

Vol. I

JANUARY, 1922.

No. 1.

# ORALISM AND AURALISM

A QUARTERLY JOURNAL  
DEVOTED EXCLUSIVELY TO SPEECH PROBLEMS

EDITOR

MAX A. GOLDSTEIN, M. D.  
St. Louis

COLLABORATORS:

C. S. BLUEMEL, M.A., M.D.,  
Denver.

FRANK W. BOOTH,  
Omaha.

A. L. E. CROUTER, LL.D.,  
Mt. Airy, Pa.

ELBERT E. GRUVER,  
Council Bluffs, Ia.

HAROLD M. HAYS, M.D.,  
New York.

ENFIELD JOINER,  
Trenton, N. J.

ELMER L. KENYON, M.D.,  
Chicago.

HARRIS TAYLOR, LL.D.,  
New York.

JOHN DUTTON WRIGHT,  
New York.

CAROLINE YALE, LL.D.,  
Northampton, Mass.

DEPARTMENT EDITORS:

ORAL.

JULIA M. CONNERY.

ACOUSTIC TRAINING.

LILLA B. MCKENZIE.

MUSIC AND RHYTHM.

EDNA E. DAVIS.

LIP-READING.

LULA M. BRUCE.

CORRECTIVE SPEECH.

MILDRED A. MCGINNIS.

Subscription, \$2.00 per Annum.

Single Copies, 50 cents.

PUBLISHED BY

THE LARYNGOSCOPE CO., ST. LOUIS.

Entered at the Postoffice at St. Louis, Mo., as Second-Class Matter, February, 1922

**The Fifth Annual Convention**  
of the  
**Society of Progressive Oral Advocates**

will be held at

**St. Louis, Mo., June 15, 16, 17, 1922.**

For further particulars, address  
**Edna E. Davis, Secretary-Treasurer,**  
**818 South Kingshighway, St. Louis, Mo.**

# ORALISM AND AURALISM

VOL. IV

ST. LOUIS, JANUARY, 1925

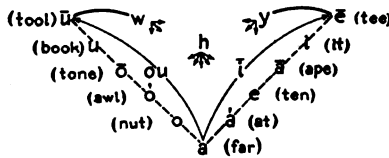
No. 1

## THE NATURE OF LANGUAGE.\*

R. L. JONES.

Speech is composed of letter sounds usually divided into vowels and consonants, and those ordinarily used in the English language are tabulated in Fig. 1. So far as possible the sounds are expressed by the letters most commonly used to designate them. In the case of some of the vowels arbitrary markings are employed to distin-

1—Vowels



2—Combinational and Transitional Vowels, w, y, ou, i, h

3—Semi Vowels, l, r

4—Stop Consonants

Voiced	Unvoiced	Nasalized	Formation of Stop
b	p	m	Lip against lip
d	t	n	Tongue against teeth
j	ch	..	Tongue against hard palate
g	k	ng	Tongue against soft palate

5—Fricative Consonants

Voiced	Unvoiced	Formation of Air Outlet
v	f	Lip to teeth
z	s	Teeth to teeth
th (then)	th (thin)	Tongue to teeth
zh (azure)	sh	Tongue to hard palate

Figure 1. Classification of the Speech Sounds.

guish sounds which are different but which are represented by the same letter. The examples given in parentheses will help to interpret the sounds, and it is believed that for most readers the classification will be apprehended more readily with the symbols used than with a system employing entirely different symbols for each sound, some of which would necessarily be new and strange. Readers familiar

\*Presented first to the American Institute of Electrical Engineers. Abstracted by Irene Young. Reprinted by permission of the A.I.E.E.

**THE NECESSITY OF SPEECH AND VOICE  
RE-EDUCATION, WITH SPECIAL  
REFERENCE TO NASALITY.**

MABEL FARRINGTON GIFFORD, San Francisco.

Speech and voice re-education are as yet in their infancy in the United States. Speech re-education—and by speech we mean the shaping of voice into the consonant and vowel sounds which constitute language—is now being recognized as a necessary adjunct to oral and nasal surgery, especially in Austria. Voice re-education, defining voice as the fabric of which speech is built, that is, sound made by breathing out with the vocal cords so set that they vibrate, is as yet sadly neglected; yet there are various forms of nasality which require the re-education of voice production for their cure.

The subject of nasality has been thoroughly studied by the Germans. The ideas of Dr. Wm. Stern and Dr. Emil Fröschels along this line form the basis of my discussion.

