

THE EXPANSION OF APPROXIMANT /r/ IN DUTCH

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1. INTRODUCTION

In present-day Standard Dutch as spoken in the Netherlands, three main categories of pronunciation variants of /r/ can be distinguished, namely alveolar /r/, uvular /r/, and approximant /r/. Approximant /r/, the focus of this study, is the most recent variant. It was first mentioned by Kloeke in 1938 as a property of non-elderly citizens in the western, urbanized, and culturally dominant part of the country, which is nowadays referred to as the Randstad. Apart from the fact that the tongue approaches the palate without making contact, not much else is known about the phonetic properties of Dutch approximant /r/. However, its phonological behaviour is straightforward. It occurs only in the syllable coda. For example, Dutch approximant /r/ is used in a word like *ster* 'star', but not in a word like *roos* 'rose' or *piraat* 'pirate'. In a preliminary study of the geographical spread of Dutch approximant /r/ (Van Bezooijen 2005) recordings were made of children and their parents in two cities, namely Haarlem and Nijmegen. On the basis of the outcome I tentatively concluded that we are dealing with an ongoing change spreading from the Randstad to the more peripheral regions.

In the present study the analysis of approximant /r/ is extended to a total of 23 places in the Netherlands, providing a much more solid basis for drawing conclusions. I want to answer three research questions:

1. How far has Dutch approximant /r/ advanced geographically?
2. How does it spread?
3. Who is responsible for the spread?

2. METHOD

To supplement the data gathered earlier for Haarlem and Nijmegen, recordings were made in an additional ten cities (usually more than 100,000 inhabitants) spread across the Netherlands, one in each province. In addition, small villages (fewer than 6,000 inhabitants) were selected in the close proximity (less than 12 km) to the twelve cities. For one city, Lelystad, there was no village that met the selection criteria; this is the only province in the design lacking a village. In Figure 1

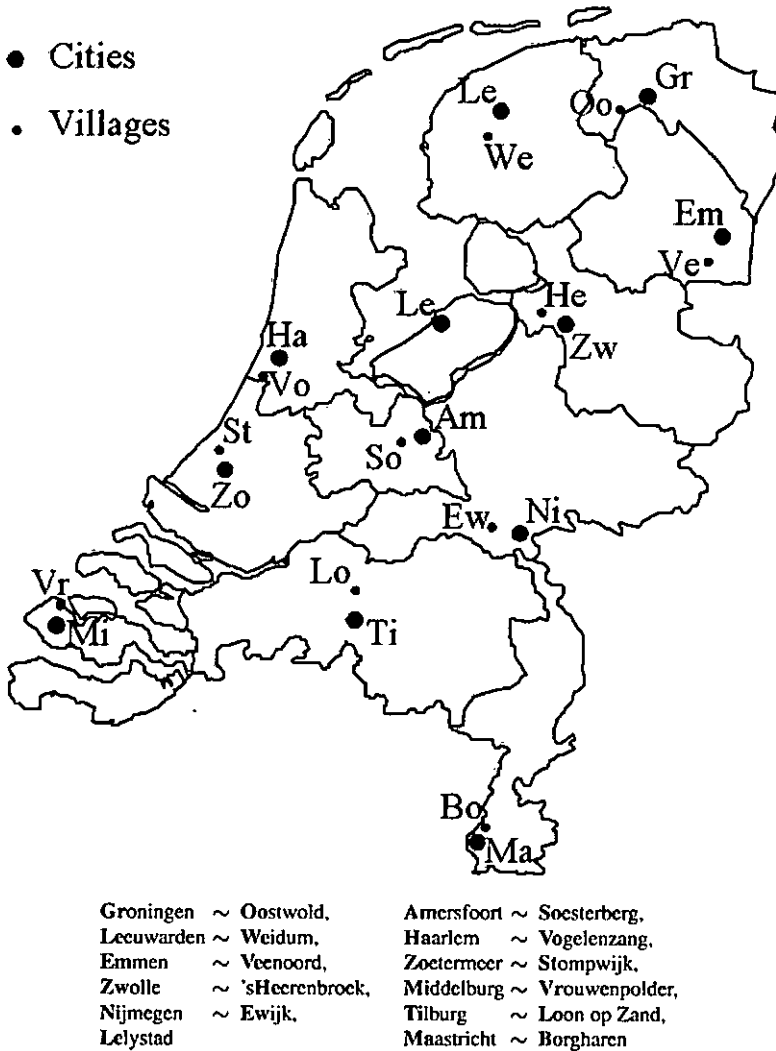


FIGURE 1

Location of the 23 places included in the study

the location of the twelve cities and eleven villages is indicated on the map of the Netherlands.

