

To sum up: (1) In the elementary school the voice and the sounds it can make is a good subject for study, for it is full of human interest. (2) If there is a prospect for the pupil of studying a modern language, the sounds of which he must master, it will be well for him to have first surveyed scientifically the sounds of his own language. (3) Where the home speech differs from that accepted in school, or where bilingual conditions prevail, the elementary school survey should take note of all speech-sounds coming within the pupils' experience. (4) A pupil's command of emotional expression matures soonest in his own home dialect. This mastery of expression can be successfully extended to standard speech.

68. Mr J. J. BOOLEN (Amsterdam): *Experiments on speech-training with the aid of phonetic transcription.*

In a paper on the social value of instruction in language, which we read for the students of the Pedagogical Seminary of Prof. Ph. KOHNSTAMM at Amsterdam, we laid great stress on the necessity of a clear pronunciation. And at the same time we offered our opinion that this part of language teaching does not always receive the attention it deserves. We expressed our opinion that the use of phonetic transcription in that part of our instruction would no doubt prove to be of great importance. In the discussion Prof. KOHNSTAMM suggested that this point might be examined experimentally.

So we called in the assistance of the lecturer in Phonetics at the University of Amsterdam, Dr L. KAISER.

As a preparation, we paid a visit to several schools in different parts of Amsterdam, to ascertain where the deviations from the standard speech were to be found, and of what kind they were. It appeared that in general the condition was better than we had supposed, and that the state of affairs was far better than some twenty years ago.

Now it became a matter of consideration from what parts of the town to choose the persons to be subjected to this test. Should we take subjects showing great and many deviations, or those with few and slight deviations; in other words, were the improvements to be quantitative or qualitative? If it appeared possible to improve the speech of a pupil with great and many defects in a short time, according to the suggested method, we might be sure that the experiment was a success. But, on the other hand, it seemed to us of great importance to demonstrate that slight defects could be corrected.

So we resolved to subject to our tests average scholars, including both boys and girls.

We considered the following scheme. The subjects must be afforded an opportunity to read a fragment of a tale and to speak some free sentences. These should be recorded by gramophone. After that, the pupils should be trained according to the method decided upon and then they should read the same passage again, their speech being once more recorded on the gramophone.

But here we met with unexpected difficulties. When we prepared

the chosen passage with the pupils and ordered them to read it over at home, it appeared at the final repetition that the girls had become unfit for the test by a kind of mental reading-attitude, in which the natural speech was hampered. This effect we did not notice with the boys.

Prof. HEYMANS concluded in his *Introduction to Special Psychology* that women are more emotional than men. Their tendency to emotion is so strong that in reality they are never quite free from it. In the inner life, the typical woman finds her natural sphere; she takes all things in an emotional way; is not indifferent to anything. From his "official inquiry" we learned that girls are more anxious than boys to avoid appearing ridiculous. Now we found that girls thought it a matter of honour to adapt their speech, as soon as possible, to the expected standard, and this so markedly that all their interest was strongly roused. So we were obliged to proceed in another way with regard to girls. The two girls that we chose at last were simply given the instruction to come at a definite date to the laboratory.

We chose as subjects: two pupils of the training college for teachers (one boy and one girl); two boys of a secondary school; two pupils of an elementary school (one boy and one girl); Dr L. KAISER made the gramophone records.

Method

Now the time had arrived to explain to the pupils the exact meaning of the test. We explained to them that a decent pronunciation was a social requirement. The elder ones understood this matter well enough. The younger ones were told that, if they intended to go to a secondary school later on (their teacher told us it was their intention to do so), their pronunciation had to be altered. We did so to increase their energy for the work. Now there was an object they had in view. And it turned out that we had done well. With great diligence they carried into execution all our instructions, which were often very tedious and trying.

We taught the pupils the phonetic symbols. The teaching of these symbols offered no difficulties; half an hour was sufficient. Classical tuition, of course, would take more time. And because we were eager to know the time necessary for it, we resolved to make an experiment with a first class of a secondary school. We read a story of a group of boys who had a secret writing at their disposal, and incidentally we made the remark that it would be fun if their class-group possessed such a thing. They chimed in with the idea and then we promised to teach them such a system.

The next lesson, lasting fifty minutes, was utilized and the time was found sufficient. By treating the matter as a game, we got the whole class to practise phonetic transcription at home, so that after a very short time they were able to transform a prose-fragment into a phonetic text.

