relationship

Accents with no intrusive liquid:

/ˌlɔː ənd ˈɔːdə/ or /ˌlɔː ənd ˈɔrdər/

Accents with intrusive liquid:

/ˌlɔːr ənd ˈɔːdə/ or /ˌlɔːl ənd ˈɔrdər/

Non-existent accents:

*/ˌlɔːr ənd ˈɔrdər/ or */ˌlɔːl ənd ˈɔːdə/

* idea is /aɪˈdɪərɪz/ but paw is /ˈpɔːlɪz/

Complementary relationship

	Rhotic	Non-rhotic (+ Intrusive-R)
Non-L-vocalizing	e.g. General American; cf. /ˌlɔː ənd ˈɔrdər/	e.g. AdvRP, Eastern Massachusetts; cf. /ˌlɔːr ənd ˈɔːdə/
L-vocalizing (+ Intrusive-L)	e.g. Southern Pennsylvania; cf. /ˌlɔːl ənd ˈɔrdər/	?? cf. */ˌlɔːl ənd ˈɔːdə/

Towards the explanation

Hiatus-filling in English

The function of glides: to fill hiatus

The choice of hiatus filler is determined by the first term of the hiatus

Glides are used to cover the vowel space accordingly

In all accents of English: the high area of the vowel space is covered (high front glide /j/, high back glide /w/)

me [ʲ] *and you*   *you* [ʷ] *and me*

Hiatus-filling in English

(a) hiatus-filling /j/	(b) hiatus-filling /w/
ski_ing	*sew_age*
play_er	*bo_a*
fly_ing	*allow_ing*
boy_ish	*Jew_ish*
me_ and you	*you_ and me*
Woody Allen	*New England*

Hiatus-filling in English

- **In most non-rhotic accents /r/ is used as "the third glide" to cover the non-high area (= linking/intrusive-R)**

- **In certain (/l/-vocalizing) rhotic accents /l/ is used as the third glide to cover the non-high area (= linking/intrusive-L)**

(cf. Broadbent 1991, Sebregts 2001, etc.)

Hiatus-filling in English

	High front	High back	Non-high
Most rhotic accents (+ ConsRP)	/j/	/w/	/ʔ/ or zero
Some rhotic L-vocalizing accents (e.g. Southern Pennsylvania)	/j/	/w/	/l/
Non-rhotic (except ConsRP, AAVE, etc.)	/j/	/w/	/r/

Three glides

- **Recall: The two intrusive consonants are in a kind of <u>complementary distribution</u>:**

- **(intrusive-R only characterizes non-rhotic accents, intrusive-L is only found in rhotic varieties)**

- **This shows that the non-high area of the vowel space acts as a homogeneous territory**

- **That is: <u>the vowel space is divided into not more than 3 parts</u> – not more than 3 glides are needed for hiatus filling**

