Consonantal intrusion in sandhi

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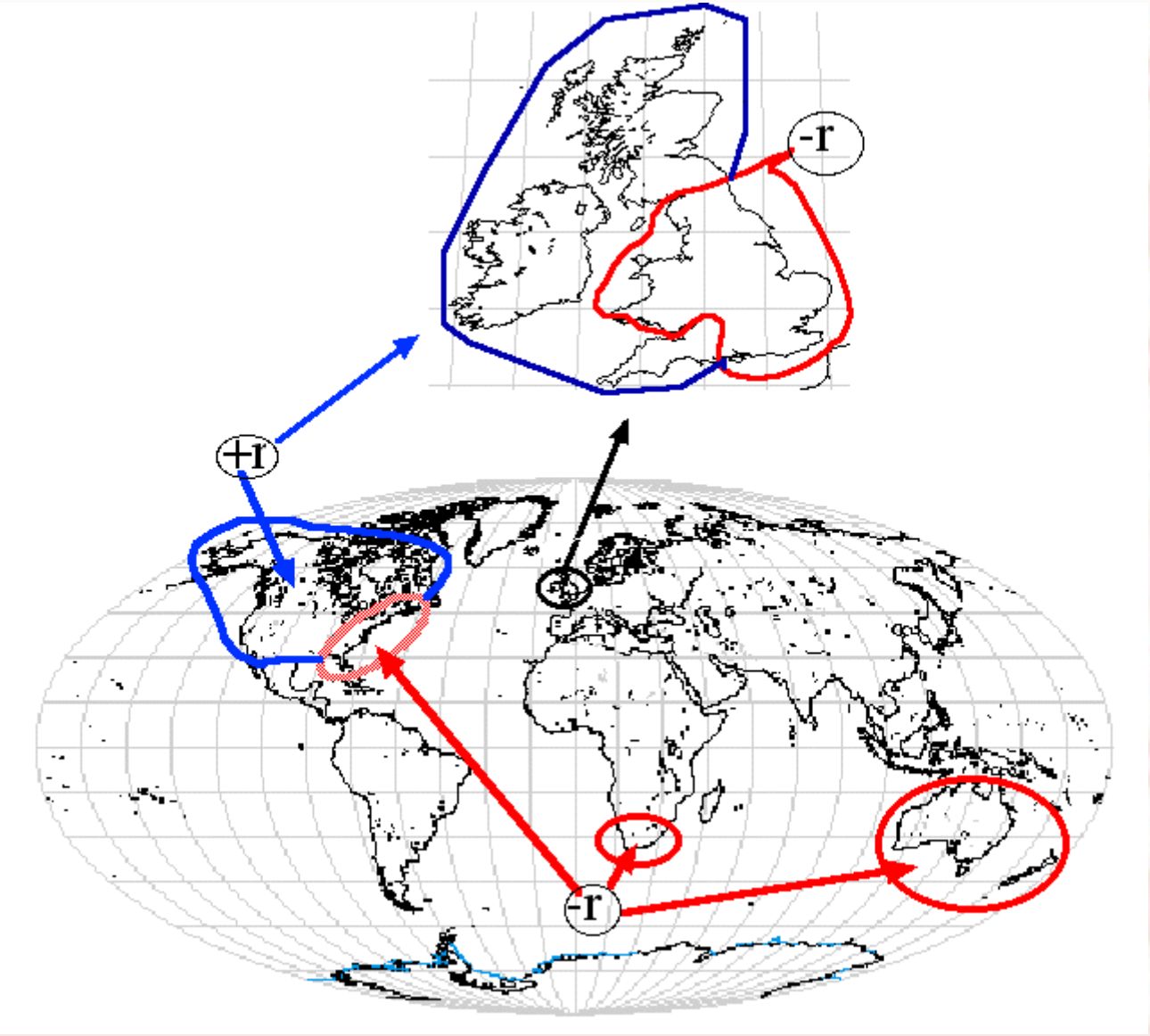
<u>Consonantal intrusion 1</u>:
the appearance of the so-called intrusive-R in R-liaison in most non-rhotic accents of English (e.g., Advanced RP, and Eastern Massachusetts English)

McCarthy (1991: 193):

a.	
The spa seems to be broken.	= The spar seems to be broken.
[spɑ]	[spɑ]
He put the tuna near the table.	= He put the tuner near the table.
[tuwnə]	[tuwnə]
The boat tends to yaw some.	=You're somewhat older.
[jɔ]	[jɔ]
b. **Intrusive *r***	**Linking *r***
The spa is broken.	= The spar is broken.
[spɑr]	[spɑr]
He put the tuna on the table.	= He put the tuner on the table.
[tuwnər]	[tuwnər]
The boat tends to yaw a little.	= You're a little older.
[jɔr]	[jɔr]

(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)

<u>Consonantal intrusion 2</u>:
the insertion of /l/ in similar contexts in, e.g., Bristol English* and southern Pennsylvania

two systems attested:

- 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.				

