SOME VISUAL ASPECTS OF PRONUNCIATION.

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MUCH OF THE DEFICIENCY IN PRONUNCIATION INSTRUCTION IS DUE TO EXCLUSIVE RELIANCE ON THE EAR AS A GUIDE FOR THE CORRECT RECOGNITION AND PRODUCTION OF FOREIGN SOUNDS. THE CORRECT ARTICULATION OF GERMAN DEPENDS VERY MUCH ON ANTICIPATORY ACTION OF THE LIPS AND JAWS (VOWEL ANTICIPATION), AND MUST BE IMPARTED BY VISUAL DEMONSTRATION AND ImitATION OF FACIAL EXPRESSIONS. THE TEACHER MAY ACCOMPLISH THIS BY EXECUTING AN IDEAL "GESTALT" FOR EACH SOUND--ARTICULATION WITH A MAXIMUM POSITION OF THE OBSERVABLE SPEECH ORGANS (WITH SOME EXAGGERATION), AND STUDENTS' IMITATION WILL ENABLE HIM TO DETECT ERRORS IN CHORAL DRILL VISUALLY. THE TECHNIQUE OF VOWEL ANTICIPATION IS DISCUSSED WITH REFERENCE TO "I/UE" AND "E/OE" MINIMAL PAIR EXERCISES, AND TO THE PRONUNCIATION OF THE GERMAN "R." THIS ARTICLE APPEARED IN "THE GERMAN QUARTERLY," VOLUME 40, NUMBER 3, MAY 1967, PAGES 398-403. (RW)
SOME VISUAL ASPECTS OF PRONUNCIATION

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Numerous visitations in FL-classrooms lead me to the conclusion that pronunciation deficiencies stem, in part, from the almost exclusive reliance of students and teachers (native and non-native) on the ear as the sole criterion for judging the finished product of speech. By this same token mispronunciations are perpetuated in language laboratories in spite of reliable model voices, and much to the dismay of the teacher, who then tends to nourish doubts on the effectiveness of the laboratory in matters of pronunciation. Naturally, there are many ways and devices for arriving at an acceptable near-native pronunciation. The purpose of this paper is to focus the classroom practitioner's attention on the neglected area of visual aspects of pronunciation.

The function of the ear is to perceive the finished sound product. But only the competent and trained ear is able to judge (indirectly) the actions and motions of the speech organs that were involved in producing it. The not yet competent beginner in foreign languages is hardly in the position to draw valid causal lines from the product back to the production on an acoustic basis alone. We might add that he shouldn't have to either. For we know from the phenomenon of deafness that, though the acoustic side of speaking may be entirely absent, understanding can still be assured as long as the visual side of sound production remains accessible. The simple but important lesson to be learned from this is: learning good pronunciation and detecting pronunciation errors is done much more effectively if the basic acoustic criterion is supplemented by the visual criterion.

Not all speech organs are readily observable. Tongue action, for example of both individual and group speakers can only be observed to a limited degree. Only lips and jaws are always visible. This makes these two particularly helpful companions to the ear in the process of imitating speech, provided the visible model, the teacher, activates his lips and jaws to the greatest possible extent. For it is only under this condition that the class can clearly see the role they play in the production of particular sounds. The effectiveness of this sound demonstration and imitation depends largely on frequent repetition of the ideal Gestalt of the respective sounds or sound
VISUAL ASPECTS OF PRONUNCIATION

clusters. This ideal *Gestalt* is a maximum position of the observable speech organs. It requires some—and sometimes a lot of—exaggeration, but this exaggeration is a must if the student is to be convinced of the usefulness of lip (mouth) reading. In other words, during the phonological introduction the individual sounds, be they isolated or in the word unit, should be demonstrated and imitated by showing maximum positions of lips and jaws. These maximum positions are to be practiced both with and without the actual sounds. *Silent* speaking, or silent articulation for that matter, serves to demonstrate the powerful aspect of visual sound production. Incidentally, there is no need to be afraid that such calisthenics in maximum positions will lead to an artificial maximalism in the student's foreign language speech behavior. Consciously exaggerated practice in relatively slow motion readily yields to standard average at normal speaking speed. Besides, nobody is so heroic a speaker as to maintain this suggested training maximalism for his usual needs. What remains is a healthy subconscious awareness of the value of continued observation and proper utilization of lips and jaws.