Three glides

Typology of English glide systems:
(cf. Sebregts 2001: 43-45)
- **rhotic non-l-vocalizing:**
  red: /j/   green: /w/
  blue: /?/ or zero
- **rhotic l-vocalizing:**
  red: /j/   green: /w/
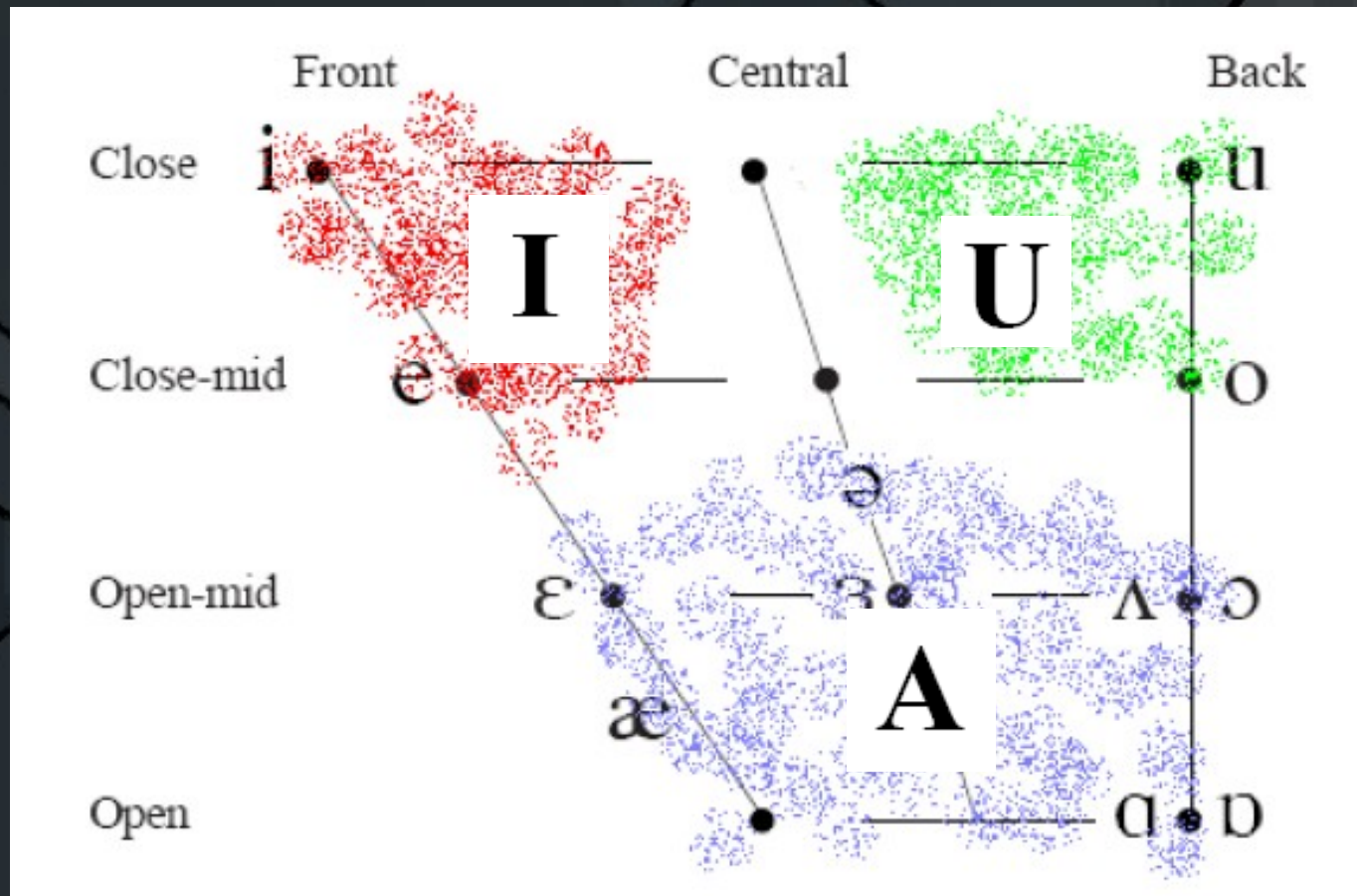 **blue: /l/ (variable)**
- **non-rhotic:**
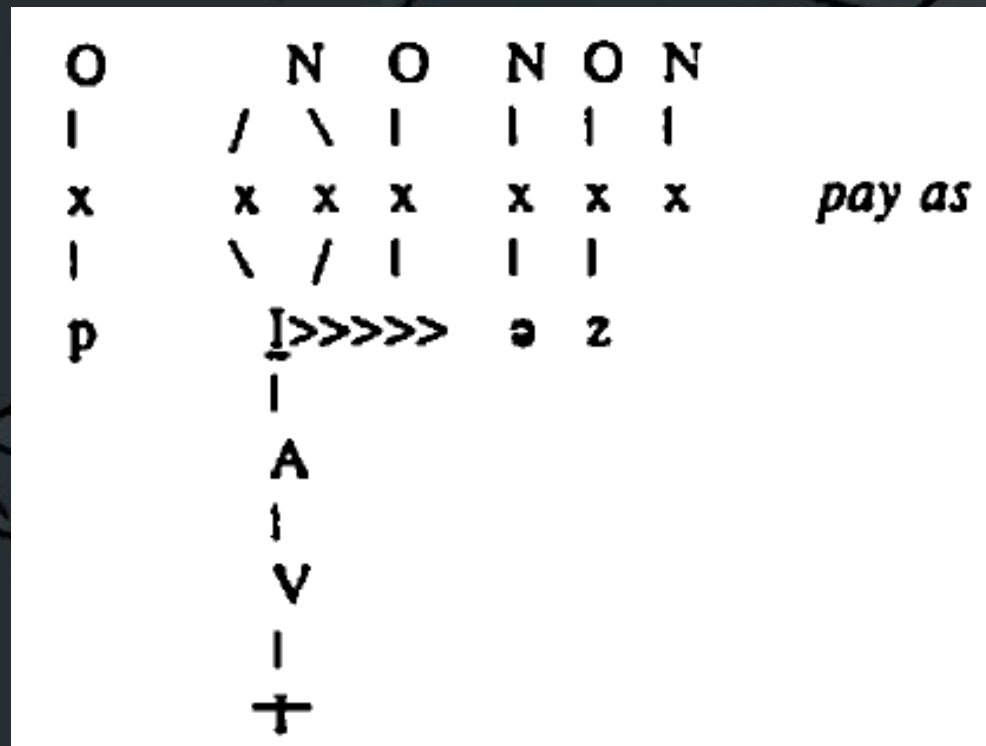 **red: /j/   green: /w/**
  blue: /r/
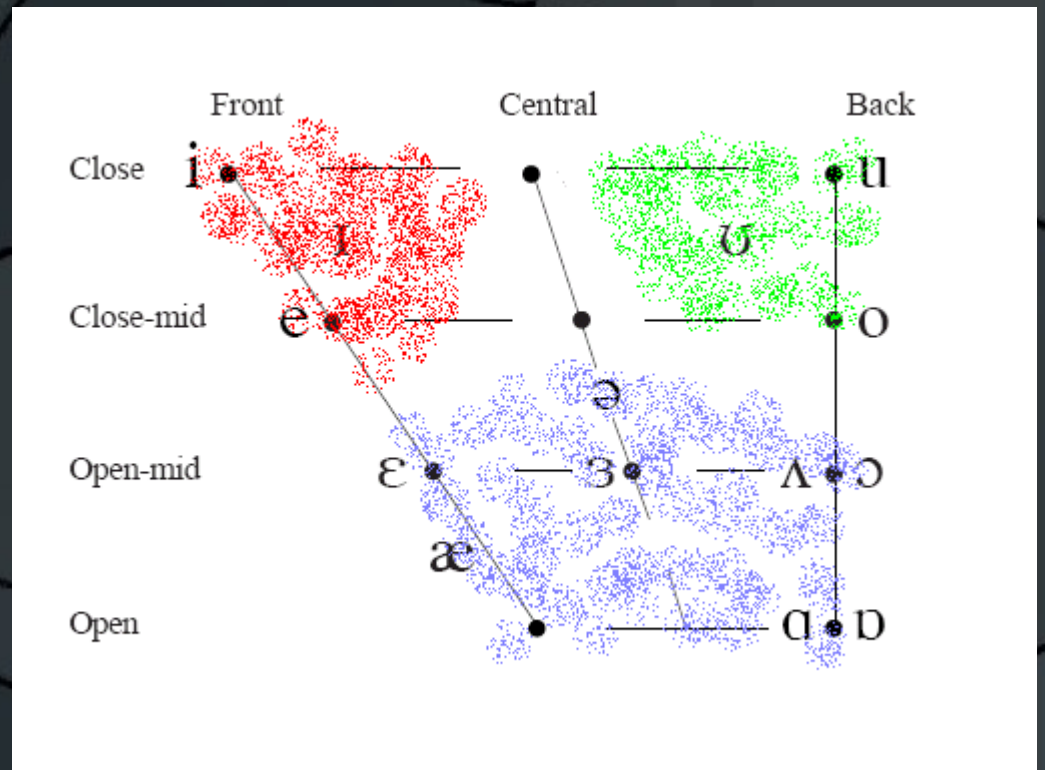
Three glides

