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## THE AMERICAN ENGLISH RETROFLEX, LATERAL, AND NASAL SYLLABICS: A PROBLEM IN PHONEMIC TRANSCRIPTION

Richard A. Murphy

In teaching the pronunciation of standard American English<sup>1</sup> to speakers of other languages the instructor may facilitate the task by employing some form of transcription taken either directly from specially prepared materials or, if such materials are unavailable or inadequate, from one of the many handbooks on American English structure. The American English retroflex syllabic and, in a more restricted sense, the lateral and nasal syllabics, however, are cases where most available transcriptions have hindered the teacher and students rather than assisting them.<sup>2</sup>

The majority of structural handbooks, following the Trager-Smith tradition, treat the syllabics phonemically as mid-central or high-central vowel plus consonant, basing their analysis primarily on the principle of patterned distribution and symmetry rather than on that of phonetic similarity<sup>3</sup>. The advantage of such an interpretation is that it allows for a neat division of English segmental phonemes into the three mutually exclusive categories of consonants, vowels, and semivowels.

When transcriptions based upon this analysis are used in the classroom, however, their pedagogical short-comings become immediately apparent. This is made especially clear in attempting to teach the retroflex syllabic as vowel plus consonant. Once the student has mastered the sounds [ə], [ɚ], [r] separately, he is then asked to combine them to form syllabic nuclei. The results are most unsatisfactory, simply because the syllabic nuclei of words like *girl*, *term*, or *fur* in standard American English are phonetically not a combination of either a mid-central or high-central vowel plus a retroflex consonant, but rather consist of a single, mid-central retroflex syllabic, similar in both manner and place of articulation to the initial sound of *red* and the final sound of *car*. It is ineffectual to point out to the students that the symbols /ɚr/ or /ɚr/ actually stand for the single retroflex syllabic [ɚ̃]. They continue to be misled by a transcription which does not truly reflect the phonetic facts. If it can be shown that a different phonemization, one which more closely represents the actual phonetic situation, is just as valid, then perhaps teachers would feel more at ease in adopting such a solution for classroom use.

The very close phonetic similarity between the various American English retroflexes, both syllabic and non-syllabic, can easily be demonstrated. For example, one method of

teaching these sounds that has proved most effective is to posit a single articulatory position in terms of which the pronunciation of all retroflexes is explained. This fundamental position, as it may be called, is described as follows: the sides of the tongue touching the upper back teeth, the front part of the tongue lowered slightly, and the apex curved up and back. The [r] or red is produced by starting from the fundamental position and gliding to the following vowel. The [r] of *car* is produced by moving from the vowel to the fundamental position. And the [r̥] of *bird* is produced by moving from the preceding consonant to the fundamental position, accompanied by a marked increase in sonority. Of course, each retroflex allophone is colored in different ways by its immediate phonetic environment. But it is usually not necessary to go into such detail with the students. A general articulatory description as outlined here, followed by carefully controlled drill, is sufficient in most cases.

The fact that the retroflex variants resemble each other so closely in standard American English, plus the difficulties encountered in the classroom with transcriptions based upon a /VC/ symbolization for syllabic [r̥] are reasons enough to consider the possibility of a completely different analysis. One alternative to the Trager-Smith interpretation is to reserve the priority given to patterned distribution and symmetry as analytic criteria over phonetic similarity and to establish a single phoneme, symbolized by /r/, occurring in pre-vocalic, post-vocalic, and vocalic positions in both strongly stressed and weakly stressed syllables. Of course, whether a /VC/ or /C/ interpretation of the retroflex syllabic is adopted, the phonetic data remain the same. The analyst simply has to weigh the relative merits of each symbolization. The Trager-Smith analysis results in a simpler phonologic description of American English, especially in syllable structure. A /C/ symbolization, on the other hand, is preferable from a pedagogical point of view for the reasons stated above. Thus the actual phonemic interpretation of the phonetic data is not automatic, but rather a matter of carefully considered choice.

A further factor, not drawn from pedagogy, should also be considered. That is that a /C/ solution would not necessitate complete abandonment of symmetry and patterned distribution as analytic criteria, but would merely call for a different application of these principles to the phonetic material at hand. For a distributional pattern similar to that described here for /r/ is evident among the laterals and nasals as well.

