THEORIES, SPECIFIC THERAPIES AND TECHNIQUES FOR USE IN CASES OF STUTTERING

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THEORIES, SPECIFIC THERAPIES AND TECHNIQUES FOR USE IN CASES OF STUTTERING

By

Lulu Johnson Alonso

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

THE PROBLEM AND DEFINITION OF TERMS USED

Stuttering, stammering, spasmophemia, dysphemia, speech blocking, or whatever one might prefer to call this disorder, has been a problem throughout the ages, probably since man first began to speak. History gives us records of its impartiality in striking the rich and poor, the great and humble, alike. Stutterers have accepted their share in the carving of the destiny of humans, for there are stutterers among kings, ministers, physicians, orators, warriors, poets, artists, authors, and statesmen.

Today, even though the stutterer continues to outnumber the deaf, the blind, and the feeble-minded, we can neither tell these sufferers what causes stuttering, nor can we advise a positive cure. When one becomes aware of the contradictions among even the authorities in the field, it is easily understood why the beginning speech correctionist feels at a loss when confronted with a stutterer.

Speech Correctionists can expect to work with stutterers in both the public schools and clinics, so it seemed advisable, even though there is an abundance of published material on the theories of stuttering, to find out what established speech correctionists believe to be the causes, and what therapeutic practices they employ. The author felt that by collecting in one volume the unpublished theories, therapies and techniques, and by making available an annotated bibliography of published material, that a needed contribution could be made to the field.

I. THE PROBLEM

The purpose of this study, then, is to bring together theories, specific therapies and techniques used by established speech correctionists in the field of stuttering at the present time, in addition to making available an annotated bibliography of published material.

II. DEFINITION OF TERMS USED

Stuttering. There are many definitions of stuttering, the most common being that it is a disorder in the fluency or rhythm of speech, with repeated words, phrases or sounds, or blockages or other hesitancies. Dr. Wendell Johnson, in collaboration with Dr. Spencer Brown, Dr. James Curtis, Dr. Clarence W. Edney, and Miss Jacqueline Keaster, has arrived at the following definition: "Stuttering is an anticipatory, apprehensive, hypertonic avoidance reaction."[1]

Dr. Charles Van Riper states:

> ...It is difficult to define or describe stuttering. The flow of speech is broken by hesitations, stoppages, or repetitions and prolongations of the speech sounds. Fluency is interrupted by spasms, contortions, tremors, or abnormalities of phonation and respiration. It consists of moments of speech interruption of such frequency and abnormality as to attract attention, interfere with communication, and produce maladjustment....[2]

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[1] Wendell Johnson, Spencer F. Brown, James F. Curtis, Clarence W. Edney, and Jacqueline Keaster, Speech Handicapped School Children, New York: Harper and Brothers, 1948, p. 182.

[2] Charles Van Riper, Speech Correction Principles and Methods, New York: Prentice-Hall, Inc., 1947, p. 17.

West, Kennedy, and Carr use the following definition:

> There is some point in considering dysphemia as the psychophysical complex of which stuttering is the outward manifestation....Dysphemia is the condition; stuttering is the manifestation of that condition....Stuttering is a phenomenon; dysphemia is an inner condition.[3]

Theories. Theories refer to the beliefs that an individual holds as to the cause or causes of stuttering. Different authorities, after working with stutterers, came to certain conclusions based on observation, testing, case histories, and research. Probably all speech correctionists have their own belief, or theory, as to causation.

Specific therapies and techniques. Specific therapies and techniques refer to all of those methods or means used by the correctionist to effect adjustment on the part of the individual who stutters.

III. ORGANIZATION OF THE THESIS

Charts. Charts are used to show what the established speech correctionists feel to be the causes of stuttering, and to show what therapies and techniques these participants employ to effect adjustment. The charts listing the causes of stuttering precede the text comments of the correctionists. Following the latter are the charts summarizing the number of speech correctionists cooperating in this study who hold these various theories. The charts listing the therapies and techniques used when treating stuttering also precede the text comments of the correctionists. Following these text comments on therapies and techniques

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[3] Robert West, Lou Kennedy, and Anna Carr, The Rehabilitation of Speech, New York: Harper and Brothers, 1937, p. 53.

are the charts summarizing the number of speech correctionists who utilize these various therapies and techniques. The order of the material on the charts corresponds to the order set down on the questionnaire.

Grouping of Material. The author has grouped the causes of stuttering that are similar to each other. The purpose is for clarity and understanding. Therefore, the material on causation will be in different order than it appears on the charts.

Comments relating to each cause listed on the questionnaire by outstanding speech correctionists in the field, who have many publications to their credit, can be found in the review of the literature. The author does not imply by this inclusion that these comments on causes are in any way related to the beliefs of the people cooperating in this study. They defined each cause for themselves, and answered according to their own definition.

Annotated Bibliography. A carefully planned annotated bibliography, which will be helpful to speech correctionists, can be found on the latter pages of this thesis.

IV. BRIEF HISTORY AND PRESENT STATUS OF THE PROBLEM

Probably the first reference to stuttering would be in the Bible when the great lawgiver, Moses, desiring to escape a mission offered to him, stated, "I am slow of speech, and of a slow tongue."

Mr. Stanley A. Jacques, writing in the magazine, Speech,[4] makes

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[4] Stanley A. Jacques, "The Story of Stammering." Speech, 2:17-19, May, 1938; 3:39-42, October, 1938; 3:20-23, April, 1939.

reference to stuttering and its treatment through the ages, which the writer will summarize.

In the ancient Greek vocabulary we find a great variety of terms relating to stammering; from this we can well assume that stuttering was prevalent among the ancient Greeks. Herodotus (484 B.C.) says that Therean Battos, who had been a stutterer from his youth, consulted the oracle at Delphi. In Roman literature, stuttering was equally classed with mental and physical deformities and peculiarities.

Throughout medieval times, very little reference was made to stuttering until about 1584 when Mercurialis added systematic exercises of body and voice to the usual medical treatments. In this era are many references to stuttering in Shakespeare's works, as in As You Like It: "I prythee take the cork out of thy mouth that I may drink thy tidings." About this time, too, quite a few comedies were written and produced which ridiculed and mocked stutterers, a practice which seemingly was well taken by the public. We can still find this form of entertainment in our present day forms of amusement.

Mercurialis placed the seat of the trouble of the stutterer in the brain; this was a great advance, according to Mr. Jacques, in the progress of research in stuttering, and started an era of research on a more scientific basis. However, not much progress is recorded until the nineteenth century when actual cures were recorded by a combination of physical and psychical treatments.

In 1841, Dr. Dieffenbach performed several operations on the tongues of stutterers, which seemed to have been successful in alleviating the stutterer's difficulty. Immediately, ambitious surgeons began

cutting at different organs that may have some effect on the speech difficulty, each in hopes of being the first one to have the honor of doing a new type of operation. Medical journals of that year are full of articles with the controversy in regard to this type of surgery. After many patients bled to death, and after stuttering returned to those who survived the operation, surgery was permanently discarded as a means of cure. Mr. Jacques points out: "This wave of surgery did a great deal of good in that it brought stammering before the public eye, and from that time on, we find in medical journals many articles on research work in stammering."[5]

The tongue was the organ which got the brunt of this surgical fad. Mr. Jacques describes some of the different types of operations which stutterers went through:

1. The Genio-glossus, the muscle at the root of the tongue, was cut through from the inside of the mouth.

2. The genio-glossus muscle was cut through from the outside under the mandible. The purpose was to make the tongue longer.

3. The frenum linguae, the musous membrane fold under the tongue, was cut.

4. The sublingual mucous membrane, the membrane on both sides of the frenum, was cut.

5. A subcutaneous transverse section was cut at the root of the tongue through a puncture in the mucous membrane.

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[5] Ibid., p. 39.

6. A transverse triangular slice was cut from the top of the tongue throughout the width and sewed up to make the tongue shorter.

7. The uvula, the piece of muscle at the upper rear of the mouth and at the end of the palate, was cut off.

8. The palatine arches, the part of the arch at the rear of the mouth and on either side of the uvula, were cut.

9. The anterior fauces that cover the anterior surface of the tonsils were cut.

10. The tonsils were removed.

11. The adenoids were cut out.

12. The hypo-glosal nerve, the cranial nerve which feeds the tongue, was severed.

13. The tongue was pierced with hot needles and blistered with croton oil.

The purpose of the operations was to relax the muscles used in articulation.

The earliest reference to surgery being used to relieve stuttering was in the year 600. AEtius recommended the division of the frenum. Hildanus, in 1608, used the same method. In 1336, De Charliac used the method of forming blisters on different parts of the head and neck, including the tongue. This temporarily improved speech, since the pain was so great that it served as a distraction. This method remained popular for several centuries after that.

Alfred Appelt, in his book The Real Cause of Stammering and Its Permanent Cure, offers us a good explanation of this temporary benefit which stutterers experienced.

> In surgical methods for the treatment of stammering, a decrease in stammering undoubtedly did take place in a series of cases, and we ourselves have noticed temporary improvement after operations for other purposes, and after illnesses, especially during the convalescent stage. Exhaustion and relaxation, particularly of the organs connected with speech, offer an explanation of that phenomenon. A rational therapy must decline to accept such data, since an improvement which may possibly become apparent immediately after the operation contains no guarantee of permanency. Any slight improvement which may take place is not due to the operation; rather it is due to auto-suggestion on the part of the stammerer who, buoyed up by the hope of relief at the surgeon's skillful hands, momentarily experiences that relief.[6]

"The American Cure" based its treatment on having the stutterer hold his tongue high in the mouth. Mrs. Leigh, in 1825, perfected this "secret cure."

In France, meanwhile, Gregoire recommended smoking as a sedative for the vocal cords, while Gerdts of Germany administered tincture of peppermint oil and chloroform in the attempt to control the spasms.

Even the great Dr. Osler makes reference to stuttering: "Bloch, in his monograph, Die Pathologie und therapie der mundathmug, lays great stress upon the association of mouth breathing with stuttering."[7]

It has been during the twentieth century, however, that more scientific methods have been applied to the treatment of stuttering. Various theories have been expounded, many studies have been made, and books, articles, and pamphlets are readily available.

Despite the advancements made, however, we are still trying to solve the problem of stuttering. If this study brings us any closer to a better understanding of the phenomenon, it will well serve its purpose.

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[6] Alfred Appelt, The Real Cause of Stammering and Its Permanent Cure, New York: E. P. Dutton and Company, Inc., 1929, p. 86.

[7] William Osler, The Principles and Practice of Medicine, New York: D. Appleton and Company, 1895, p. 367.

CHAPTER II

REVIEW OF THE LITERATURE

CHAPTER II

REVIEW OF THE LITERATURE

Much has been written about stuttering, its incidence, theories as to causation, and corresponding therapies, the latter being extremely brief. Therefore, only a brief summary as to causation of stuttering will be included here. The author will include each theory, and the reader must remember that for each theory, the originator has prescribed a certain therapy.

Heredity. Several authorities in the field hold that heredity is a cause of stuttering.

> Dr. James S. Greene, Medical Director of the National Hospital for Speech Disorders, New York City, places the individual who demonstrates stuttering speech in what he terms the 'stutter-type group.' The individuals in this group are characterized by a basic tendency toward excitability and disorganization, an exaggerated capacity for response to stimuli, and a relatively high potentiality for the spread of emotional tension...The stutterer's predisposition to emotional instability and disorganization appears to be a hereditary trait, since more than seventy per cent of Dr. Greene's patients show a family history of stuttering.[8]

On the other hand, Dr. John M. Fletcher of Tulane University, well-known exponent of the psychological theory of stuttering, has this to say of heredity:

> The claim that stuttering per se is hereditary lacks confirmatory evidence. Such evidence would require that stutterers in sufficient numbers be reported who have

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[8] Eugene F. Hahn, Stuttering Significant Theories and Therapies, Stanford University, California: Stanford University Press, 1943, p. 45.

> never been exposed to the stuttering of other people or to any other experiential influences which are known to be effective causes of stuttering. This evidence it would be practically impossible to procure.[9]

Dr. Samuel D. Robbins, Emerson College, Boston, Massachusetts, feels that:

> Stuttering is one of the many symptoms of certain psychoneuroses. It appears most frequently in nervous individuals who inherit a tendency either to stutter or to exhibit other nervous traits.[10]

Dr. E. J. Boome, London, England, holds:

> ...The instability of the nervous system is the primary cause of stammering, while the environmental factors, by weakening the individual's physical and psychical resistance, serve to reveal the latent tendency.[11]

Environment. Environment has also been cited as a cause of stuttering by leading authorities in the field. One school of thought goes one step further when it completely rules out heredity as a cause, and accepts environment in toto. Dr. Stanley Ainsworth, of the Speech and Hearing Clinic at Chio State University, summarizes this point of view in his book, Speech Correction Methods.

> In this group are the theories which agree on the following basic assumptions: the stutterer is not inherently psychologically or constitutionally different from the normal speaker; he develops stuttering speech because of situations which occur during his development. Ideas concerning the character of these environmental disturbances and the accompanying individual reactions may be quite at variance.[12]

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[9] Ibid., p. 35.

[10] Ibid., p. 83.

[11] Ibid., p. 122.

[12] Stanley Ainsworth, Speech Correction Methods, New York: Prentice-Hall, Inc., 1948, p. 82.

Imitation. Stuttering may be caused by imitation, according to Dr. John Madison Fletcher, Professor of Psychology at Tulane University. He states:

> ...As to the direct and immediate concern which the child of normal speech has in the proper care of the stutterer, one needs but to call attention to the fact that stuttering may and often does have its genesis in the playful act of imitating a stuttering child.[13]

However, Dr. Charles Van Riper, Director of the Speech Clinic, Western Michigan College of Education, has this to say of imitation:

> Imitation has been said to be an important cause of stuttering, and parents seem especially eager to adopt it as an explanation if there is any other stutterer in the neighborhood. We have not found it to be nearly as frequent as might be expected. In the more than 2,000 cases we have examined, there were only two instances in which imitation might be said to be of importance in precipitating the symptoms.[14]

Habit. Dr. Knight Dunlap, Chairman of the Psychology Department of the University of California at Los Angeles, is one of the exponents of the theory of habits, which he applies to stuttering.

