

OPTIMAL TEACHING OF SWEDISH PRONUNCIATION

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Summary of a project
supported by the
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This report completes our project, Optimal teaching of Swedish pronunciation (Optimering av svenskt uttal), which has been supported by the Bank of Sweden Tercentenary Foundation from 1.7.1976 to 31.12.1979.

The goal of the project was to improve the teaching of Swedish pronunciation to foreigners.

In the last two decades Sweden has had a large influx of immigrants. By now, of every hundred people living here, ten have a language other than Swedish as their mother tongue. Many of them speak Swedish with a foreign accent, which hampers communication and may be a serious social handicap.

Immigrants settling in Sweden are entitled to a course of 240 hours of Swedish during which they receive their regular pay. All this activity has brought about a number of excellent teaching materials, often based on contrastive analyses of Swedish and some of the most well-represented immigrant languages. The phonetic part of these analyses, however, have centered on speech sounds and sound systems, and the characteristics of continuous speech, in particular prosody, i.e. rhythm and intonation, have been neglected. In fact, teaching of pronunciation has often been confined to correction of isolated

items, so-called teacher's shibboleths, like [ŋg] for [ŋ] as in *många* and [y] for [u] as in *hus*.

In the project description we used the concept of optimization because we wanted teachers to make optimal use of the time allotted to pronunciation. Here are some examples of the questions we asked:

What are the most important features in an acceptable Swedish pronunciation?

What is the interference from the primary language, not only in speech sounds but also in syllabic structure and prosodic features?

How do these features impair understanding?

How are these features avoided?

What are the causal relations between different features of a foreign accent?

It has been known for a long time that phonetic features appear in hierarchies. For instance, if the nasal consonant /ŋ/ occurs in a language, the consonant /n/ also occurs. We have found that this applies also to errors of pronunciation. They tend to occur in structured bundles, an important fact for optimization.

Work on the project has been reported in *Praktisk Lingvistik* (PL) 1, 3 and 5. It consists of the following major parts.

1. Collection of data

We have recorded samples of Swedish spoken by representatives of major immigrant groups and of languages whose phonology differs from Swedish in an interesting way. For each speaker there are several kinds of recorded materials, spontaneous speech, readings of texts, etc. The recordings are stored in what we call *The accent archives* (brytningsarkivet), housed at the Department of Linguistics and Phonetics at Lund University.

At present the archives contain speech samples from 25 languages. The publications are accompanied by cassettes which contain illustrative speech samples from the archives.

It should be noted that the data could be used for studies of other components of a foreign accent as well, e.g. studies of morphology, syntax and semantics.

2. Error analysis

Statistically important errors for a special group of foreigners are classified as rules violating the Swedish phonological system. These errors are presented in diagrams as variations from the target vowels and consonants of Swedish and from the target components of the prosodic system (PL 5).

3. Evaluation of errors

Hypotheses on the severity of errors from a listener's point of view were formed. In our evaluation we were not only concerned with code errors but also with psycholinguistic aspects of speech. To master the units of the code, the phonemes, is not enough. Timing, syllabification and accentuation are important cues to the listener and should conform to Swedish patterns (PL 1).

For pedagogical purposes, errors can be put into two main categories, *major* and *minor* ones (PL 5). A major error would be to speak Swedish without differentiating long and short vowels. This violates not only the code but also the syllabic structure of Swedish and therefore disrupts an important element of the rhythm. An example of a minor error would be to pronounce /y/ for /u/ in e.g. *hus*.

Some experiments have been conducted in order to give this view a firm basis. Manipulated stimuli have been made (using the program developed at the Phonetics Institute in Uppsala) in which an input signal of broken Swedish has been corrected for

rhythm and intonation. So far these stimuli have not been formally tested, but they are useful as illustrations of the importance of prosody in the teaching of pronunciation. (PL 1, p 68 and ff and Tape 1)

4. Error syndromes

Groups of cooccurring error types have been established and checked against data from the archives. Very often, these suggested syndromes are contradicted by the data but we have been able to confirm a number of them. For instance, devoicing of voiced obstruents after voiceless obstruents is connected with aspiration. Negative as well as positive evidence may be of pedagogical interest. There are certain close associations in the minds of teachers that have to be broken. For example, teachers who are speakers of Swedish or other Germanic languages tend to associate long syllables with stressed ones, but this association is not true for all languages.