Nasality is a voice defect caused by an abnormal condition or action of the palate, or by an obstruction. In order to make the matter clear let us briefly describe the normal action of the palate in voice formation. In the formation of all sounds of the English language, with the exception only of the nasal sounds *m*, *n* and *ng*, the nasal cavity is separated from the buccal cavity by the elevation of the palate and by the formation of what is known as Passavant's cushion, this latter arising through the contraction of the upper part of the superior pharyngeal muscle and its approximation to the soft palate. Normally this closure is not absolutely air-tight, for the euphony of speech is dependent upon the slight vibration of a current of air in the nose. Every deviation from this palate action, which brings in its train a lack of nasal resonance, causes an abnormal voice condition commonly known as nasality, and which may be divided into three main groups: 1, open nasality; 2, closed nasality; 3, mixed nasality.

*Open Nasality:* That condition which exists whenever a quantity of air streams into the nose on account of the presence of an abnormal opening (with the exception, of course, of the formation of the nasal sounds *m*, *n* and *ng*) is designated as open nasality. Thus it is caused by a pathological communication between the mouth and the nasal cavity. This pathological communication may exist in the region of the hard as well as of the soft palate. An acoustic exam-

ple of open nasality is the pronunciation of the word "man" as it is done in French.

*a. Organic.* Open nasality is organic when based upon varyingly severe forms of cleft palate, congenital defects of the palate, perforations of the palate due to lues or tumors, adenoids which hinder the mobility of the palate, or after diphtheria. It may exist through congenital weakness of the articulation muscles, as often found in idiots or imbeciles. Open nasality may be proved if, by alternately holding a patient's nose open or closed while he says "a", there is an appreciable change in tone. There is no change in tone with closed nasality.

*b. Congenital.* 1 Congenital: no actual paralysis of the velum, but the velum is not used in speech coordination.

2 Acquired: imitation by normal children of the talk of children with cleft palate.

3 Post-operative: cases of injury to the soft parts following adenoid operations. Also cases where patients have forgotten the use of the velum due to pre-operative presence of adenoids with the resulting obstruction. This latter condition may be corrected with exercises.

4 Post-diphtheritic, pseudo-bulbar, paralysis, brain tumors. These cases are those in which paralysis of the palate arises following the diseases mentioned, and where the patient, even after restoration of the velum movement does not use it on account of his nasality habit. Open organic nasality thus becomes open functional nasality.

5 Nasality as found in the hard of hearing also belongs to this group.

*Closed Nasality:* Closed nasality is a condition brought about by growths in the nasal cavity or in the nasopharynx so that nasal sounds cannot vibrate in the nose. When nasal resonance is lacking (whether in voiced mouth sounds and vowels or in nasal sounds) the resulting speech is "stopped-up" and hollow, or "dead", the stopped-up condition being an indication of what is known as anterior nasality; the dead voice, that of posterior nasality. Thus closed nasality may be divided into:

a, Anterior; b, Posterior; c, Palate.

In closed anterior nasality the site of the obstruction is in the nasal cavity, and the obstruction must be removed by operation. The voice has a hollow sound, and the cause thereof lies in the form of polyps, growths, adenoids, marked deflections of the septum or perhaps only in the presence of a fresh cold.

Examination discloses as a cause for closed posterior nasality the presence of adenoids or polyps or possibly adhesions of the soft palate to the posterior pharyngeal wall. Thus the obstruction in the case of posterior closed nasality lies in the nasopharyngeal space. Operation is indicated for this condition.

Cases of "dead" voice have been found to exist without the presence of obstruction in the nasopharynx. This condition which is called closed palate nasality must then be attributed to a cramp-like action of the soft palate by means of which this latter rises during speech and causes a complete air-tight closure between the nasal and the buccal cavity. We know that resonance and euphony derive their essence from the lack of air-tightness between the two cavities. Impervious closure causes the nasal sounds, m, n and ng also to be formed in the mouth, and as a result m becomes b, n becomes d, ng becomes g. Consequently in cases of "dead" voice the mouth sounds lose their musical quality.

How can we differentiate between these different forms of closed nasality? We must determine whether the defect lies in the nose proper, in the nasopharynx or in the palate. This is no easy matter for the differentiation according to sound is difficult, and the correct group classification should not be considered final until both the nose and the nasopharyngeal space have been examined, and the correct and normal motion of the palate has been ascertained. In cases where there are obstructions both in the anterior and posterior sections, or one or the other condition exists accompanied by the adhesions of the palate to the pharyngeal wall, or possibly where all three conditions exist, it is not possible to make a positive diagnosis. The wisest procedure in such cases is first the surgical removal of the largest obstruction. If after a proper length of time the voice condition is still nasal, the next largest defect must be attacked, and so on until the actual cause or causes are found.

