

# Stammering and Its Treatment

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FRANKLIN BROOK  
L.C.S.T.

*With a Foreword by Dr. Colin Edwards*

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by

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# STAMMERING AND ITS TREATMENT

## *Foreword*

ALTHOUGH HIS psychological approach to the treatment of stammering is healthily free from the shackles of the doctrinaire, Mr. Brook's own story would serve well to illustrate Adlerian theory. It was the conquest of his own stammer in the late teens which turned his interest towards this subject and led him to desert the study of accountancy. Seven years' army service which included the recent war and a Staff Captaincy in the Far East did not deflect him, and in 1947 he qualified as a speech therapist.

His appointments and experience are already broadly based.

With such a background it is small wonder that this book is alive, comprehensive, and in the best sense provocative. For the timid it may prove rather dynamic.

Its detailed advice on the freeing of the stammerer's feelings and on his emotional re-shaping is of great value. Would that routine psychotherapy could be imbued with such an attitude instead of sending its clients on

"Elaborate mental journeys-to-Rome,  
Leaving their feelings on ice at home."

Understanding and explanation are necessary preliminaries to action, but it is only by action that new habits—including new habits of feeling—can be formed.

Mr. Brook knows this truth at first hand, but his therapeutic experience has led him well beyond the limits of his own personal cure. The reader will find here much of the accumulated knowledge of the world of speech therapy on the subject of stammering and a recognition that this is still growing. He will also find an enlivening individual contribution from the author.

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## Preface

THIS BOOK is intended primarily for those whose duty and privilege it is to assist in lessening the stammerer's difficulties. Perhaps no other handicap has been so misunderstood and the centre of so much controversy as that of stammering. Only in the last thirty years has it been generally realized that stammering is not, technically speaking, a speech defect, and that the *stammerer* is essentially more important than the *stammer*.

The London County Council was one of the first authorities to provide remedial centres for speech-handicapped children. Under the supervision of the late Dr. E. J. Boome treatment was based largely on *relaxation* exercises; here, for the first time, emphasis was placed on the *ease* rather than on the *difficulties* of speech. From that time, therapists in many countries and particularly in North America and Great Britain have sought to improve treatment for stammerers of all ages. Relaxation still remains an integral part of present-day treatment but is now used alongside other and newer forms of therapy.

Although the chief object of this book is to explain the new developments in treatment, relaxation therapy is also described.

The importance of environment cannot be too strongly emphasized and I have included chapters which are devoted to the home as well as the school background.

In commencing with a brief survey of the many different approaches to the problem of stammering, I have tried to stimulate thought and discussion as well as provide a convenient introduction to a controversial subject.

My warmest thanks are due to the many friends who have so generously given of their knowledge and time in helping with the writing of this book. In particular I would like to express thanks to Miss Joan H. Van Thal and Mr. Harold J. Ripper of the College of Speech Therapists; to Dr. Colin Edwards, Dr. Vincent Crotty, Mr. John L. M. Trim and Mr. Sidney Armitage.

FRANKLIN BROOK

HUDDERSFIELD, 1956

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## CHAPTER 1

### *Aetiology*

JOHN BROWN, twenty-year-old university student, settled himself in the clinic's most comfortable chair, and began to talk about himself.

During the first two minutes of the interview he was able to maintain a flow of language that would not have disgraced a radio commentator. He soon ran into difficulty, however, and then sounded very much like the gramophone whose needle has found a chipped record. *Digger dig dig*, he kept on repeating, as if imitating the rhythm of the railway wheels. Eventually he overcame the blockage, using considerable physical effort in the process, and proceeded to speak fluently until another blockage was reached.

From a speaking point of view this young man was similar to most adult stammerers in that he just could not face up to his stammering. He postponed the moment of stammering and filled in the subsequent time interval by using nonsense phrases\* such as *digger dig dig*. Some stammerers fill in their time intervals by humming and hawing or by a series of discreet coughs, whilst others repeat the preceding syllables or sounds.