Syllabic laterals and nasals occur almost exclusively in weakly stressed syllables, except for such marginal forms as *Hmm!* Analysts do not agree on their exact distribution, although the following description represents a reasonable account of the phonetic situation for standard American English. The syllabics [l̥, n̥, m̥, ŋ̥] can vary freely with vowel plus consonant in such forms as [mə'st̥ - mə'sit̥] «muscle», [mə'ys̥n̥ - mə'ys̥in̥] «mason», [ə'wɒp̥m̥ - ə'wɒp̥in̥] «open», and [jæk̥ŋ̥j̥it̥ - jæk̥k̥in̥j̥it̥] «Jack and Jill». Under certain statable conditions, however, /l/ or /n/ occur only as syllabics. For example, when either is preceded by /t/ or /d/, there is no /V/ between the stop and the following nasal or lateral. Thus *model*, *settle*, *cotton*, *sadden* are [mádt̥, sétt̥, kʰát̥n̥, sæéd̥ŋ̥] respectively.

Those who adopt the /VC/ interpretation for the retroflex syllabic are consistent in analyzing the lateral and nasal syllabics phonemically in the same way. But transcriptions based upon this interpretation are pedagogically acceptable only as long as the nasal and lateral syllabics are freely interchangeable with /VC/. When only the syllabic is possible, then a vowel plus consonant symbolization causes the same difficulties encountered with the retroflex. That is, the insertion of [ɹ̥] or [ɹ̥̃] in the final syllable of forms such as [mádt̥] or [sæéd̥ŋ̥] is as unacceptable a pronunciation as \* [gáɹ̥t̥] or \* [gáɹ̥t̥̃] for *girl*.

Here again, if one is willing to sacrifice a simple description of phonemics to greater teaching effectiveness, then a /C/ phonemicization and symbolization may be adopted for the lateral and nasal variants as was done for the retroflex. And, as noted above, although this interpretation results in greater complexity of statement, there is still some evidence of patterning and symmetry; for the distribution of /l/ and /n/ runs generally parallel to that of /r/, even though the syllabic lateral and nasal are restricted mainly to certain definable environments in weakly stressed syllables.<sup>5</sup>

An analysis which results in a /C/ symbolization for English syllabic consonants is certainly not without precedent. More than twenty years ago Pike tentatively included /m̩, n̩, l̩, r̩/ in his chart of English phonemes.<sup>6</sup> He did not feel that arguments based upon symmetry, free variation, or structural pressure were convincing enough to warrant a vowel plus consonant interpretation of these syllabics. Later studies also identified single phonemes with both consonantal and vocalic allophones. Hockett, for example, arranged phonemes into seven different categories according to their occurrence as syllable peak nuclei, peak satellites, margins, or various combinations thereof.<sup>7</sup> And Jakobson, Fant and Halle, in their treatment of distinctive features, acknowledged the «joint presence of two opposite features» (vocalism and consonantalism) in one phoneme even though they noted this for the laterals and the «various intermittent r-sounds» only.<sup>8</sup>

In facing the general problem of phonemicization, one must realize, above all, that there may very well be more than one legitimate solution. Even if an analyst takes a rigid stand on a particular interpretation, he has to recognize the existence of other possibilities, even though they are not as acceptable to him as his own. It is within this context that the phonemicization and transcription of the American English retroflex lateral, and nasal syllabics must be considered. Both the /VC/ and /C/ interpretations have their advantages and disadvantages, and one can argue for against either on the basis of simplicity of description vs. pedagogical effectiveness (i.e. phonetic similarity). Perhaps the mere realization that an alternative /C/ interpretation is justifiable linguistically as well as pedagogically will suffice to free teachers and writers of materials from depending on a Trager-Smith analysis in which educational implications were never meant to be a consideration.<sup>10</sup>

## REFERENCES

<sup>1</sup> In this paper a dialect conforming more or less to the mid-Western variety of what is often loosely called «General American» is used as a model. Individual dialect variations are avoided simply because textbooks in teaching American English are usually based upon a «standard» model similar to that considered here. Of course, absolutely no preference is implied or intended for American English as opposed to British English.

<sup>2</sup> Most analysts, of course, acknowledge the presence of syllabics, phonetically, even though they use a vowel plus consonant symbolization for them. Some of the more popular handbooks representing this position to a greater or lesser extent are:

W. Nelson Francis, *The Structure of American English* (New York: Ronald Press, 1958).

Charles C. Fries, *Teaching and Learning English as a Foreign Language* (Ann Arbor: University of Michigan Press, 1945).

