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# IMITATION OF DIALECTS: FROM SOUTH SWEDISH TO WEST SWEDISH

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## ABSTRACT

Imitating a dialect involves changing the prosody and pronunciation of the source dialect. Investigations show that the imitator is not bound to imitate every characteristic feature of the target dialect in order to produce a successful imitation since some features are more highly ranked than others.

This study reports on imitations of the West Swedish dialect performed by native speakers of the South Swedish dialect. As an alternative approach the imitations teach us more about the most characteristic features of the target dialect and further guide us to the essence of the dialect.

The identity of a dialect is considered to be within the realisation of the focal gesture and accordingly this feature is part of the essence of the West Swedish dialect. The results of the study also show that the vowel quantity is another feature of the essence of the West Swedish dialect.

## 1. INTRODUCTION

Imitating different dialects of a language is often a source of amusement, entertainment and challenge, but is it also a source of knowledge? Is there something to be learnt about the dialects from a study of imitation?

The aim of the present study is to learn more about the West Swedish dialect. Earlier studies indicate that in comparison to other dialects West Swedish is quite a tricky one to understand. By means of synthetic speech experiments to reproduce the main Swedish dialects have been made through manipulation of the intonation [1]. While the experiment was generally successful, the imitation of the West Swedish dialect was considered to be a failure.

As an alternative approach I believe that the imitations of West Swedish will provide us with further information about the characteristic features of this dialect.

By analysing the imitations carefully and systematically reduce the characteristic features one by one, provided that the overall impression of the dialect remains, I have hopes that the imitations will guide us to the essence of the West Swedish dialect.

When imitating a dialect the imitator's apprehension and knowledge of the target dialect is of importance for the outcome. However, earlier investigations indicate that not every single characteristic feature of the target dialect has to be imitated in order to produce a successful imitation and furthermore, colouring from the source dialect does not necessarily distort the overall impression of a native-like imitation [2].

The description of an imitation as successful implies that the listener without doubt identifies the target dialect and further considers the imitation to be convincingly native-like.

## 2. PURPOSE AND HYPOTHESES

### 2.1. Purpose

By means of native South Swedish dialect speakers' imitations of the West Swedish dialect the aim of the present study is to learn more about the West Swedish dialect by answering the questions at issue;

1. What is the general apprehension of the target dialect i.e. which features do the imitators take into consideration?  
If there is colouring from the source dialect: which are the colouring features?
2. Which are the most essential features required to be imitated in order to produce a successful imitation?

### 2.2. Hypotheses

Several studies of the Swedish dialects indicate that the identity of a dialect is to be found within the prosodic features [3] and more specifically within the realisation of the tonal gesture of focally accented words [1, 3, 4]. Accordingly I expect the prosodic features to be of great importance for the outcome of the imitations especially regarding focally accented words. I also believe the vowel quality of certain vowels to be a significant feature of the West Swedish dialect.

## 3. SWEDISH DIALECTS

### 3.1. In general

Besides differences in the pronunciation of vowels in the first place, but also specific consonants as the r-segment and fricative sounds the prosodic features as a rule are considered the most important characteristics of different Swedish dialects [5]. The identity of a dialect is within the phonetic variation of the intonation and tonal patterns [3]. The word accent patterns and the distribution rules for the existing accent I and accent II are similar in most dialects, but the phonetic realisation of the tonal patterns differs. Each dialect is characterised by a distinctive timing pattern of the pitch accent gesture. A focally accented word is marked by an extra tonal gesture which is falling or rising (or both) depending on the dialect. The main difference between the dialects is whether the focal gesture is realised as a separate gesture or as a wider range of the already existing word accent gesture. With respect to the tonal pitch gesture of the word accents the dialects are defined as either one-peaked or two-peaked.

### 3.2. West Swedish

The West Swedish dialect in question, *göteborgska*, is spoken in the city of Gothenburg in the south-western part of Central Sweden. Apart from the r-segment which is strongly articulated as an alveolar tremulant, the quality of certain vowels is

significant of the dialect. In comparison with the standard variety of Central Swedish the West Swedish a-vowel is a more close variant while the ø-vowel is a retracted long variant. Additionally the alternation between the existing open variant and close variant of the ø-vowel may cause confusion since it shows some variation. The i-vowel, a high unrounded central vowel, is sometimes realised as a voiced fricative characterised by its buzzing sound.

