

SWEDISH IMMIGRANTS' COMMUNICATION: PROBLEMS OF  
UNDERSTANDING AND BEING UNDERSTOOD

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This project, which started in January 1980 and which is funded by the Bank of Sweden Tercentenary Foundation, aims at specifying some of the background factors involved in the problems that immigrant learners may have in understanding the target language and making themselves understood in normal communication situations in spite of the fact that they have attended language courses. One of the immediate practical purposes of the study is to provide a basis for improvements in the teaching of receptive language skills as well as in the teaching of pronunciation, especially its prosodic features.

Organizationally, the project has two parts, one dealing with problems of understanding, the other with aspects of production.

PROBLEMS OF UNDERSTANDING

The research in the first part is based on three assumptions about the learners' receptive problems:

- a. The differences between language and communication in the Swedish language classroom and other ("real life") communication situations are so great that the learner remains unable to understand the target outside the classroom.
- b. The heterogeneity the learner encounters in the target language, due to social, regional and registral variation, variation according to speech style etc, is an inherent problem for understanding.
- c. Some types of variation in the target language cause greater problems for understanding than others, and some varieties within a given type also cause greater problems than others.

*Point a:* For the specification of differences between classroom and other communication situations, necessary limitations force us to concentrate on only one component of the classroom situation. We have chosen to study the language-teacher's classroom register ("language-teacher language") which we argue is in

traditional praxis the most important component in the development of the learner's ability to comprehend the target language.

Studies of language-teacher language have established that this register has a low degree of complexity on a number of structural and communicative dimensions, for example short utterances, few sentence embeddings, simple noun- and verb phrases, a high type/token ratio in the lexicon, a slow speech rate, many pauses (which in most cases fall in syntactic constituent boundaries) to mention just a few (Henzl 1973, 1979, Gaies 1977, Chaudron 1978; for an overview see Hyltenstam 1980). These characteristics of language-teacher language can be interpreted as a result of an adaptation to the learners' communicative level on behalf of the teacher, and as such of course, they would appear adequate. However, if the structural and communicative patterns of the teacher are limited in this way due to the specific constraints built into the classroom communicative situation, the learners' comprehension might be constrained in much the same way as the model provided by the teacher. Compare the often made learner statement that they understand their teacher but nobody else. We will return to language-teacher language below.

*Point b:* To illustrate the assumption here we have chosen to concentrate on the most obvious and best described part of target language variation, i.e. pronunciation. Our aim is to provide descriptions of sociolectal vowel quality variation within one Swedish urban dialect, the Malmö dialect, and demonstrate how in principle linguistic descriptions of this kind could be used as a basis for pedagogical programs serving to familiarize the learners with different kinds of variation. In such programs, different variants of the target language should be introduced in a systematic progression.

*Point c:* The research on this point aims at ranking types of variation and varieties within a certain type in order of perceptual difficulty. Such an ordering would seem to be obtainable

through a number of different methods all involving presenting speech samples to groups of listeners that are second language learners of Swedish. It would appear to be feasible to combine these various methods in order to obtain as reliable an overall measure of difficulty as possible. Some examples of these methods are:

- A straightforward judgement of which variant in a pair of variants is considered most difficult to understand.
- An imitation test where the degree of correct imitation corresponds roughly to degree of difficulty in perception.
- Questions of content.

We will not go further into points (b) and (c) here but return to point (a), the language-teacher language, which we have started to work on. (For a more detailed treatment of assumptions and research procedures of all three points, see Hyltenstam 1981)

One might consider language-teachers' classroom register from a number of perspectives, for example from the following points of view:

- |                       |                                     |
|-----------------------|-------------------------------------|
| 1. Grammar            | 6. Turn-taking                      |
| 2. Phonology          | 7. General conversational structure |
| 3. Lexicon            |                                     |
| 4. Semantic notions   | 8. Redundancy                       |
| 5. Language functions | 9. Metacommunication                |

Although we do have some information on points 1, 2, 3, and 8 as stated above, our knowledge is fragmentary. On the other points our ignorance is even greater. To obtain a more coherent and comprehensive picture of the register it is necessary to consider how different factors interact. In general, it can be hypothesized that the content of classroom conversation is limited in a way typical to communication between interlocutors whose spheres of values and knowledge seldom interact, i.e. the greater the social and cultural distance between the teacher and the learners, the less complex and varied the content tends to be. Whatever the causes of content restrictions - and they may be many - it is clear that this simplification has conse-

quences for the linguistics of communication. In other words, the type of content manipulated in conversation places differential demands on lexicon and grammar.