Clifford H. Prator, Jr., *Manual of American English Pronunciation*, rev. ed. (New York: Holt, Rinehart and Winston, 1957).

James Sledd, *A Short Introduction to English Grammar* (Chicago: Scott, Foresman, 1959).

Norman C. Stageberg, *An Introductory English Grammar*, rev. ed. (New York: Holt, Rinehart and Winston, 1971).

George L. Trager and Henry Lee Smith, Jr., *An Outline of English Structure* (Norman, Okla.: Baltenburg Press, 1951).

<sup>3</sup> This paper is written in terms of structural (autonomous) phonemics, since most handbooks available to teachers lie within this tradition. More recent texts on English grammar, written within the transformational generative framework, do not treat the problems described here, since autonomous phonemics does not play a role in the T→G theory of language.

<sup>4</sup> The interpretation given here is essentially that of John S. Kenyon, *American Pronunciation* (Ann Arbor: George Wahr, 1950), pp. 73-75.

<sup>5</sup> The marginal cases of nasal syllabics in stressed position have not been included in the phonemization here, nor have those nasal and lateral syllabics which alternate freely with vowel plus consonant in unstressed position. The occurrence of these sounds either marginally or as alternates, however, underscores the importance of syllabics as a basic phonologic feature of standard American English.

<sup>6</sup> Kenneth L. Pike, *Phonemics* (Ann Arbor: University of Michigan Press, 1947), p. 45.

<sup>7</sup> Pike, however, confined his specific arguments in favor of syllabic phonemes to /l/ and was a bit hesitant on the point of a «phoneme of syllabicity» which he felt was implied by his interpretation. See pp. 140-141 of his *Phonemics*.

<sup>8</sup> Charles F. Hockett, *A Manual of Phonology* (Baltimore: Waverly Press, 1955), p. 75.

<sup>9</sup> Roman Jakobson, C. Gunnar M. Fant, and Morris Halle, *Preliminaries to Speech Analysis* (Cambridge, Mass: M.I.T. Press, 1952), p. 19.

<sup>10</sup> One series of textbooks which incorporates a transcription clearly indicating syllabic /r/ in both weakly and strongly stressed positions as well as /l/ and /n/ in weakly stressed syllables is:

Sheldon Wise, et. al., *Spoken English for Turks* (Istanbul: Robert College, 1964-74).

AMERİKAN İNGİLİZCESİNDE HECE YAPAN RETROFLEKS  
LATERAL VE GENİZLİ ÜNSÜZLER  
FONEMİK YAZIDA BİR SORUN

ÖZET

Güntümüzde Amerikan İngilizcesinin yapısı üzerine yazılmış olan ve içinde fonemik yazıya yer veren kitapların çoğu, hece yapan ünsüzlerden «retrofleks» «lateral» ve genizli ünsüzleri, ünlülerle ünsüzlerin bileşimi olarak işleyen, düzenli dağılım ve simetri elemanlarına analitik kriter öncelik tanıyan, Trager-Smith tipi analizden yararlanır.

Hece yapan bu ünsüzlerin öğretiminde elde edilen tecrübe sonucu, sınıftaki uygulamalarda /VC/ (ünlü ve ünsüze gösterme) tipi yorumlamaya dayanılarak düzenlenmiş olan fonemik yazının eksiklikleri kesinlikle belirmiştir.

Bu yazıda öne sürülen başka bir çözüm yolu, gerek hece yapan gerek yapmayan ünsüzlerin /r l m n/ şeklinde yazılmasıdır. Böyle bir çözüm yolu Amerikan İngilizcesi fonolojisinin, /VC/ tipi analize kıyasla daha girift bir şekilde tasvir edilmesine yol açmakla beraber, öğretim bakımından çok daha iyi sonuçlar vermektedir. Ayrıca, bu tipte bir yorumlama, dilbilim açısından, fonetik benzerlik esaslarıyla onlara kıyasla daha kısıtlı bir oranda beliren düzenleme ve simetri elemanlarına dayanılarak desteklenebilir.

Sonuç olarak, /C/ (ünsüzle gösterme) çözümünün gerek dilbilim gerekse öğretim yönlerinden geçerliliği olduğunun bilinmesi, bazı öğrencileri kendi ihtiyaçlarına uygun düşmeyen tek tipte bir fonemik yazıya bağlı kalmaktan kurtarabilir.