Dr. Fröschels has a method of differentiation between posterior closed nasality due to growths, and palate nasality. He introduces an ear catheter or some similarly shaped sound through the lower nasal passages up to the palate. While the patient is saying the word "name", for instance, he presses down upon the soft palate with the sound. In the cases of posterior closed nasality there is no difference in tone, as the air originally had no trouble in passing the palate, and was not hindered until later in its further passage. This method is valuable as an indication for operation. Operation is only justifiable in cases of growths, etc. Palate nasality requires drill and exercise of the palate.

*Mixed Nasality:* When along with a pathological communication between mouth and nose (open nasality) there exist equally marked defects in nose and nasopharynx (closed nasality), we have mixed nasality.

*a. Anterior.* Here we have a stopped-up nose, or an open closure of the velum, as often found in congenital cleft palates. Operation if done must be done with very great care, else the voice is made worse.

*b. Posterior.* The presence of adenoids, open velum closure are likewise found in congenital cleft palate and congenital defects of the velum. Dr. Gutzmann suggests the removal of adenoids.

Between all these forms there are a number of borderline and mixed forms.

Thus, to recapitulate, the following cases require voice re-education:

*Open Nasality: a. organic.* Much can be done with speech and voice re-education in cases of cleft palate, congenital defects of the palate, and in certain types of perforations of the palate if the proper dental appliance, consisting of a combination of hard and soft palate, fitted in like a plate, and suited, of course, to the needs of the individual, is used. I have found from my experience that speech re-education is productive of better results in such cases than in cases which have been operated upon. In the case of the dental method of treatment the muscles are more flexible and adjust themselves more freely to the new apparatus. However, in all cases of cleft palate, whether treated operatively or by the dental method suggested, speech re-education is necessary to finish off the treatment.

Congenital weakness of the articulation muscles can be strengthened by exercises, provided that the patient's mentality is sufficiently normal.

*b. Functional.* 1 Congenital—can be corrected by exercises. 2 Acquired—can be corrected by exercises. 3 Cases where patients have forgotten the use of the velum due to pre-operative presence of adenoids. These patients can be cured by exercises. 4 Paralysis as the result of disease will or will not yield to exercises, depending upon its nature. Complete paralysis, of course, is hopeless, but partial paralysis can be treated and also paralysis which is the result of hysteria, that is, when the psychic factor has been cleared up.

In cases where the soft palate is not used on account of the nasality habit, the palate can regain its activity through exercises.

5 Nasality in the hard of hearing can also be improved through exercises.

*Closed Nasality:* Posterior functional can be corrected by exercises. Palate nasality can be corrected by exercises.

*Mixed Nasality:* In anterior mixed nasality, exercises will strengthen the palate.

Closed palate nasality is of special interest to Dr. Fröschels. Five cases are quoted.

1 Young man, age 21 years. Speech poor since eighth year. Nose had been operated upon three times for the removal of growths. The second and third operations had involved much loss of blood and for this reason plans for straightening the septum were not carried out.

Present condition: Patient spoke with a "dead" voice. Nose wide and free. Pressure upon the soft palate lightened the speech. At each opening of the mouth, whether with speech or not, the soft palate raised itself to its limit, so that the patient was not able to breathe through his nose with his mouth open.

Diagnosis: closed palate nasality. Treatment consisted in directions for his imitation of my speech, and in special practice of the nasal sounds, as follows: Dr. Fröschels introduced a gauze sponge into the patient's mouth, which was held wide open. This sponge made the penetration of air into his mouth impossible, so that he was obliged to breathe through his nose while his mouth was open. In that way the patient overcame the cramp-like motion of the palate, which occurred even without speech. Patient left after four months and could speak perfectly normally when he made the effort.

2 Workman, age 51 years. Had always spoken in a nasal tone. Never operated upon. Present condition: "dead" voice. Nose extraordinarily wide, no abnormality. Pressure upon the soft palate brought about normal tone. Diagnosis: closed palate nasality. Patient was not able to devote time to a cure.

