Why Stutter?

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TO the question, "Do you always stutter?", an habitual stutterer replied, "N-n-no. Only w-w-when I s-s-speak". Please do not infer that the treatment of this condition is mutism. And please do not infer in mentioning treatment that I am putting the cart before the horse. Let us take things in their chronological order.

The mechanism of speech involves three main physical structures: (1) the diaphragm; (2) the vocal cords with their controlling muscles, and (3) the articulation, involving mainly the palate, tongue, teeth and lips. Sound is produced by the vibrating vocal cords which are set in motion by a current of air caused by a relaxation of the diaphragm. Alteration of that sound is accomplished by the articulation system to produce the various modifications which constitute speech. Any condition of the body which interferes with the perfect control of these groups of muscles will, therefore, interfere with the process of speech.

Stammering and stuttering are impediments to speech, consisting of spasmodic, or entirely suspended, action of any part or parts of the vocal apparatus, from the diaphragm to the lips. Stammering is a defect in the utterance of consonants whereas stuttering is a defect in the utterance of vowels. Both impediments are due to the same cause and usually found in the same people. For this reason many speech specialists consider the terms interchangeable. Why should I be different?

ETIOLOGY

Most of the investigators in the field of speech disorders have emphatically stated that one specific cause invariably brings about stuttering. That makes the problem easy, doesn't it? However, the specific nature of the alleged cause varies with each investigator.

It has been estimated that 1% of school children stammer. Some of the etiological factors leading to this type of speech impediment seem far-fetched and quite irrational. Many of the theories, however, are acceptable because of their soundness in reason and the fact that they lend themselves favorably to therapeutic measures. The conditions which tend to set up this interrupted mode of speech are:

1. *Heredity:* Some writers enthusiastically state that heredity plays an all important part. Speech is an acquired reaction which must be learned by each generation and stuttering, therefore, cannot be "inherited". However there is always the possibility that there may be an hereditary transmission of the disposition or type of nervous system which predisposes the patient to stuttering habits. Children are prone to imitate each act of their parent. Mother and father are the guiding stars of the youngster.

A mother was once overheard to say to her nine year old: "Ch-arlie, will you have s-s-some c-c-cake?" It is to be wondered at that Charlie replied: "W-w-what k-k-kind?" It is said that if you live with a person long enough you get to look like him—it's far easier to get to speak like him.

2. *Sex:* The most outstanding fact is that stuttering occurs more commonly among boys than among girls; the proportion usually given is anywhere from 4:1 to 8:1. Some explain the preponderance of male stutterers on an organic basis. The circumference of the head of a boy is larger than that of a girl and it has been claimed that stuttering may be due to cephalic pressure during birth, which is more likely to occur when an infant has a large head. Karlin and Kennedy have pointed out that myelinization occurs earlier in the female than in the male; it is possible that this may account for the more advanced linguistic development in girls and the greater tendency of boys to have defective speech. Psychologists say that this ratio exists because neurotic tendencies are more common in boys. But how can this be reconciled with the finding that neurosis in later life is more common in the female, especially when it is realized that neurosis in general has its origin in the experiences of early childhood?

3. *Age:* Examining 477 stuttering children, Boome and Richardson described three age periods in which stuttering is most likely to begin or to become intensified if it is already established. The first period is at the age of two years, when the child begins to talk; the second period is between the ages of five and six years, at the beginning of school life; the third period is about the age of seven years, the period of second dentition.

4. *Left-handedness:* The normally left-handed child who is forced to write and do finer movements with the right hand has a greater chance of becoming a stutterer than if left alone. This obliges the child to develop a fresh centre for fine movement on the left side of the brain, and so produce a delay in development in both writing and speech.

5. *Obstruction of Upper Airways:* Affections of the mouth, nose or throat such as enlarged tonsils, adenoids, chronic tonsilitis, elongated uvula, post nasal catarrh and polypus may be the exciting causes or may aggravate pre-existing habitual stuttering. Mrs. Behnke states that in 100 consecutive cases which came to her for treatment of this condition, 79 had some sort of obstruction in the upper respiratory passages. In an examination of 600 stutterers Colombat is said to have found not a single case presenting a history of an organic defect in the articulating organs themselves. The indications at present are that it has a functional and not an organic background. However, the fact that an obstruction may be present should be borne in mind and searched for before active treatment is instituted.