> ...He assumes that in cases of stuttering where the causal factors have been removed and the speech difficulty still exists the defect is a habit which can be broken.[15]

Dr. W. A. Carot, London, England, also feels that stammering "is a deeply rooted habit...originating from a first shock."[16]

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[13] John Madison Fletcher, The Problem of Stuttering, New York: Longmans, Gree and Company, 1928, p. 30.

[14] Van Riper, Op. cit., p. 276.

[15] Hahn, Op. cit., p. 30.

[16] Op. cit., p. 126.

Dr. Van Riper states:

> The educational theory holds that stuttering is a bad habit originating in the natural hesitations of children's speech and perpetuated by penalty and fear.[17]

Neurosis. Neurosis, according to Stanley Ainsworth, in his Speech Correction Methods is:

> ...an emotional maladjustment which results in or involves, deviate behavior....it is intended to include milder states in addition to well-developed hysterical, anxiety, neuraesthenic, and compulsive conditions....The feature which distinguishes this group of theories is that stuttering is thought of as a symptom growing out of another dissorder, and that when this 'functional' disorder is removed, stuttering will disappear.[18]

Charles Van Riper summarizes the neurotic theory of stuttering.

> The neurotic theory considers stuttering to be a symptom of a basic personality problem, of a maladjustment to the demands of normal life. The hesitations and anxieties are considered as symptoms of the stutterer's attitudes toward life itself.[19]

Dr. Isador H. Coriat, Boston, Massachusetts believes that:

> Stammering is a neurosis in which the fixation of the libido at the development stage of oral erotism persists into maturity. Stammering demonstrates that the individual in the course of his development has not successfully overcome this earlier phase or in other words he remains fixed and anchored to this infantile stage of oral libido. Stammering is consequently a gratification of the infantile oral tendencies.
> .....
> Thus, stammering becomes a neurosis....This explains the infantile character of the sucking and biting movements observed in stammerers when they attempt to speak, that is a compulsive rhythmical repetition of the very early nursing activities.[20]

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[17] Van Riper, Op. cit., p. 268.

[18] Loc. cit.

[19] Loc. cit.

[20] Isador Henry Coriat, "The Nature and Analytical Treatment of Stammering." Symposium on Stuttering, Yearbook, American Speech Correction Association. Madison, Wisconsin: College Typing Company, 1930. pp. 152-3.

Psychological. Mrs. Mabel Farrington Gifford, Chief of the Bureau of Speech Correction of the State of California, believes that psychological factors are the cause of stuttering. She states:

> It must be understood that in the beginning, according to my theory, the causes of these nervous speech disorders are psychologic and that the spasmodic manifestations of the speech organs is only the external symptom of the deep-seated mental conflict. It has now been definitely established that severe shocks and emotional conflicts in very early childhood remain as subconscious memories for many years, and may continue to disturb the speech function, which in itself is perfect, until such time as corrective measures are applied.[21]

Upholding the psychological theory of stuttering is Dr. John M. Fletcher.

> ...it should be diagnosed and described, as well as treated as a morbidity of social consciousness, a hypersensitivity of social attitude, a pathological social response.[22]

Inferiority. Dr. Alfred Appelt, Munich, Germany, was a follower of Adler's individual psychology, and he feels that stuttering is closely related to the sense of inferiority and its compensation.

> Psychogenetic stuttering always originates on this foundation. Inferiority-disposition, in which the child experiences intensively his impotence and, in relation therewith, the anxiety tension, serves as releasing moments.[23]

Fear. Dr. Smiley Blanton, of Cornell Medical College, upholds the psychological theory of stuttering and believes that

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[21] Mabel Farrington Gifford, "A Consideration of Some of The Psychological Causes and Treatment of Stammering," Symposium on Stuttering, op. cit., p. 74.

[22] Fletcher, op. cit., p. 226.

[23] Hahn, op. cit., p. 117.

> ...fear states of the stutterer prevent the cortex from exerting control over the organs used in speech. The cause lies in the emotional conscious and unconscious mind of the stutterer.[24]

On the other hand, Dr. Isador Coriat reminds us:

> Fear in stammering has been emphasized to too great an extent as its cause. Fundamentally it represents the resistance against sudden discharges of oral eroticism; as such it becomes part of the analysis and should be handled like other forms of morbid anxiety in which there is a sense of internal danger.[25]

Drs. Richard C. Borden and Alvin C. Busse, Co-directors of the Speech Clinic at New York University, classify stuttering as a neurotic defect, caused by one trying to repress certain desires, and fear, as an inhibitory idea, checks the course of normal automatic function. The patient has buried mental desires which cause his anxiety - his fear of himself.[26]

Conditioned inhibition. Conditioned inhibition, according to Dr. John Fletcher, is a cause of stuttering. He explains:

> ...These inhibitions do not necessarily have their genesis in any single traumatic experience, nor in any specific type of experience, according to the Freudian formula. They manifest a certain degree of permanence, but their permanence is not due, as certain psychoanalysts would have us suppose, to their common root. It is obvious that any experience which has set us a conditioned emotional response will, if constantly repeated, tend to become strengthened. It is this accumulation of associations, rather than any form of traumatic origin, that keeps the stutterer's speech inhibitions going.[27]

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[24] Hahn, Op. cit., p. 11.

[25] Op. cit., p. 28.

[26] Richard C. Borden and Alvin C. Busse, Speech Correction. New York: F. S. Crofts and Company, 1925.

[27] Fletcher, Op. cit., p. 233.

Social maladjustment. Social maladjustment, too, is seen as a cause of stuttering. Dr. Fletcher summarizes:

> The realization of the social demand, the idea that something is expected of him by way of reaction, reply or communication is consecutive speech, the compulsion arising from a question put directly to him, or from a social or business situation requiring speech in which he finds himself, constitute the social excitants of his morbid reactions.[28]

Dr. Meyer Solomon, Chicago, Illinois, feels that:

> ...The main motives in social speaking are mastery (of thinking and speaking) and social approval. There is a struggle for adjustment and re-establishment of equilibrium and release of tension by varied responses of thinking and speaking. This is a critical or emergency situation demanding immediate action or solution. In stuttering there is interruption of a task (that of social speaking) with disorganized attempts at completion and resolution of tension. This may terminate in learned maladjustment or persistent nonadjustment.[29]

Stutterer wishes to stutter. Dr. Isador Coriat is the chief exponent of the theory that the stutterer wishes to stutter. He comments:

> ...The great difficulty in the treatment of stammerers and the stubbornness with which they resist treatment is due to two factors, first, an unwillingness to abandon the pleasure function of nursing activities in speech, and secondly the marked resistances arising from the anal-sadistic level of development, which is so closely identified with the oral level.[30]

In other words:

> ...there is an unconscious tendency to retain the original libido binding to the mother because stammerers do not wish to abandon the original infantile helplessness and thus lose the early nursing object.[31]

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[28] Op. cit., p. 235.

[29] Hahn, Op. cit., pp. 88-9.

[30] Loc. cit.

[31] Hahn, Op. cit., pp. 27-8.

Personality difficulty. Dr. Alfred Appelt feels that psychogenetic stuttering is the result of a compensatory system of security. He believes:

> ...The necessary result of such a situation is the beginning of a mental compensatoriness which can be demonstrated in every neurosis. In order to suppress his feeling of impotence, the child keeps himself busy with ideas of greatness and tries to place himself in the center of attraction. In doing so the child is concerned chiefly with his own ego and seeks to protect by all means the value of this ego against injuries.[32]

Dr. Appelt, in believing that in psychophysical events, everything is directed toward security, indicates that personality feelings are sensitive, especially if a child is brought up in an environment where they are spoiled and pampered. Dr. Meyer Solomon is of the opinion that "The first moment of stuttering depends on the momentary total internal and external situation."[33] Certain personality traits, such as excitability, self-consciousness, oversensitiveness, timidity, or being easily rattled, could produce an instability to predispose stuttering.[34]

Neurological. Dr. Lee Edward Travis, of the University of Southern California, in the past accepted the theory that stuttering was caused by a conflict between the two hemispheres of the brain. He states:-

> The stutterer, as do most other types of speech defectives, represents a certain lack of maturation of the central nervous system which results either in malintegration of the highest neurophysiological levels involved in speech or the predisposition of these levels to disintegration when exposed to nociceptive stimuli.[35]

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[32] Hahn, Op. cit., p. 116.

[33] Op. cit., p. 89.

[34] Loc. cit.

[35] Lee Edward Travis, Speech Pathology, New York: D. Appleton and Company, 1931, p. 254.

As Dr. Van Riper points out, as he describes the neurological theory: "...the paired musculature used in speech does not receive properly timed nervous impulses from the various integrating centers of the central nervous system."[36]

Abnormal breathing. Dr. Elmer L. Kenyon, Professor Emeritus, Rush Medical College, states:

> The key to the nature of each act of stammering lies in the complete stoppage of speech while attempting the production of a speech sound, namely, the act of 'blocking.' Blocking is the typical completed individual act of stammering. In blocking the musculature of the vocal mechanism in each of its four divisions remains in a state of voluntary action and yet with the movements of each division, including chest, vocal cords, articulative and palatal organs, completely arrested and the passage of breath stopped at the larynx, thus rendering sound production impossible.[37]

Thus, it can be seen that abnormal breathing is one phase that he includes as a cause of stuttering.

Physiological. People who accept a physiological basis as a cause of stuttering recognize the fact that function is dependent upon structure. They hold that there is something structurally different within the organism of the stutterer from that same something within the organism of the non-stutterer or the normal speaker. It may be the muscles, nerves, glands, viscera, or blood. Metabolic differences have also been noted.

West, Kennedy, and Carr[38] state:-

> There are certain demonstrable differences between the stutterer and the non-stutterer, aside from the spasms that

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[36] Loc. cit.

[37] Hahn, Op. cit., p. 65.

[38] Op. cit.

> occur during their speech. The chief of these are (1) the slowness of diadochocinesis of the stutterer's articulatory muscles and (2) his lack of vocal inflection....[39]

Lack of cerebral dominance. Dr. Eugene F. Hahn explains Dr. Lee Travis' theory of a lack of cerebral dominance causing stuttering.

> If neither side of the brain is dominant over the other - if, for some reason, both halves tend to be equal - a conflict in leadership will arise. Consequently each half sends out nerve impulses at its own rhythm, and the muscles on the right side of the body receive patterns of innervation impulses different from those received on the left. The speech mechanism, as a midline structure, suffers violently. The muscular spasm of stuttering results from the lack of normal dominance in the brain.[40]

Sidedness or laterality. Some authorities feel that sidedness or laterality is a cause of stuttering.

> The change of handedness is associated with stuttering because the change disrupts the natural dominance. For left-handed persons the dominance lies in the right hemisphere. If they are forced to change handedness, leadership is forced on the left or weaker hemisphere. If this is continued, the dominant hemisphere is weakened and the nondominant hemisphere is strengthened so that the two tend to become equal in length and disharmony occurs.[41]

Semantic association. The following is a summary of Wendell Johnson's semantogenic theory of stuttering.

> Stuttering is a semantogenic disorder with a specific diagnosogenic basis. That is to say, it implies that stuttering is a disorder in which self-reflexive evaluative or semantic reactions play a determining role, and that the basic evaluative reaction is that which involves the act of diagnosis.....

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[39] Op. cit., p. 55.

[40] Hahn, Op. cit., p. 100.

[41] Loc. cit.

> It is noted that the theory implies that stuttering, at least in its more serious forms, is learned behavior, that it is more readily learned in some semantic environments than in others...[42]

Or, as Dr. Van Riper states:

> ...he identifies primary stuttering with the perfectly normal hesitations and repetitions of normal children. When these are wrongly labeled as stuttering, the child begins to react to the evaluations as though the symptoms were actually abnormal, and hence abnormal behavior is produced.[43]

Lack of visual imagery. Dr. C. S. Bluemel, well-known exponent of the theory that a lack of visual imagery causes stuttering, defends his theory:

> My own feeling in the matter is that stammering is an impediment of thought and not primarily a speech disorder. The disability manifests itself in speech because the speech is patterned upon the thought. The thought disturbance, as I view it, is an inability to think the words clearly in the mind...[44]

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[42] Hahn, Op. cit., pp. 58-9.

[43] Van Riper, Op. cit., p. 269.

[44] C. S. Bluemel, "Stammering as an Impediment of Thought," Symposium on Stuttering, Op. cit., p. 29.

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CHAPTER III

THE MATERIALS USED AND PROCEDURE

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THE MATERIALS USED AND PROCEDURE

The author first made a list of seventy-two established speech correctionists, including representatives of as many states as possible, in addition to Canada, Mexico, and Hawaii. In order to obtain a group that would be representative, speech correctionists in the public schools, colleges, and private clinics were included.

A letter was sent to each person, asking his cooperating in filling out the enclosed questionnaire. Upon return, their theories, specific therapies and techniques were recorded, and form Chapters IV and V of this thesis, in addition to the Appendix.

September 6, 1949

Dear Sir:

".....in partial fulfillment for the Degree of Master of Arts....." Undoubtedly you still recall the ominousness of these words, as I am now feeling it. I am writing this letter to you requesting your cooperation in my thesis project, the purpose of which is to assemble in one volume the theories, specific therapies, and techniques for use with stutterers. It is important that outstanding speech correctionists in the field be consulted, in the hopes that their words will aid correctionists who so oftentimes feel incompetent when faced with a stutterer.

Briefly then, would you be willing to answer the enclosed questionnaire, in which you include the theory or theories which you hold to be most adequate, and more specifically, your therapy, in addition to helpful techniques? The emphasis should be on the latter, since this will be of the most use to the Correctionist. This will form the major part of the thesis. I have endeavored to choose one outstanding correctionist from each state, Canada, Mexico, and Hawaii. You are the representative of your state.

Your cooperation in this undertaking will be greatly appreciated. Feel free to include as much detailed material as you wish, including your publications, references, or anything else which you believe will make your contribution more complete. If you have any further questions, I shall be happy to answer them.

Cordially,

(Mrs.) Lou Johnson Alonso

LJA
cc - 1
Encl. - 2

SUMMARY OF THE CAUSES OF STUTTERING

Directions: If you feel these to be causes of stuttering, check "yes"; if not, check "no." You may expand the thought in the space below each cause, if you so desire.

