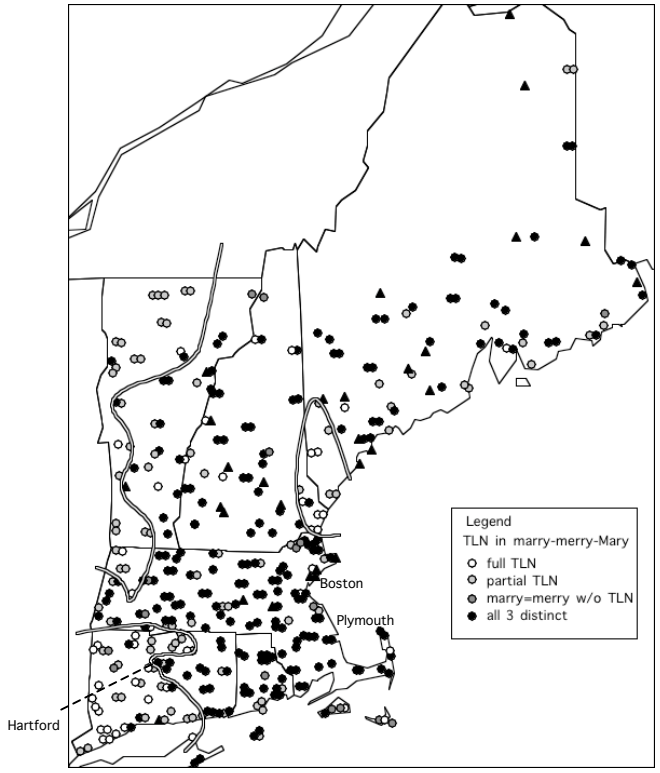
Marry-Merry-Mary Merger in New England: Further Analysis

(maps can be seen at *http://www.ling.upenn.edu/~dinkin/TLN/*)

Aaron J. Dinkin, University of Pennsylvania
dinkin@babel.ling.upenn.edu



Tense-lax neutralization in 1930s New England, based on data from *LANE*.

Tense-Lax Neutralization (TLN): the merger of the short lax vowels /æ e i o ʌ/ with the nearest tense ingliding vowels when before intervocalic /r/. Thus *marry* and *merry*, originally with /æ/ and /e/ respectively, become homophonous with *Mary*; *mirror* (/i/) comes to rhyme with *nearer*; *horror* (/o/) with *explorer*; and *hurry* (/ʌ/) with *furry*. This study concerns TLN in the *marry-merry-Mary* classes, with data from LANE:

LANE: The *Linguistic Atlas of New England* presents the results of a study conducted in the 1930s by nine fieldworkers, in which over 700 phonetic and lexical variables were elicited from some 400 speakers in various towns and cities throughout New England. All the informants' responses are represented in highly detailed phonetic transcription.

Notation: /æ/ as in *marry* and *cat*, /e/ as in *merry* and *pet*, /ehr/ as in *Mary* and *chair*.

Principal dialectological findings (from Dinkin 2004, q.v. for methodological and statistical notes):

(1) **TLN is found principally in Western New England,** as well as in the southeastern corner of New Hampshire and the adjacent portion of Maine.
(2) TLN in New Hampshire and Maine may represent the **earliest stage of the pattern described in Nagy (2001)**.
(3) A **monophthongal realization of /ehr/ is prevalent across all of southern and western New England** but was apparently lost in southwestern Massachusetts.
(4) Since **monophthongal /ehr/ reduces the margin of security** (Martinet 1952) between *merry* and *Mary*, it can be regarded as a **precondition for TLN** to spread throughout a region.
(5) **Western New England is mostly rhotic**, except for Hartford, Springfield, and New Haven.
(6) The TLN isogloss closely matches the boundary of the intersection of the rhotic and monophthongal-/ehr/ regions. **The gaps in TLN in Western New England correspond to the gaps in one of those two factors.**

(6) suggests that rhoticity causes a dialect to favor TLN and non-rhoticity blocks or retards it. What is the phonological reason for this to be the case?

