

BROAD TRANSCRIPTION IN PHONETIC TRAINING

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ABSTRACT

In this paper we question some traditional assumptions made about the status of the broad transcription. We advocate a relaxation of strict phonemic constraints in favour of principles of phonetic salience and recoverability.

1. INTRODUCTION

Part of a training in phonetics involves learning to make 'broad' transcriptions of running speech, based on written or spoken texts. Although inspired by a phonemic approach to phonology, in practice the transcription system taught to students of English phonetics, for example, is usually not a strictly 'phonemic' one. The systems made popular in Britain by Jones and Gimson were never strictly phonemic, and the most recent development of the *de facto* standard [1] is better described as polysystemic. We advocate a more explicit recognition of this development and favour yet further relaxation of the requirement to transcribe 'phonemically'. We explore the difficulties faced by learners of English phonetics and propose an approach to transcription more in line with their real needs.

2. BROAD TRANSCRIPTION

2.1 What is it?

The following sample illustrates a traditional broad transcription:

/ðə wəz 'wʌns ə ɔŋ 'ræt kɔ:ld
'ɑ:θə | hʊ wʊd 'nevə teɪk ðə 'træbl
tə 'mɜ:k ʌp ɪz 'maɪnd | wən'evə
ɪz 'frenz 'ɑ:st ɪm ɪf ɪ wʊd 'laɪk tə
gəʊ 'aʊp wɪð ðəm | hɪ wʊd 'əʊnlɪ
'ɑ:nsə | aɪ 'dəʊnt 'nəʊ | hɪ
'wʊdnt seɪ 'jes | ən ɪ 'wʊdnt seɪ
'nəʊ | 'aɪðə | hɪ kəd 'nevə 'lɜ:n tə
'meɪk ə 'tʃɔ:z/

The symbols used here are those of the *English Pronouncing Dictionary* (EPD14) [2]. The representation of

prosodic information is restricted to a simple stress mark and word group boundary symbol. Like many other British phoneticians, we are in the habit of calling this type of transcription 'phonemic' or 'broad', though in terms of Abercrombie's [3] analysis it probably qualifies as neither:

"A transcription which is made by using letters of the *simplest possible shapes*, and in the *smallest possible number*, is called a SIMPLE PHONEMIC transcription. It is called 'simple' because of the first characteristic, and 'phonemic' because of the second." (p. 17)

The EPD14 transcription fails to be 'simple' or 'phonemic' on both criteria. Representations such as /aɪ/, /æ/, /ɔɪ/ are not notationally the simplest; some symbol combinations, such as /eɪ/ and /əʊ/, are not even uniquely parsable into segments. Nevertheless, the intention is to represent units identified by classical commutation and substitution procedures, and to provide symbols for all and only those sounds which potentially distinguish words: the phonemes.

The term 'broad' has acquired a range of meanings ([3]: p. 35; [4]: ch.18). The EPD14 transcription qualifies as 'broad' insofar as relatively little phonetic detail is shown. For example, conditioned variation in the laterals in *like*, *called*, *only* and *trouble* is not explicitly represented in the sample above.

2.2. Why teach it?

Producing a plausible broad transcription requires both phonological awareness and a range of auditory skills:

- segmentation of the speech signal into a sequence of 'discrete' sounds;
- identification of and discrimination between sounds;
- use of a language-specific, finite set of symbols to represent them;
- independence from orthographic prejudice;
- objectivity about accent and style

variation;

- awareness of the difference between citation forms and connected speech;
- production of a faithful record of a particular rendering of the passage in question;
- the ability to disregard insignificant phonetic differences, and to group sounds together into functionally equivalent classes.

Auditory skills are required directly or indirectly when transcribing from speech or text. A basic aim of the transcription exercise is auditory training [5].

Analytic skills are involved in tapping intuitions about the phonological system and in scrutinizing the judgments of sameness or difference which underlie the analysis.

2.3 Who learns it?

The weight attached to each of the theoretical and practical skills outlined above should depend on the purpose for which the student is learning English phonetics. Typically, such students will include specialists in linguistics, speech science, speech pathology, English language, EFL, modern languages, performing arts. The groups may include both native and non-native speakers of English, and speakers of a wide variety of native accents.

For some groups the theoretical aspects will outweigh the practical ones, but for others the situation will be reversed. For example, students of English as a foreign language need be less concerned by phonological theory and may concentrate on using transcription as a tool to improve their pronunciation. Linguistics students, on the other hand, need to develop their abstract analytical skills. Speech and language therapists need to be proficient in both aspects if they are to diagnose phonetic and phonological immaturities and disorders.