The intonation pattern is characterised by its two-peaked pitch contour of the word accent I and accent II. In final words the focal gesture is separately realised and the extra tonal gesture is marked by its glissando-like rising and late timing in proportion to the accented syllable [6, 7, 8, 9, 10].

### 3.3. South Swedish

The South Swedish dialect, *helsingborgska*, is spoken in the city of Helsingburg in the north-western part of Southern Sweden. Apart from the r-segment which is a uvular trill the diphthongization of most vowels, particularly the phonologically long vowels, is the most significant feature of the dialect.

The intonation pattern is marked by its one-peaked pitch contour of the word accents. Independent of word accent the focal gesture which is realised as a wider range of the word accent is characterised by its falling pitch contour [1, 3].

## 4. THE INVESTIGATION

### 4.1. Informants

Four informants took an active part in carrying out the imitations. One native speaker of the standard variety of the West Swedish dialect was recorded as reference. The participants are all male in their 30s. The imitators all of whom were born and raised in the city of Helsingburg are native speakers of the South Swedish dialect as it is spoken in the city of Helsingburg. Interestingly enough two of the informants moved to Gothenburg as adults and have lived there for approximately ten years. The two informants from Helsingburg will henceforth be referred to as **H1** and **H2** whereas the two informants from Gothenburg will be referred to as **G1** and **G2**. The reference will be referred to as **GG** (Genuine speaker of the Gothenburg dialect)

The imitations are to be considered non-professionally produced since the informants are neither phonetically trained nor skilled impersonators. However they were judged as skilled amateur imitators.

### 4.2. Text material

For the investigation a written text well adapted to its purpose was composed in form of a non-dialectal tale. The text which is written in narrative form takes approximately two minutes to perform.

### 4.3. Procedure

The imitators performed their imitations independently of one another. Before the actual recording procedure they were instructed not to perform an imitation in the form of a caricature but to reproduce an imitation of West Swedish in accordance with their apprehension of the dialect. Before the performance each imitator's description of the characteristic features of the target dialect was written down. Not until at the time of the recording procedure were the informants exposed to the text

(unprepared immediate text reading). After having silently read the tale twice a version in their original South Swedish dialect was recorded and after that the second version out of two performances of the imitation was recorded (on a portable tape recorder as the recording took place in their private homes). The reference was told to read the text naturally without neither exaggerating nor holding back on his dialectal pronunciation.

## 5. AUDITORY ANALYSIS

### 5.1. Method

The imitations were separately analysed partly in comparison to the reference, partly in comparison to the imitators' corresponding version in their original dialect. Additionally features like vowel quality and vowel quantity were also analysed in comparison to standard Swedish. Out of every imitation an overall pattern of every phonetic feature was produced and judged as either belonging to the target dialect, the source dialect or to some other dialect. Each feature was also judged according to its credibility of being native-like or not.

Those parts of the analysis selected to be presented here concerns partly the pronunciation of vowels and relevant consonant segments, partly the realisation of the prosodic features; quantity of vowels and focally accented words (emphatically stressed).

### 5.2. Results

**5.2.1. The r-segment.** In accordance with GG the imitators G1 and H1 strongly articulate the r-segment as an alveolar tremulant. The somewhat forceful pronunciation of the r-segment, independent of its position in a word, is consistent throughout the imitations and judged as a native-like feature of the target. G2 and H2 do change the uvular r-segments from the source dialect to alveolar, but the alternation between an alveolar and a fricative r, out of which the latter is a non-target feature contributes to their failure.

**5.2.2. Vowel quality.** Perceptually there is no trace of diphthongization of vowels from the source dialect in any of the imitations. G1 and H1 generally pronounce the target vowels with a few exceptions in accordance with GG. The most prominent vowels are the a-, i- and ø-vowel, but also the o-vowel in regularly accented words and the u-vowel in focally accented words. Additionally the vowel in the accented syllable of focally accented words is prolonged which adds to the impression of a native-like pronunciation in G1 and H1's imitations. The overall vowel quality in the remaining two imitations is considered to be that of standard Swedish.

**5.2.3. Vowel quantity.** The overall impression of GG's and G1's reproduction of the text implies a distinct difference between the vowel quantity in regularly accented syllables and that of focally accented syllables. Regularly accented syllables appear to be shorter and focally accented syllables appear to be longer in comparison to standard Swedish and South Swedish. The difference between G1's source dialect and the target dialect is remarkably big. While the other imitators fail in this respect since there is no difference between the source dialect and the target dialect H1's imitation, however, is successful due to the native-like vowel quantity of focally accented words.

