

An Investigation Concerning the Judgment
Criteria for the Pronunciation of Dutch I

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1. Introduction.

As soon as an investigator occupies himself with comparative phonetic investigation, where a dialect-pronunciation is compared to the pronunciation of the "standard language" or vernacular, the problem that arises immediately is the definition of the concept of the "standard language". What are the criteria used to define whether someone speaks this "standard language"?

Van Dale (1961) defines the term dialect in two ways, namely, first as 'the special speech of an area or town in so far as it deviates from the general language or vernacular' and also as 'each of the languages that arose from a common underlying language'.

For a comparative phonetic investigation in the Netherlands the first definition will be of main importance. To make up a group of dialect speakers will, in most cases, not be too problematical as the dialect to be investigated is usually already defined by area or town. Its deviation from the vernacular or common language must be kept out of consideration. A criterion that can be used with some ease is to require that the dialect speakers and their parents must be born and bred in the area concerned and must have lived there all their lives. A much greater problem is posed by the composition of a group of "standard language" - or in our case of "standard Dutch"- speakers. How should a group like that be formed or by whom should the group be formed, for it will no doubt be granted that the "how" depends on the "who".

A possible way to get out of this problem is to get a representative sample from the entire population of grown-up speakers of Dutch. The opinion of every "judge" will then be kept out of consideration. However, this method is not very satisfactory, as, even though an "average Dutch" might be settled upon, it will probably not be possible to find anyone who actually speaks this "average Dutch". A second method might be to take the judgement of one or some "judges" as a criterion; a much used method as it is simplest. But the consequence of this is that the composition of a norm-group for Dutch becomes a completely arbitrary matter. A third (and in our opinion the only acceptable) method is to compose a norm-group in such a way that the opinion of as many people as possible can be taken into consideration. This means that one should try and find out how the

judgments are effected and to what extent it is possible to get together a group of speakers that are normative for the standard language in the Netherlands (Algemeen Beschaafd Nederlands = Received Pronunciation or Standard Dutch, henceforth to be called ABN). The purpose of the investigation, as set up at the Institute of Phonetic Sciences in Amsterdam, and of which this article is a first account, is fourfold.

- 1) Fixing the structure of opinions on the specifics of a) pronunciation and b) voice quality
- 2) Fixing those factors which discriminate between ABN and non-ABN
- 3) Drawing up a pronunciation- and a voice-profile
- 4) Developing of a test for ABN.

This article gives a description of a pilot-investigation concerning 1), in which we confined our data processing to the judgments concerning pronunciation. It stands to reason that an investigation at this stage can only be of an explorative nature.

2. Planning and Organization.

A first examination of the literature referring to the pronunciation of Dutch made it clear quite quickly that as many opinions exist relating to the question of "pure Dutch", ABN or whatever term is employed, as there are writers upon the subject or perhaps there are as many opinions as there are Dutch people. This subjectivity is clearly illustrated by Hellinga (1938) in his introduction.

Not only the great subjectivity is conspicuous but also the manifold terms in which a description is given of pronunciation and of voice, added to the fact that most writers do not define these terms.

Apparently the writer takes it for granted that the reader with his knowledge of the Dutch language knows what is meant with these terms, or rather, the reader is given room for a construct definition of his own. On this construct definition our investigation is based and in the first instance we asked ourselves two questions:

- 1) Are all these terms with which pronunciation is judged independent from one another or is there some connection?
- 2) If so, does the way in which these terms are connected depend upon the group of listeners who judge that pronunciation?

As a certain processing technique had been decided upon (viz factor analysis) and the program capacity of the IBM 1130 permits only 30 variables for this purpose, a further selection was necessary. Two series of 30 scales were decided upon, one pertaining to pronunciation, the other to voice. At the same time an effort was made to avoid synonyms as much as possible. The result of this selection was a total of 46 scales, that is approximately 30 scales concerning pronunciation and about 30 scales concerning voice, a number of scales appearing in both series. (see appendix II). These 46 scales were subjected to judgment on scoring forms in random order, there being one exception: the first scale pleasant - unpleasant was placed first in order to get the primary impression which a voice makes on a listener.

3.2 Speakers.

In order to get the sound material the following procedure was used. Twenty-five testees from all parts of the Netherlands, coming from different social settings and having various levels of education, were requested to read a certain story quite thoroughly. After this the testleader asked the subjects to tell the story in his (her) own words. A tape-recording was made of this on an Ampex recorder. The story that was used for the purpose was Simon Carmiggelt's 'A Triumph' (Een Triomf) from his collection 'Whistling in the Dark' (Fluiten in het donker).