It is also plausible to assume that there is a connection between content and form on the one side and communicative structure on the other. The restrictions of the classroom make communication so ritualized when it comes to language functions, turn-taking, and general conversation structure that the language learners soon learn to predict what will be said and done in a language lesson.

Although what has just been said makes up the general framework for this part of the project, our limited personnel resources restrict us to well defined and (easily) researchable questions. One such question is whether there are some aspects of grammar that are not normally encountered in classroom conversation, and, if so, what these aspects are. One goal we have is to test whether a markedness theory built on language universals and psycholinguistic criteria can be used for predictions in this area.

In order to treat these questions, we have designed a study in which language-teachers working with learner groups of varying proficiency levels are asked to retell the contents of a prepared passage in their own words to their pupils. Their performance is videotaped and then analyzed. The passage contains certain syntactic structures and lexical elements that we predict on the basis of their markedness features will be subject to paraphrases and alterations in the teachers' version. To give just one example, the passage contains three examples of raising:

Subject to object raising: *They saw him jump out of  
the window*

Subject to subject raising: *He seems to be hungry*

Object to subject raising: *They are tough to open*

According to Eckman (1976) the last of these three types is more marked than the second which in turn is more marked than

the first on a language universal criterion. Our hypothesis here is that the extent to which a structure is paraphrased and simplified is a function of its markedness conditions. Data collection and analysis of these data is underway.

#### PROBLEMS OF BEEING UNDERSTOOD

The second part of the project considers the immigrant's own pronunciation of Swedish. The research is based on the results from the project "Optimal teaching of Swedish pronunciation", mainly on an inventory of the problems found for learners with 25 different mother tongues (Bannert 1980 a, b). We shall concentrate on three aspects of deviant pronunciation.

- a. Intelligibility. Certain features of a foreign accent impair the listener's ability to understand more than others.
- b. Acceptability. Certain features of a foreign accent affect the listener's attitudes more than others.
- c. Hierarchies of phonetic features which affect intelligibility and acceptability negatively.

The effect of certain features on intelligibility and acceptability will be tested by manipulating features of foreign and native Swedish accents using high-quality speech synthesis and by introducing distortions into the speech signal. The salient features will be established in listening tests.

Here we would like to demonstrate the method of speech synthesis that will be used in our experiments (Bannert 1979 a, b). As a starting-point we have a taped utterance spoken by an immigrant. As a result of prior analysis we know in which aspects this utterance is deviant. A re-synthesis, i.e. a copy by computer<sup>1</sup> is made. The copied utterance is of high quality. It sounds totally natural and cannot be distinguished from the original. Different signal factors can be manipulated systematically, i.e. deviant features are corrected, so to speak. Swedish listeners are asked to judge the manipulated utterances. Their reactions will tell us which corrections have made it easier to understand the speech sample and which features are accepted more than others.

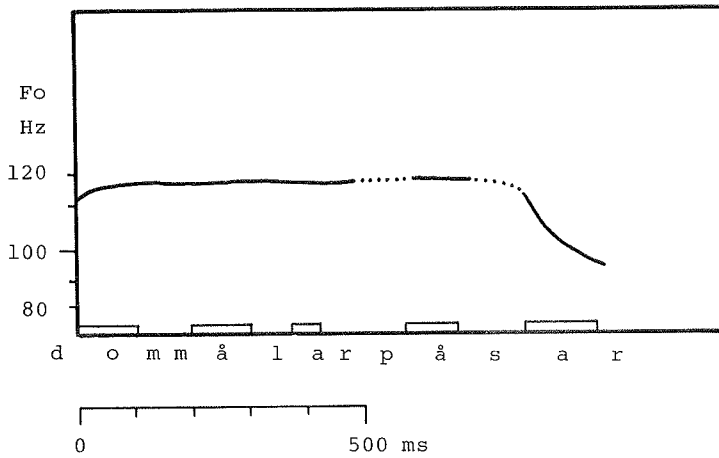


Figure 1. The tonal and rhythmic structure of the sentence *Dom mīlar pīsar* uttered by a speaker of Punjabi.