CAUSES	Yes	No	CAUSES	Yes	No
Heredity a factor			Environment a factor		
Imitation			Habit		
Neurosis			Lack of visual imagery		
Neurological			Psychological		
Abnormal breathing			Physiological		
Association			Inferiority a factor		
Fear a cause			Conditioned inhibition		

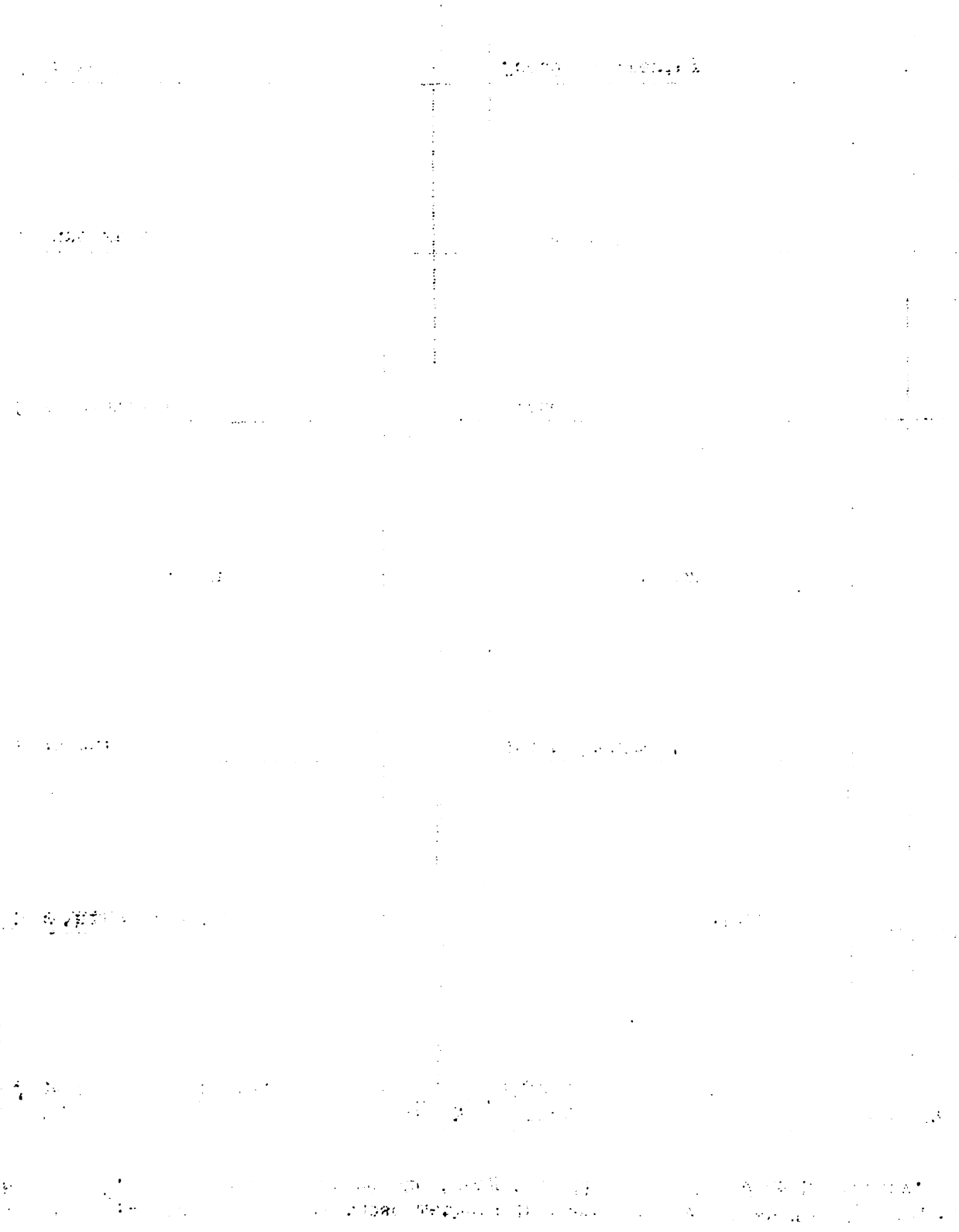
CAUSE	Yes	No	CAUSE	Yes	No
Lack of cerebral dominance			Sidedness or laterality		
Social maladjustment			Semantic association		
Stuttering a symptom			Stutterer wishes to stutter		
Stuttering a compensation			Personality difficulty		

Others, or further development of ideas: Use back of page if necessary.

SUMMARY OF THE TREATMENT OF STUTTERING

Directions:- If you utilize these methods in your therapy, check "yes"; if not, check "no". Feel free to expand the thought in the space below each therapy.

TREATMENT	Yes	No	TREATMENT	Yes	No
Case History Detailed			Physical Examination		
Breathing Exercises			Articulatory Exercises		
Physical Exercise			Group Treatment		
Use of Suggestion			Use of Relaxation		
Psychoanalysis			Hypnosis		
Insure stutterer's success			Use of telephone		
Much rest			Pseudo stuttering		



TREATMENT	Yes	No	TREATMENT	Yes	No
Create singing method of speaking:			Home cooperation		
Depriving oral gratification			Simultaneous writing and speaking exercises		
Training impaired muscles			Erecting psychological barriers		
Keep normal routine			Get rid of "crutches"		
Make friends with stutterers			Give stutterer responsibility		
Stutterer reads about stuttering			Develop unilaterality		
Mental hygiene			Progression from easy to hard		

TREATMENT	Yes	No	TREATMENT	Yes	No
Phantom speech			Bounce technique		
New social contacts			Work before mirror		
Thought-training exercises			Remove speech conflicts		
Change environment to fit stutterer			Remove speech conflicts		
Develop an objective attitude			Emphasis upon mechanical aspects of stuttering		

Others, or further development of ideas. Use back of page if necessary.

Name .....

(Cole)

CHAPTER IV

CAUSES OF STUTTERING

TABLE I

CAUSES OF STUTTERING

	LONGERICH	CABLE	RITZMAN	LEFEVRE	LARSON	WELLS	GARRISON	MCALISTER
Heredity a factor	No	Yes	Yes	Yes	No	?	No	No
Environment a factor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Imitation	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Habit	No	Yes	No	Yes	Perhaps	Yes	No	Yes
Neurosis	Yes	Yes	Yes	Secondary Factor	Yes	Yes	No	Yes
Lack of visual imagery	No	No	No	Related	Yes	Yes	No	Yes
Neurological	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Psychological	Yes	Yes	Yes	A Factor	Yes	Yes	Yes	Yes
Abnormal breathing	No	Yes	No	Related	Yes	No	No	Yes
Physiological	No	No	Yes	Yes	Yes	No	Yes	Yes
Association	No	Possibly	Question Not Clear	Yes	No	?	No	Yes
Inferiority a factor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fear a cause	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Conditioned inhibition	No	Yes	Yes	Possibly	No	?	No	Yes

Continued next page

TABLE I (Continued) - CAUSES OF STUTTERING

	MORRIS	DAVISON	LaFOLLETTE	NICHOLS	WILEY	FISH	GOATES	HUCKLEBERRY
Heredity a factor	No	No	Yes	Yes	No	Yes	No	Yes
Environment a factor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Imitation	Yes	In general, No	Yes	No	No	No	No	Yes
Habit	Yes	Yes	No	Yes	No	No	No	No
Neurosis	Yes	No	No answer	Yes	No	No	Yes	Yes
Lack of visual imagery	Yes	No	No	No	No	?	No	No
Neurological	Yes	Yes	No answer	No	No	?	Yes	Yes
Psychological	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Abnormal breathing	Yes	No	No	No	No	No	No	No
Physiological	Yes	No	No	No	No	Yes	Normal structure; abnormal use of it.	No
Association	Yes	No	Yes	No answer	No	No	No	?
Inferiority a factor	Yes	Yes	Yes	Yes	No	Yes	No	No
Fear a cause	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Conditioned inhibition	Yes	No answer	Yes	Yes	No	?	?	?

Continued next page

TABLE I (Continued) - CAUSES OF STUTTERING

	LUSE	BLOOMER	BENDER	FERREIRA	MOORE	CHREIST	MONTGOMERY	PETREY
Heredity a factor	Yes	Possibly	Yes	Strong possibility	Yes. See Chapter	Yes	No	Yes
Environment a factor	Yes	Yes	Yes	Yes	Possibly	No	No	No
Imitation	No answer	Yes	Only when sympathy is at work	Possibly	Possibly	No	No	No
Habit	No answer	Yes	Yes	No	Basically, No	Yes	No	Yes
Neurosis	No answer	People who stutter are sometimes also neurotic.	Yes	Yes	Possibly	No	Yes	Yes
Lack of visual imagery	No answer	No answer	Perhaps	No answer	No	No	No	No
Neurological	No answer	Possibly	Yes	Yes	Possibly	Yes	No	No
Psychological	Yes	Yes	Yes	Yes	Yes	No answer	Yes	Yes
Abnormal breathing	No answer	No	No	No	No	No	No	No
Physiological	No answer	Yes	See chapter	Yes	Possibly	Yes	No	No
Association	No answer	No answer	Question not clear	No answer	No	No	No	Sematic association, Yes
Inferiority a factor	Yes	Yes	Yes	Yes	Possibly	Yes	No	No
Fear a cause	No answer	Aggravative factor	Yes	Yes	Possibly	No	Yes	No
Conditioned inhibition	No answer	Don't know if stuttering is an inhibitory phenomenon	Yes	No answer	Possibly	No	Yes	Yes

Continued next page

TABLE I (Continued) - CAUSES OF STUTTERING

	HUTCHESON	VAN DUSEN	MORLEY	CARLILE	ANDREWS	WESTLAKE	JOHNSON	ANDERSON
Heredity a factor	No	Yes	Yes	Yes	No	Possibly	Yes	Yes
Environment a factor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Imitation	Yes	Possibly	No	Yes	Yes	Possibly	No	Doubtful
Habit	Yes	Possibly	Yes	Yes	Yes	?	?	Yes
Neurosis	Yes	Yes	Yes	Yes	Rarely	Yes	Yes	No
Lack of visual imagery	Yes	Possibly	No	No	No	?	No	No
Neurological	Yes	Possibly	Yes	No	No	Question not clear	?	Yes
Psychological	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Abnormal breathing	Yes	A symptom	No	No	No	Possibly	No	No
Physiological	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Association	Yes	Question not clear	?	Yes	Yes	Question not clear	?	No
Inferiority a factor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Perhaps
Fear a cause	Yes	In some cases	Precipitating	Yes	No	Yes	Yes	Yes
Conditioned inhibition	Yes	Yes	Maintaining not causal	Yes	No	Yes	?	Yes

Continued next page

TABLE I (Continued) - CAUSES OF STUTTERING

	ALBRIGHT	BRYNGLESON	PFLAUM	MANNING	NELSON	PARRY	FALCONER	EDWARDS
Heredity a factor	Yes	Yes	Yes	Yes	Yes	In some cases	?	Questionable
Environment a factor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Imitation	No	No	Yes	No	No	Yes	No	No
Habit	No	No	Yes	No	No	Symptoms become habits	Yes	No
Neurosis	Yes	No	Yes	No	No answer	Sometimes	No	Yes
Lack of visual imagery	No	No	Yes	No	Yes	No	No	Possibly
Neurological	No	Yes	Yes	Yes	Yes	Sometimes	Yes	Yes
Psychological	Yes	No	Yes	Yes	Yes	Perhaps a result	Yes	Yes
Abnormal breathing	No	No	Yes	No	Concomitant rather than a cause	Symptom	No	No
Physiological	Yes	Yes	Yes	No	Yes	In some cases	Yes	Yes
Association	No	No	Yes	No	No	Question not clear	Question not clear	No
Inferiority a factor	Yes	No	Yes	No	Yes	A result	Yes	Yes
Fear a cause	Yes	No	Yes	More of a result	Yes	A symptom	Yes	Yes
Conditioned inhibition	Yes	Yes	Yes	No	Yes	Sometimes	?	No answer

Continued next page

TABLE I (Continued) - CAUSES OF STUTTERING

	CALIFORNIA GROUP						MATTHEWS	DEFOREST
	1	2	3	4	5	6		
Heredity a factor	Yes	Yes	No answer	No answer	No answer	No answer	No	Predisposition, yes: Heredity, no
Environment a factor	Yes	Yes	Yes	Yes	Yes	No answer	Yes	Yes
Imitation	Yes	No answer	Yes	Yes	Yes	Yes	No	No
Habit	No answer	Yes	No answer	Yes	Yes	Yes	Yes	No
Neurosis	Yes	No answer	Yes	Yes	No answer	No answer	Seldom	Yes
Lack of visual imagery	No answer	Yes	No answer	Yes	No answer	No answer	Seldom	No
Neurological	No answer	No answer	No answer	Yes	Yes	Yes	Seldom	No
Psychological	Yes	Yes	Yes	Yes	Yes	Yes	Seldom a cause-often a result	Yes
Abnormal breathing	No answer	Yes	No answer	Yes	No answer	No answer	No	No
Physiological	Yes	Yes	Yes	Yes	Yes	No answer	No	No
Association	Yes	Yes	No answer	No answer	No answer	No answer	No	No
Inferiority a factor	Yes	Yes	Yes	Yes	Yes	Yes	Seldom a cause-often a result	Yes
Fear a cause	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Conditioned Inhibition	Yes	No answer	Yes	No answer	Yes	No answer	Yes	Yes

Continued next page

TABLE I (Continued) - CAUSES OF STUTTERING

	KOPP	MORGAN
Heredity a factor	Yes	Yes
Environment a factor	Yes	Yes
Imitation	Yes	Yes
Habit	Yes	Yes
Neurosis	Yes	Result
Lack of visual imagery	No	No
Neurological	Yes	Yes
Psychological	Yes	Yes
Abnormal breathing	Yes	No
Physiclogical	Yes	Only as a physiological cause brings about an inferiority complex
Association	Yes	Semantic, Yes
Inferiority a factor	Yes	Result
Fear a Cause	Yes	Yes
Conditioned inhibition	Yes	In secondary phase

Continued next page

TABLE I (Continued) - CAUSES OF STUTTERING

	ALBRIGHT	BRYNGLESON	PFLAUM	MANNING	NELSON	PARRY	FALCONER	EDWARDS
Lack of cerebral dominance	Yes	No	Yes	Yes	No	No	No	Yes
Laterality or sidedness	Yes	Yes	Yes	Yes	No	No	Yes	Possibly
Social maladjustment	Yes	No	Yes	Result	Yes	Sometimes	No	Yes
Semantic association	Yes	No	Yes	No	Yes	Sometimes	Yes	Yes
Stuttering a symptom	Yes	No	Yes	Yes	No	Yes	No	Yes
Stutterer wishes to stutter	No	Yes	Yes	No	Yes	Sometimes	No	Maybe
Stuttering a compensation	No	No	Yes	No	No	Sometimes	Yes	Not in its beginning
Personality difficulty	Yes	No	Yes	Circular process	No	Sometimes	No	Yes

Continued next page

TABLE I (Concluded) - CAUSES OF STUTTERING

	KOPP	MORGAN
Lack of cerebral dominance	No	No
Sidedness of laterality	No answer	No
Social maladjustment	Yes	Yes
Semantic association	No	Yes
Stuttering a symptom	Yes	Yes
Stutterer wishes to stutter	Yes	Yes
Stuttering a compensation	Yes	Yes
Personality difficulty	Yes	Yes

HEREDITY

Twenty-six of the people cooperating in this study hold that heredity is a cause of stuttering, while thirteen of the participants feel that it is not a cause. Three indicate that heredity may be a cause of stuttering, while six have not as yet come to a yes or no decision on the matter. One individual believes that heredity sometimes causes stuttering, while another holds that heredity as a cause, is questionable.