5. Case studies

Teachers of Swedish as a foreign language often want to know about special 'tricks' that can be helpful in the teaching of pronunciation. This was one of the reasons why Robert Bannert and Gösta Bruce conducted some case studies using audio-visual feedback to study and correct articulatory gestures. This activity attracted many customers but only a few could be served (PL 1).

Results from our project work (1-5 above) have made it possible to describe and explain difficulties that foreigners of different linguistic background encounter in Swedish, to suggest practical remedies, to show how to order pronunciation exercises and how to integrate them with other parts of the language course (PL 5).

Our work may also be of interest for phonological theory. In fact, our recorded material is a wealth of information for any

phonologist looking for natural correlates of phonological features and universal and language specific characteristics of language.

Organization and economy

Robert Bannert, who was a fulltime research assistant for the project from 1976.07.01 to 1979.12.31 was the only person who was paid for his work by project funds. Gösta Bruce assisted in the case studies, and I acted as consultant and editor. Secretarial aid was given by Isabel Alvarez and Lena Svensson, both paid by AMS (Swedish Board of Employment). The Department of Linguistics housed us and gave us access to the equipment of the Phonetics Laboratory. A Voicescope was provided by a grant from Lund University. Staffan Zetterlund and Sven Öhman, Uppsala, helped us with some of the experiments.

Project reports

Praktisk lingvistik nr 1	First edition	1000
	Second edition	700
Praktisk lingvistik nr 3	First edition	1500
Praktisk lingvistik nr 5	First edition	1500

These reports were sold at a moderate price. As a rule the proceeds from one number covered the production costs of the following number.

Publications connected with the project

"Optimering av svenskt uttal"

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|------------|---|
| Gårding E. | 1974, Kontrastiv prosodi. Lund |
| " | (ed.) 1976, Kontrastiv fonetik och syntax med svenska i centrum. Lund |
| " | 1976, Optimering av uttalsundervisningen. Contribution to symp. "Fonetik och uttalspedagogik", 29-52. B. Lindblom och P.-E. Nordström (eds). Institutionen för lingvistik, Stockholms universitet |

- Bannert R. 1977, Optimal teaching of Swedish pronunciation. Papers from the first Scandinavian - German Symposium on the language of Immigrant Workers and their Children. ROLIG papir 12, 56. Roskilde
- " 1978, Prosodiska egenskapers effekt på förståeligheten. Kommunikativ kompetens och fackspråk, 151-174. M. Linnarud och J. Svartvik (eds). Lund
- " 1978, Ett markeringsystem för prosodi i uttalsundervisningen. Svenskans beskrivning 11. O. Josephson et al. (eds). Institutionen för nordiska språk, Stockholms universitet
- Gårding E. & Bannert R. 1979, Optimering av svenskt uttal. Projekt-rapporter. Praktisk Lingvistik 1. Institutionen för lingvistik, Lunds universitet
- Bannert R. 1979, Ordstruktur och prosodi. Svenska i invandrarperspektiv, 132-173. K. Hyltén-stam (ed.). Lund
- " 1979 The effect of sentence accent on quantity. 9th International Congress of Phonetic Sciences, Copenhagen. Vol II, 253-259
- " 1979, Ordprosodi i invandrarundervisningen. Praktisk Lingvistik 3. Institutionen för lingvistik, Lunds universitet
- Bannert R. 1979, Svårigheter med svenskt uttal. Paper presented at the symposium "Language acquisition and language learning" arranged by ASCLA, Helsingfors

Other communications

- Bannert R. Aussprachefehler als Projektion universeller phonologischer Eigenschaften und Prozesse in der Fremdsprache Schwedisch. Lecture delivered at the Phonetics Department of Hamburg University 16.5.1977
- Bannert R. & Gårding E. Att bryta på svenska. Lectures delivered at the annual meeting of the Swedish Association of Phonetics and Logopedics. Malmö 29.10.1977

Bannert R. Project report to the Symposium Nordic Prosody.
Lund 17.6.1978

Bannert R. Courses in contrastive phonetics held at Linköping,
Jönköping, Lund and Olofström for teachers of Swedish as
a foreign language (on several occasions)

Bannert R. & Gårding E. Project report to course for teachers
of bilingual children. Ängelholm 1979

Gårding E. Project report to conference arranged by Kursverk-
samheten Lund. Dalby 1979

Gårding E. Language problems of university students from
abroad. Meeting arranged by the Student Union.
Lund 1979