From the 25 recordings thus obtained, a selection was made by the panel mentioned in 3.1 of five male and five female voices in such a way that these 10 people represented the greatest variety possible in voice and pronunciation. Subsequently a "listening-tape" was made of these 10 recordings which had about seven minutes of uninterrupted speech per speaker. The order of the speakers was an alternation of male and female voices offered to the listener. Otherwise the order of voices was random. There was a pause of 1 minute between each speaker.

3.3 Listeners.

3 For a start three groups of listeners from Amsterdam were chosen for the listening experiment.

- 1st 22 students of Dutch from the University of Amsterdam;
- 2nd 49 students from a Teachers Training College in Amsterdam;
- 3rd 16 students from the training course for Speech Therapists in Amsterdam

The analysis of the scores showed that these three groups differed very little. Therefore it was decided the rest of the experiment would be continued with students having various types of education as their background.

- 4th 60 students of Germanic Philology from the University of Ghent (Belgium);
- 5th 40 students from the course of Speech Therapists from the Katholieke Vlaamse Hogeschool in Antwerp (Belgium);
- 6th 13 students from the course of Speech Therapists in Amsterdam;
- 7th 50 students from the Teachers Training College at Winschoten (North-East Netherlands);
- 8th 50 students from the Teachers Training College at Sittard (South-East Netherlands).

For groups 1 and 2 use was made of the facilities of the language laboratory of the Institute of Applied Linguistics of the University of Amsterdam. Here the recordings were played back on a Tandberg tape-recorder. For all other groups a Revox tape-recorder was used in ordinary class-rooms or lecture-rooms.

3.4 Instruction to the listeners.

Every listener received scoring-forms in the shape of a booklet. The testleader requested the participants in the test to fill in some personal data on the first page. (see Appendix III), then to read the Instruction (see Appendix IV), and afterwards to fill in a loose scoring-form concerning the subject's own voice. This loose form was identical to the following forms.

Scoring with reference to their own voice gave the subjects a chance to get acquainted with the scales and the way of scoring. After this the listeners were asked to take the first attached page in front of them and to judge the voice of the first speaker. After each speaker there was a clear break in which the listeners could turn to the next form. In this manner the voices of 10 speakers were presented and judged by the listeners. No verbal instructions were given concerning the manner of scoring and of judging.

4. Data Processing.

4.1 Coding.

All judgments were coded as follows. The scales are looked upon as interval scales, the scalevalue 1 being accorded to the scale position situated to the extreme left and the value 7 to the scale position on the extreme right.

4.2 Punching.

The numbers obtained in this manner were punched in on cards

4.3 Variance Analysis.

A variance analysis was computed for each scale. It then became clear that the monophthongized - non-monophthongized scale did not differentiate for either Dutch or Belgian judges. Besides, for Belgian listeners the northern - southern and the eastern - western scales did not differentiate.

4.4 Factor Analysis.

On the strength of the results of the variance analyses a number of scales were left out of consideration which left 29 scales for the judgement of pronunciation (see Appendix V).

In this paper the factor analyses concerning pronunciation scales only are given.

As our interest included the question whether scores are determined regionally, groups 1, 2, 3 and 6 were pooled as 'Amsterdam group' (West Netherlands), group 4 and 5 as Belgian group, while groups 7 (Winschoten) and 8 (Sittard) represented North-East Netherlands and South-East Netherlands respectively (see 3.3).

For each of the groups thus obtained a factor analysis was carried out. The estimation chosen for the communalities was the maximum absolute off-diagonal element in each vector of the correlation matrix. No iteration was carried out on communalities.

4.4.1.0 West Netherlands.

Four significant factors were found which together explain 55% of the

total variance. Rotation was carried out to simple structure (Varimax), table 4.4.1.1 shows the relation between the different scales and the four factors. The scales are indicated with one pool; the choice of the pool is decided upon by the sign of the factor load. The scales are ordered in decreasing factor loads

4.4.2.0 North-East Netherlands.

Four significant factors were found which together explain 50% of the total variance. Rotation was carried out to simple structure (Varimax); table 4.4.2.1.

4.4.3.0 South-East Netherlands.

Four significant factors were found which together explain 53% of the total variance. Rotation was carried out to simple structure (Varimax); table 4.4.3.1.