3 Girl, age 17 years. Speech always poor. At the age of 5 had had operation for removal of growths from nasopharynx. Present status: "dead" voice. Nose normal. Pressure upon the soft palate produced a clear voice. Diagnosis: closed palate nasality. Therapy as in case No. 1, with a gauze sponge. Patient was cured after three months.

4 Boy, age 6 years. Speech always poor. Hearing poor. Present status: "dead" voice. Large adenoids, catarrh of the Eustachian tubes. Pressure upon the soft palate cleared the voice. Diagnosis: closed palate nasality plus closed posterior nasality. Therapy: removal of adenoids. Speech not improved. Child later given speech re-education lessons, which had been planned from the beginning.



5 Boy, age 15 years. Speech always poor. No operations. Present status: "dead" voice. Very large adenoids, especially to the left. Pressure upon the soft palate improved the voice. Diagnosis and therapy as in case No. 4.

The two last-named cases show a combination of a blocking of the nasopharyngeal space by adenoid growths, and a hyperactivity of the palate. In such cases the growths must be removed before speech re-education can be undertaken, and a cure entails both procedures. This must be made clear to parents in advance. Speech therapy should of course not be started until the patient has thoroughly recovered from the operation. Where there are moderate growths in the nose proper, accompanied by hyperactivity of the soft palate, speech therapy should be tried before operation. In the course of this therapy it can be soon ascertained whether the growths in the nose play a part in the poor speech.

In cases of adenoids or growths in the nasopharynx, operation is necessary because the normal function of the soft palate will never be attained as long as the patient cannot hear the difference between his speech with a contracted and a movable palate. As long as the nose is blocked, the difference in tone or sound between the wrong and the right use of the soft palate will not be heard. Dr. Gutzmann says besides, that adenoids are probably the cause for the hyperactivity of the palate, since the patient does not learn the value of the delicate movements of this organ, speaking as he does with a "stopped-up" nose. Dr. Liebmann says the same.

In regard to therapy in cases of palate nasality, Dr. Fröschels recommends the above exercises of breathing through the nose with the mouth wide open in all cases where the perverse action of the palate occurs when the mouth is opened independent of speech. This condition can be readily ascertained by asking the patient to inhale through the nose with his mouth wide open. If that causes him difficulty, then there is a stoppage causing a closure between the nose and the mouth, which, if there is no other pathology in the nose or in the nasopharynx, must be caused by the soft palate. Aside from the breathing exercises, the practice of nasal sounds can be used advantageously, according to Dr. Gutzmann. Another aid which he has found very worth while, is to practice the vowels with an "h" in front of them. In this way the vowels are pronounced with less pressure; that is, the palate is not so strongly contracted. For it is a matter of fact that the throat is less tense with a voiceless initial letter such as "h" preceding the vowels than if they were pronounced without it. The length of time necessary for treatment depends upon

the individual; however, two to three months at least should be counted upon.

#### CONCLUSION.

There is no reason why similar treatment for closed palate nasality and for all the enumerated cases calling for speech and voice re-education, should not become the customary thing in the United States. As stated before, cases operated on for adenoids or for cleft palate, where sufficient palate tissue remains for proper functioning to permit of voice and speech re-education, should be finished in this way. Parents as well as the medical profession do not seem to realize the great value, in fact the importance of speech re-education following such operations. Not only is the speech itself unnecessarily ugly without training, but it has its effect upon the future morale of the child, educationally, socially, and psychologically. Many children with neglected speech following operation become the target of ridicule and mimicry of their classmates with the result that their confidence and poise are destroyed and they retire into themselves, withdrawing more and more from society. A speech re-education follow-up would have rounded off an otherwise successful operation.

---

### THE UNLOVED TEACHER.

EVA B. HEIZER.

Work, work, work. The eternal drudgery of it, the tiring relentless necessity of it. This atmosphere pervades the class-room and cramps the spontaneous effort and initiative of the children.

The teacher—honest, hard-working, and conscientious—makes every moment's work a grind. The children experience no happiness in anticipation of good recitations, no joy in having their lessons. There is no praise for work well done, no appreciation of individual accomplishment. For are not the children expected to do these things? Is it not required of them?

No radiant faces, no smiles, no light hearts. No skipping to the blackboard. All must walk to the measured tread. All the lessons are learned because it is a duty. All the papers are written so the teacher may know there has been no slacking. Yet the teacher works hard and ceaselessly to accomplish this result.

Where is the Spirit of Youth? Where is Happiness? What welcome Play?

These bring the reward of Joy in Labor. Without them there is neither Love nor Joy.