3. LEARNERS' DIFFICULTIES

Students new to phonetics differ widely in their natural ability to master transcription skills and in their basic auditory discrimination skills. Some may find difficulty in relating the transcription conventions to their own accent. Others take longer to adjust to the conventions, either because they find them difficult to grasp theoretically, or because of some

seemingly arbitrary property they exhibit.

In demonstration conditions, using isolate words in their citation form, most learners can quickly discriminate between linguistically contrastive sounds in their own language or variety, and recognise the need to move away from orthography. Identifying and symbolising the sounds in connected speech takes practice, since knowledge of citation forms may interfere with the direct translation between sound and symbol.

When using text, we encourage native-speaker students to transcribe their own variety of English. This may initially complicate life for the non-RP student who has also to transcribe from dictation by an RP-speaking lecturer, but pays off eventually by reinforcing observations and understanding of the differences between accents. A sizeable proportion of our students are speakers of the near-RP of SE England, and regular exposure to this variety during their stay in London has its influence on accents from further afield too.

The ability to ignore irrelevant phonetic detail is often achieved surprisingly painlessly, suggesting that learners can use intuitions to access and exploit phonological knowledge they already have. But in certain cases there is a tension between finding a symbolically accurate representation of a sound and confining oneself to the contrastive system: notably where allophones in complementary distribution have a highly salient difference in realisation.

4. ARBITRARY CONVENTIONS

In trying to reconcile transcription conventions established largely for RP with their own perceptions, students regularly experience difficulties such as: (i) selecting a symbol to represent the weak vowel in e.g. *happy* or *mediate*; (ii) using a /ʌ/ when what they clearly hear is a glottal stop [ʔ], e.g. *what*; (iii) using /ʌ/ (rather than a close back vowel or /w/) when there is clearly no lateral consonant present, e.g. *milk*. (iv) selecting a symbol for the vowel in words like *old* (the diphthong with the quality [ɔʊ]) is often attributed to the phoneme /ɔ/ rather than /əʊ/. (v) using the diphthong /əʊ/ for the sound they produce and perceive as a long monophthong [ɛ:] in words such as

bare and *bared*.

A new set of conventions has become established for (i), involving the use of weak /v/ rather than /i:/ or /i/ (assuming that otherwise redundant length marks are used in the basic symbol list). Introduced by Gordon Walsh in [6], this practice has been extended to cover the use of /u/ rather than /u:/ and /ʊ/ in [7], [1] and [8]. In encouraging it, we are accepting the use of a symbol which is not on the usual phoneme list, but which represents a realisation which could be a neutralisation between /i:/ and /i/. This clearly violates the strict phonemic criteria of traditional practice.

Deviation from traditional practice in respect of (ii) - (iv), where we are arguably dealing with allophones in complementary distribution which are appropriately represented with the same symbol, is not yet widely accepted. Unlike the situation in (i), there is always a possible phonemic solution in transcription. But difficulties will still arise: for some, [ʔ] may at times be a neutralisation between /p/, /t/, /k/; for others, words like *doll* and *dole* are genuine homophones, making it intuitively unsatisfying to symbolise the vowel differently, even where a difference remains for other forms, such as *dolling* and *doling*.

We have to consider whether it is helpful to insist on a transcription which is an exercise in phonemic theory, or whether we should applaud the ability of learners to identify and symbolise more precisely the sounds they hear.

In seeking to justify relaxing the traditional requirements to maintain a strict distinction between phonemic and allophonic levels, we should examine the conventions which have long been accepted for other problem areas in broad transcription.

The theoretical purity of the phonemic transcription is a myth. Phenomena where contrast, distribution and native speaker intuitions do not lead to a unique solution will remain. Since such problem areas have been abandoned rather than solved theoretically, the conventions established for dealing with them must be treated as arbitrary. Students are therefore learning to fall in with theoretically dubious conventions.

Let us look more closely at the

arbitrary 'solutions' proposed for a couple of these areas of conflict.

