The Role of Phoneme Based Approaches in the Teaching of Pronunciation

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1. Introduction

Phoneme based approaches to teaching pronunciation, with their focus on the position and manner of articulation, have long been the established approaches used by teachers and are still extremely common around the world. In recent years, however, especially with the advent of communicative approaches to the teaching of English, many have begun to call into question the theory and practices on which they are based. In particular, traditional approaches have been criticized for neglecting "the broader features of communicative speech" (McCarthy, 1991 : 90), or focusing too heavily on a micro level and needing a more macro-focus. Others have had stronger oppositions, for example Pennington et. al. (1986 : 207) state;

> "[T]he view of pronunciation embodied in traditional approaches to language teaching trivializes its true nature"

In this paper, the role of traditional phoneme based approaches in pronunciation teaching will be discussed in view of these criticisms. Due to the complexity of the issues, however, the discussion will be limited to three main topics, the components of pronunciation, the objectives of pronunciation teaching, and methodology. It is hoped that by doing this, not only will the current position of phoneme based approaches be made clearer, but a significant step towards identifying the problems behind many of the current approaches to pronunciation teaching can be made.

2. Components of Pronunciation

2.1 Phoneme theory vs. connected speech

Within traditional views, pronunciation was seen as mainly comprising the individual sounds, with stress and intonation receiving some but not a great deal of attention (Pennington et. al. 1986). In many ways, this was a very simple but practical view. For example, the number of phonemes which comprised the English language had been identified, and so it seemed a logical conclusion that if learners could master the articulation of this finite set, they could master English pronunciation.

Problems, however, began to emerge when the model was compared with the sounds

produced in real speech. Analysis of native-speaker speech revealed that many if not all the phonemes would be modified, or in traditional terminology 'distorted' depending on the speed of delivery and the individual. Aspects which caused the most problems for traditional theories were assimilation, where neighboring sounds would have an effect on each other, and elisions, where the effect would result in sounds disappearing. Of course, it should be remembered that it was the phoneme model that was presenting a distorted image by suggesting the fixed position phonemes were a stable norm (Cauldwell et. al., 1996).

In response to these findings, traditional theories were modified to incorporate 'rules' which would account for these phenomena. The 'rules' however, were extremely complex and the potential number was infinite (Cauldwell, el. al., 1996). Supporters of the phoneme theory would also try to dismiss the problems by claiming they were 'only noticeable in special cases' or were only features of 'rapid, casual speech', the implication being that learners need only acquire 'slow, careful speech'. An example of such opinions can be seen in Roach's (1991: 125) account in which he states,

> "Assimilation of manner is much less noticeable and only found in the most rapid and casual speech... Assimilation of voice is also found but again only in a limited way."

Traditionalists, therefore, were often of the opinion that even though such exceptions to phoneme theory existed, the implications in the classroom were relatively insignificant.

Although traditionalists argue that elements such as assimilation and elision only occur in 'rapid, casual speech', recently, many have began to point out that 'rapid, casual speech' should be the goal of pronunciation teaching. In support of this, McCarthy (1991) talks of the number of advanced students who still continue to articulate the citation form of phonemes in conversation. In his view, for this group at least, a focus on aspects of connected speech appears very necessary.

2.2 Stress, Rhythm, Intonation and Voice-setting as Components of Pronunciation

As mentioned earlier, traditional approaches have tended to give little focus to aspects such as stress and rhythm. Indeed, many consider them to be quite separate aspects of sound belonging to the study of intonation. However, recently stress, rhythm and intonation have been receiving increasing attention and many now consider them to be crucial in any pronunciation class. Gilbert (1995), for example, has long been a supporter of 'stress, rhythm and intonational marking', while Pennington et. al. (1986 : 211) describe the importance of intonation as making "connected stretches of speech ... coherent and interpretable". Dirven et. al. (1984) go further to say that,

> "To interfere with stress, timing, fundamental frequency [and other aspects of prosodic continuity in discourse] usually has more drastic consequences for comprehension than removing the cues of a particular [phonological] segment."