**5.2.4. Focally accented words.** In G1 and G2's imitations there appears to be colouring from the source dialect since the intonation pattern is perceived as typically South Swedish. H2's intonation pattern perceptually appears to be a variety of standard Swedish while H1's imitation is convincingly native-like in every aspect. The glissando is even more prominent than in GG's reproduction and H1's imitation actually sounds more native than the native!

## 6. ACOUSTIC ANALYSIS

### 6.1. Method

The acoustic analysis was carried out by means of the analysis programs Soundscope and ESPS/waves+™. To confirm the auditorily made observations spectrograms and F0 contours of relevant speech sequences were carefully studied above all regarding the quality and quantity of stressed vowels and the pitch contour of focally accented words. The vowel formant frequencies, F1, F2, F3 in the spectra of focally accented words were measured in the beginning and end of the vowel. Further the quantity ratio of stressed vowel plus consonant sequences was measured.

### 6.2. Results

**6.2.1. Vowel quality in focally accented words.** The acoustic values of the imitations are generally closer to that of the target dialect (GG) than that of the source dialect with the exception of H2's imitation. In H2's imitation the vowel formant frequencies of the i-, u- and ø-vowel in the spectra of focally accented words are close to the formant frequencies of the second element of the diphthong in the source dialect. In G2's imitation the formant frequencies of the vowels mentioned above plus the a-vowel are very close to those of GG's spectra even though G2's vowel quality is generally classified as non-native in the auditory analysis. In G1 and H1's imitations F1 is generally lower and F2 is generally higher in comparison with GG's vowel spectra. Generally H1 and G2's vowel quality are the closest to GG's vowel quality. Differences in formant frequencies may be related to differences in speaker size.

**6.2.2. Focally accented words.** With a few exceptions the realisation of the focal gesture generally follows the pattern of the source dialect in all imitations but one. The acoustic analysis confirms the native-like realisation of the focal gesture in H1's imitation as the rising glissando-like pitch contour of the target dialect is manifested in all existing focally accented words. In comparison to GG's realisation of the focal gesture the F0 contour in H1's imitation of the non-final word *peruken* (see Figures 1-2) may indicate that this is a far too exaggeratedly imitated feature i.e. a caricature, but according to the auditory analysis the focally accented word is perceived as typically West Swedish.

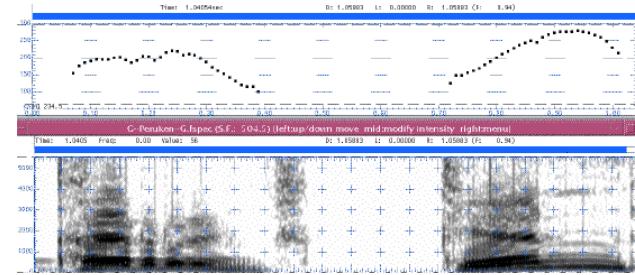


Figure 1. F0 contour and spectrogram of H1's imitation of focally accented word *peruken*.

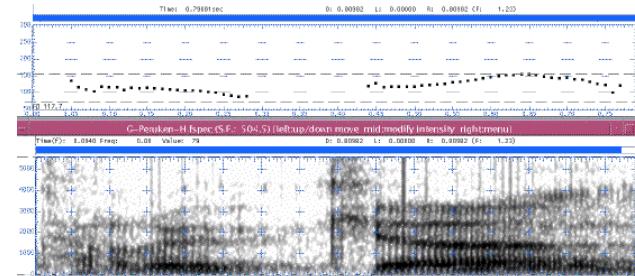


Figure 2. F0 contour and spectrogram of GG's realisation of focally accented word *peruken*.

**6.2.3. Quantity ratio of the vowel in stressed vowel plus consonant sequences.** In figures 3 and 4 the quantity ratio of the vowel in stressed vowel plus consonant sequences (in percentage) is accounted for in two of the relevant words; *hackor* and *träffade*. The charts show the results of the imitations (target) in comparison to the source dialect and to the results of the reference, GG.

In figure 3 GG's pronunciation of the short a-vowel in *hackor* constitutes 15 % of the sequence and accordingly the following long consonant segment constitutes 85% of the sequence. In figure 4 the vowel constitutes 33% and the consonant 67% of the sequence.