Dr. Virgil A. Anderson, Director of the Speech and Hearing Clinic at Stanford University, points out that "clinical experience indicates that heredity operates to predispose the organism to stutter." Mr. C. E. A. Moore, Director of the Speech and Hearing Clinic, Proviso Township High School, Maywood, Illinois, elaborates one step further when he remarks that the stuttering itself is not inherited.

Mrs. Louise D. Davison, Director of the Davison School of Speech Correction at Atlanta, Georgia, Dr. Carl Ritzman, Director of Speech Correction at the University of Oklahoma, Mr. Clark S. Carlile, Supervisor of Speech Correction at Idaho State College, Mr. Richard R. Hutcheson, Director of the District Speech Clinic, Georgetown Hospital, Washington, D. C., Mr. Edelu Fennema, Director of the Junior League School of Speech Correction at Columbia, South Carolina, and Dr. Harlan Bloomer, Director of the Speech and Hearing Clinic at the University of Michigan, agree with Dr. Anderson, and in so doing, qualify their answering in the affirmative.

Dr. Dean G. Nichols, Director of the Wyoming Speech Clinic at the University of Wyoming, states that heredity is a factor "in the sense that stuttering runs in families, probably from environmental factors. Stuttering

is not transmitted in the genes." Dr. Charles Pedrey, Director of the Speech Clinic at Michigan State College, advises that "studies seem to show that more stutterers than non-stutterers have ancestors that stutter."

Dr. James F. Bender, Director of the National Institute for Human Relations in New York, agrees that there is a predisposition to stutter; and that this "takes the form of stuttering symptoms in an environment unfavorable to smooth, fluent speech."

Dr. Alan Huckleberry, Director of Special Education and Clinics, Ball State Teachers College, recognizes a neurological predisposition, in addition to the inheritance of a non-healthy body.

Dr. A. C. LaFollette, Director of the Speech and Hearing Clinic at Ohio University, feels that heredity operates "only in that it provides a pattern to imitate, or a disposition on the part of parents to react critically to the first sign of stuttering in their child."

Dr. Alonzo John Morley, Director of the Speech Clinic, Brigham Young University, accepts heredity as a limited factor of causation, while Dr. George A. Kopp, Director of Speech Science and Correction at Wayne University, accepts it "when viewed as a determinant of potential function."

Mrs. Margaret Clark Lefevre, formerly Chief Speech Therapist of Kabat-Kaiser Institute, Vallejo, California, and now in private practice in Vallejo, feels that heredity is not necessarily a major factor in every case, but that it seems to be in a significant number of cases. Miss Lucia Morgan, Assistant Professor of Speech at Michigan State College, holds that "a predisposition could be an inherited factor. We observe that a large number of stutterers belong to a definite body type which is considered to be an inherited characteristic."

ENVIRONMENT

Forty-four of the people cooperating in this study hold that environment is a cause of stuttering, while four of the participants feel that environmental factors do not cause stuttering. One other person concedes that it possibly is a cause, and another does not answer the question.

Dr. Anderson feels quite certain that environment is a cause of stuttering, when he states, "There is no doubt. Environment is probably the most important of precipitating causes." Mr. Hutcheson, too, believes it to be a direct and contributing factor. Dr. LaFollette, elaborates to say, "yes, environment is a factor, either as some pattern to imitate or, more significantly, reacting to the attitudes and influences of parents. Home environment seems a significant factor in stuttering histories."

Dr. Huckleberry, answering in the negative, qualifies his choice by remarking, "if disassociated from psychological." Dr. W. Arthur Cable, Director of the Speech Clinic, University of Arizona, is convinced that environment is a factor in the majority of cases, while Dr. Ritzman definitely believes that parental non-acceptance behavior "is the crucial factor in stuttering etiology." Mrs. Lefevre upholds that environment "may help or hinder, but it is not a basic causative factor." Mr. Moore, while not answering yes or no, felt that it might very well be a factor.

Miss Elsie Edwards, Supervisor of Teacher Training in Speech Correction at Michigan State College, and Dr. Jack Matthews, Director of the Speech and Hearing Clinic at the University of Pittsburg, also believe that environment can operate as a cause of stuttering.

IMITATION

Twenty-two of the people cooperating in this study feel that imitation is a cause of stuttering, while twenty disagree and answer no to this question on the questionnaire. Four people think that it is possible that imitation may cause stuttering, one is doubtful that it has any effect, and another says that only when sympathy is at work will imitation cause stuttering. Two participants did not answer the question.

Mr. Carlile thinks that imitation is sometimes a cause, but only then as a factor in onset. However, Dr. Anderson is convinced that imitation, as a cause, is doubtful. He states, "It has been thought to be so, but I have found very little actual evidence to support it as a cause. It would probably operate to precipitate, if a predisposition to stutter already existed."

Mr. Hutcheson, on the other hand, acknowledges it to be a contributing factor in a few isolated instances. Mr. Moore, hesitating to come to a yes-no decision, states that "in some few cases this may be a minor factor." Mr. Fennema, like Mr. Moore, is reluctant to make an either-or choice, but he does remark that imitation is a possible cause. Dr. Bloomer, too, claims that imitation operates in a few cases, "but not alone." Dr. Bender recognizes it as a cause, "only when sympathy (affective state) is at work."

Dr. Ritzman answers in the affirmative, qualifying his answer with, "If this is meant identification in the strict psychoanalytic sense." Mrs. Davison holds, "In general, no; in some cases, yes." Mr. Fred W. Chreist, Director of the Speech and Hearing Clinic, University of New Mexico,

goes a little further when he says, "Seldom, if ever." Dr. Harold Westlake, Director of the Speech Clinic at Northwestern University, and Dr. C. Raymond VanDusen, Director of the Speech Clinic at the University of Miami, concede that "maybe" imitation is a cause of stuttering. Dr. Pedrey points out that there is "no evidence this ever caused stuttering."

Dr. Mary Coates Longerich, Speech Pathologist at Pasadena, California, Miss Geraldine Garrison, Supervisor of Speech and Hearing Services for the Connecticutt State Department of Education, Dr. Morley, Dr. Nichols, Mr. John H. Wiley, Director of the Speech and Hearing Laboratory at the University of Nebraska, Miss Gladys B. Fish, Advisor in Special Education, Department of Public Instruction, Harrisburg, Pennsylvania, Mr. John R. Montgomery, Director of the Speech and Hearing Clinic at Kent State University, Dr. T. Earle Johnson, Director of the Speech Clinic, University of Alabama, and Dr. Wallace A. Goates, Supervisor of the Speech and Hearing Center at the University of Utah, also answer in the negative, but make no further remarks to qualify their choice.

HABIT

Twenty-five of the people cooperating in this study feel that habit is a cause of stuttering, while seventeen disagree when they hold that habit is not a factor in causing stuttering. Two people concede that habit could perhaps cause stuttering, while one subject points out that symptoms become habits. Five people did not answer the question.

Mr. Robert Albright, Director of the Speech Clinic at the University of Colorado, while he acknowledges that habit of repetition can be formed, feels that this would not be stuttering by definition. Dr. Bryng Bryngelson, Director of the Speech Clinic, University of Minnesota, does not believe that habit is a cause of stuttering. Mr. John A. Manning, Director of the Speech Clinic, St. Olaf College, agrees with Dr. Bryngelson that habit is not a basic cause, and as such, answers in the negative.

Dr. Richard A. Parry, Assistant Director of the Speech Clinic at the University of Hawaii, while not answering yes or no, states that the symptoms become habit. Mr. George Falconer, Director of the Memphis Speech and Hearing Center, University of Tennessee, enlarging upon his selection of yes on the questionnaire, states that, "While not an initial cause of stuttering, habit is important in keeping it going." Dr. Anderson concludes that, "No doubt that a great deal, if not all of adult, confirmed stuttering, is habit, if the concept of habit is made sufficiently broad."

Stuttering is caused "only after a stutterer has conditioned to certain stimuli and responses to form an habitual response," replies Mr. Carlile. Mr. Hutcheson feels habit to be a "direct and contributing factor." Mr. Moore states, "Basically, no, but some of the secondary characteristics

associated with stuttering may become habits." Dr. Bloomer, too, feels that "once started, habit probably contributes to continuation of the stuttering."

Dr. Nichols points out that "the accompanying muscular movements result from habit." Dr. Bender puts forth the idea that "the cause of the stutter may be removed, leaving the subject with primary blocks." This indicates that he upholds habit as a possible cause of stuttering. Mrs. Davison remarks, "Sometimes the habit persists after the cause is removed."

On the other hand, Dr. LaFollette contends that "habit could never become stuttering of itself - but to label a fellow a stutterer who merely repeats or habitually 'retraces', might be enough to cause complications."

Dr. Morley, however, feels that habit is a factor in maintaining stuttering, but is not a cause. Dr. Cable, answering yes, qualifies this choice when he states, "When imitation is the inciting cause." Dr. Westlake poses the question, "The symptom may continue on a habit basis, but could a habit initiate it?" Dr. Pedrey is of the opinion that stuttering "may be a carry-over from the stage of childhood repetition."

NEUROSIS

Twenty-eight of the people cooperating in this study feel that neurosis is a cause of stuttering, while nine disagree and answer in the negative. One participant lists neurosis as a secondary factor, another classifies it as a possibility, while two others point out that it is rarely a cause, and one feels that sometimes it is a cause. One other participant comments that people who stutter are sometimes neurotic. Still another believes that neurosis is a result rather than a cause. Six participants did not answer the question.

Mr. Manning, however, believes that it is more a result, rather than a cause. Dr. Parry concedes that it is sometimes a cause. Mr. Falconer states, "It may be interrelated, but I have known too many stutterers who were less neurotic than 'normal' people, and too many neurotics who didn't stutter."

Dr. Anderson does not contend that it is a direct cause. "Stuttering is not a symptom of neurosis, although the secondary stutterer may get to be neurotic." Mr. Hutcheson points out that it is a contributing factor, while Mr. Moore emphasizes that it is a factor that cannot be ignored. He asks the question, "Would the neurotic become a stutterer, or would the stutterer become a neurotic?" Dr. Bloomer accepts the thesis that people who stutter are sometimes also neurotic. Dr. Longerich claims that "stuttering is not a speech disorder per se; instead, it is a psychoneurosis."

Dr. Ritzman makes the observation that "I don't believe that it can be demonstrated that stutterers, in the beginning, are a neurotic population. But I do believe we will be able to demonstrate that they suffer from

normal anxiety feelings, of inferiority, etc." Mrs. Lefevre contends that, while neurosis is not a major factor, "stuttering might develop or be aggravated by the anxiety neurosis."

PSYCHOLOGICAL

Forty-four of the people cooperating in this study feel that psychological factors are a cause of stuttering, while two disagree and answer no, that these are not factors in stuttering. One lists psychological factors as a factor to be considered, another believes it to be a result, while still another did not answer the question.

Mr. Falconer believes that the major causes of stuttering are psychological. He believes that these are "mainly the relationships between the stutterer and society." Mr. Manning feels that psychological factors can be both a cause and a result. Dr. Parry, while not checking either yes or no on the questionnaire, has this to say: "Most cases I have seen seem to have a psychological difficulty, but it may be a result and not a cause."

Dr. Anderson, answering in the affirmative, feels that "any source of tension or anxiety would undoubtedly aggravate stuttering. This is very closely related to environmental factors." Mr. Hutcheson feels that psychological factors are partial causes of stuttering, while Mr. Moore contends "they are probably the most important of all the contributing factors. Dr. LaFollette voices agreement that this is a chief factor. Dr. Bloomer points out that anxieties, fears of rejection, and apprehension are important in this regard. Dr. Pedrey, in answering yes to this question on the questionnaire, qualifies his choice by remarking,"If I may define 'psychological cause.'"

INFERIORITY A FACTOR

Thirty-eight of the people cooperating in this study feel that inferiority is a cause of stuttering, while seven subjects are of the opinion that this is not a factor in causing stuttering. Two participants hold that perhaps this causes stuttering, but three others consider inferiority to be a result rather than a cause.

Dr. Bryngelson holds that inferiority is a factor as an after effect of the stuttering itself. Dr. Parry, Mr. Manning, Mr. Wiley, and Dr. Benjamen S. Andrews, Director of Speech Correction at the University of Virginia, also feel that it is a result, rather than a cause. Mr. Falconer does not believe inferiority is a factor initially, "but like habit, later inferiorities keep it going."

Dr. Anderson states: "Probably not directly, but perhaps as a part of a more complex unfavorable psychological set-up. More likely to result from, rather than cause stuttering." Mr. Moore asks, "Does he feel inferior because he stutters, or does he stutter because he feels inferior? It may be a factor, however." Dr. Bloomer lists inferiority as a contributing factor. Dr. LaFollette indicates that inferiority is a factor, but only one aspect of the psychological problem.

FEAR A CAUSE

Thirty-seven of the people cooperating in this study feel that fear is a cause of stuttering, while six other subjects hold that this is not a factor in causing stuttering. One participant answers that in some cases it is a cause, one reports that possibly it is a cause, another calls fear an aggrative factor, and another refers to it as a precipitating factor; where one calls for a symptom, another prefers the term result. One person did not answer the question.