Why does the stammerer go to such lengths to avoid stammering? Does he not realize that stammering and his efforts to avoid stammering amount to one and the same thing? In an attempt to answer questions such as these, let us examine step by step the case of John Brown. To obtain a complete picture of the development of this young man's stammer it was necessary to hear what his parents had to say.

Investigation revealed the following information:

The father had a younger brother who stammered, and a sister who suffered from asthma and hay fever. There was nothing significant in the mother's medical records. There were three children of the marriage and our patient was the

\* Embolophrasias.



youngest. His older brother was left-handed. John had a normal birth and made satisfactory progress apart from being a little slow in beginning to talk. At the age of two years he was only just beginning to join words together, but had "caught up" by the time he was three and a half years and showed no marked tendency towards reiteration or hesitation. He was nervous and "highly strung." As a small child he was afraid of dogs and also of being left in the dark. He got on very well with his brother and sister, but was very timid and shy of children and adults who were strangers to him.

At the age of four years he was taken to isolation hospital suffering from scarlet fever, and on being discharged was inclined to be fretful, and persistently refused food. He had also started to wet his bed and he had *an unmistakable stammer*. On being assured by the family doctor that everything would be all right if he had plenty of rest and affection, the parents were content to leave things as they were for a short time. As the stammer persisted, however, they acted on the advice of an elderly relative and tried to stop the stammering habit. They could not recollect what words they used when speaking to their child, but admitted they might have used some of the following phrases: "Speak slowly," "Think before you speak," "Take a breath before you begin." The stammering had continued throughout childhood and adolescence to the present time (1953) but had varied greatly in its severity. At times the boy had stammered hardly at all and it appeared that his stammer had, to all intents and purposes cleared up, only to reappear later.

The patient recollected the difficult times he had in school and complained that some of his teachers made no allowance for his difficulties. He suffered a great deal of teasing from his fellow pupils and at times retreated from speaking situations altogether. On the other hand, his stammer did not impede his scholastic progress, as he won a university scholarship.

He had grown up in the belief that stammering was socially unacceptable and that he must hide it whenever possible. He did not discuss his stammer with his friends or with his family. The subject was "tactfully" avoided. He had sought treatment on the advice of a student acquaintance who had had treatment which proved successful.

The case of John Brown might be summarized as follows:

In the first place, a study of his family history suggests that he had inherited characteristics which predisposed him to nervousness in general and to stammering in particular.

Secondly, as a nervous child he was vulnerable and exposed to the effects of traumatic experiences. His admission to hospital and the *anxiety* resulting from his being separated from his mother, occurring at a time when he was suffering from the effects of a feverish illness, constituted an emotional shock. His illness, therefore, proved to be the precipitating factor behind the stammer.

Thirdly, as a result of his parents encouraging him to put a stop to his stammering he became aware of his hesitant speech and attempted to control it. The more he attempted to control his speech, the more his difficulties and blockages tended to increase, and he began to fear speaking. His stammering had entered a more serious stage and he was the victim of a vicious circle. Stammering caused him to fear speaking, and his fears of this led him to seek to avoid stammering. The habit of inhibiting the spontaneous speech flow resulted. (Stammering in this secondary or advanced stage is a self-perpetuating disorder.)

Once a stammerer has begun to stammer and become aware of his difficulties it is not difficult to understand why he continues to stammer. S. T. Orton<sup>37</sup> had this to say about stammering: "When encountered in the adult, stuttering has accumulated so great an emotional overlay that the problem of its genesis and treatment is much confused. The emotional and personality factors which are so striking later and which have led many observers to classify all stutterers as neurotics, are notably absent in childhood."

In our approach to the problem of stammering, therefore, we have attempted to present, first of all, a picture of the primary or early stammerer. A primary stammerer is usually a child of from two to six years of age who displays stammer symptoms, such as reiteration and/or hesitation in speech much more extensively than is usual for a child learning to speak, *but who is so unaware or unconcerned that he does not voluntarily attend to his speech in an attempt to avoid the speech abnormalities.*

## IS STAMMERING INHERITED?

Crichton-Miller<sup>12</sup> rightly criticizes Adler, Freud and Jung for neglecting to take individual differences into account. According to the psychoanalyst, environment is almost everything, and heredity of little or no importance. The knowledge of what mental or temperamental characteristics or traits *are* or *are not* transmissible is slight, and most of what is assumed is based on experience rather than on scientific evidence.