- **This supports unary models of melodic representation with three basic vocalic elements (e.g., I, U, A), e.g., those of Dependency Phonology or Government Phonology...**

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- spreading analysis, e.g.:

- element **I** spreading (Broadbent 1991: 297)

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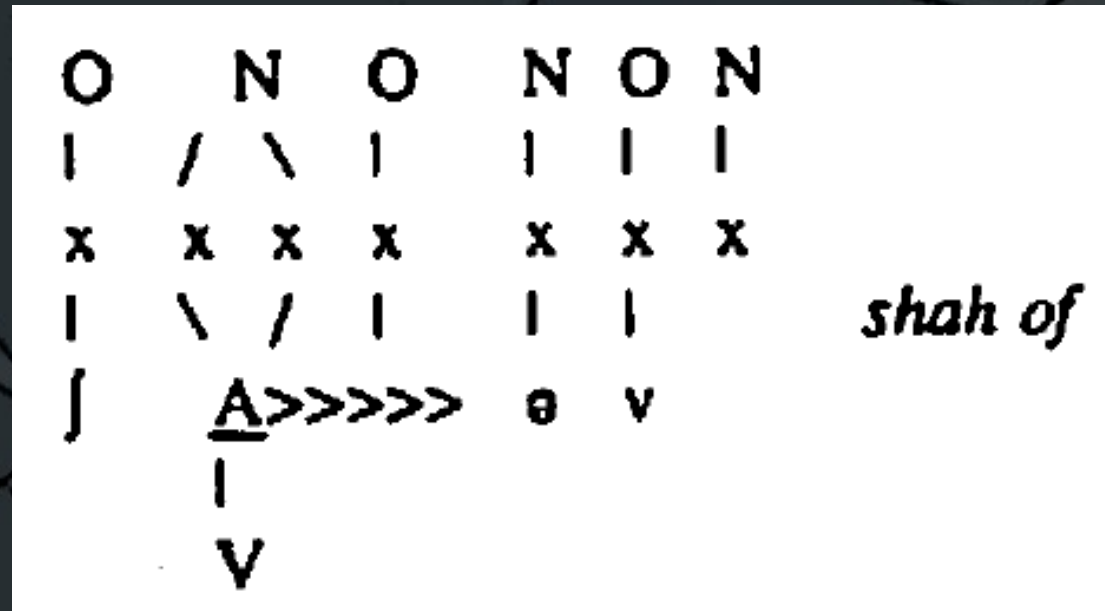
```
O   N   O   N N   N
|   / \ |   | | |
x   x x x   x x x      going
|   \ / |   | |
g   U>>>>>> ı n
    |
    A
    |
    V
    |
    †
```

- element **U** spreading (Broadbent 1991: 298)
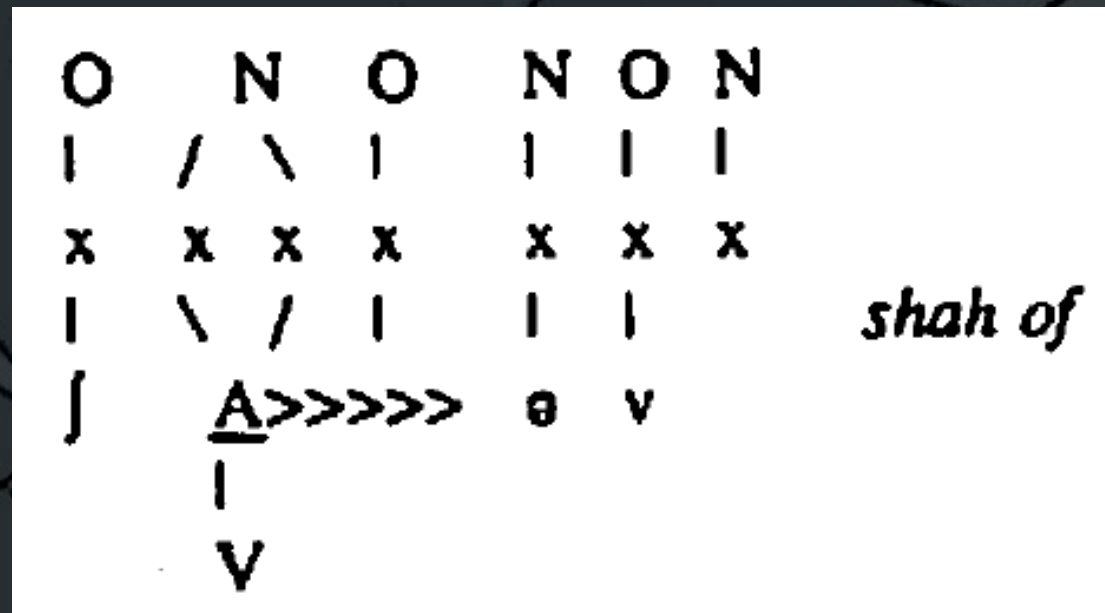
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- Consequence: /r/ contains / is the element **A**!