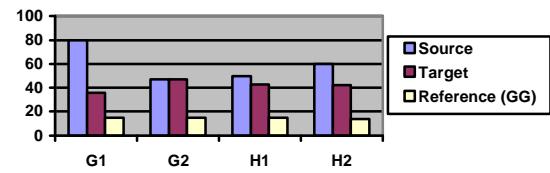


Figure 3. Quantity ratio of the vowel in the stressed vowel plus consonant sequence of the word *hackor* in percentage.

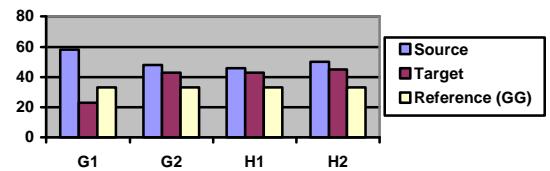


Figure 4. Quantity ratio of the vowel in the stressed vowel plus consonant sequence in the word *träffade* in percentage.

The overall results show that in all imitations the vowel is generally shorter than in the source dialect, but only in G1's case is the difference significant. Additionally the results which confirm the auditorily perceived short vowels in G1's imitation are the closest to GG's and of great importance for the overall impression of a native-like imitation.

## 7. SUMMARY

### 7.1. Imitated and altered features

The summary of the imitators' description of the West Swedish dialect shows that the overall apprehension of the characteristic features of the target dialect is generally the same. Additionally the features imitated generally correspond to the characteristic features of the description, but the realisation of the features, however, does not consequently match the description. The degree of the change varies. Even if H1 and G1 change the features of the source dialect to a greater extent than G2 and H2 it is difficult to perceptually trace the imitators' original dialect in any of the imitations. Consequently the features taken into consideration are; the r-segment, the vowel quantity and quality of the /a/-, /i/-, /o/-, /u/- and /ø/-vowel particularly in focally accented words.

### 7.2. Colouring from the source dialect

The colouring features from the source dialect affecting the overall impression of the target dialect negatively concerns in the auditory analysis the intonation pattern and vowel quantity of focally accented words. This is confirmed in the acoustic analysis as well as the realisation of the South Swedish word accent pattern. The acoustic analysis also show that there is no significant difference between F1, F2, F3 in the vowel spectra of the target dialect and F1, F2, F3 in the vowel spectra of the second element of the diphthong in the source dialect regarding all focally accented words in H2's imitation.

## 8. CONCLUSIONS

### 8.1. Important features of a successful imitation

The results of the analyses tell us that H2 and G2's imitations are considered to be failures while G1 and H1's imitations are successful.

G1's imitation is successful partly due to the native-like vowel quality of the a-vowel in regularly accented words and the overall vowel quality of focally accented words, partly the consistent pronunciation of the r-segment, but above all due to the vowel quantity. Accordingly, the conclusion drawn from G1's imitation is that the quantity ratio of stressed vowel plus consonant sequences is of great importance of the West Swedish dialect. The contrast between the vowel quantity of regularly accented and focally accented words is of importance. In G1's imitation the colouring from the source dialect regarding the intonation pattern does not interfere with the overall impression of a successful imitation due to the native-like imitated features mentioned above.

H1's imitation is superior to G1's imitation and judged as genuinely native-like and equivalent to the reference. While the vowel quality of the target a-vowel is somewhat standard Swedish the quality of the i-vowel in regularly accented words is native-like in addition to the vowel quality of the /u/- and /ø/-vowel in focally accented words. Regarding the vowel quantity H1 is inferior to G1, but the important contrast between the

vowel quantity of regularly accented words and that of focally accented words is obtained due to the prolonged vowel in the focally accented words. In conclusion the focally accented words play the leading part in H1's performance and consequently the focal gesture is the way to success. While the vowel quantity is the determining factor of G1's successful imitation this feature is not considered to be essential to H1's native-like imitation.

### 8.2. The essence of the West Swedish dialect

By comparing the results of the two successful imitations I come to the conclusion that the most essential features of a native-like imitation of the West Swedish dialect are;

1. The realisation of the focal gesture
2. The vowel quantity
3. The quality of certain vowels

Regarding the vowel quality I believe this to be an essential feature when the vowel is to be found in a focally accented word depending on the vowel and position of the word in a phrase. For instance, if the ø-vowel in a focally accented final word were to be of a non target-like quality the impression of West Swedish would be distorted.

Finally, I believe there is something we can learn about the West Swedish dialect from this study of imitation. The identity of a dialect is considered to be within the realisation of the focal gesture [1, 3] which is confirmed by the results of the present study. Accordingly we know that this feature is part of the essence of the West Swedish dialect, but do we know that the vowel quantity constitutes another part ?

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