'Voice-setting', the general articulatory features of particular speech which give a

characteristic voice quality of a person or even language, is also seen as important. Improved voice-setting in the second language is said to improve the overall intelligibility of speech and be an essential component in a native-like accent. (Jones, 1995).

There are, however, a number of problems with these ideas. Gilbert, for example, in her account of stress and rhythm, assumes that English is a stress timed language, despite a considerable amount of contradictory evidence. (See Couper-Kuhlen, 1986, and Dauer, 1983). McCarthy (1991: 91) concludes his account saying,

> "We are forced to conclude, therefore, that the notion that English is stress-timed is unproven."

Theories of intonation, based on the premise that certain pitch movements reflect changes in attitude or emotion, have also been challenged. In particular, Brazil has shown that there is often little correspondence between an emotion and pitch movement. He suggests an interactive model to be more effective and accurate at describing the meaning of different intonation patterns (Brazil, 1994). This model too, however, has problems, in particular the complex set of rules it uses, and the difficulty in identifying the boundaries of the tone-unit on which the theory is based. (McCarthy, 1991).

Despite the problems associated with the concepts of connected speech, and the other so called 'suprasegmental' features described above, it is now well accepted that any model of pronunciation should be composed of what Pennington et. al. (1986) call 'segmental', 'suprasegmental' and 'voice-setting' features. What is certainly not yet decided, however, is the relative importance these should have in the classroom. It is to this debate that the discussion here will now turn.

3. Objectives for Pronunciation teaching

One of the most often heard criticisms of the traditional approaches to pronuciation teaching is their goal of achieving 'correct' pronunciation, 'correct' being the pronunciation of native speakers of RP (Stern, 1992). Evidence for this can be seen in the excessive error correcting which is associated with phoneme articulation exercises and drills. Roach (1991), on the other hand, disagrees with this view of traditional approaches and believes that it has resulted from a mixing of models and goals. The model, he says, is RP but the goal has always been to develop pronunciation which will not impede with communication. Whichever view is taken, it is clear that in the current climate of communicative teaching, teachers who adopt traditional or modern pronunciation teaching methods are likely to be concerned mostly with improving the learners 'communciative competence.'

Very often in debates concerning the goals of pronunciation, many have advocated the need for 'intelligibility' when communicating, not accuracy or perfection, which have largely been associated with the phoneme methods. This can be seen in the writings of almost all the supporters of more 'prosodic' approaches to pronunciation, for example, Pennington et. al. (1986), Gilbert (1995) and Morley (1991). Moreover, some research has suggested that prosodic level errors are the main causes of poor 'intelligi-

bility' (Fayer et. al. 1987). 'Intelligibility', however, is a very general term and as yet the specific goals necessary to achieve it are far from being decided.

Gilbert (1995), as mentioned above, sees negative L1 transfer of rhythm as one of the main causes of communication breakdown and advocates the teaching of the L2 system explicitly. As part of this system, she sees the ability to count syllables as particularly helpful in assisting comprehension. These goals, however, are based on the assumption that languages are either stress-timed or syllable-timed, and the technique of counting syllables seems to ignore the fact that syllable number will vary depending on the speed of delivery (Cauldwell et. al., 1996).

One important aspect which she does point out, however, is the ability to identify a few critical sounds which occur at the end of words. Stern (1992) also discusses the importance of these, showing how single phoneme differences can alter the lexical, or even grammatical content of a word (see below). This kind of training, of course, lends itself well to more traditional approaches of phoneme contrast exercises.

e.g.	count	counted	(grammatical)
	mouse	mouth	(lexical)

It is essential, therefore, that if 'intelligibility' is to be main goal of pronunciation teaching, the aspects which affect it must be identified. Research in this area, however, has been scarce resulting in methodologies been based on what Morley (1991: 482) describes as "leaps of faith". One rare exception, however, is the recent work of Munro (1995), which confirms the long held belief that although 'accent' is correlated with 'intelligibility', a strong foreign accent does not necessarily result in a low 'intelligibility' level.