Mr. Carlile feels that fear is a cause "only as it is indicative of an insecure feeling in the organism." Mr. Hutcheson is of the opinion that it is a "direct and contributing factor." Dr. Anderson interprets fear to be "a maintaining factor, once the secondary aspects of stuttering have developed. Stuttering is in proportion to the fear of stuttering." Mr. Manning and Dr. Andrews propose that fear is a result rather than a cause of stuttering. Mr. Manning points out its circular process. Dr. Parry lists it as a symptom and not a cause. Mr. Falconer feels that fear keeps the stuttering continuing, but he is not at all sure that it causes it initially.

Dr. Bloomer calls fear "an aggravating factor," while Mr. Moore believes it to be "a contributing factor." Dr. Huckleberry checks yes, only after altering the question to read, "Fear of social disapproval." Dr. LaFollette feels that fear is a cause, "but only as one factor of a more complicated picture - the total impact of which thwarts and blocks." Dr. Ritzman points out that "there are <u>levels</u> of causation - all of which must operate. What begins is a predisposition in a neurologically atypical

organism comes to function as a stuttering symptom at the level of attitude as a result of fear of rejection of oneself as an object intrinsically worthy of regard."

Fear, according to Dr. Worley, is a "precipitating cause." Mrs. Lefevre claims that "fear might be a precipitory factor, might in some cases become chronic, but not fundamental." Mr. Chreist also agrees that fear is a precipitating factor, but maintains that it is not a basic cause. Dr. Van Dusen concedes fear to be a cause of stuttering in some cases.

CONDITIONED INHIBITION

Twenty-four of the people cooperating in this study feel that conditioned inhibition is a cause of stuttering, while seven others are of the opinion that this is not a factor in causing stuttering. Two participants claim that possibly it is a cause, another states that sometimes it is a cause, while still another lists it as maintaining, not causal. One other subject is not sure if stuttering is an inhibitory phenomenon. Thirteen people did not answer the question.

Dr. Kopp, in answering yes, that conditioned inhibition is a cause of stuttering, qualifies his answer by suggesting that it all depends upon the interpretation of the term. Mr. Albright, considers conditioned inhibition as a secondary symptom, while Dr. Bryngelson feels that probably some types of conditioned inhibition would be causes of stuttering.

Dr. Parry believes that sometimes conditioned inhibition is a cause of stuttering. Mr. Falconer, while not taking a yes-no stand on this question, comments, "Bluemel's theory has possibilities I think attractive because it is based on the great work of Pavlov." Of conditioned inhibition, Dr. Anderson states: "Yes, probably; another way of explaining habit factors in secondary stuttering." Dr. Bloomer points out that he isn't sure if stuttering is an inhibitory phenomenon. Dr. LaFollette answers, "Yes, but it is likely to be a phase of the psychological factor." Dr. Morley tells us that "it is a maintaining factor, not causal."

SOCIAL MALADJUSTMENT

Forty-one of the people cooperating in this study feel that social maladjustment is a cause of stuttering, while four subjects claim that it is not a factor in causing stuttering. One participant labels social maladjustment a contributing factor, and two others believe social maladjustment to be a result. One other individual admits that sometimes it might cause stuttering, and one subject did not answer the question.

Mrs. Lefevre, although answering in the affirmative, does not concede social maladjustment to be a primary cause of stuttering. Dr. LaFollette concludes that "this factor often stems from a parental environment that is unfavorable - a family fear of a disapproval of the stuttering symptoms."

Mr. Moore, while not answering yes or no, states that social maladjustment "seems to be a contributing factor in some cases." Dr. Anderson believes that social maladjustment "could operate as a precipitating factor. It is also related to environmental factors. Not a sole cause, but operating in combination with others." Mr. Falconer prefers to "translate the term to mean adjustment to a maladjusted society. The stresses and strains in our society contribute, I believe."

Mr. Manning and Dr. Bryngleson believe that social maladjustment is not a cause, but rather a result of the stuttering. Mr. Albright classifies this as a "which comes first question," intimating that it can act as both a cause and a result. He checked yes on the questionnaire, however. Dr. Pedrey is of the opinion that social maladjustment is a possible cause of stuttering "in that it may create tensions that cause stuttering."

STUTTERER WISHES TO STUTTER

Twenty of the people cooperating in this study feel that a cause of stuttering is the stutterer wishing to stutter. Eighteen participants disagree and answer in the negative. One person states that this cause is infrequent, while two others say that it is possibly a cause of stuttering. Three subjects are of the opinion that sometimes it is a cause, while five have not answered the question. Still another alters the question to read, "Stutterer needs to stutter."

Miss Fish, Dr. Westlake, Mr. Wiley, Dr. Bender, Mr. Moore, and Mr. Albright contend that this desire is "on a subconscious level." Dr. Cable states: "Occasionally, originally, either consciously or unconsciously." Dr. Bloomer claims that this cause rarely functions. Dr. Anderson indicates that he has found very little evidence to support this theory.

Mr. Falconer observes that "not initially, but in later stages, I believe some stutterers make the adjustment of enjoying the attention their speech attracts." Dr. Parry believes that the stutterer wishes to stutter "to preserve his own concept of his personality." Dr. Pedrey points out that "it is possible that the stutterer uses stuttering as an attention getter."

STUTTERING A SYMPTOM

Forty-one of the people cooperating in this study feel that stuttering is a symptom, while five subjects hold that it is not a symptom. One participant believes that in some cases stuttering is a symptom, another concludes that stuttering is seldom a symptom, and two people did not answer the question.

Miss Larson explains that "stuttering is a symptom of some psychological or physiological problem." Dr. Cable is of the opinion that "stuttering is a symptom of a severe trauma of the nervous system." Dr. LaFollette tells us that stuttering is a symptom "in the sense that it is a learned habit stemming from something psychological, though there may be many contributing factors."

Dr. Anderson states: "Doubtless true; real condition is little understood." Mr. Falconer, supporting his theory that stuttering is not a symptom warns, "It is more than merely a symptom, I believe. It is a complicated process, the laws of which we have not yet discovered." Dr. Parry is of the opinion that "sometimes stuttering is a symptom of a psychological trauma."

STUTTERING A COMPENSATION

Twenty-five of the people cooperating in this study feel that stuttering is a compensation. Twelve people do not consider stuttering to be a compensation and therefore not a cause. Five people feel that this is sometimes a cause, while one subject states that perhaps it is a cause. One individual accepts the theory that it is infrequently a cause. Another points out that stuttering is not a compensation in its beginning. Five subjects did not answer the question.

Dr. Cable contends that originally, or when the stutterer first starts to stutter, stuttering is a compensation, and as such, a cause. Dr. Van Dusen, Mrs. Davison, Miss Garrison, Mrs. Lefevre, Mr. Moore, and Dr. Parry feel that this is a cause in some cases. Dr. Ritzman believes "this could very well be" a cause of stuttering. Dr. LaFollette, Mr. Carlile, and Mr. Albright indicate that this would seldom operate as a cause, and Dr. Anderson is very doubtful that it is ever a cause to consider.

PERSONALITY DIFFICULTY

Thirty-eight of the participants in this study feel that personality difficulties cause stuttering. Six of the people do not feel that this operates as a cause. One subject indicates that it is a circular process, another feels that personality difficulties sometimes cause stuttering, while three people did not come to a yes-no decision.

Dr. Anderson has this to say about personality difficulties as a cause of stuttering: "Certainly personality difficulty can result from stuttering. It might also operate in a complex of general factors to bring about the onset of stuttering."

Mr. Albright suggests that it is "perhaps a conflict of aggression vs. high idealism. There are certainly other conflicts, too." Dr. LaFollette points out that "these stuttering symptoms may in part be generated by maladjustment such as when starting to talk, starting to school, or adolescence."

Dr. Ritzman comments, "Most assuredly." Dr. Parry and Mr. Wiley concede that personality difficulties sometimes operate as a cause. Mr. Moore poses the question, "Does he stutter because of personality difficulty, or does he become a personality problem because he stutters?" Mr. Moore concludes that personality difficulty does cause stuttering, as he answers in the affirmative.

Mrs. Lefevre believes that it is more likely a result rather than a cause. Mr. Falconer feels that "being a speech handicapped person would give any of us difficulty," as he intimates that it is a result, rather than causal. Mr. Manning is convinced that it is a circular process.

NEUROLOGICAL

Twenty-eight of the subjects participating in this study are of the opinion that neurological factors are a cause of stuttering, while nine disagree and answer in the negative. Three participants hold the belief that neurological factors possibly cause stuttering, one feels that they seldom cause stuttering, while still another points out that neurological factors sometimes are causative factors. Eight subjects did not answer the question.

Mr. Manning is of the opinion that a neurological cuase is the "principle predisposing factor in stuttering," while Mr. Albright acknowledges it to be "a cause with the exception of those blocks found with certain cerebral palsied cases." Dr. Parry and Dr. Van Dusen agree that it is "sometimes" a cause of stuttering.

Mr. Falconer believes that "it is a cause in a limited number of cases," but that it is important to consider stuttering as "a neurological process in all cases of stuttering."

Dr. Anderson hesitates to say that such factors are direct causes. "They are related," he thinks, "but probably in a more complex, indirect way." Mr. Carlile is very doubtful that neurological factors cause stuttering, but Mr. Hutcheson, Miss Garrison, and Mr. Moore contend that they are contributing factors.

Dr. Bloomer concedes that "possibly" they are causes of stuttering. Dr. Huckleberry, answering in the affirmative, emphasizes that "an inherited system may be such as to react to environment by stuttering, thus being a part of the cause. Neurology, as such, does not cause stuttering,

however." Dr. Ritzman states: "I accept the dominant gradient concept as the neurological basis of fluency as the best theoritical explanation we have."

ABNORMAL BREATHING

Nine of the subjects cooperating in this study feel that abnormal breathing is a cause of stuttering, while thirty-one do not believe this to be a causal factor. One participant points out that it is related, another calls abnormal breathing a concomitant, while still another feels that this factor possibly causes stuttering. Two individuals list abnormal breathing as a symptom, while five subjects did not answer the question.

Mr. Manning and Dr. Bender feel that abnormal breathing is a result of stuttering, rather than its cause. Dr. Severina Nelson, Director of the Speech Clinic at the University of Illinois, and Dr. Bloomer contend that abnormal breathing is a concomitant, rather than the cause of stuttering. Dr. Parry prefers to classify it as a symptom. The latter believes "that it may be related as an accompanying symptom of a more basic condition, or merely as part of the stuttering pattern."

Mr. Hutcheson lists abnormal breathing as a contributing factor, and Dr. Cable cites an example of a subject he worked with who stuttered when he tried to talk during inhalation. When the habit was remedied, he ceased stuttering permanently.

Dr. Westlake has this to say of abnormal breathing as a cause of stuttering: "Might possibly, if breathing were very abnormal, as with abdominal hernia. Usually it appears to be a part of the symptom." Dr. Pedrey remarks, "Stutterers breathe normally when not speaking." He checked no as his choice on the questionnaire.

PHYSIOLOGICAL

Twenty-eight of the people cooperating in this study accept physiological factors as a cause of stuttering, while fifteen answer no to this question on the questionnaire. One subject points out that there is a normal structure but an abnormal use of it. Another participant feels that physiological factors possibly cause stuttering, while still another points out that sometimes it is a causal factor. Three people did not answer the question.

Mr. Albright, indicating that he believes physiological factors to be a cause of stuttering, qualifies his answer by saying that "a poor physiological condition affects the individual's well-being." Dr. Bryngelson and Mr. Hutcheson classify this as "partially" a cause. Dr. Parry suspects that it may be, but not in all cases. Mr. Falconer agrees, and says, "Stuttering is a physiological process, though causes are not usually within the process."

Dr. Anderson states: "It is probable that some factors are involved here, but just what is not known for sure. Neurological organization and motor skill seem to be related in some way." Mr. Fennema feels that the "stutterer probably has a predisposing weakness which leads him to adopt this type of symptom." Dr. Bender, not checking either a yes or a no, contends that "spastic conditions and other physical diseases often show symptoms resembling stuttering.

Dr. Huckleberry checks a yes, if the physiological is associated with rehabilitation of speech physiology. Dr. Cable does not agree that physiological factors are a cause of stuttering. "The physiological

malfunctioning should not be regarded as a cause of stuttering, but rather as a result of the spasmophemia." Miss Garrison feels that it could be a cause "in some cases where the resistance is lowered, or there is lowered vitality." Dr. Coates points out that there is a "normal structure, but an abnormal use of it."

LACK OF CEREBRAL DOMINANCE

Twenty-one of the subjects participating in this study feel that a lack of cerebral dominance is a cause of stuttering. Seventeen others disagree and answer no to this question on the questionnaire. Three participants concede that perhaps this is a cause, three others list it is a cause in some cases, while one feels that a lack of cerebral dominance seldom operates as a cause. Five people did not answer the question.

Mr. Albright concedes that a lack of cerebral dominance is partially a cause of stuttering. Dr. Bryngelson points out that the "difference is in kind and not in degree of normal speech." Dr. Parry thinks that it is questionable if this lack of cerebral dominance is a cause of stuttering. He answers in the negative. Dr. Anderson is of the belief that a lack of cerebral dominance is not a direct cause. "It is an associated symptom of some more basic condition rather than a cause, I would say."

Mr. Hutcheson is of the opinion that it "can be a direct and contributing factor," while Mr. Moore disagrees when he says, "This factor may have some weight as a cause, but does not have nearly the importance that we used to attach to it." Mr. Fennema, however, believes that a lack of cerebral dominance is a cause in some cases of stuttering, while Dr. Bloomer and Dr. Bender maintain that it is perhaps a cause of stuttering. Miss Shirley E. Larson, Speech Therapist at the Crippled Childrens School, Jamestown, North Dakota, points out that a lack of cerebral dominance "seems to be especially true with cerebral palsied speech cases."

SIDEDNESS OR LATERALITY

Twenty-two of the people cooperating in this study list sidedness or laterality as a cause of stuttering, while thirteen conclude that it is not a cause. Four people acknowledge that perhaps laterality is a cause, while one classifies it as an irritant. One subject feels that it seldom operates as a cause. Eight people did not answer the question.