A matter very closely related to the ideas of maximum positions and silent sound production may be called *vowel anticipation*. By this is meant a brief preparatory and mute positioning of the speech organs, and of lips and jaws in particular, in anticipation of the stressed vowel of a word. With the native speaker of a language, vowel anticipation and actual pronunciation nearly coincide. At rapid speaking speed the difference approaches zero. However, if we speak slowly and distinctly, e.g., the words *eins*, *zwei*, *drei*, we notice that our lips spread wide open (engaging also the cheeks in this spread) to the /ei/ position before the words are actually spoken. We should stress that this vowel anticipation not only occurred with *eins* in which /ei/ is the initial sound, but also with *zwei* and *drei* in which the /ei/ sound is preceded by consonants. This anticipatory action of the lips might even be carried throughout a word consisting of two syllables. W. F. Twaddell (op. cit.) mentions the word *Glieder* which may be pronounced entirely with spread lips, and the word *glühend* as an example for lip rounding.

What are some of the learning and teaching implications of this procedure? First, in conjunction with our thoughts on maximum positions, the student can be made aware of the fact that better pronunciation depends to a great extent on well executed anticipatory
action of lips and jaws. If this awareness can be instilled from the start and combined with the daily good example of the teacher's sound production, it can prevent numerous mispronunciations and unacceptable carry-overs from vernacular speech habits. Second, the teacher's constant awareness of the ideal visible Gestalt of critical sounds, and the concept of vowel anticipation, enable him to detect a large number of pronunciation errors not only by ear but visually as well. This is immensely helpful for fast and accurate spotting of mishaps in choral speaking that occupies a very prominent place in contemporary first-year work. Both student and teacher will be spared a lot of discouragement if the issue of visual sound production is touched upon in the orientation hour preceding the first lesson, and if it becomes an integral part of pronunciation work in the first habit-forming weeks.

Before presenting concrete cases of consciously practiced visual sound production it is appropriate to briefly summarize some of the more general problems encountered with beginning pronunciation work. Some first-year texts feature pronunciation drills (phonological exercises based on the principle of minimal pair contrast). They are, ideally, intended to precede the first text unit. A precise description of how the individual sound is formed is usually given. Tapes are available. But still, in too many of our average situations these highly effective exercises do not yield the expected results. According to my observations there are several reasons for this:

1. If phonological exercises are to have lasting results in establishing new speech habits considerably more time than is usually allowed needs to be invested in them.
2. Unsupervised phonological laboratory practice following classroom work leads too many students back to vernacular sound production. A more general success can only be expected from the supervised laboratory follow up.
3. Reliance on the ear, even if supported by well understood descriptions of new sounds, does not suffice to break the average student's native speech habit. Observation and imitation of maximum facial expression must be included to lift these drills above the level of more or less haphazard imitation of sounds by ear alone.
4. Last but not least, the principle of native speaking speed uncritically transferred to the very first introduction of new
sounds can be responsible for many failures. Without achieving an acceptable degree of perfection at relatively slow motion (at least with a few models) it is highly utopian to attempt these exercises at normal speed. (The classic pronunciation programs in German acting schools place great stress on slow but accurate execution of their exercises, and this in spite of the fact that the future speakers of the distinguished Bühnen- sprache do not take German as a foreign language!). To avoid misunderstanding: slow speaking can never be the goal, but it is a legitimate aid among others.