4.4.4.0 Belgium.

Four significant factors were found which together explain 50% of the total variance. Rotation was carried out to the simple structure (Varimax); table 4.4.4.1.

5.0 Results and Conclusions.

Independent of the region from which the listeners originate we find four orthogonal common factors which are responsible for the judgments concerning pronunciation. The tables 4.4.1.1, 4.4.2.1, 4.4.3.1, and 4.4.4.1 show the factors overlap in part only. This may mean that the various groups of listeners have a differing frame of judgment or this may be caused by the rotation to its simple structure of each factor solution instead of rotating to structures of the greatest conformity. Notwithstanding all this we deem it possible to identify two factors in each of the four analyses which express an evaluation, one referring more to the correctness of pronunciation, the other having reference to the appreciation. The other two factors are of a temporal or regional nature; it is understandable that shifts occur, when taking into consideration that regional speech is also often characterized by temporal aspects.

The similarity between the three Dutch groups is rather great, the Belgian group differing rather widely. How far this is related to the fact that only Dutch voices were presented cannot be judged at this moment. It appeared from the variance analyses (4.3) that the Belgian listeners did not know what to make of the typically regional scales. Further interpretation of factors will be left to the reader.

6.0 Discussion.

It is possible that the factor solutions found by us are not completely independent of the speakers chosen, in other words that our sample is not quite representative for the pronunciation of Dutch.

Only further investigation will decide the issue. An attendant problem lies in the fact that the quality of the pronunciation and the language command (use of words, grammar, construction of the story) show a strong correlation, which makes it difficult for the judges to abstract the pronunciation from the total production of the speaker. A follow-up cannot be done without paying extra attention to this.

Tabel 4.4.1.1 West Netherland; relation between the different scales and the four factors.

FACTOR 1		FACTOR 2	
distinguished	.84	melodious	.79
la-di-da	.84	vivacious	-.78
affected	-.79	expressive	.77
cultivated	.79	beautiful	-.70
cultured	-.79	varied	-.66
hypercorrect	-.75	pleasant	.64
supercilious	-.61	sprightly	.63
pompous	.58	normal	-.48
spelling pronunciation	.56	vigorous	.47
controlled	.54	full	-.45
		smooth flowing	.40
		non-nasal	-.26
FACTOR 3		FACTOR 4	
slow	-.59	eastern	.74
controlled	.50	rustic	.69
northern	.48	old-fashioned	-.40
drawn out	.46	nasal	.25
old-fashioned	-.38		
rolling r	-.33		

Tabel 4.4.2.1 North-East Netherlands; relation between the different scales and the four factors.

FACTOR 1		FACTOR 2	
beautiful	-.78	distinguished	.65
melodious	.71	cultivated	.58
normal	-.68	cultured	-.53
pleasant	.67	supercilious	-.53
varied	-.64	hyper-correct	-.49
full	-.63	affected	-.48
vivacious	-.63	pompous	.48
expressive	.61	la-di-da	.42
vigorous	.60		
smooth flowing	.60		
cultured	-.59		
controlled	.58		
cultivated	.57		
hyper-correct	-.52		
contemporary	.41		
FACTOR 3		FACTOR 4	
slow	-.60	eastern	.64
whining	-.53	rustic	.63
northern	.45	nasal	.34
drawn out	.40	spelling pronunciation	.26
rolling r	-.34		

Tabel 4.4.3.1 South-East Netherlands; relation between the different scales and the four factors.

FACTOR 1		FACTOR 2	
vivacious	-.81	cultivated	.61
melodious	.80	distinguished	.60
expressive	.73	affected	-.57
varied	-.72	pompous	.56
sprightly	.64	hyper-correct	-.55
smooth flowing	.52	cultured	-.53
beautiful	-.51	supercilious	-.53
velar r	.10	spelling pronunciation	.51
		la-di-da	.50
		controlled	.50
		urban	-.45
		slow	-.28
FACTOR 3		FACTOR 4	
full	-.72	eastern	.65
normal	-.65	southern	-.59
beautiful	-.65	rustic	.43
pleasant	.64	old-fashioned	-.34
cultured	-.60		
cultivated	.58		
vigorous	.58		
controlled	.51		
contemporary	.35		
slow	-.28		
drawn out	.28		
nasal	-.25		

Tabel 4.4.4.1 Belgium; relation between the different scales and the four factors.