Dr. Van Dusen feels that in some instances, sidedness or laterality could be a cause of stuttering. Dr. Bender and Dr. Parry believe that perhaps it could be a cause, but they do not venture a yes or no answer. Dr. Bloomer prefers to list it as an irritant factor.

Mrs. Davison points out that "there should be no interference with the handedness of the child. In cases where laterality is not established, tests are administered to determine the hand which should take the lead."

Mrs. Lefevre contends that sidedness or laterality is a cause of stuttering, "if it is mixed." Mr. Moore stresses that it "may have some weight as a cause, but does not have nearly the importance we used to attach to it."

Dr. Anderson concludes that it is not a direct cause, but "an associated symptom of some more basic condition." Mr. Falconer has this to say: "Probably in some cases. Laterality still holds my attention because so many stutterers I've worked with have had sidedness conflicts."

SEMANTIC ASSOCIATION

Twenty-eight of the people cooperating in this study feel that semantic association is a cause of stuttering, while ten people do not accept this as a causal factor. One of the subjects believes it to be a factor, and another person conceles that it is sometimes a cause. One other participant suggests that is is perhaps a cause. Nine subjects did not answer the question.

Mr. Chreist concludes, "It is a contributing factor, if not a basic cause." Mr. Wiley feels that semantic association is occasionally a cause. Dr. Pedrey feels that, "There is considerable evidence that this is one of the causal factors." Miss Carrison points out that it may be a cause in some cases "in that the word arouses conflict." Mrs. Lefevre qualifies her affirmative choice when she concedes that "when the predisposition or actual stuttering is present, yes," it is a cause.

Dr. Cable includes "labeling" when he calls semantic association a cause of stuttering. Dr. LaFollette reflects, "The subject associates stuttering with a meaning that is highly unacceptable, even repugnant, Hence he disapproves of himself and discredits himself." Dr. Anderson holds that semantic association is not a sole cause. "It may operate to aggravate a stuttering condition. It may hasten the onset of secondary symptoms." While Mr. Moore acknowledges that it is a factor involved in stuttering, Mr. Manning calls semantic association a precipitating cause.

LACK OF VISUAL IMAGERY

Nine of the people cooperating in this study believe that a lack of visual imagery is a cause of stuttering, while twenty-seven of the subjects are unable to accept it as a cause. Three subjects feel that perhaps it is a cause, one states that this seldom operates as a cause, but still another believes it to be related. Nine participants did not answer the question.

Dr. Parry contends that a lack of visual imagery is a questionable cause of stuttering. Dr. Anderson also believes that it is very doubtful that it is a cause. On the other hand, Mr. Hutcheson is of the opinion that it is a "contributing factor." Dr. Bender holds that perhaps it is a cause, "in the sense that stuttering symptoms are often noticed in certain asphasics." Mrs. Lefevre believes a lack of visual imagery to be related, rather than causative, while Dr. Van Dusen indicates that it is possible that this lack of visual imagery could be a cause of stuttering. Dr. Andrews states, "Possibly hyperkinaesthetic, at the expense of auditory image."

ASSOCIATION

This subject of association on the questionnaire was not at all clear to the people participating in this study, since eighteen subjects did not answer the question. Thirteen of the participants believe that association is a cause of stuttering, while eighteen do not accept it as a causative factor. One subject indicates that association is possibly a cause of stuttering.

Mr. Falconer is of the opinion that association is a cause "when interfering associations or conditioned responses may operate in stuttering." Mr. Hutcheson considers association to be a contributing factor, while Dr. LaFollette feels association to be a cause in the sense that the stuttering of a parent, brother, or sister, or playmate, may be imitated. Dr. Pedrey and Miss Morgan interpreted this to mean semantic association, and after altering the question to read this way, answered yes on the questionnaire.

TABLE II

SUMMARY OF CAUSES OF STUTTERING

C A U S E	YES	NO	SOMETIMES	PERHAPS	A RESULT	SELDOM	MISCELLANEOUS	NO ANSWER
Heredity a factor	26	13	1	3	--		1	6
Environment a factor	44	4	--	1	--	--	--	1
Imitation	22	20		4			2	2
Habit	25	17		2			1	5
Neurosis	28	9	1	1	1	2	1	6
Lack of visual imagery	9	27		3		1	1	9
Neurological	28	9	1	3		1		8
Psychological	44	2			2		1	1
Abnormal breathing	9	31		1			4	5
Physiological	28	15	1	1			2	3
Association	13	18		1				18
Inferiority a factor	38	7		2	3			
Fear a cause	37	6	1	1	1		3	1
Conditioned Inhibition	24	7	1	2			3	13

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TABLE II (Concluded) - SUMMARY OF CAUSES OF STUTTERING

C A U S E	YES	NO	SOMETIMES	PERHAPS	A RESULT	SELDOM	MISCELLANEOUS	NO ANSWER
A lack of cerebral dominance	21	17	3	3		1		5
Laterality or sidedness	22	13	1	4		1	1	8
Social maladjustment	41	4	1		2		1	1
Semantic association	28	10	1	1			1	9
Stuttering a symptom	41	5	1			1		2
Stutterer wishes to stutter	20	18	3	2		1	1	5
Stuttering a compensation	25	12	5	1		1	1	5
Personality difficulty	38	6	1		1		1	3

CHAPTER V

TREATMENT OF STUTTERING

TABLE III (Continued) - TREATMENT OF STUTTERING

	HUTCHESON	VAN DUSEN	WORLEY	CARLILE	ANDREWS	WESTLAKE	JOHNSON	ANDERSON
Case history, detailed	Yes	Yes	No	Yes	Yes	?	No answer	Yes
Physical examination	Yes	Yes	Yes	Yes	Yes	?	?	No
Breathing exercises	Yes	In some cases	?	No	Yes	No	No	Yes
Articulation exercises	Yes	No	Yes	No	No	No	No	No
Physical exercises	Yes	In some cases	?	Yes	Yes	Yes	No	No
Group treatment	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Use of suggestion	Yes	In some cases	Yes	Yes	Yes	Yes	Yes	Yes
Use of relaxation	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Psychoanalysis	Yes	In some cases	Yes	Yes	No	Yes	Yes	No
Hypnosis	No	No	Yes	Yes	No	No	No	No
Insure stutterer's success	No	Yes	Yes	Yes	Yes	Question not clear	?	Yes
Use of telephone	Yes	In some cases	Yes	Yes	Yes	Yes	Yes	Yes
Much rest	Yes	Yes	Yes	Yes	No	Yes	No	No
Pseudo stuttering	Yes	In some cases	Yes	Yes	Yes	Yes	Sometimes	Yes

Continued next page

TABLE III (Continued) - TREATMENT OF STUTTERING

	CALIFORNIA GROUP							
	1	2	3	4	5	6	MATTHEWS	DEFOREST
Case history, detailed	Yes	Yes	Yes	Yes	Yes	No answer	Yes	Yes
Physical examination	Yes	Yes	Yes	Yes	No answer	No answer	Yes	Yes
Breathing exercises	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Articulation exercises	Yes	Yes	Yes	No answer	No answer	No answer	No	No
Physical exercises	No	No answer	No answer	No answer	No answer	No answer	No	No
Group treatment	Yes	Yes	Yes	Yes	Yes	No answer	Yes	Yes
Use of suggestion	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Use of relaxation	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Psychoanalysis	No	No answer	No answer	No answer	No answer	No answer	No	No
Hypnosis	No	No answer	No answer	No answer	No answer	No answer	No	No
Insure stutterer's success	Yes	Yes	Yes	Yes	No answer	No answer	Yes	Yes
Use of telephone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Much rest	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo stuttering	No	No answer	No answer	No answer	No answer	No answer	Yes	Yes

Continued next page

TABLE III (Continued) - TREATMENT OF STUTTERING

	KOPP	MORAN
Case history, detailed	No	Yes
Physical examination	Yes	Yes
Breathing exercises	Yes	No
Articulation exercises	Yes	No
Physical exercise	Yes	Yes
Group treatment	Yes	Yes
Use of suggestion	Yes	Yes
Use of relaxation	Yes	Yes
Psychoanalysis	Yes	Yes
Hypnosis	No	No
Insure stutterer's success	Yes	Yes
Use of telephone	Yes	Yes
Much rest	No	Yes
Pseudo stuttering	No	No

Continued next page

TABLE III (Continued) - TREATMENT OF STUTTERING

	HUTCHESON	VAN DUSEN	MORLEY	CARLILE	ANDREWS	WESTLAKE	JOHNSON	ANDERSON
Create singing method of speaking	No	No	No	No	No	No	No	No
Home cooperation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Depriving oral gratification	Yes	No	?	No	Yes	Question not clear	No	No
Simultaneous writing and speaking exercises	No	In some cases	Yes	No	Yes	Yes	No	Yes
Training impaired muscles	Yes	In some cases	?	No	Rarely	Yes	No	No
Erecting psychological barriers	Yes	In rare instances	Yes	No	No	Question not clear	?	Question not clear
Keep normal routine	Yes	Yes	Yes	Yes	No	Question not clear	?	Yes
Get rid of "crutches"	Yes	Yes	Yes	Yes	Yes	Sometimes	Yes	Yes
Make friends with stutterers	No	No	Yes	Yes	No	Yes	Yes	Yes
Give stutterer responsibility	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Stutterer reads about stuttering	No	In some cases	Yes	Yes	Yes	Yes	?	Yes
Develop unilaterality	No	In some cases	Yes	No	Yes	Yes	Sometimes	Yes
Mental Hygiene	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Progression from easy to hard	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Continued next page

TABLE III (Continued) - TREATMENT OF STUTTERING

	LONGERICH	CABLE	RITTMAN	LEFEVRE	LARSON	WELLS	GARRISON	McALISTER
Phantom speech	No	Yes	No	No answer	No	?	No	No answer
Bounce technique	No	Yes	No	No answer	No	Perhaps	No	Yes
New social contacts	Yes	Yes	Yes	No answer	Yes	Yes	Yes	Yes
Work before mirror	No	Yes	Yes	No answer	Yes	Yes	No	Yes
Thought-training exercises	No	Yes	No	No answer	Yes	No	No	Yes
Remove speech conflicts	Yes	Yes	Yes	No answer	Yes	Yes	Yes	Yes
Change environment to fit stutterer	Yes	Yes	No	No answer	Yes	Yes	Yes	No
Develop an objective attitude	Yes	Yes	Yes	No answer	Yes	Yes	Yes	No answer
Emphasis upon mechanical aspects of stuttering	No	Yes	No	No answer	No	Only as a part of analysis of the blocks	No	No answer

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TABLE III (Continued) - TREATMENT OF STUTTERING

	LONGERICH	CABLE	RITZMAN	LEFEVRE	LARSON	WELLS	GARRISON	McALISTER
Phantom speech	No	Yes	No	No answer	No	?	No	No answer
Bounce technique	No	Yes	No	No answer	No	Perhaps	No	Yes
New social contacts	Yes	Yes	Yes	No answer	Yes	Yes	Yes	Yes
Work before mirror	No	Yes	Yes	No answer	Yes	Yes	No	Yes
Thought-training exercises	No	Yes	No	No answer	Yes	No	No	Yes
Remove speech conflicts	Yes	Yes	Yes	No answer	Yes	Yes	Yes	Yes
Change environment to fit stutterer	Yes	Yes	No	No answer	Yes	Yes	Yes	No
Develop an objective attitude	Yes	Yes	Yes	No answer	Yes	Yes	Yes	No answer
Emphasis upon mechanical aspects of stuttering	No	Yes	No	No answer	No	Only as a part of analysis of the blocks	No	No answer

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TABLE III (Continued) - TREATMENT OF STUTTERING

	MORRIS	DAVISON	LaFOLLETTE	NICHOLS	WILEY	FISH	GOATES	HUCKLEBERRY
Phantom speech	?	No	No	No	No	No	?	?
Bounce technique	No	Yes	Yes	No	Yes	No	Sometimes	Yes
New social contacts	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Work before mirror	Yes	Yes	Yes	Yes	No	Sometimes	Yes	Yes
Thought-training exercises	Yes	Yes	No	No	No	No	No answer	Yes
Remove speech conflicts	Yes	Yes	No answer	Yes	No	No	Yes	Yes
Change environment to fit stutterer	No	No	No	No	Yes	Yes	If environment is a factor	No answer
Develop an objective attitude	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Emphasis upon mechanical aspects of stuttering	Yes	No answer	No answer	No	No	No	No	No

Continued next page

TABLE III (Concluded) - TREATMENT OF STUTTERING

	KOPP	MORGAN
Phantom speech	No	No
Bounce technique	No	If it works
New social contacts	Yes	Yes
Work before mirror	Yes	Yes
Thought-training exercises	Yes	No answer
Remove speech conflicts	Yes	Yes
Change environment to fit stutterer	No	Yes
Develop an objective attitude	Yes	Yes
Emphasis upon mechanical aspects of stuttering	No	No

CASE HISTORY DETAILED

Forty-four of the participants cooperating in this study consider a detailed case history as essential to the treatment of stuttering, while only three feel it to be unnecessary. Three subjects did not answer the question.

Dr. Kopp does not hold that a detailed case history is a necessity to treat stuttering. On the other hand, Mr. Albright, Mr. Carlile, Dr. Ritzman, Dr. LaFollette, Dr. Parry, Miss Garrison, Mrs. Lefevre, Mr. Moore, Dr. Van Dusen, Mrs. Davison, Miss Mary M. McAlister, of the Hard-of-Hearing Kimberly School, Toronto, Canada, in addition to Miss Morrison, Mr. Wiley, Mr. Hutcheson, Mr. Falconer, Mr. Fennema, Dr. Nelson, Dr. George R. R. Pflaum, Director of the Speech Clinic, Kansas State Teachers College, Miss Larson, Dr. Charlotte G. Wells, Director of the Speech and Hearing Clinic at the University of Missouri, Dr. Bloomer, Dr. Nichols, Dr. Bender, Dr. Morley, Dr. Pedrey, Mrs. Longerich, Dr. Cable, Miss Fish, Dr. Eleanor M. Luse, Director of the Speech Clinic at the University of Vermont, Dr. Goates, Mr. Chreist, Mr. Montgomery, Dr. Andrews, and five out of the six in the California group, headed by Mrs. Osea Brooksbank, Director of Speech Correction in the Oakland, California Public Schools.. Mr. Manning indicates that he makes use of a case history, but "not detailed."