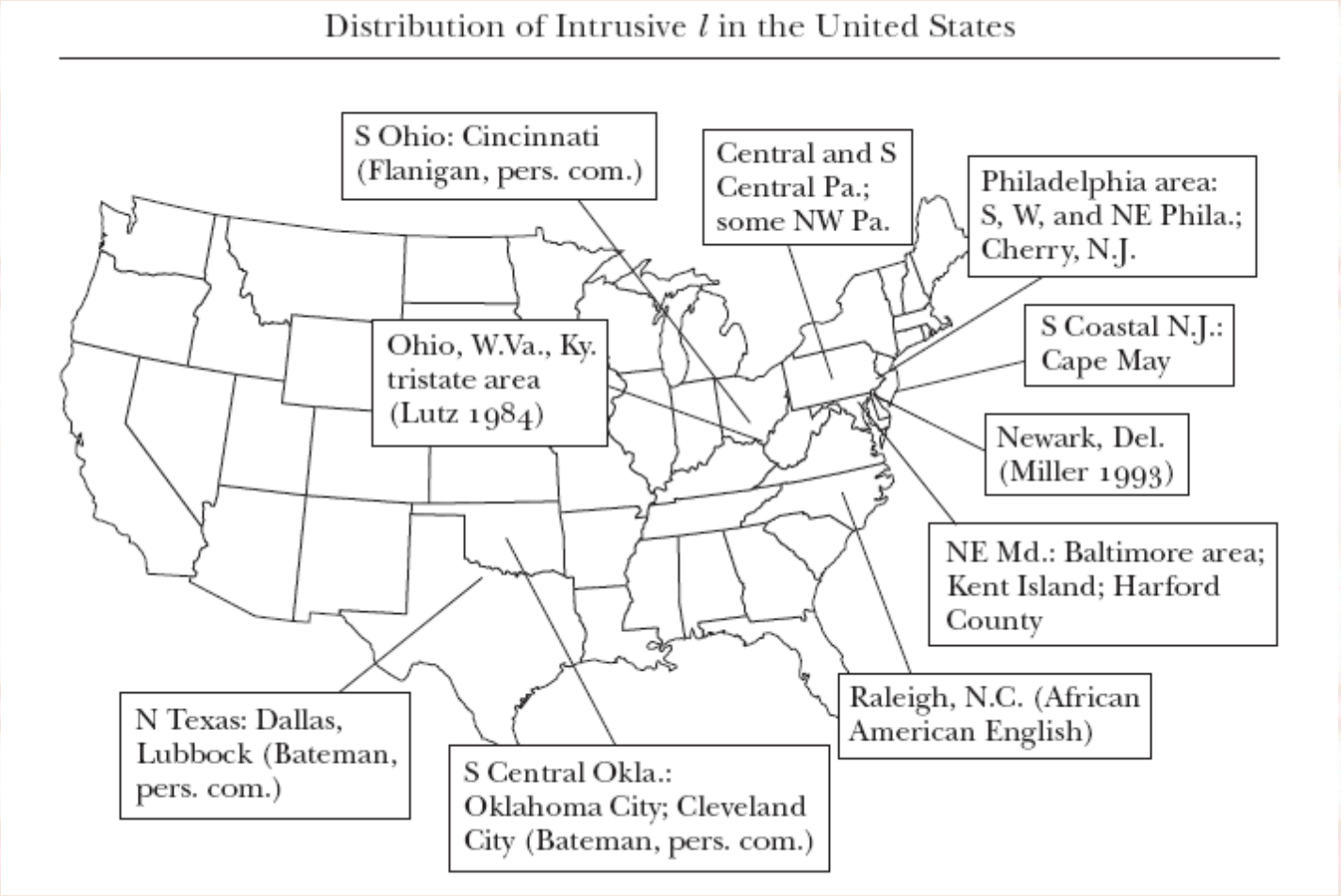
- Intrusive l after /ɔː/ only

e.g.	/ɔː/	*the law*[l] *is*...
but	/ə/	*the idea*[∅] *is*...
	/ɑː/	*the bra*[∅] *is*...