Let us now consider how minimal pair exercises can profit from conscious vowel anticipation in maximum positions. For the following examples of /i/ - /ü/ and /e/ - /ö/ drills, the mouth forms the respective maximum positions of these vowels before each word of the exercise is actually pronounced. For the /i/ and /e/ words the lips and cheeks spread as far as the preceding (and co-anticipated) consonants will permit, viz., maximum spread with preceding z, k, t, l, h goes all the way; with v, w, b, m as preceding consonants the maximum spreads show to a lesser degree. Correspondingly, maximum protrusion of the lips is formed for the /ü/ and /ö/ words. The sign / is simply a reminder for vowel anticipation:

Z/iege—Z/üge, Z/iegel—Z/ügel, K/iel—k/ühl,
K/ieler—K/üfer, T/iert/T/ürr, v/iert—f/ür, B/inde—B/ünde,
L/iste—L/üste, m/issen—m/üsssen, H/irten—H/ürden,
W/üste—w/ürde,
M/öre—M/öhre, L/ehne—L/öhne, l/esen—l/ösen,
S/ehne—S/öhne, B/esen—B/ösen, K/ühler—K/ühler,

If the exercise is conducted in such a fashion as to allow a long enough pause before each word for the demonstration and imitation of proper vowel anticipation, the lasting results are bound to be better. Vowel anticipation provides a most useful moment of concentration before each word. This concentration automatically invites a more energetic articulation which is essential for genuine German pronunciation.

Together with the observation of lip work vowel anticipation can also play a significant role in solving the interference problem of the critical consonant /r/. The beginner in German, in his typical carry-over of his native /r/ production, almost inevitably moves his
lips when producing initial /r/ because in American English this full and round sounding /r/ is usually supported by certain movements of the lips. A visual demonstration of the /r/-lip behavior in both languages will enable the student not only to hear but to see the difference. I take the word Richard, pronounce it slowly with vowel anticipation and maximum position the way a German speaker says it. Then I pronounce it the way an untrained American speaker of German says it, and finally in standard American pronunciation. The students are to watch the lip actions from vowel anticipation to the end of the word. They immediately notice the fundamental differences in vowel anticipation and lip behavior in the respective productions. After using some additional examples such as, recht, richtig, reich, raten, Ruh, we are justified in formulating a rule of thumb: avoid all lip movement while producing initial German /r/ because the German speaker does not show any noticeable lip movement even when he moves from initial /r/ on to the following vowel, whereas in English we tend to move our lips quite a bit. (Let us not mistake the movement of the lower jaw in rrr-echt, rrr-ichtig, rrr-eich, etc., with a genuine movement of the lips. The lips are perfectly passive as we glide from the rrr into the rest of the word.) A lip reading exercise (silent speaking) following this demonstration and reasoning will strengthen the impressions gained. The words we just used are now pronounced by the teacher in an irregular sequence of right and wrong pronunciation. It is surprising how well the class can tell from this purely visual demonstration what was genuine German and what was carry-over from American /r/-habits. After this experience the students can try it on their neighbors. Self-correction with the help of a mirror usually is no problem from then on. If this cure still does not work with all students, then we must use force, gentle force that is, by putting the index and middle fingers halfway across upper and lower lips, thus exerting the necessary amount of pressure that makes even the slightest movement of the lips an impossibility. A well approximated German /r/ then emerges in almost all cases. An additional and similarly drastic visual device for solving the /r/ problem from the tongue angle is used rather successfully by Professor W. G. Moulton and his school. He recommends the nonsense syllable arara for this reason: "Americans have an almost incontrollable impulse to flip the tongue upwards, as for their American /r/; and putting an a before and after the /r/ keeps the
jaw lowered so that the teacher can see whether the student is flipping his tongue tip up, and the student can see that the teacher does not do this” (from a recent letter).

In this paper we have focused our attention only on some of the visual aspects of pronunciation. There are many others awaiting experimentation and research.

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1 In his article “On the teaching of ü and ö (Monatshefte, 36, 1944, 103-104), W. F. Twaddell reports that students mimicking words involving ü and ö while having their eyes closed will produce i and e sounds instead. Genuine ü and ö sounds emerge only when the students are “imitating facial expression as well as the sound.”

2 It is of course self-evident that visual detection of pronunciation errors in choral speaking has its limitations when one gets down to the finest distinctions that are necessary for achieving genuine native speech, but this can be said of oral detection as well.

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**IMPORTANT ANNOUNCEMENT**

The present editor of the *GQ* retires with this issue. It is kindly requested that all manuscripts and other communications be addressed to the next editor:

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