Although much has been learned about the neurology and physiology of normal speech, our understanding of it is still so far from complete that we cannot always be certain of recognizing the abnormality which may be present. Wendell Johnson<sup>33</sup> was quite right in saying that "Many physiological, neurological, biochemical, and anatomical studies have been made comparing stutterers and non-stutterers, and the net result of them has been that no organic or physical cause of stuttering has been demonstrated . . .," but we must not assume that differences will not be demonstrated in the future.

Cases have been known where both father and son have displayed stammering symptoms which were, to all intents and purposes, exactly identical in pattern and yet certainly not due to *imitation* because the symptoms appeared in the children while their fathers were overseas on military service.

Kingdon Ward<sup>34</sup> does not agree with the school of thought which says that stammering is purely functional. She feels that there is some form of neuropathic diathesis and she differentiates true stammering from nervous hesitancy in saying that the former always has some degree, however slight, of spasm or spastic tendency.

Many American authorities have referred to a condition which they call "dysphemia" as being a probable neurological factor behind some cases of stammering. Van Riper<sup>44</sup> describes dysphemia as "an underlying neuromuscular condition which reflects itself peripherally in nervous impulses that are poorly timed in their arrival in the paired speech musculatures." Although Travis<sup>43</sup> has successfully demonstrated that nervous impulses from the brain lack synchronization in their arrival times at the paired speech muscles during the moment of stammering, it is possible that emotional factors are, in part

responsible for the lack of synchronization. The typical stammerer has a low emotional threshold and like many other nervous people he can perform quite well under normal conditions, but goes to pieces when asked to perform for an audience or on special occasions.

In their search to establish the existence of significant constitutional differences between stammerers and non-stammerers research workers have studied the blood groupings, brain waves, biochemistry, motor capacities, cerebral structures and laterality tendencies in both groups, but have not succeeded in presenting any convincing evidence.

#### STAMMERING AND LEFT-HANDEDNESS

During the past thirty years a great amount of attention has been paid to the connection between stammering and left-handedness, and it is generally supposed that stammering may develop as a result of forcing a naturally left-handed child to use his right hand.

Left-handedness means a natural tendency to display a preference for using the left hand for the majority of tasks and particularly for those requiring a greater degree of agility or manipulative skill. Where both hands need to be employed, we usually find that the natural left-hander will spontaneously use his left hand for the more dexterous movements, leaving the right hand to carry out the easier ones. In dealing cards, for instance, the right hand will hold the pack but the left hand will be employed for the actual distribution. Similarly, the left hand will be used for guiding the thread through the eye of the needle, the needle being held in the right hand. There seems little doubt that left-handedness is inherited, for not only does it run in families, but the relative proportion of left- and right-handedness in the general population conforms quite closely to that which would be expected if the tendency towards right-handedness served as a dominant hereditary factor in the Mendelian sense.

Why has left-handedness come to be associated with stammering? Perhaps not so much because of there being a significant number of left-handed stammerers, but probably on account of the regularity with which one finds left-handedness in other members of the stammerer's family. S. T. Orton<sup>37</sup>

found an hereditary pattern in many families which embraced such conditions as stammering, left-handedness, language delay, reading disability, ambidexterity, defective speech, and writing disability.

Before proceeding to discuss the dangers attendant upon forced changes of handedness in young children, it is necessary to refer to the way in which the cerebral hemispheres are the initiators of all learned purposive movements. Generally speaking, all bodily movements are bilaterally controlled from the motor cortex. Speech, writing, and the more intricate manual skills, however, are unilaterally controlled by the dominant cerebral hemisphere. From a study of aphasic syndromes it has long been established that damage to one side of the brain may cause loss of ability in speaking, reading, and writing, but only if the damage be on the dominant side, that is, the side which initiates movements of the muscles used in speech. The dominant hemisphere is thus usually on the left side of the brain for all right-handed people and on the opposite side for left-handed people. (Certain notable exceptions to this rule have only recently come to light.)