Accent does, however, feature significantly in the last issue in this section, that of 'acceptability'. Parallel to the debate concerning 'intelligibility' has been a debate concerning what native speakers consider to be acceptable when listening to foreign speakers' English. Research in this area has lead to important findings, some of which conflict strongly with the beliefs held by both traditionalists and supporters of 'communicative' approaches. In a study of native speaker reactions to the English of Danish speakers, for example, it was found that many consonant 'errors' were found to be particularly distracting on the basis that they were considered 'annoying' or 'ugly' (Koster et. al., 1993). Current phoneme approaches, on the other hand, have tended to only focus on L1 and L2 phoneme differences, resulting in these specific phoneme realizations being neglected.

The same study also produced contradictory results from those expected by supporters of suprasegmental teaching. Whereas the importance of suprasegmental features has been long assumed, suprasegemental deviations in the speech of the Danish subjects went by almost unnoticed. In their concluding comments, therefore, Koster et. al. (1993: 89) are forced to admit,

"that the current practice in teaching English pronunciation in Holland is correct in paying hardly any attention to suprasegmental features, but that it is wrong in

paying attention mainly to phonemic aspects, that is, to those sounds that do not occur in the mother tongue and, therefore, tend to be replaced by another phoneme."

Of course, these results will depend a great deal on the L1 of the learners. Certainly Danish learners having a very close L1 to English may not need to concentrate as much on these features. For Japanese students, however, the opposite could be true. Nevertheless, the goals of pronunciation teaching cannot simply be based on the aspects affecting 'intelligibility', but must also include aspects affecting the 'acceptability' of language learner speech.

4. Methodology in the pronunciation of teaching

The debate concerning how pronunciation should be taught has continued for over 50 years and has resulted in very different conclusions. In the 1940's, 50's and 60's, pronunciation was considered to be an extremely important part of any second language course. In the audiolingual method, for example, a great deal of time would be spent on articulation explanations, imitation and memorization. Practice of the target forms tended to focus on drills and constructed dialogues, and as discussed earlier, extensive attention was given to correction (Morley, 1991).

In the 70's and 80's, however, these traditional approaches began to clash with new task-based methodologies, and with activities based on realism and authenticity. Gradually, pronunciation began to feature less and less in courses with a view that pronunciation could be left up to 'natural' processes. Such a view can be seen in many communicative aproaches such as TPR.

Finally, with the arrival of the 90's, renewed interest in pronuciation teaching is beginning to show, particularly in the light of evidence showing that when left to 'natural' processes many learners show little improvement even after many years (Stern, 1992). In the current situation, this has generally become the accepted view, i.e. teaching of prououciaton should not be be neglected and should feature as an important conponent in any ELT course.

As Yule (1990) observes, however, to many teachers the choice of how to teach pronunciation in the classroom is still far from clear. Research, for example, has shown that both the 'traditional' and 'interactive' modern approaches have been unable to improve the pronuciation of all students, suggesting that the learners themselves may be the most improtant factor in any methodological equation (MacDonald et. al., 1994). Stern (1992) similarly describes that currently there is little evidence to say which analytic procedures are helpful. For example, it is far from clear how helpful head diagrams showing the tongue placement are in phoneme articulation instruction.

When devising a convincing methodology, therefore, a great number of features are still uncertain. There are, however, several generally accepted features which should be included in a pronunciation methodology, and will be described in the following sections.