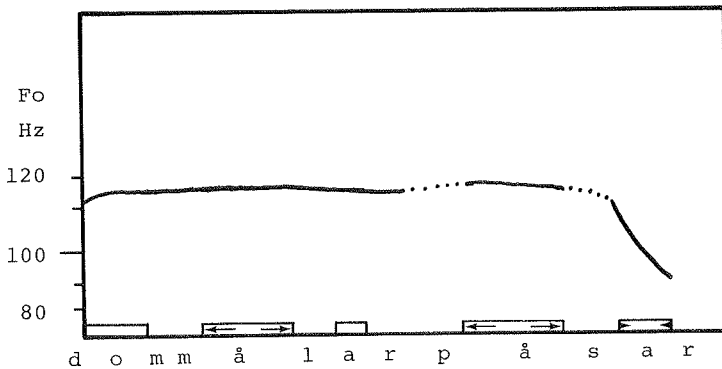


Figure 2. The same utterance as above but with corrected rhythm.

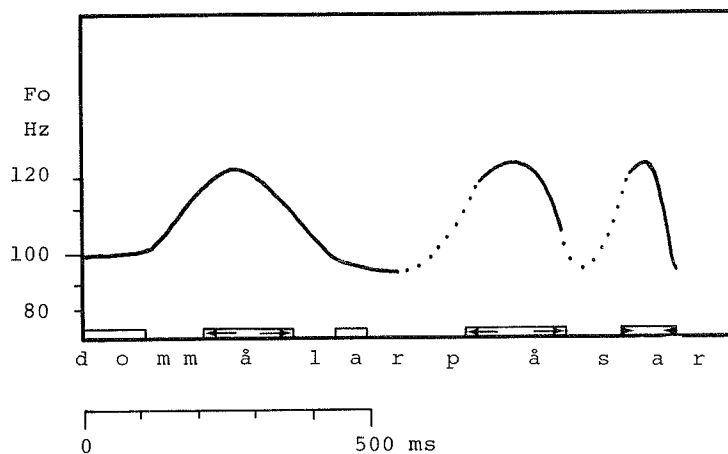


Figure 4. The same utterance as in figure 2 with corrected rhythm and Standard Swedish intonation.

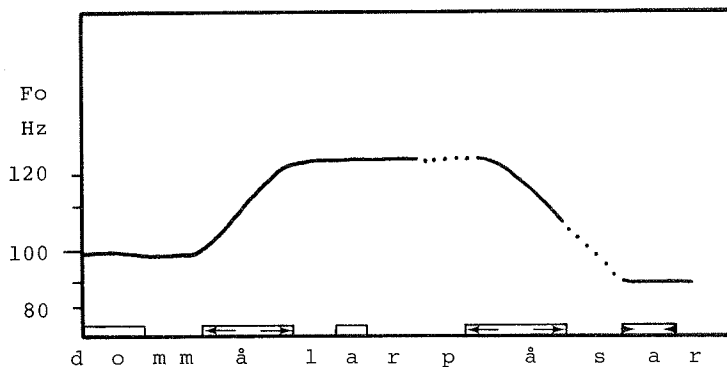


Figure 3. The same utterance as above with corrected rhythm and Germanic intonation.

An example of the procedure was given at this point. A person with Punjabi as his first language pronounced the following Swedish sentence as a neutral statement:

Dom målar påsar	<i>They are painting bags</i>
dɔm <sup>x</sup> mo:lar <sup>x</sup> pho:sar	

The sound illustrations are recorded on a cassette (Bannert 1979 b).

This pronunciation was deviant in several respects. The melody was monotonous, the fundamental frequency - the pitch - being constant from the beginning of the utterance almost to its end where it dropped abruptly. There was only one stressed syllable in the whole utterance, namely the last one. This syllable was lengthened considerably and the tonal fall was located here. But this Swedish utterance should have two stressed syllables, the second and the fourth one (*må-* and *på-*). The deviant utterance did not contain any long vowel - there should have been two, namely in the stressed syllables. The vowel quality was also deviant: /o/ in the two syllables *må-* and *på-* was too open, like [ɔ], instead of the closer correct [o].

Figure 1 gives the tonal and rhythmic structure of the deviant utterance.