FACTOR 1		FACTOR 2	
melodious	.78	distinguished	.59
vivacious	-.73	urban	-.50
sprightly	.71	pompous	.49
expressive	.70	cultivated	.49
varied	-.66	affected	-.47
smooth flowing	.52	spelling pronunciation	.42
velar r	.14	la-di-da	.41
		supercilious	-.39
		southern	-.08
FACTOR 3		FACTOR 4	
beautiful	-.66	controlled	.56
full	-.66	slow	-.50
pleasant	.64	drawn out	.45
cultured	-.62		
normal	-.60		
cultivated	.55		
distinguished	.52		
contemporary	.52		
hyper-correct	-.51		
urban	-.49		
non-nasal	-.43		
vigorous	.42		
western	-.17		

Appendix I

Conceivable scales for the judgment of pronunciation *)

affected	- artless	(geaffecteerd	- ongekunsteld)
affected	- natural	(aanstellerig	- natuurlijk)
agitated	- quiet	(gejaagd	- rustig)
apathetic	- vivacious	(apathisch	- levendig)
aristocratic	- lower class	(aristocratisch	- volks)
beautiful	- nasty	(mooi	- lelijk)
biting	- gentle	(bijtend	- mild)
bombastic	-	(gezwollen	-)
bored	- cheerful	(landerig	- opgewekt)
bragging	-	(brallend	-)
broad	- cultured	(plat	- beschaafd)
cold	- warm	(koud	- warm)
colorful	- dull	(kleurrijk	- flets)
contemporary	- old-fashioned	(hedendaags	- ouderwets)
controlled	- excited	(beheerst	- opgewonden)
controlled	- temperamental	(beheerst	- onbeheerst)
cultivated	- slipshod	(gecultiveerd	- onverzorgd)
defective	- perfect	(gebrekkig	- volmaakt)
depressed	- cheerful	(gedeprimeerd	- opgewekt)
dignified	- simple	(deftig	- eenvoudig)
diphthongal	- non-diphthongized	(diftongisch	- niet gediftongeed)
diphthongized	- non-diphthongized	(gediftongeed	- niet gediftongeed)
distinguished	- common	(gedistingeerd	- voks)
drawling	- sprightly	(lijzig	- kwiek)
drawn out	- clipped	(gerekt	- verkort)
dull	- clear	(dof	- helder)
eastern	- western	(oostelijk	- westelijk)
edgy	- caressing	(scherp	- strelend)
excited	- relaxed	(opgewonden	- ontspannen)
expressive	- expressionless	(expressief	- uitdrukkingloos)
familiar	- humble	(gemeenzaam	- onderdanig)
familiar	- supercilious	(gemeenzaam	- uit de hoogte)
full	- pinched	(vol	- schriël)
genuine	- mannered	(echt	- gekunsteld)
genuine	- mincing	(echt	- gemaakt)
graceful	- blunt	(sierlijk	- plomp)

*) Translations are an approximation of the original terms.

grand	- deferential	(groots	- bescheiden)
hard	- mawkish	(hard	- week)
hesitant	- resolute	(aarzelend	- resoluut)
high	- low	(hoog	- laag)
husky	- sonorous	(hees	- klankvol)
hyper-correct	- carelessly articulated	(hypercorrect	- slordig gearticuleerd)
masculine	- effeminate	(mannelijk	- verwijfd)
masculine	- feminine	(mannelijk	- vrouwelijk)
monophthongized	- non-monophthongized	(gemonoftongeerd	- niet gemonoftongeerd)
monotonous	- melodious	(eentonig	- melodieus)
nasal	- non-nasal	(nasaal	- niet nasaal)
natural	- hoity-toity	(natuurlijk	- bescheten)
natural	- la-di-da	(natuurlijk	- bekakt)
nervous	- calm	(nerveus	- kalm)
normal	- abnormal	(normaal	- abnormaal)
normal	- a-normal	(normaal	- anormaal)
normal	- deviating	(normaal	- afwijkend)
northern	- southern	(noordelijk	- zuidelijk)
pedestrian	- solemn	(banaal	- plechtig)
pinched	- relaxed	(geknepen	- ontspannen)
pleasant	- unpleasant	(aangenaam	- onaangenaam)
polished	- slovenly	(af	- slordig)
pompous	- playful	(gewichtig	- speels)
poor	- rich	(arm	- rijk)
range small	- range large	(omvang klein	- omvang groot)
rich	- thin	(vol	- iel)
rough	- polished	(ruig	- gepolijst)
rustic	- townish	(boers	- steeds)
rustic	- urban	(boers	- stads)
shrill	- veiled	(schel	- omfloerst)
slow	- quick	(langzaam	- snel)
slow	- rapid	(langzaam	- vlug)
sonorous	- thin	(klankrijk	- iel)
sound	- mutilated	(gaaf	- geschonden)
spelling pronunciation	- natural pronunciation	(spellinguitspraak	- natuurlijke uitspraak)