Basic argument of this paper: Rhotic dialects syllabify *merry* as /mer.i/ and non-rhotic dialects as /me.ri/; the **difference in syllabification produces the difference in TLN.**

Relationship between rhoticity and TLN

We'll take an Optimality-Theory approach inspired by the theory of syllabification in Wells (1990). The constraint StrMax will express Wells's basic claim:

(7) StrMax: Any stressed syllable will contain all the consonants on either side of it.

Wells's theory involves "word-based syllabification" (e.g., Steriade 1999, McCrary 2004), which we can express in OT using the following constraint system:

(8) If □ is a constraint on segment sequences at word boundaries, let Syll-□ express the same constraint on segment sequences at syllable boundaries. If □ >> □, then necessarily Syll-□ >> Syll-□.

Non-rhotic dialects are characterized by the constraint in (9) being undominated:

(9) Syll-*R(C)# : [r] may not appear in a syllable coda.

American rhotic dialects have a constraint against lax vowels before word-final /r/, and therefore by WBS the constraint (10). In the tableaux below, the only difference between rhotic and non-rhotic dialects is the difference between (9) and (10).

(10) Syll-*LaxR# : A lax vowel may not appear before syllable-final [r].

No American English dialects allow word-final lax vowels, which means there must be a corresponding WBS constraint (11).

(11) Syll-*Lax# : A lax vowel may not be syllable-final.

Tableau (12) shows the realization of *merry* in a non-rhotic dialect; (13) shows it for a rhotic dialect. Note that *merry-Mary* merger falls right out of rhoticity, and a non-rhotic accent with the same ranking of other constraints will not have *merry-Mary* merger.

Conclusion: A Wellsian analysis of English syllable structure, informed by OT, can explain the correlation between rhoticity and TLN. In general, abstract phonological theory is capable of explaining the grouping of dialectological features.

(12): *merry* with high-ranked Syll-*R(C)#: non-rhotic accent

/meri/	Syll-*R(C)#	StrMax	Ident-Tense	Syll-*Lax#
☞ mɛ.ri		*		*
meᵊ.ri		*	*!	
mɛr.i	*!			
meᵊr.i	*!		*	

(13): *merry* with Syll-*LaxR# instead: rhotic accent

/meri/	Syll-*LaxR#	StrMax	Ident-Tense	Syll-*Lax#
mɛ.ri		*!		*
meᵊ.ri		*!	*	
mɛr.i	*!			
☞ meᵊr.i			*	

Further research: Can this be done without depending on Wells's unusual syllabification theory? Speech-perception–based constraints as in Flemming (2005) seem to present a promising direction to look in.

References

Bailey, Guy, Tom Wikle, Jan Tillery and Lori Sand. 1993. "Some patterns of linguistic diffusion". *Language Variation and Change* 5:359-390.

Flemming, Edward, 2005. "Speech perception in phonology", in D. Pisoni and R. Remez (eds.), *The Handbook of Speech Perception*. Blackwell.

Labov, William, et al., to appear. *Atlas of North American English*, http://www.ling.upenn.edu/phonoatlas/

LANE: *Linguistic Atlas of New England*, vol. 2, 1941. Ed. Hans Kurath. Providence: Brown University; and Kurath, Hans, *Handbook of the Linguistic Geography of New England*, 1939. Brown University.

Martinet, André, 1952. "Function, Structure, and Sound Change". *Word* 8:1–32.

McCrary, Kristin. 2004. *Reassessing the Role of the Syllable in Italian Phonology: An Experimental Study of Consonant Cluster Syllabification, Definite Article Allomorphy and Segment Duration.* Ph.D. dissertation, UCLA.

Nagy, Naomi, 2001. "'Live Free or Die' as a linguistic principle". *American Speech* 76:30–41.

Steriade, Donca. 1999. "Alternatives to the syllabic interpretation of consonantal phonotactics", in O. Fujimura, B. Joseph, and B. Palek (eds.), *Proceedings of the 1998 Linguistics and Phonetics Conference*, The Karolinum Press, 205–242

Trudgill, Peter. 1974. "Linguistic change and diffusion: description and explanation in sociolinguistic dialect geography". *Language in Society* 3:215-246.

Wells, J.C., 1990. "Syllabification and allophony" in Susan Ramsaran (ed.) *Studies in the Pronunciation of English: A Commemorative Volume in Honor of A.C. Gimson*, 76–86. Routledge.