Dr. Huckleberry specifies that a case history is not written down, but that it just "comes out." Dr. Westlake points out that he has never thought of this as therapy, and does not indicate whether or not he utilizes a case history. Dr. Anderson comments that he uses the usual form, which he finds helpful.

PHYSICAL EXAMINATION

Thirty-eight of the people cooperating in this study report a physical examination to be a part of their treatment. Five consider it unnecessary, but two people believe that it is helpful in some cases. Five participants did not answer the question.

Dr. Anderson informs us that he does not make a practice of a routine physical examination for all stutterers, but "only if there are certain factors I wish to check upon." Dr. LaFollette, agreeing with Mr. Wiley, does not feel it important to treatment. Mr. Moore utilizes a physical examination in some cases, which implies that he bases its use upon need. Dr. Johnson is not certain whether or not a physical examination is necessary.

Dr. Westlake questions its use as a part of therapy, and does not indicate whether or not he makes use of a physical examination. Dr. Bender states that "it is required before a re-educational program" is embarked upon. Dr. Bloomer uses a routine medical examination as part of his therapy. Mr. Falconer uses a physical examination "only in cases where it is indicated." Dr. Nelson, too, thinks it important "if the patient seems to need it, but not necessarily for stuttering alone."

BREATHING EXERCISES

Twenty-four of those participating in this study utilize breathing exercises as a part of their therapy, while nineteen answer that they do not consider this a part of their treatment. Three participants use breathing exercises sometimes, and one participant states that she does not utilize them too much. Another participant feels that breathing exercises are incidental, not per se. Two participants did not answer the question.

Dr. Kopp, Mr. Manning, Mr. Fennema, Dr. Bloomer, Dr. Huckleberry, Mr. Moore, Mrs. Longerich, Mr. Wiley, Dr. Westlake, Mr. Montgomery, Dr. Johnson, Miss Carrison, Drs. Morley, Ritzman, LaFollette, and Mr. Carlile do not feel that breathing exercises should be a part of the treatment of stuttering.

Drs. Bryngelson, Pflaum, and Nelson, Mr. Chreist, Mr. Hutcheson, Miss Larson, and Miss Morris, Dr. Luse, Dr. Nichols, and the California group, in addition to Mrs. Lefevre and Mrs. Albright, feel that breathing exercises have their place in the re-education of stutterers.

Dr. Bender reports the use of breathing exercises, "but always in speech; not as gymnastics." Dr. Cable states, "Only when the case has been found to need them, and when the proper sequential time comes for them", are they used. Dr. Wells tells us that "sometimes" she makes use of breathing exercises in her therapy.

Dr. Goates intimates that he uses breathing exercises in his therapy, but they are "incidental, not per se." Dr. Andrews reports that he makes use of breathing exercises for the purpose of relaxation. Dr. Van Dusen,

Mrs. Davison, and Dr. Parry employ this technique in some cases. Mr. Falconer uses them "in rare cases where breathing incoordination is a major difficulty."

Dr. Anderson, answering yes on the questionnaire, states, "Breathing exercises are a part of the general speech reconditioning and retraining only."

ARTICULATION EXERCISES

Eighteen of the subjects cooperating in this study indicate that they feel that articulation exercises should be a part of the therapy for stutterers. On the other hand, twenty-five of the subjects believe that these exercises should not be included in the treatment.

One participant feels that they should rarely be used, Dr. Bender claims that they may sometimes be used, Miss Edwards believes they may be used to satisfy teachers and parents of young children, and Dr. Luse feels they serve a purpose when utilized as they come in vocal exercise. Three participants did not answer the question.

Dr. Anderson reports that articulation exercises are "of dubious value. There is very little carryover, and they may do more harm than good." Dr. Parry informs us that some of his cases of stuttering are in combination with foreign dialect. He makes use of these articulation exercises when a need for them is indicated. Mr. Moore, Mrs. Davison, and Mr. Falconer feel that articulation exercises are superfluous to treatment unless the stutterer has an articulatory problem.

Miss Garrison does not make use of this therapy at any time, but Miss Fish assures us, "Many stutterers have articulation problems, too. Security in articulation helps in the speech situation." Dr. Cable believes that "after emotional retraining, psychiatry, or mental hygiene, objectivity, relaxation, etc., have been achieved; i.e., approach the mechanical only when the more deep-seated aspects have yielded."

Mrs. Longerich elucidates:

> In dealing with children stutterers who are not yet aware of their problem, we concentrate on treatment solely in the

realm of psycho-therapy. We feel it better for the child not to know why he is being brought to our office--other than to 'enjoy himself.'

No speech exercises are given if the stuttering can be alleviated while it is in the primary stage.

In the case of children (whose stuttering has reached the secondary stage) adolescents, and adults, we do not employ speech exercises until after the major causes of the stuttering have been alleviated. In other words, speech exercises are not given until the final stages of therapy.

We first deal with the causes. After dealing with the causes, we then give the articulation exercises to alleviate the symptoms.

PHYSICAL EXERCISE

Eighteen of the subjects contributing to this study, feel that physical exercise is indicated as a part of the therapy. Twenty-two believe it to be unimportant when treating stutterers. One subject states not too much. Two participants find it useful in some cases, but seven subjects make no yes or no decision as to its usefulness.

Dr. Bloomer prefers to list physical exercise as "a correlate and not a speech corrective device." Dr. Nelson concludes that "recreation, dancing, etc., are recommended" as part of the physical exercise. Dr. Cable feels that physical exercise should be recommended when the need for it is indicated, which would undoubtedly be "occasionally." Dr. Goates also feels that if a stutterer demonstrates a need for physical exercise that it should be included as a part of the therapy. Dr. Westlake points out that physical exercise is "a part of the total adjustment, and in neurological pathology cases."

Dr. Andrews considers physical exercise important because it "promotes general health." Dr. Parry recommends physical exercise and hygiene. Mr. Carlile thinks that any physical exercise which is "conducive to good health of the case, if he needs it," should be a part of the therapy. Mr. Albright and Mr. Edgar DeForest, Suffolk University, Boston, Massachusetts, are of the opinion that normal amounts of physical exercise is all that is important, so they do not utilize this form of therapy with the stutterers. In discussing physical exercise, Dr. Anderson states, "Not as such. Sometimes recommended as part of a program to develop better motor skill and control, or to improve morale, etc."

GROUP TREATMENT

Forty-two of those participating in this study utilize group therapy as a technique in their treatment of stuttering. Four disapprove of this type of therapy. Two participants indicate that sometimes group therapy is of value, while one subject finds it has value only in the case of parent group meetings. One person did not answer the question.

Dr. Anderson states: "With adults, especially, we feel that group therapy has much to recommend it, provided it follows sufficient individual training to enable the stutterer to perform without too much difficulty." Dr. Parry, too, feels that group treatment, coupled with individual therapy to fit the person, has merits.

Dr. Bender and Mr. Moore indicate that sometimes it is of value, while Mr. Fennema utilizes group therapy only in the case of parent group meetings. Dr. Pedrey finds group treatment "beneficial from the standpoint of mental hygiene." Mr. Moore specifies that the group be limited to four or five stutterers when the speech correctionist employs this particular therapy. Miss McAlister suggests choral speaking as a technique that can be used in group treatment. Mr. Falconer points out that group therapy has merit "if they are about in the same stage of severity," referring, of course, to the stutterers.

USE OF SUGGESTION

Thirty-five of the subjects responding on the questionnaire used in this study indicate that the use of suggestion is a part of the therapy they utilize with cases of stuttering. Where six participants do not include it in their treatment, Dr. Bloomer feels that it probably should be used, and Dr. Van Dusen employs the use of suggestion in some cases. Seven others have not come to clear-cut yes or no decisions with regard to this therapy.

Dr. Bryngelson is of the opinion that the use of suggestion "operates in all therapy," but he does not utilize it as a special technique. He seems to feel, apparently, that when he is working with a stutterer using other techniques, that the use of suggestion is always unconsciously present. Dr. Bloomer, too, agrees with Dr. Bryngleson when he says, "Probably. Most teaching utilizes suggestion to some extent."

Dr. Worley feels that the use of this therapy should be limited. Mr. Wiley is of the opinion that when suggestion is used, it should be indirect, rather than direct. Dr. Parry specifies that all suggestion should be positive suggestion. Dr. Anderson believes that this therapy "must be used a great deal, as part of general retraining of habits of thinking and feeling. More informal than formal, however."

USE OF RELAXATION

Forty of the subjects cooperating in this study consider the use of relaxation as a part of their therapy. While nine do not include relaxation in their treatment of stuttering, one other participant, Mrs. Lefevre, intimates that she has not yet come to a yes or no decision as to the value of this technique.

Dr. Anderson uses relaxation a great deal. "It is part of the basic program of re-education or reconditioning the speech of the stutterer." Dr. Parry, in utilizing this technique, makes use of suggestion. He follows Dr. Edmund Jacobson's progressive relaxation techniques, as does Dr. Luse.

Mr. Moore feels that the use of relaxation "varies with individuals," but Miss Garrison points out that she makes it a practice not to use relaxation with stutterers, unless they are cerebral palsied cases, too. Mr. Falconer, in accepting relaxation as a part of therapy, tries to get all stutterers to become expert in controlling their musculature. Dr. Bryngelson, on the other hand, does not believe relaxation is important to the treatment of stuttering, since he holds that "only as emotions are conquered do muscles relax."

PSYCHOANALYSIS

Eighteen of the participants reporting in this study feel that psychoanalysis should be a part of the treatment of stuttering. Miss Fish contends that it should be used "only when a psychiatrist is on the case," and Dr. Goates would utilize psychoanalysis "as a probe technique." Dr. Bender has recommended it upon occasions, while Mr. Moore and Dr. Van Dusen can see its use in some cases, too. Of the remaining twenty-seven reporting, nineteen profess to be against the use of psychoanalysis, Miss Edwards points out that she is not capable of utilizing this technique, and seven people did not answer the question.

Mr. Hutcheson sends some of his cases to a psychiatrist, but Mr. Fennema prefers to use "a type of psychotherapy based on the person's need to understand his insecurity," rather than psychoanalysis in the strict sense of the word. Dr. Bloomer reports that psychoanalysis is not used at the University of Michigan speech clinic, but they do sometimes refer patients for psychiatric consultation.

Dr. Morley prefers non-directive counseling to psychoanalysis, while Dr. Longerich feels that psychotherapy is "the most important tool in dealing with the stutterer." Dr. Westlake believes that "these cases should be handled by an analyst, but we work in conjunction with them." While Dr. Anderson would not recommend psychoanalysis in the majority of cases, Dr. Parry points out that this technique should be used when it is indicated.

HYPNOSIS

Thirty-five of the subjects cooperating in this study report that they do not use hypnosis when working with stutterers. Dr. Coates responds that he might utilize it as a probe technique, and six participants report hypnosis to be a part of their treatment of stuttering. Eight subjects did not answer the question.

Mr. Albright, one of the five persons who considers hypnosis to be a part of therapy, reports it to be "an aid to relaxation and tension release, but only under highly trained psychiatric personnel." Mr. Carlile believes it to be "useful for exploratory purposes, in the main."

Mr. Moore and Dr. Kopp find it to be of value during the diagnostic period. Dr. Cable believes it to be helpful in finding the causes, and for certain therapy purposes, too. Dr. Pflaum is of the opinion that it should be used only for diagnosis or suggestion. Dr. Pedrey utilizes hypnosis "only to help with secondary symptoms."

INSURE THE STUTTERER'S SUCCESS

Thirty-one of the subjects cooperating in this study believe that insuring the stutterer's success should be a part of the treatment of stuttering, while nine do not consider this to be necessary. One person feels that this technique should be used in some cases, while nine others did not answer the question.

Dr. Bryngelson tells his patients that they can not be cured, and Mr. Manning never insure's the stutterer's success. Dr. Cable prefers to insure the stutterer's success at first, and then in controlled situations.

Dr. Anderson, feeling that the therapist should insure the stutterer's success, states: "Very definitely. Unless conditions are such as to insure a considerable degree of success in training, the stutterer is simply being given training in stuttering, which he can do well already." Dr. Pedrey does not insure the stutterer's success. "He'd be to apt to go back to stuttering away from the clinic."

USE OF THE TELEPHONE

Forty-two of the people cooperating in this study feel that the use of the telephone should be a technique used in the treatment of stuttering, five subjects report that they do not utilize this as a part of their therapy, Miss Fish sees it as a situational assignment, and Dr. Van Dusen finds it necessary to employ the use of the telephone in some cases. One person did not answer the question.

Dr. Anderson claims that the use of the telephone is important, "since this is usually one of the 'Jonah' situations for the stutterer." Dr. Coates, in answering yes to this question on the questionnaire, states that he utilizes this technique "as an exercise only."

Dr. Cable points out that the use of the telephone should come "when the time is ripe." Mr. Falconer makes use of the telephone in some cases where the instrument is feared and avoided. Dr. Bryngelson asks his stutterers to use the telephone for clinical exercises in faking.

MUCH REST

Thirty-one of the people participating in this study feel that much rest for the individual that stutterers must be incorporated into the treatment of stuttering. On the other hand, Dr. Bloomer maintains that normal physical hygiene is adequate. Mr. Moore stipulates that in some cases much rest is recommended, but not in all cases. Dr. Wells takes the position that "perhaps" much rest is indicated. Of the other sixteen reporting, fourteen feel that much rest is not a necessary part of therapy, and two subjects did not answer the question.

Dr. Bryngelson is of the opinion that much rest helps the stutterer. Dr. Nelson's program embraces relaxation, recreation, and rest. Mr. Falconer warns: "Avoid making an invalid of the stutterer. Enough rest, of course, but the same as for non-stutterers." Dr. Bender states: "In handling a case of stuttering from a re-educational procedure, I usually ask the subject to spend twenty-four hours in bed without speaking at all."

Dr. Cable specifies "adequate rest for each individual case." Dr. Wells is of the opinion that much rest can be utilized "perhaps as part of a general program for an individual." Dr. Westlake approves of much rest "if the case isn't getting adequate rest." Mrs. Davison stresses that stutterers should be treated as "normal individuals." Mr. Carlile believes that the stutterer should have "adequate rest, sufficient for good health." Dr. Anderson and Miss Garrison hold that much rest is recommended only if specially indicated.