6. *Emotional States:* Emotional states such an anxiety, apprehension and nervous anticipation, will prevent clear speaking because of the increased muscular tension which is a part of all such conditions. The

fact that the tones of the voice in strong emotion tend to be high pitched and explosive is evidence that the vocal cords are tense, and that the diaphragm is out of complete control. The interference with the diaphragm which results from the accompanying muscle hypertension prevents fluent speech. This is followed by an attempt to force the diaphragm into movement so that it becomes locked and rigid, and speech is completely checked until the diaphragn relaxes and air once more passes over the vocal cords.

7. *Mental Shock or Fright:* Stuttering is more frequently the result of shock or fright in childhood than is usually recognized, and is the most difficult type to overcome. When caused by a shock of any kind an apprehensive habit of mind in the sufferer becomes established, and not only does this exist in relation to the stuttering itself, but apprehension of disaster of any kind is also frequently present, and any mischance that may befall the stutterer will cause bad fits of stuttering. Kate Emil-Behnke cites the case of a girl developing this trouble after fright occasioned at the age of 5½ by a tramp snatching a locket from her neck. She stammered badly to strangers, and to her own people in moments of excitement.

8. *Fear:* The fact that a stutterer can speak without difficulty when alone proves that fear plays an important part in the stuttering habit, but it is hard to believe that fear is the basic cause of the trouble. Whether fear is the cause or the effect of stammer has long been a moot point. The weight of opinion now seems to be in favor of the fact that fear is caused by the habit. This must be so because it is difficult to find a logical reason for the stutterer's fear of stuttering unless he has already begun to develop the habit and has consequently actual experiences of its disadvantages.

9. *Psychologically Speaking:* According to Isadore Coriat stammering is pre-eminently an "oral neurosis". In his own words, "the adult stammerer is psychically anchored to the nursing stage of development"; and that "he chews the words and luxuriates in their sounds and this prolonged oral possession tends to annihilate the word through compulsive repetition in the sucking and biting of syllables". He goes on to say that: "in the psychological sense, the stammerer still possesses his mother on the original oral level, he is arrested or fixed at that stage, he holds to and re-experiences and re-animates this primal pleasure". He sums up his view in these words: "Excessive mouth erotism is, therefore, the basis of stammering, a projection from the unconscious of the precipitated components of the oral stage of the libido development. The mouth has become the principal and all-powerful organ of libidinal pleasure, which is gratified, although against resistance, by the oral discharge of speech". In case you missed the first sentence, Coriat said this—not Freud. Is the prophylactic treatment here to make him *use* the proverbial "silver-spoon-in-his-mouth" with which he is born?

TREATMENT

The expansion of speech therapy has resulted in a growing realization that the stuttering habit can be corrected, and that the advice to "leave it alone and let the child grow out of it" is hardly adequate. As a matter of fact he is more likely to *grow into it.* As time goes on the impediment will increase and become more and more intractable—that is, if you are waiting for a natural cure. Passing months or years increase the difficulty in forming new habits of speech, and in displacing undesirable ones. Treatment, to be most effective and permanent, should be instituted as soon as the defect is noticed. Since no two persons stutter alike it is necessary to study carefully the idiosyncracies of each case and to conquer individual differences before applying general principles.

Parents should, upon the very first indication of an impediment of speech, display the greatest loving-kindness, and exercise the most patient and untiring perseverance in order to counteract and to correct any hesitation or stumbling.

The history of the case should be as complete as possible. It should include inquiry about any difficulties at birth. Was there any unhappiness in early years from differences between parents or other causes? If the patient is left-handed, was he taught to write with his right hand? Was there evidence of any backwardness as compared with companions? Early school days should be examined for evidence of unhappiness due either to the actual school conditions or to the patient's inability to adjust himself to ordinary school life. In particular it is necessary to investigate carefully the conditions existing just before the onset of the stutter, and to find whether the stuttering was more evident with certain people, such as father, mother or school teacher.