Although the newly-born infant starts with no perceivable superiority in either hand, he carries no doubt an hereditary preference and this is usually seen to emerge within the first twelve months. Children referred to speech clinics on account of early stammering or seriously-delayed speech are not infrequently found to be without any clear preference for either hand. As already stated, their family history shows that one frequently finds there, one or more left-handers. Roughly, one might describe such children as products of a *mixed marriage*, e.g. left-handed stock marrying right-handed stock, although both parents may be right-handed by preference, and one can only suppose that one parent is the carrier of the recessive genes.

Additionally, it is often found that children seen in speech clinics who have made a choice of hand are *crossed-laterals*, that is, they display a preference for using e.g. the left eye, but the right hand and foot. Many writers have investigated the question of cerebral dominance, but only one or two have referred to the question of crossed-laterals, and they have reached the conclusion, rather abruptly one feels, that lack of sufficient dominance of one hemisphere is of great importance

but that crossed-laterality has no significant connection with speech disorders.

Where a naturally left-handed person has been forced or persuaded into using his right hand he will usually only do so for purposes of eating, writing, and those activities covered by training. He will continue to display a spontaneous preference for his left hand in most other activities, e.g. the use of tools, and sport.

It is regrettable that so many people to this day are prone to take the dangerous step of persuading left-handers to use their right hand. Not only do such people betray their abysmal ignorance of the whole field of cerebral dominance but they never achieve anything. It is often said that the world is made for right-handers and it must be admitted that to a large extent this is quite true. On the other hand, one never succeeds in converting a left-hander into a right-hander except for such things as eating and writing, and insistence on the use of the right hand may well cause him a considerable amount of difficulty when one remembers that the writing, speech, and reading functions are closely associated, and all initiated from roughly the same area of the cerebral cortex.

There is no justification for thinking that the left-hander is in any way inferior to the right-hander, and many of our leading sportsmen repeatedly support this fact. As S. T. Orton<sup>37</sup> points out, the prejudice against left-handedness is reflected in the derived meanings of the Latin word "sinister" and the French word *gauche*.

Although it is generally accepted that stammering may be caused by compelling an innately left-handed child to use his right hand for schoolwork, experience in dealing with large numbers of stammerers has not revealed more than one or two such cases. Lack of cerebral dominance, as already stated, is believed to be much more frequently associated with incidence of stammering and is probably attributable to hereditary characteristics.

Most speech therapists and psychologists are now able to use special testing material to ascertain whether a child is right-handed, right-legged, right-eyed, or the reverse, and such information is often useful in helping a child to arrive at his own handedness preference. It is also desirable that the heredity

pattern of his family should be taken into account before any conclusion is reached. Where a child of two years has not displayed a clear preference for either hand it is desirable that his parents should choose his toys and games with care so that he may have access to such material as will enable him to find his natural preference without direct intervention.

#### NEURO-MUSCULAR INCO-ORDINATION

J. F. Bender<sup>4</sup> found that many stammerers "have characteristic, arhythmic symptoms in reading, writing, breathing, eye movements, playing the piano, etc." McAllister<sup>36</sup> also found that some stammerers displayed weakness in auditory acuity and in sensitivity to rhythm, and Van Riper<sup>44</sup> described some of his patients as being "indubitably clumsy in the rhythmic movement of the speech musculature."

The whole question of rhythm is a most complex one because it is difficult to understand the delicate connections between speech, for instance, and general rhythmic sensitivity. Many of the lower animals are known to possess a beautiful sense of rhythm. The truth of this can be seen in the smoothly co-ordinated movements of wild animals and in those animals which have been trained to perform musical and acrobatic feats in the circus ring. On the other hand, a loss of sensitivity to rhythm may sometimes be observed in aphasic and dyslexic patients as a result of damage to the dominant hemisphere of the cerebral cortex. This suggests that in man there is neuronc representation of rhythm at the higher levels and that it is closely linked with the function of speaking, reading, and writing. In other aphasic and dyslexic patients it has been observed that patients have automatically recovered speaking and reading ability, except that they are unable to scan the stresses of their mother tongue. The result of this inability is clearly to be heard in their speech. Their difficulties have reminded one of the trouble one experiences when listening, for instance, to an Oriental, who attempts to speak quickly in English, but at the same time substitutes the stresses of his mother tongue.