(1) **status of schwa:** it can be argued that schwa in RP should be analysed as a weak, non-contrastive variant of some other vowel in an unstressed context. At a lexical level, the allophonic status of the vowel may not be transparent, unless alternating forms, or alternative pronunciations, suggest that the strong form of the vowel would be different under stress. Compare *photograph* /'fəʊtəgrɑ:f/ and *photography* /fə'tɒgrəfi/. The case may be more clearly made with respect to *weak forms*: schwa can be regarded as a conditioned variant of /ə/ in *from*, of /æ/ in *have*, of /ʌ/ in *but*, and so forth. Transcribing such forms with /ə/ thus explicitly incorporates allophonic variation in a broad transcription (though schwa can of course be in contrast with other weak vowels). However, to deny its use in transcription would fundamentally alter the status of the broad transcription in English, since the use of schwa is not predictable in all unstressed contexts, and the source pronunciation would cease to be reliably recoverable.

(2) **assimilations:** where the output of an assimilation corresponds to a realisation consistent with a different phoneme, we conventionally encourage students to show this in broad transcription: thus *ten men* is represented /tɛn mɛn/ etc. But at the same time we ignore other assimilatory processes where the output, though phonetically distinct, does not cross a phoneme boundary -- an arbitrary distinction which obscures the theoretical generalisations relevant to assimilation. Disallowing assimilations in broad transcription, on the grounds that they are contextually determined, would seemingly be more consistent with phoneme theory, but would greatly impoverish the transcription's explicitness.

Furthermore, what are we saying by allowing an assimilation like *hol/p/ potato* in a broad transcription, but disallowing *ho[ʔ] potato* (insisting on /t/)? In the latter case, students are being asked to disregard auditory evidence and a freshly discovered ability to discriminate between different articulations in favour of a theoretical point. By clinging too hard to the theoretical point we lose

explicit recoverability.

5. CONCLUSIONS

Relaxation of the requirement of strict adherence to phonemic theory in broad transcriptions undertaken for the purposes of phonetic training should be guided by two principles which we call **phonetic salience** and **recoverability**.

Phonetic salience refers to situations where the sound perceived or produced by the learner is markedly different from that normally represented by a symbol chosen from the range available for a strict phonemic transcription: for example, the use of [ʔ] for phonemically sanctioned /t/, or a vocalic segment of the [o] variety for phonemic /t/.

Recoverability can best be explained by reference to the ideas put forward in [3] regarding the interaction between the text of a transcription and the conventions necessary for its interpretation: "any departure from a simple phonemic transcription has the effect of transferring information to the text from the conventions" (p. 23). The type of convention recognised by Abercrombie which is relevant to our argument is what we would probably now call an allophonic rule: it specifies the contextually determined interpretation of a phonemic symbol.

What Abercrombie does not propose is that this sort of convention should be further subdivided into those which are exceptionless and those which are variable. For example, while it is the case for many accents of English that /l/ should be interpreted as [l] before vowels and [ɫ], and as [ɫ] elsewhere, and that this variation is entirely predictable, the use of [ʔ] vs [t] is much less certain for many speakers. On a given occasion it may be impossible to recover which variant was used without including the information in the text of the transcription.

Our proposal then, for south-eastern English and near-RP, is that the usual set of symbols employed for a broad transcription should be augmented to allow for the explicit symbolisation of phonetically salient variants which are not recoverable by general, exception-free rules. Exactly how great the increase in the number of symbols should be will depend on the experience and particular

requirements of the learner. Inclusion of [ʔ], [o] and [ʊ] in the symbol set appears to us an indispensable minimum for most groups of students. Introducing further modifications for other optional variants may well be worth considering.

The following incorporates some of the innovations discussed above.

/ðe: wəz 'wʌns ə ɔ:l 'ræ? kɔ:əd
'ɑ:θə | hu wəd 'nevə teɪk ðə 'trʌbɒ
tə 'meɪk ʌp ɪz 'maɪnd | wen'evə
ɪz 'frenz 'ɑ:st ɪm ɪf i wəd 'laɪk tə
geʊ 'aʊ? wɪð ðəm | hi hu 'əʊnlɪ
'ɑ:nse | ʌr 'dæʊn? 'nəʊ | wɪ 'wɒdn?
seɪ 'jes | ən i 'wɒdn? seɪ 'nəʊ |
'ɑ:ðə | hi kəd 'nevə 'lɜ:n tə 'meɪk ə
'ʃɔ:ɪs/

The same principles of phonetic salience and recoverability should apply to the transcription of other varieties of English and of other languages. If we cease to pay lip-service to the idea of a phonemic analysis as the basis for our transcription, the decisions about what to include do not in fact become entirely arbitrary. A broad, but principled transcription can be guided by the criteria outlined above.

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