spontaneous	- non-spon- taneous	(spontaan	- niet spontaan)
staccato	- smooth flow- ing	(staccato	- vloeiend)
stereotyped	- varied	(stereotiep	- gevarieerd)
straightforward	- bogus	(eerlijk	- vals)
sweet	- sour	(zoet	- zuur)
thin	- thick	(dun	- dik)
tongue-r	- uvular-r	(tong-r	- huig-r)
tongue-r	- velar-r	(tong-r	- keel-r)
unsteady	- steady	(onvast	- vast)
urban	- rural	(stedelijk	- landelijk)
vigorous	- flabby	(flink	- slap)
vigorous	- weak	(krachtig	- zwak)
vivacious	- spiritless	(levendig	- doods)
vulgar	- la-di-da	(ordinair	- bekakt)
whining	- sprightly	(zeurig	- kwiek)

Appendix II

pleasant (aangenaam)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	unpleasant (onaangenaam)
pinched (geknepen)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	full (vol)
vigorous (krachtig)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	weak (zwak)
contemporary (hedendaags)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	old-fashioned (ouderwets)
poor (arm)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	rich (rijk)
sound (gaaf)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	mutilated (geschonden)
carelessly artic. (slordig geart.)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	hyper-correct (hypercorrect)
northern (noordelijk)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	southern (zuidelijk)
distinguished (gedistingeerd)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	common (volks)
expressive (expressief)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	expressionless (uitdrukkingloos)
quick (snel)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	slow (langzaam)
la-di-da (bekakt)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	vulgar (ordinair)
biting (bijtend)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	caressing (strelend)
pompous (gewichtig)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	playful (speels)
monophthongized (gemonoftongeed)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	not-monophthongized (niet gemonoftongeed)
controlled (beheerst)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	temperamental (onbeheerst)
cultivated (gecultiveerd)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	slipshod (onverzorgd)
sprightly (kwek)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	whining (zeurig)
deviating (afwijkend)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	normal (normaal)
humble (onderdanig)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	supercilious (uit de hoogte)
eastern (oostelijk)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	western (westelijk)
thick (dik)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	thin (dun)
feminine (vrouwelijk)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	masculine (mannelijk)

rustic (boers)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	urban (stads)
nasty (lelijk)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	beautiful (mooi)
stereotyped (stereotiep)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	varied (gevarieerd)
pedestrian (banaal)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	solemn (plechtig)
velar-r (brouw-r)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	rolling-r (rollende r)
diphthongized (gediftongeerde)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	not-diphthongized (niet gediftongeerde)
dull (dof)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	clear (helder)
melodious (melodieus)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	monotonous (eentonig)
artless (ongekunsteld)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	affected (geaffecteerd)
smooth flowing (vloeiend)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	staccato (staccato)
hard (hard)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	mawkish (week)
high (hoog)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	low (laag)
colourless (flets)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	sonorous (klankrijk)
broad (plat)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	cultured (beschaafd)
veiled (omfloerst)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	shrill (schel)
spelling pronunc. (spellinguitspr.)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	natural pronunciation (natuurlijke uitspr.)
warm (warm)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	cold (koud)
nasal (nasaal)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	non-nasal (niet nasaal)
drawn out (gerekt)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	clipped (verkort)
clear (helder)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	husky (hees)
spiritless (doods)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	vivacious (levendig)
grating (krakerig)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	smooth (glad)
steady (vast)	: _____ : _____ : _____ : _____ : _____ : _____ : _____ :	unsteady (onvast)

Appendix III

speaker / listener

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Will you fill in the statistical data, printed below, as fully as possible please.