A complete physical examination, especially of the mouth, nose and throat is essential. If any obstruction in these passages is discovered, removal is indicated before active treatment is started. Although most of the evidence points to the fact that organic lesions of this area are not causes of stuttering, still one cannot hope to get a complete cure when any focus of irritation is present. At least it is worth a try.

Turning now to the stammerer's symptom two main points require attention. These are (1) changing the habit paths which have become established, and (2) restoring lost confidence and removing self-consciousness. Habit is a persistent thing and it must be realized that the process of cure will take time.

The mechanism of habit is outside consciousness, and new habit paths can only be formed through conscious effort. The stutterer has two forms of habit to overcome: the mental habit comparing himself with those who can speak fluently, and the physical habit of wrong use of the movements involved in speech.

The patient must be convinced that speech is a natural and easy process requiring no more conscious effort than walking. The whole process of speech and the reasons why emotion disturbs its free flow must be explained in terms that the patient can understand.

When the examination has been completed, the patient should have acquired two valuable aids towards cure—an expectant and receptive attitude towards the treatment and a feeling of composure and self-confidence in the presence of the physician. In this atmosphere the actual treatment of the speech defect can be begun.

He is first taught that sound can only come from proper use of the lungs and vocal cords and that ample power is present if he remembers to speak with plenty of *voice.* He should be encouraged to breathe often but not deeply or with exertion. The letter sounds of the alphabet are divided into groups and practice is directed to the articulation of such as give rise to difficulty. Short lists of words containing these stuttered-over letter-sounds are supplied. At first the patient is told to repeat these softly to himself (this can usually be done), and day by day gradually increase the tone of these words until he can say them aloud in a normal-speaking tone. Confidence is increased by singing, declaiming like an orator, imitating and by getting the stutterer to intone in reading aloud. By such methods he perceives that his speech can flow without impediment.

It is a well known fact that most stammerers can sing without difficulty. This is because in singing there is a continuous flow of the vocal tone; *the vowels predominate,* while the consonants are but lightly touched in passing. The opposite of this takes place in speech. The vowels are passed over quickly and *the consonants predominate.* The moral of this is obvious. Let the stammerer *exaggerate his vowels* at the *expense of his consonants,* and a good many stumbling-blocks will thereby be removed from his path.

There are a few special remedies for a few special difficulties. A stammerer frequently finds it impossible to pronounce the *w.* In that case let him substitute *oo* for it, saying *oo-as* instead of *was, oo-ater* instead of *water, oo-ill* instead of *will.* Similar difficulties arise with the *y* and the *u.* Here we must substitute an *ee* for the *y,* and precede the *u* by an *ee,* thus: *ee-oung* instead of *young, ee-ot* instead of *yacht, ee-ooniverse* instead of *universe.* This method is simply dividing the initial vowel into its components, and saying them separately with great distinction and deliberation.

TIME NECESSARY FOR CURE

It is impossible to lay down a hard-and-fast rule, as so much depends upon individual circumstances. In most cases people expect a cure to be effected too quickly. The habit of many years cannot be permanently eradicated in a few days or weeks, or even months. Adults, having pre-

sumably greater self-control than young folks, are frequently able to do without guidance after a shorter period.

As was said before, it is impossible to lay down rules which shall suit every case. Each one represents individual idiosyncracies, and must be treated accordingly. There is no royal road to the cure of speech defects any more than there is a universal panacea for other ailments. Think twice before you speak—but speak only once.

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"To each one of you the practice of medicine will be very much as you make it—to one a worry, a care, a perpetual annoyance; to another, a daily joy and a life of as much happiness and usefulness as can well fall to the lot of man. In the student spirit you can best fulfill the high mission of our noble calling—in his humility, conscious of weakness, while seeking strength; in his confidence, knowing the power, while recognizing the limitations of his art; in his pride in the glorious heritage from which the greatest gifts to man have been derived; and in his sure and certain hope that the future holds for us richer blessings than the past."

—From "The Student Life" in Aequanimitas by Sir William Osler.