(Bermúdez-Otero 2005: 6)

(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.**



(Gick 2002: 176)

Historically both have emerged as an analogy-driven reaction to a vocalization/deletion process, that is, lenition to zero in weak phonological positions, which is accompanied by resyllabification/linking across morphemes (to resolve hiatus), e.g.:

(a) Original rhotic system: /V#/ ≠ /Vɹ#/

e.g.	*saw*	*saw up*	*soar*	*soar up*
	/sɔː/	/sɔː ʌp/	/sɔːɹ/	/sɔːɹ ʌp/
	[sɔː]	[sɔː ʌp]	[sɔːɹ]	[sɔːɹ ʌp]

(b) Linking *r*: /V#/ ≠ /Vɹ#/

V → [–high] / ___ ɹ (by breaking and laxing before *r*)

ɹ → ∅ / ___ {C, ‖} (*r*-loss)

e.g.	*saw*	*saw up*	*soar*	*soar up*
	/sɔː/	/sɔː ʌp/	/sɔːɹ/	/sɔːɹ ʌp/
	[sɔː]	[sɔː ʌp]	[sɔː]	[sɔːɹ ʌp]

(c) Intrusive *r*: No underlying /Vɹ#/ (input restructuring)

∅ → ɹ / [V, –high] ___ # V (*r*-insertion)

e.g.	*saw*	*saw up*	*soar*	*soar up*
	/sɔː/	/sɔː ʌp/	/sɔː/	/sɔː ʌp/
	[sɔː]	[sɔːɹ ʌp]	[sɔː]	[sɔːɹ ʌp]

(Bermúdez-Otero 2005: 1-2)

Conclusion:

/l/ corresponds to /ɔ/ (e.g., *saw* = *Saul*) in exactly the same way as /r/ corresponds to schwa (e.g., *tuna* = *tuner*) in r-intrusion; cf.:

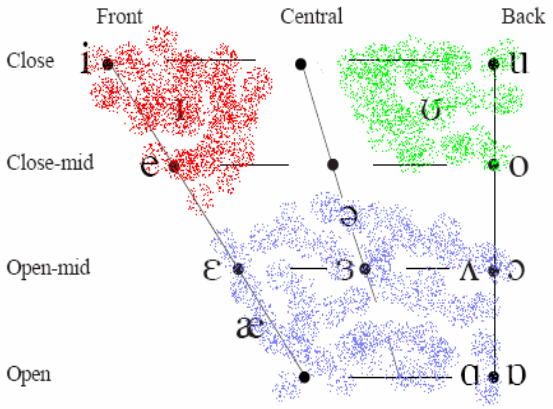
a.	
The spa seems to be broken. [spɑ]	= The spar seems to be broken. [spɑ]
He put the tuna near the table. [tuwnə]	= He put the tuner near the table. [tuwnə]
The boat tends to yaw some. [jɔ]	=You're somewhat older. [jɔ]
b. **Intrusive *r***	**Linking *r***
The spa is broken. [spɑr]	= The spar is broken. [spɑr]
He put the tuna on the table. [tuwnər]	= He put the tuner on the table. [tuwnər]
The boat tends to yaw a little. [jɔr]	= You're a little older. [jɔr]

a.	
Its paw was dirty. [pɔ]	= Paul went to school. [pɔ]
b. **Intrusive *l***	**Linking *l***
Its paw is dirty. [pɔl]	= Paul is at school. [pɔl]

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

Typology of English glide systems:
(cf. Sebregts 2001: 43-45)

- **rhotic non-l-vocalizing:**
  red: /j/ green: /w/ blue: /ʔ/ or zero
- **rhotic l-vocalizing:**
  red: /j/ green: /w/ blue: /l/ (variable)
- **non-rhotic (exc. conservative RP, AAVE):**
  red: /j/ green: /w/ blue: /r/



What is the relationship between intrusion, hiatus filling, and the system of glides?