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- **weakens traditional binary-feature theories, where the three-way division does not fall out naturally, and the third area can only be expressed with reference to the *absence* of a property (=[-high])...**

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- **=> under a strict interpretation of [-F], this is problematic for gliding/spreading analyses: how can the *absence* of a feature spread?**

Three glides

- **… weakens traditional binary-feature theories, where the three-way division does not fall out naturally, and the third area can only be expressed with reference to the *absence* of a property (=[-high])**

- **=> under a strict interpretation of [-F], this is problematic for gliding/spreading analyses: how can the *absence* of a feature spread? (but: see later...)**

The evolution of "the third glide"

- **<u>Step 1</u>: yield limited distribution.**

- **No glides in (traditional) syllable codas in English (/j/ and /w/ are offglides of diphthongs within nuclei). In R-dropping accents the same happens to /r/, in L-vocalizing systems the same happens to /l/.**

The evolution of "the third glide"

- **<u>Step 2</u>: the glide enters the vowel space to act as a hiatus filler.**

- **This is a gradual process, the glide appears at some point of the quadrilateral (schwa for /r/, /O/ (PAW) for /l/), and gradually spreads to the other points. In the case of /r/ this is well-documented historically (Wells 1982, etc.). For the case of /l/, see Gick (2002)**

Further developments: /r/

- /r/ gets generalized as a hiatus-filler following non-high vowels:

- in all potential cases, e.g.:

cf. e.g., Wells (1982: 227, 309), Hay (2001), Broadbent (1991: 295)

Further developments: /r/

Cockney/Australian/New Zealand English: /aʊ/ ~ /æː/

æːr ˈɒʊd ə jəʊ

Further developments: /r/

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Further developments: /r/

Cockney/Australian/New Zealand English: /aʊ/ ~ /æː/

West Yorkshire English: [ɒː] (e.g., *law_and order*)

[ɒ] (e.g., *was_it* [wɒrɪt],

cf. *was_my* [wɒmɪ]),

[ɛ] (e.g., *ye(s)_it is*)

Further developments: /r/

Cockney/Australian/New Zealand English: /aʊ/ ~ /æː/

West Yorkshire English: [ɒː] (e.g., *law_and order*)

Norwich [ɛː] as in *he have often said* [hɛːr ˈɒfən ˈsɛd]

Non-high?

- Is the relevant feature *non-high*?

- Broadbent (1991: 295-296): [-high] is not restrictive enough!

pay me [pɛː mɪ]   pay as [pɛːjəz]

go to [goː tə]   going [goːwɪn]