In each place, ten boys and ten girls of 10, 11 or 12 years of age (all from the same social class) were recorded as they read a list of 25 common, monomorphemic words. Seventeen words contained /r/ in the syllable onset (single or preceded by /b/, /t/, /k/, /f/, /sx/) or in the coda (single or followed by /s/, /t/, /st/, /ts/). Eight /r/-

less words functioned as distracters. In the present study, we will restrict ourselves to the use of approximant /r/ in the syllable coda.

Four main categories were distinguished, namely alveolar /r/, uvular /r/, approximant /r/, and non-consonantal /r/. Scoring was done by two raters independently of each other. The correspondence was extremely high, in 97% of the cases the scores were in the same main category. This shows that the data were reliable.

3. RESULTS

In presenting the results, I use the percentage of children producing one or more approximant /r/s in each place as the basis of measurement. I first calculated the percentage of approximant-/r/-using children in each place. It ranged from 0% to 100%. The highest percentages were found in (regions bordering on) the Randstad, the lowest percentages in the southern and northern part of the country.

One could argue that the percentage of children using approximant /r/ in places outside the Randstad is not an accurate measure of geographic spread, since it may include children who in some way or another have direct connections with the Randstad. In that case, the presence of approximant /r/ may be temporary. I therefore focused on the truly local children. I considered those children as local — in the context at hand this concept is only relevant to the places outside the Randstad, i.e., other than Zoetermeer, Stompwijk, Haarlem, and Vogelenzang — who had never lived in the Randstad themselves and neither of whose parents originated from the Randstad. The number of local children ranged between 12 and 20 per group. I then assessed how many of these local children used approximant /r/. I distinguish six stages of spread:

0%	not yet begun
< 25%	initial stage
< 50%	somewhat advanced
< 75%	rather advanced,
< 100%	almost completed
100%	completed

Table 1 shows which places are in which stage of the spread.

TABLE 1
Spread of approximant /r/ in 19 places outside the Randstad

Place	Spread
Amersfoort	completed
Zwolle, Soesterberg, Lelystad, Middelburg, Groningen	almost completed
Nijmegen, Ewijk, Vrouwenpolder	rather advanced
's-Heerenbroek, Oostwold	somewhat advanced
Leeuwarden, Emmen	initial
Loon op Zand, Maastricht, Borgharen, Weidum, Tilburg, Veenoord	not yet begun

Some results are perhaps to be expected; for example, the fact that the spread in Amersfoort, which is pretty close to the Randstad, is completed; all local children in the Amersfoort class speak with an approximant /r/. The spread in the corresponding Soesterberg is fairly advanced as well. However, other results are less self-evident. For example, why is the spread in Groningen so much more advanced than in Leeuwarden? Both cities are located in the far north of the country. By what mechanism is approximant /r/ spreading? Is there perhaps more migration from the Randstad to Groningen than to Leeuwarden?

4. DISCUSSION

To gain insight into a possible relationship between the spread of approximant /r/ and migration from the Randstad, I gathered statistical data made publicly available on the internet by the CBS (Central Bureau of Statistics of the Netherlands). I collected data for 1996, 1998, 2000, 2002, and 2004. The CBS does not provide statistical data for individual villages. These are incorporated into larger administrative units. In some cases, they belong to the same administrative unit as the corresponding city in our study. As the data for the villages are incomplete and imprecise, I focused on migration from within the Randstad to the ten cities outside the Randstad. For each year and city, I calculated the percentage of immigrants relative to the total city population as a measure of immigration density. Immigration density appeared to be very stable over time, so I took the mean value over the five years of measurement to assess the relationship with the spread of approximant /r/.