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/)

In most non-rhotic accents /r/ is used as "the third glide" to cover the non-high area (= linking/intrusive-R)
In certain (=so-called /l/-vocalizing) rhotic accents /l/ is used as the third glide to cover the non-high area (= linking/intrusive-L)

The two intrusive consonants are in complementary distribution:
while 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: the vowel space is divided into not more than 3 parts
This supports privative melodic models like Government Phonology's Element Theory with 3 basic vocalic elements (I, U, A), and weakens traditional binary-feature theories, where the third area can only be expressed with reference to the *absence* of a property (=[-high])

The evolution of "the third glide":
Step 1: 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/.
Perhaps a floating analysis is appropriate. Long vowels and diphthongs are frequently analyzed as having a lexically empty skeletal position for the second term, which is filled during derivation when and if some condition is met (e.g. government). If this is a possible analysis for the second term of diphthongs, it is also possible for /r/ or /l/ in the relevant dialects. (At least in morpheme-final position.) (Except for, e.g., the vocalization of syllabic /l/ - see next page.)
Step 2: 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/, /ɔ/ for /l/), and gradually spreads to the other points. In the case of /r/ this is well-documented historically. For the case of /l/, see Gick (2002)

What happens in an accent (like Cockney or SE English) which is both non-rhotic and L-vocalizing?

- **Historically, R-dropping (together with Linking/Intrusive-R) precedes L-vocalization -> the non-high area is already covered by /r/**
- **Word-final /l/ can NOT be replaced with an /r/ in sandhi in cases like *Paul arrived* (by analogy to *law and order*), because:**
- **either the /l/ remains in the underlying representation and is pronounced as a (clear/light) Linking-L; or**
- **it is lexicalized as a high back offglide in /aw/ (esp. in broad Cockney), and as such it triggers hiatus filling with /w/.**
- **Exception: e.g., in younger SE English, syllabic (=nuclear) /l/ vocalizes as a non-high ("lax") [ʊ] and triggers R-intrusion: [tˢɪkʊɹɪm] 'tickle him' (Uffmann 2008: 8) (Cf. the fact that even in other clear/dark-L-systems syllabic /l/ is always dark, it never links to the following morpheme!)**

(I am grateful to the members of LinguistList who answered my query concerning non-rhotic L-vocalizing accents of English, and to Christian Uffmann, who was kind enough to explain his data in email.)

References

- Bermúdez-Otero, Ricardo (2005) The history of English intrusive liquids: using the present to ascertain the past. Handout of paper presented to the Department of Linguistics and English Language, University of Manchester, 24 May 2005. http://www.bermudez-otero.com/intrusion.pdf
- Broadbent, Judith (1991) Linking and intrusive *r* in English. University College London Working Papers in Linguistics 3: 281-302.
- Gick, Bryan (1999) A gesture-based account of intrusive consonants in English. Phonology 16.1: 29-54.
- Gick, Bryan (2002) The American intrusive L. American Speech, Vol. 77, No. 2, Summer 2002: 167-183. http://www.linguistics.ubc.ca/isrl/Gick(AmSpch02)IntrusL.pdf
- Halle, Morris and William Idsardi (1997) *r*, hypercorrection and the Elsewhere Condition. In Roca, Iggy (1997) (ed.) Derivations and Constraints in Phonology. Oxford: Clarendon Press: 331-348.
- Harris, John (1994) English sound structure. Cambridge, Mass.: Blackwell.
- Heselwood, Barry (2006) Final schwa and r-sandhi in RP English. Leeds Working Papers in Linguistics, No. 11, 2006: 78-95. http://www.leeds.ac.uk/linguistics/WPL/WP2006/4.pdf
- Kahn, Daniel (1976) Syllable-based generalizations in English phonology. PhD dissertation, MIT. (Published by Garland Press, New York, 1980.)

- Krämer, Martin (2005) English schwa insertion before liquids and phonological opacity. http://www.hum.uit.no/a/kraemer/mk%20cls41.pdf
- Krämer, Martin (2008) Taking a free ride can cau[ɹ]se severe hyperrhoticity. Paper presented at the 16th Manchester Phonology Meeting, 22-24 May 2008.
- McCarthy, John J. (1991) Synchronic rule inversion. In: Proceedings of the Seventeenth Annual Meeting of the Berkeley Linguistics Society, February 15-18: 192-207.
- McCarthy, John J. (1993) A case of surface constraint violation. Canadian Journal of Linguistics 38: 169-195.
- Uffmann, Christian (2007) A new idea-*r* about Intrusive [r]. Paper presented at the University of Sussex, 26 November 2007.
- Uffmann, Christian (2008) 'Incursions of the idiosyncratic' as faithfulness optimization. Paper presented at the 16th Manchester Phonology Meeting, 22-24 May 2008.
- Sebregts, Koen (2001) English [r]-liaison. Rule-based theories, Government Phonology and Optimality Theory. Ms., Department of English, Utrecht University. www.let.uu.nl/~Koen.Sebregts/personal/scriptie.pdf
- Wells, John C. (1982) Accents of English. Cambridge: CUP.