If all stammerers were poor golfers, poor car-drivers, dancers and instrumentalists, what a strong pointer there would be to a state of arhythmia or inco-ordination. There is no doubt

that many stammerers have *a very good sense of rhythm* and that only during moments of stammering is their rhythmical flow subject to interference. Many adult stammerers are handicapped in speaking situations to such an extent that their speech is unintelligible, and yet they are not only fluent when speaking without an audience, but often display remarkable talent for oratory, reading swift articulative patten exercises, play-acting and speech agility tests.

#### INHERITED PREDISPOSITION IN THE FORM OF NERVOUS OR EMOTIONAL INSTABILITY

In the past it has been generally assumed that mental characteristics are inherited much the same as physical ones, and this assumption was extended to character traits, temperament and nervous habits. As a result of the work of psychoanalysts and others we now know that the assumptions were a little too sweeping, for the psychoanalysts have exposed early experiences in the life of their patients which have shown that specific environmental factors were responsible for the appearance of various nervous symptoms which were strikingly similar to those displayed by the parent concerned.

One such case is described by J. A. Hadfield<sup>28</sup> as follows: "A man had since childhood a tremor of the hand, which came on after any hard piece of work, physical or mental. His father had had it before him, and it was therefore considered hereditary. Analysis of the origin of the symptom, however, brought to light an incident at three years of age, when the patient had a severe accident to his foot and he was held down by his father while the surgeon probed and cleaned the wound. The father's tremor was transmitted to the boy's hands, and became linked up and associated in the boy's mind with an emotional conflict, in which there was a futile struggle against insuperable odds."

Predisposing factors, however, we do inherit, and it is safe to assume that this predisposition exists in varying degrees. A child may be born who is easily vulnerable to one or more forms of nervous disorder, whereas another may inherit only the most trifling predisposition and a weakness which will never be exposed unless he be subjected to considerable stress at the critical period of development.



There is no doubt that nervousness runs in families, and this tendency is largely physiological in character. Various theories have been put forward in an attempt at pinpointing the physiological and neurological factors giving rise to nervousness. One of these theories suggests that nervous temperament depends largely on the high excitability of the nerves themselves. Some people, usually those who are phlegmatic in temperament and not unduly sensitive, have a high resistance to the nerve impulse as it passes along the nervous pathway. Others of more excitable temperament are hypersensitive and emotionally labile and have only a low resistance to the nervous impulse, which travels faster as a result. Such persons may be said to be "emotional thinkers" and they have a low emotional threshold. These then are the nervous group and they are susceptible to environmental pressures and stresses, and it may be to this particular group that stammerers belong.

Neil Hobhouse<sup>30</sup> says of stammering: "In common with most nervous disorders which are not properly understood, it has received the facile label of functional, which has the advantage of meaning so little that it can hardly be erroneous." He goes on to say that there are no indications to suggest that stammering children are other than perfectly normal, neither does he regard them as being more nervous than other children. He feels that the habit of assuming stammering to be due to nervousness needs restricting. Whilst there are obvious dangers in labelling a child nervous when in his hearing, whether he be nervous or otherwise, objection to Hobhouse's remarks on absence of nervousness may come from many psychologists and therapists who have had experience of large numbers of stammering children. In temperament and personality there are many variations which may predispose a child to nervous disorder when he is exposed to major or minor emotional stresses. Such nervousness cannot always be elicited or demonstrated during a neurological examination.

Seth and Guthrie<sup>39</sup> also agree that evidence of inherited instability is not easily obtainable and feel that we must be content to establish a general predisposition to excitability and nervousness. Gottlob<sup>26</sup> writing on the growth and development of stuttering believes that the disorder is not inherited, but that a predisposition to it may be. He feels that