Name:

male / female

Street:

Town:

Profession or line of study:

Age:

Place of birth:

Place where education was received:

Birth-place of father:

Profession of father (or guardian):

Birth-place of mother:

Appendix IV

The purpose of this investigation is to try and find out how different people judge voices using descriptive scales of the following type:

wide : ___ : ___ : ___ : ___ : ___ : ___ : narrow

We request you to indicate your opinion in the following way.

If you think that a term on either side of the scale is extremely appropriate to the voice you are judging you put a mark as follows:

wide : X : ___ : ___ : ___ : ___ : ___ : narrow

or

wide : ___ : ___ : ___ : ___ : ___ : X : narrow

If you think the term rather appropriate (but not extremely appropriate) to the voice you put a mark as follows:

long : ___ : X : ___ : ___ : ___ : ___ : short

or

long : ___ : ___ : ___ : ___ : X : ___ : short

If you think the term little appropriate to the voice you put the mark as follows:

large : ___ : ___ : X : ___ : ___ : ___ : small

or

large : ___ : ___ : ___ : ___ : X : ___ : small

Placing the mark on either the left or the right side of the scale depends of course on which end is most characteristic for the voice you are judging.

If you think that neither one end of the scale nor the other is applicable (or if either term is equally applicable) you put a mark in the middle space:

empty : ___ : ___ : ___ : X : ___ : ___ : full

Please note:

- 1) Put the marks in the middle of the appropriate space, not on the boundaries.

right
: _____ : **X** : _____ : _____ : _____ : _____ : _____ :
wrong
: _____ : _____ : **X** : _____ : _____ : _____ : _____ :

- 2) Fill in every scale for each voice.
- 3) Put one mark per scale only.
- 4) Make your judgments in view of the meaning of the terms in front of you.

You may think that you have seen a scale on a page before. This is not the case, so do not try and consult scales previously marked.

Do not try and remember what you filled in on a 'similar' scale.

MAKE EACH ITEM A SEPARATE AND INDEPENDENT JUDGMENT.

Work your way through the scales at a reasonable speed and do not ponder on one single scale. Your first impression is what we are interested in, but on the other hand do not go to work in a casual way. We want your true impressions.

Each form (printed on both sides of the sheet) contains the scales for the judgment of one voice.

Some terms need some further explanation.

Monophthongizing refers to diphthongs.

Monophthongizing is the process which makes diphthongs into monophthongs.

Diphthongizing refers to monophthongs.

Diphthongizing is the process which makes monophthongs into diphthongs.

Nasal - the sound produced is if someone has a head-cold.

The first form is meant for your judgment of your own voice. The following forms are meant for your judgment of a number of voices the recordings of which you are about to hear.

You can start judging your own voice now.

Appendix V

Scales used for the judgment of pronunciation

pleasant	- unpleasant	(aangenaam	- onaangenaam)
pinched	- full	(geknepen	- vol)
vigorous	- weak	(krachtig	- zwak)
contemporary	- old-fashioned	(hedendaags	- ouderwets)
carelessly articulated	- hyper-correct	(slordig gear- ticuleerd	- hypercorrect)
northern	- southern	(noordelijk	- zuidelijk)
distinguished	- common	(gedistingeerd	- volks)
expressive	- expression- less	(expressief	- uitdrukkingloos)
quick	- slow	(snel	- langzaam)
la-di-da	- vulgar	(bekakt	- ordinair)
pompous	- playful	(gewichtig	- speels)
controlled	- uncontrolled	(beheerst	- onbeheerst)
cultivated	- slipshod	(gecultiveerd	- onverzorgd)
sprightly	- whining	(kwiek	- zeurig)
deviating	- normal	(afwijkend	- normaal)
humble	- supercilious	(onderdanig	- uit de hoogte)
eastern	- western	(oostelijk	- westelijk)
rustic	- urban	(boers	- stads)
nasty	- beautiful	(lelijk	- mooi)
stereotyped	- varied	(stereotiep	- gevarieerd)
velar-r	- rolling-r	(brouw-r	- rollende r)
melodious	- monotonous	(melodieus	- eentonig)
artless	- affected	(ongekunsteld	- geaffecteerd)
smooth flowing	- staccato	(vloeiend	- staccato)
broad	- cultured	(plat	- beschaafd)
spelling pronun- ciation	- natural pro- nunciation	(spellinguit- spraak	- natuurlijke uit- spraak)
nasal	- non-nasal	(nasaal	- niet nasaal)
drawn out	- clipped	(gerekt	- verkort)
spiritless	- vivacious	(doods	- levendig)

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