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- "raises questions regarding the elemental compo-sition of all non-high vowels" (Broadbent 1991: fn.20)
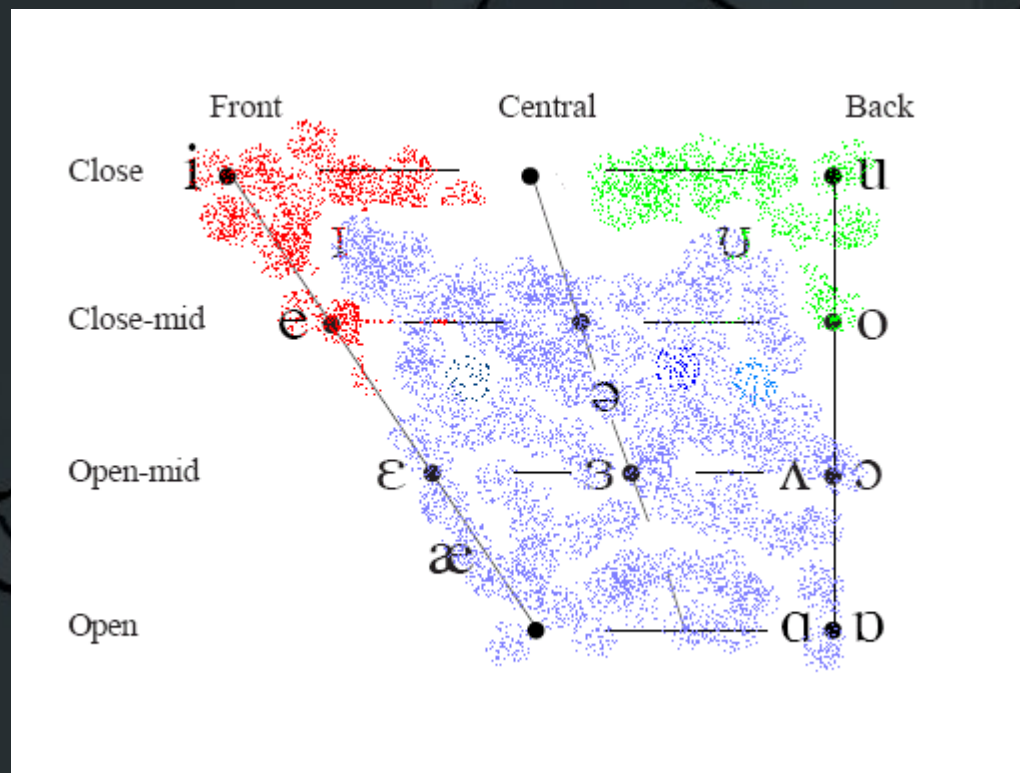
plus...

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Non-high?

- Uffmann (1998: 8):

Triggers for epenthetic /r/ ([ɹ ~ ʋ]) in SE English (surface vowels):

[ɪː]	e.g. [nɪːɹɪʔ]	'near it'
[ɛː]	e.g. [skwɛːɹɪʔ]	'square it'
[ʋː ~ ow]	e.g. [sʋːɹɪʔ]	'saw it'
[ʌ]	e.g. [vənɪlʌrɑɪs]	'vanilla ice'
[ɑː]	e.g. [ðə spɑːrɪz]	'the spa is'
[ɜː]	e.g. [mɪljɜːrəv]	'milieu of'
(/l/→[ʋ]	e.g. [tˢɪkʋrɪm]	'tickle him')

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- /r/ inserted after *lax* vowels (for a similar view see Prescott ms.)

Non-high?

- /r/ inserted after *lax* vowels (for a similar view see Prescott (ms.:10):

- "... /r/ is a [RTR] consonant [...] Intrusive-R is then a [RTR] glide filling an empty onset following a [RTR] vowel."

Non-high?

- /r/ inserted after *lax* vowels (for a similar view see Prescott ms.)

- (*tense/lax* (*ATR/RTR*) justifiable for English? cf. Durand 2005)

- Lax vowel in GP: unheaded PE

- phoneme /r/: wide range of phonetic realizations exhibiting the same behaviour

- Trubetzkoy .... Uffmann (2008): placeless sonorant

The farewell riddle

- placeless sonorant inserted after unheaded vowels:

- what is it that spreads?

- is the spreading account tenable? (question not raised for the first time...)

- any other possible analysis (in GP)?

- (default hiatus filler: the glottal stop)

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(already taking over in London: contact effect, cf. Britain & Fox 2009)

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- does the same hold for Intrusive-L?

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