After teaching our pupils undergoing the test the phonetic symbols, we demonstrated to them the different sounds in the right pronunciation, and let them practise pronouncing them in the right way. After that we demonstrated the joining of vowels and consonants. All the

passages treated were immediately noted down in phonetic transcription, so that the pupils were able to prepare them at home. In all the exercises the girls were smarter than the boys at hitting upon the exact pronunciation.

We continued with a piece of prose. This was transformed, sentence after sentence, into the phonetic transcription. We paid attention especially to the inner and outer *sandhi*. In the beginning, assimilation caused the dialect speakers of Amsterdam a good deal of trouble, but after they had grasped this phenomenon, the difficulty was soon overcome. The notes, too, were now of great importance for the training at home.

Now we continued the exercise with the treatment of the passages on the gramophone records. These passages, too, were transformed into phonetic transcription at home. Sentence after sentence was slowly read as accurately as possible, and where mistakes occurred, either in sound or in assimilation, they were corrected.

The first series of gramophone records were made on 21 March, 1935, and the second series in May.

Five of the subjects were treated by this method for six hours (one hour at a time), and the sixth for eight hours.

With the aid of Dr KAISER we made the analyses, with special attention to vowels, diphthongs and mediae.

These were the results:

	Training College				Elementary School				Secondary School	
	Boy Subject 1 No. of mistakes		Girl Subject 2 No. of mistakes		Girl Subject 3 No. of mistakes		Boy Subject 4 No. of mistakes		Boy Subject 5 No. of mistakes	
	1st rec.	2nd rec.	1st rec.	2nd rec.	1st rec.	2nd rec.	1st rec.	2nd rec.	1st rec.	2nd rec.
Short a	20	6	10	1	38	4	46	—	24	5
e	7	4	8	2	28	—	29	1	20	2
i	—	—	—	—	—	—	—	—	1	—
o	4	1	3	—	6	—	5	—	8	2
u	—	—	1	—	2	2	1	—	—	1
Long a	22	6	4	—	16	—	47	—	29	12
e	11	—	7	—	13	—	31	—	20	1
i	—	—	—	—	—	—	1	—	—	—
o	30	1	4	—	10	—	34	—	33	7
u	—	—	—	—	—	—	—	—	2	—
eu	1	—	2	—	1	—	—	—	3	1
ui	1	1	4	—	1	—	5	—	12	2
ei	8	—	10	—	4	—	17	1	2	—
ai	—	—	—	—	1	—	3	—	5	—
g	—	—	3	—	20	6	22	4	14	1
z	—	—	9	1	24	2	29	8	11	—
v	—	—	6	1	21	2	19	5	—	—

With regard to the 5th subject, we should mention that the boy is a real instance of left-handedness.

STEINER observes in *Über die Beziehung der Epilepsie zur Linkshändigkeit* that there are connexions between left-handedness and definite tendencies running in the family.

On the ground of this disposition it is possible that, through accidental factors, distinct disturbances of speech arise. Several times we found mentioned that motoric impediments arise in the case of left-handed people and several times we were able to observe in our pupils that left-handed ones were bad writers. Now we said: "If it is true that in the case of left-handedness motoric impediments arise, then they must show themselves also in speech." And hence it is that we fixed our attention on this point with the 5th subject. And indeed, although we treated him according to the method for eight hours instead of six, the improvement was less than in the case of the other five.

Conclusions

1. As regards civilized speech, girls adapt themselves more quickly than boys.
2. In the reading lesson we noticed a kind of affectation to this extent, that the pronunciation of the children was much better than in their common speech.
3. By speech-training we make the children bi-lingual: outside the school they talk pure dialect.
4. Girls, in their mental attitude, accommodate themselves to the person to whom they read or speak, whereas boys concentrate on the subject-matter in hand.
5. It is of great importance that, even in the elementary school, speech-training should be practised; the sooner one commences this instruction, the more favourable the result will be.
6. An excellent expedient in speech-training is phonetic transcription.
7. The teaching of this transcription requires but little time, especially when treated as a kind of recreation, a sort of game.
8. It should be seen to that children who are getting lessons in speech-training are not chaffed at home, because of their "beautiful articulation".
9. The end of speech-training ought to be to provide children with another speech-equipment; it is almost impossible to raise the social standing of anybody without at the same time raising the level of his speech.
10. It is highly desirable that an investigation should be instituted into the correlation between speech-impediment and left-handedness. Education would be aided, both in school and after, if we knew more of the motor factor in the development of a person's individuality.