4.1 Naturally occuring speech

First, it is now fairly well established that any pronunciation class should not only expose the learner to citation forms of words, but also give an opportunity for them to interact with words as they appear in naturally occuring speech. Morley (1991: 496), describes this approach as taking "pronunciation out of isolation". Cauldwell et. al. (1996), also stresses the need for learners to encounter 'real speech' phenomena, such as assimilations and ellisions, and that teachers should provide models of it in their 'teacher talk' as well as pronunciation and vocabulary teaching. It should be remembered, however, that the particular aspects of natural occuring speech which should be emphasised are still being debated.

4.2 Exposure and affective factors

Traditional approaches have tended to treat pronunciation as an intensive phase at the start of a course, with production of phoneme sounds as the main goal. Stern (1992) describes how this tends to be followed by an increasing neglect with the exception of another burst of intensive remedial work after several years, and that,

> "[this] does not seem well adjusted to what one would expect to be the growth pattern of pronunciation" p. 117.

In contrast, Stern suggests a more gentle, slower approach which would allow pronuncation activities to be combined more effectively with other language learning activities. This opinion is also supported by Streven (1977) and Krashen et. al (1983), who recognize the importance of listening to authentic speech prior to a production stage. It would seem logical, perhaps, that learners will not be able to produce sounds which the are yet to perceive.

Additional support for a more gradual exposure to the sounds of a new language comes from research into learners' affective factors. Learners, on first listening to a foreign sound system may often feel resistance to producing sounds which appear strange or even repulsive (Stern, 1992). Some learners have also been shown to resist producing reductions in a foreign language, believing them to be substandard (Gilbert, 1995).

A longer exposure time to citation and naturally occuring forms of words, therefore, is likely to help learners acquire the new sound system more effectively and with fewer adversive effects.

4.3 The role of the individual

One of the most fundamental changes in approach which has resulted from 'communicative teaching' has been a change of perspective from 'teacher-centered' to 'learner-centered'. Learners all have prefered styles and individual differences which have to be taken into account when formulating an effective teaching methodology. Indeed, as MacDonald et. al. (1994) above have shown, no one approach will be successful with every learner. Elliott (1995a) also, suggests that learner attitude may be the most significant variable in relation to target language pronunciation.

What this means for methodology, therefore, is that dependance on one particular approach should be avoided. For example, there has been a great deal of debate as to whether more traditional 'bottom-up' approaches should be replaced by 'top-down' approaches, starting with a treatment of intonation and rhythm before moving onto the articulation of specific phonemes. From the research above, it can only be said that neither should be considered sacred, and that the particular pedagogic advantages and disadvantages of each should be carefully considered (Stern, 1992).

4.4 Multi-modial Methodology

It would appear, therefore, that a methodology such as Elliott's (1995b) multi-modial approach may be the most promising. In his study, he describes the importance of promoting various learner styles encorporating cognitive, meta-cognitive and affective features and learner preferences for aural, oral and visual presentation. A similar concept can be seen in Acton's (1984) program for helping learners with fossilized pronunication. Despite having various backgrounds and specific goals, by using 7 general features, including 'conversation control', 'oral reading', and 'monitoring stategies', his methodology appeared to help their pronunciation ability substantially.

5. Conclusion

From the discussion presented in this paper, it is clear that despite the many problems which traditional approaches to pronunciation teaching have had, the methods and goals on which they are based cannot be rejected completely. Certainly, a neglect of larger 'suprasegmental' features is a problem, as is the tendency to adopt only a limited number of exercise and practise types. It has also been shown, however, that opposing theories on pronunication teaching are also liable to serious criticisms. In particular, the specific features of pronunciation which learners need to know, have yet to be defined. There is also conflicting evidence to how important these features are, and the effects they have on the 'intelligibility' and 'acceptability' of second language learners' speech.

These questions, therefore, must be answered if the teaching of pronunciation is to improve as other areas of second language learning, such as vocabulary and grammar have in the past. Unfortunately, without this empirical evidence, it is likely that the debate concerning traditional vs. communicative approaches to pronunciation teaching will continue leaving teachers little option but to find their own solutions to the various problems discussed here.

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