The first manipulation corrected the rhythm. Stress was assigned in the right place, namely on the syllables *må-* and *på-* and at the same time the stressed vowels were lengthened. Furthermore the last prolonged vowel was shortened. No other features were altered. The manipulation is shown in Fig. 2. The modified rhythm was a considerable improvement.

The next correction of the recording considered melody and was applied to the version just corrected for rhythm. The tonal contour of a sentence in Swedish contains basically the prosodic features word accent, sentence accent and sentence intonation.

Two corrections of the tonal contour (the pitch) of the original utterance were made here. First the melody of the utterance was altered into some kind of approximation of Swedish intonation,



which can be called "Germanic" intonation. This means roughly an intonation without word accents, an intonation which may be considered easier than the idiomatic Swedish intonation. The corrected melody is shown by the pitch curve in Fig. 3.

Finally, the melody was refined to contain all the tonal features of Swedish, including word accent, which had been excluded in the previous version. The Standard Swedish variety of intonation was used here. The new melody corresponds to the melody with which a speaker from Stockholm would pronounce the sentence. This is shown in Fig. 4. Comparison with the pitch contour in Fig. 3. shows that the Swedish melody is more complex than the "Germanic" one.

The last version sounded very Swedish, although some minor deviations such as vowel quality still remained.

When manipulating deviant samples of Swedish sentences we will focus on certain features and their interrelations. This constraint is due not only to practical limitations but also to the fact that deviant features differ as to their effect on intelligibility and acceptability. Here is a possible selection of these salient features to serve as a guide for the design of the experiments:

Features pertaining to <i>rhythm</i>	STRESS (word, phrase) SENTENCE RHYTHM SYLLABIC WORD STRUCTURE
Features pertaining to <i>segments</i>	QUALITY of <i>certain</i> vowels and consonants OBSTRUENT CLUSTERS

The project will be most useful in indicating ways in which classroom language and communication could be brought closer to normal communication situations and how target language heterogeneity could be more systematically taken into consideration in teaching receptive skills. In the teaching of pronunciation it will be possible to concentrate on those features that are most important for the listener.

## FOOTNOTE

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1. The manipulations were made at the Institute of Linguistics, Uppsala University by courtesy of Professor Sven Öhman and with the kind assistance of Staffan Zetterlund. The method is called Linear Prediction Coding (LPC).

## REFERENCES

- Bannert R (1979a). Prosodiska egenskapers effekt på förståeligheten. M Linnarud and J Svartvik (eds), *Kommunikativ kompetens och fackspråk* pp. 151-174. Lund
- Bannert R (1979b). Experiment med rytm och melodi i brytningen. *Praktisk lingvistik* 1:68 ff. Department of Linguistics, Lund University
- Bannert R (1980a). Survey of foreigners' pronunciation problems in Swedish. *Publications de l'Association Finlandaise de Linguistique Appliquée* 28:149-160, (AFinLA Yearbook 1980). Jyväskylä
- Bannert R (1980b). Svårigheter med svenskt uttal: Inventering och prioritering. *Praktisk Lingvistik* 5. Department of Linguistics, Lund University
- Eckman F R (1976). *On the explanation of some typological facts about raising*. Indiana University Linguistics Club. Bloomington
- Chaudron C (1978). *English as the medium of instruction in ESL classes: an initial report of a pilot study of the complexity of teachers' speech*. Stencil. Modern Language Centre, Ontario Institute for Studies in Education
- Gaies S J (1977). The nature of linguistic input in formal second language learning: Linguistic and communicative strategies in ESL teachers' classroom language. Brown H D, Yorico C A & Cymes R H (eds), *On TESOL '77: Teaching and Learning English as a Second Language*. Washington D C: TESOL

- Gårding E & Bannert R (1979). Optimering av svensk uttalsundervisning. *Praktisk lingvistik* 1:1-9. Department of Linguistics, Lund
- Henzl V (1973). Linguistic register of foreign language instruction. *Language Learning* 23:207-222
- Henzl V (1979). *Foreign talk in the classroom*. IRAL 17:159-167
- Hyltenstam K (1980). *Språklärarspråk och angränsande forskningsfält*. En litteraturöversikt. Stencil. Department of Linguistics, Lund University
- Hyltenstam K (1981). Understanding varieties of the target language. *Working Papers* 20:1-26. Department of Linguistics, Lund University