In most cities immigration density lies between 0.4 and 0.8%. There are two cities that stand out: Amersfoort has a value of 1.5% and Lelystad has a value of 1.9%. Apparently, these two cities are very popular cities to migrate to from the Randstad. The correlation between approximant-/r/-spread and immigration density is $r = .53$. This is almost significant ($p = .056$ one-tailed). So, there may be some relationship between migration and spreading. However, the relationship is rather weak. It could be that the migration data included in the analysis are too recent and that we should look at older data. These are, however, difficult to obtain.

There is some evidence of a completely different nature that migration from the Randstad may indeed be a factor of importance in the spread of approximant /r/. This evidence can be deduced from interviews which were held with the children whose /r/-behaviour was recorded. These interviews aimed to assess the children's own awareness of their speaking with an approximant /r/ and to inventory remarks about their approximant /r/ by others. Most children had nothing to report; however, there were a few interesting exceptions. I will present the responses of four children who live in Emmen (in the north) and in Borgharen and Loon op Zand (in the south).

- (1) Boy, 11 years old; lives in Emmen; grew up in Dordrecht, in the Randstad.
- Interviewer: Did you talk differently when you came to Emmen?
- Child: Yes, there was one thing. Before I said Dordrecht [with a strong approximant /r/] and now I say Dordrecht [with a weak approximant /r/].
- I: Did any one ever comment on the way you pronounce the r?
- C: A few times, there were one or two children that remarked that I say the r differently.
- (2) Boy, 12 years old; has been living in Borgharen for one year; grew up in the Randstad.
- I: When you came to live here in Borgharen, did the children think you talked differently?
- C: Yes.
- I: What did they think was different?
- C: My way of saying the r [pronounced as an approximant].
- (3) Girl, 12 years old; has been living in Loon op Zand for two years; grew up in the Randstad.
- I: [After demonstrating approximant and uvular /r/] Do you hear the difference?
- C: The second one sounds like a g [x]. I have the first one.
- I: Which one do the other children have?
- C: The second one.
- I: Did anyone ever comment on how you pronounce the r?
- C: Yes. They then imitated my way of saying it.
- (4) Girl, 11 years old; has been living in Loon op Zand for one year; grew up in the Randstad.
- I: [After it was established that the girl can distinguish approximant r]. Do you ever use this type of r?
- C: My friends say I sometimes do, but I don't hear it myself. I do it automatically. I think it's because I used to live in Rotterdam and there they pronounce the r differently.
- I: So, they sometimes make a remark?
- C: Yes, they sometimes say that I have a funny r.

These responses show that at least in some cases the deviant nature of the approximant /r/ of children who had moved in from the Randstad was noticed by their classmates. Even when its deviant nature is not consciously observed, it is not unlikely that the approximant is taken over by some of the local children. Children from the Randstad have prestige. The Randstad is the place where it is all happening. The children growing up in the Randstad are ahead as far as new trends, for example in clothing, are concerned. Randstad children are likely figures to stand as a model. The attraction of approximant /r/ may be reinforced by its use in many popular television programs. Television programs are broadcast from the Randstad, and the majority of children and adults who appear in television programs originate from the Randstad and speak with approximant /r/.

5. CONCLUSION

In the introduction I presented three research questions. Tentatively, I want to give the following answers.

1. How far has approximant /r/ advanced geographically? The spread is almost complete in the Randstad. It is less complete towards the periphery but it is not perfectly regular. Cities lead over villages.
2. How does it spread? The most likely mechanism of spread is one of city hopping through migration from the Randstad followed by areal diffusion in the surrounding villages through direct contact. Thus, I hypothesize a two-step model.
3. Who is responsible for the spread? I want to make a distinction between the first and the second steps in the spread. In the first step I mainly hold migration children, and to a lesser extent migrating adults, responsible, and in the second step children and adults in the larger cities in the province.

REFERENCES

- Kloeke, G.G. 1938. Haagse volkstaal uit de achttiende eeuw [The Hague vernacular in the eighteenth century]. *Tijdschrift voor Nederlandse Taal en Letterkunde* 57:15–56.
- Van Bezooijen, R. 2005. Approximant r in Dutch. Routes and feelings. *Speech Communication* 47:15–31.