PSEUDO-STUTTERING

Twenty-three of the subjects participating in this study indicate that they employ the use of pseudo-stuttering as a part of their treatment of stuttering, while fifteen people respond that they do not include this in their program. Dr. Bender, Dr. Johnson, and Dr. Van Dusen report its use sometimes, but Dr. Luse rarely uses pseudo-stuttering. Eight people did not answer the question.

Dr. Anderson has used pseudo-stuttering in a limited way only. "It may have certain value in some cases." Mr. Falconer states: "I think 'voluntary' have value in that the stutterer runs the machinery instead of its running him." Dr. Bryngelson suggests: "Lots of it" in the treatment of stuttering.

CREATE A SINGING METHOD OF SPEAKING

Thirty-six of the people cooperating in this study feel that creating a singing method of speaking should not be included in the treatment of stuttering. Six others, however, believe that this technique should be used. Miss Edwards states that she has tried it, and Miss Fish occasionally uses this as a beginning therapy. Mr. Moore is of the opinion that a singing method of speaking should not be used as an end in itself. Five subjects did not answer the question.

Mr. Falconer, although answering in the negative, concedes that he "might use it in difficult cases of initial, prolonged tonic blocking. The trouble is that most of them can sing anyway." Miss Phyllis M. Morris, Speech Correctionist with the Kentucky Crippled Children's Commission, uses this technique of creating a singing method of speaking "during the clinic situation only." Dr. Luse qualifies her answer by stating, "If you mean sustained or connected speech, yes." Miss Garrison, answering in the negative, lists the exceptions she would make: "except for social adjustment and group participation." Dr. Anderson explains that he would use a singing method of speaking "only as a sort of 'trick' device to assist severe stutterer to get started. We do work on smooth, even rhythm, however."

HOME COOPERATION

Forty-eight of the people cooperating in this study indicate that home cooperation is necessary in the treatment of stuttering. Two participants did not answer the question.

Dr. Anderson states, "Very definitely. In the case of young children, this is often about all that can be done, and frequently all that needs to be done to insure success." Miss Garrison is of the opinion that home cooperation is essential "in all cases, if at all possible." Dr. Cable believes that home cooperation is important "after conferences and training members of the family." Dr. Bryngleson claims that where home cooperation is important "for children," it is "not necessary for adults as they master their own home environment."

DEPRIVING ORAL GRATIFICATION

Thirty-three of the subjects participating in this study do not deprive oral gratification as a part of their treatment of stuttering, while five of the participants feel that this is a necessary technique. Twelve people did not answer the question.

Dr. Pflaum deprives oral gratification "within limits." Mr. Hutcheson, in depriving oral gratification requests "no social conversation during a required period of training." Dr. Huckleberry, too, deprives oral gratification "if it is necessary to do so." Miss Morgan deprives oral gratification "if he understands why it is being done."

SIMULTANEOUS WRITING AND SPEAKING EXERCISES

Eighteen of the people cooperating in this study include simultaneous writing and speaking exercises in their treatment of stuttering, while nineteen of the participants do not consider this to be a part of their therapy. Where Miss Edwards has tried it, and Dr. Bender and Dr. Van Dusen utilize this technique sometimes, Mr. Moore seldomly employs it. Nine people did not answer the question.

Dr. Anderson uses simultaneous writing and speaking exercises "in a very limited way, usually when laterality is being established or changed, only." Dr. Ritzman utilizes this technique "with younger children, who have been shifted in handedness." Dr. Westlake uses simultaneous writing and speaking exercises occasionally, and Dr. Huckleberry utilizes them if they are necessary. Mr. Falconer, in stating that he uses them "rarely," adds that when he does employ them, they are "in cases of sharp sidedness conflict."

TRAINING IMPAIRED MUSCLES

Fifteen of the subjects cooperating in this study answer that the training of impaired muscles is a part of their therapy in working with cases of stuttering. However, twenty-four of the participants report that they do not utilize this technique. Mr. Moore, in answering yes, emphasizes that this is true only if the muscle is damaged. Where one participant utilizes this technique sometimes, another uses it rarely. Nine people did not respond with a yes or no answer.

Dr. Van Dusen includes training of impaired muscles in his treatment, in some cases. Mr. Hutcheson answers yes, "if by impaired, you mean faulty function." Dr. Coates explains that he does not believe that the muscles are impaired. Dr. Anderson shares this opinion. Miss Garrison claims that "in no case" would she train impaired muscles.

ERECTING PSYCHOLOGICAL BARRIERS

Seventeen people cooperating in this study reply that they do not utilize the erecting of psychological barriers as a part of their therapy in treating stuttering. Twelve participants consider this to be a part of their therapy. Dr. Wells uses it sometimes, while Dr. Van Dusen uses it "in rare instances." Seventeen subjects did not answer the question.

Dr. Ritzman erects psychological barriers through analysis of the stutterer's fears. Mr. Manning specifies that constructive barriers be erected. Mr. Falconer refers to a "functional barrier" that he would include in a therapy for stutterers.

KEEP A NORMAL ROUTINE

Forty-three of the subjects participating in this study feel that keeping a normal routine should be a part of the treatment of stuttering. One person, however, does not feel that this is necessary. Six subjects did not answer the question.

Mr. Falconer is of the opinion that a normal routine should be included in therapy, but he states, "This is no more important for a stutterer than for a non-stutterer." Mr. Manning, too, considers it wise to employ a normal routine, unless the case has a "compulsive personality." Dr. Bender is in favor of the stutterer keeping a normal routine, "except for certain factors," which he does not disclose.

Dr. Cable feels that the stutterer should "establish and keep what should, for the case, be a normal routine; but it may differ radically from his previous 'normal' routine." Dr. Parry sets up a routine which he encourages the subject to follow. Dr. Anderson emphasizes that a normal routine is "often quite important, especially in the case of a child." Mr. Carlile suggests that the routine fit the person, "depending on age, home, work, etc."

GET RID OF "CRUTCHES"

Forty-three of the people cooperating in this study are of the opinion that getting rid of "crutches" should be a part of the treatment of stuttering. However, four participants do not agree that this should be taken into consideration. Dr. Westlake believes that sometimes the stutterer should get rid of these crutches. Two people did not answer the question.

Dr. Anderson contends that "in certain cases" the stutterer should get rid of "crutches", "again probably as a part of a general re-education procedure." Miss Carrison feels that "in all cases" these "crutches" should be removed. Dr. Goates points out that this procedure should be a gradual process.

STUTTERER MAKES FRIENDS WITH OTHER STUTTERERS

Thirty-eight of the subjects cooperating in this study are of the opinion that the stutterer should make friends with other stutterers. Nine others answered no to this question on the questionnaire, while the remaining three subjects did not come to a yes or no decision.

Mr. Falconer, one of the participants answering no to the question, defends his answer with, "He should make friends with people he wants for friends - stutterers or non-stutterers." Mrs. Davison shares this opinion with Mr. Falconer. Dr. Kopp, too, believes that the stutterer should have some stuttering friends, but also some friends who are non-stutterers.

Dr. Cable believes that this technique is "helpful only to certain personality types." Miss Garrison believes that making friends with stutterers is good, if the subject is an adult. Dr. Anderson considers this technique important for morale purposes. "This is one of the values of group therapy."

GIVE THE STUTTERER RESPONSIBILITY

Thirty-four of the subjects cooperating in this study feel that giving the stutterer responsibility should be included when planning a treatment for him. Three subjects indicate that they do not utilize this technique, and three did not answer the question.

Dr. Anderson finds giving the stutterer responsibility important "as a part of his general 'polishing off' training. The main responsibility we give him is to cure himself of his stuttering. In other words, adequate motivation."

Dr. Parry believes this technique to be important, and in the case of a child who stutters, he suggests to the case's teachers that they "make him feel a part of the group." Dr. Cable utilizes this technique of giving the stutterer responsibility through "a graduated series of projects." Mr. Manning emphasizes that this should be a gradual procedure, too.

STUTTERER READS ABOUT STUTTERING

Thirty-eight of those participating in this study believe that the therapy of a stutterer should embrace the point of having the stutterer read about stuttering. Four indicate that they did not approve of this procedure. Dr. Van Dusen, however, feels that in some cases this therapy might be helpful. Seven people did not answer the question.

Dr. Cable points out that in addition to reading about stuttering, the stutterer "should especially read about the experiences of stutterers, i.e., Wendell Johnson's Because I Stutter and Conrad Wedburg's, The Stutterer Speaks."

Miss Fish recommends this type of treatment when the stutterer is mature enough to be able to understand and interpret what he reads. Dr. Anderson comments that this technique is used "as a part of our group therapy with adults. Helps him to help himself; also to develop an objective attitude."

DEVELOP UNILATERALITY

Twenty-one of the people cooperating in this study feel that it is necessary to develop unilaterality in their patients. Fifteen of the subjects conclude that this is unnecessary to the program of re-educating the stutterer. Six participants are of the opinion that this technique can be utilized sometimes. Eight people did not answer the question.

Dr. Anderson states, "Generally, yes. We give laterality tests and generally believe that stutterer should be rather definitely unilateral." Dr. Ritzman develops unilaterality "only with younger children." Dr. LaFollette finds that "only rarely does this aspect enter into our treatment."

Mr. Montgomery develops unilaterality "when necessary, and if dominance has not been established." Mr. Manning is of the opinion that "it is only second in importance to psychological aspects." The following indicate that developing laterality should be used in some cases, where the need for it is positively established; Mr. Falconer, Dr. Kopp, Dr. Bender, Dr. Cable, Dr. Johnson, Dr. Andrews, Miss Morgan, Dr. Van Dusen, Mrs. Davison, Mr. Moore, and Dr. Parry.

MENTAL HYGIENE

Forty-nine of the subjects participating in this study consider mental hygiene to be a phase of their therapy in dealing with stutterers, while only one participant does not utilize this technique.

Dr. Anderson uses the mental hygiene technique "all the way through. This is a most important part of the therapy, especially in cases of secondary stuttering." Mr. Carlile answers, "Very definitely," and Miss Garrison emphasizes that it is important "in all cases." Mr. Falconer is of the opinion that mental hygiene should be pointed to the patient's stuttering, and matters relating to it, but that the speech correctionist should "avoid prying into his personal affairs."

PROGRESSION FROM EASY TO HARD

Forty-one of the participants cooperating in this study use the technique of progressing from the easy to the more difficult when working with stutterers, but six of the subjects do not include this in their therapy. Three people did not answer the question.

Mr. Falconer, in answering in the negative, asks, "Sounds good, but how does one do it? What's easy and what's hard? Unless you are referring to audience situations, and even then, that varies." Dr. Anderson finds it necessary to progress from the easy to the hard "to accomplish successful experience in training."

PHANTOM SPEECH

Five of the subjects cooperating in this study indicate that they employ the technique of using phantom speech in the therapy for stuttering. On the other hand, twenty-seven participants do not use it. Eighteen people did not answer the question.

Dr. Bender sometimes uses phantom speech, and Dr. Cable uses it "at a certain stage of therapy." Dr. Anderson utilizes this technique very little, and when he does, "only as a 'trick' to accomplish some special end."

BOUNCE TECHNIQUE

Sixteen of the people cooperating in this study include the bounce technique in their therapy for treating stuttering. However, twenty-two report that they do not use this technique. Three other subjects state that they employ the bounce technique sometimes. Dr. Wells concedes that "perhaps" it could be used "as part of a sequence in training." Miss Morgan uses the bounce technique "if it works." Seven people did not answer the question.

Dr. Anderson checks no to this question, but lists these exceptions: "As a 'trick' to accomplish some special end; or in those cases that we feel are otherwise hopeless." Dr. Goates, in answering yes, specifies "occasionally," while Dr. Wiley uses it "very seldom." Dr. Cable employs the bounce technique "for cases of tonic spasms." Mr. Manning, however, never uses it. Mr. Falconer warns that the bounce technique should be used "cautiously, and not much of it."

NEW SOCIAL CONTACTS

Forty-eight of the subjects cooperating in this study conclude that new social contacts for the stutterer is important when planning a program for him. Dr. Bender and Dr. Cable feel that "sometimes" this should be done, and Mrs. Lefevre did not answer the question.

Mr. Falconer emphasizes the word "social" when he recommends new social contacts for the person who stutters. "Try to get the stutterer out of himself, particularly in social situations involving speech." Mr. Manning is enthusiastic about new social contacts for stutterers, and Dr. Parry encourages this, too. Dr. Anderson finds this technique useful where it is indicated. "Again part of the value of group therapy."

WORK BEFORE THE MIRROR

Thirty-two of the people cooperating in this study include some work before the mirror in their therapy for a stutterer. While four others indicate that they use this in some instances, two participants use it seldom, and seven others answer that they do not utilize the technique at all. Five subjects did not answer the question.

Dr. Anderson, replies, "Very little." When he does, it is "only to get control of certain symptoms, for example." Mrs. Davison has "some cases where there are grimaces or tics," work before the mirror. Miss Fish reports the use of this technique "only when the secondary manifestations are severe." Mr. Manning suggests working before the mirror "for eye contact, awareness, and confidence." Dr. Bender uses this technique often, he says. On the other hand, Mr. Falconer's stutterers work before the mirror "very little, for I think it may aggrevate self-consciousness, which I consider a stuttering involvement."

THOUGHT-TRAINING EXERCISES

In this study, twenty-three subjects hold that thought-training exercises should be a part of the therapy for stutterers. Fifteen other participants do not use this technique, while two additional subjects employ it in some cases. Ten subjects did not answer the question.

Dr. Bryngelson states that "this happens, but no specific training is given." Dr. Anderson "tries to retrain the stutterer's thinking as well as speaking. There is some evidence that stutterer's thinking is disorganized."

REMOVE SPEECH CONFLICTS

Thirty-eight of the subjects reporting in this study indicate that they consider the removal of speech conflicts a part of their therapy. Five subjects answer no, and seven have not come to yes or no decisions.

Dr. Anderson states, "We do everything under 'mental hygiene' that is indicated in each case." Miss Garrison, in andwering yes to the question stipulates, "If this means psychological." Mr. Hutcheson believes that both physical and psychological speech conflicts should be removed. Dr. Kopp specifies "attitudes and fixations concerning speech and situations."

Mr. Manning would rather have his stutterers adjust to speech conflicts, but Dr. Bender feels that speech conflicts should be removed "often." Mr. Falconer feels that speech conflicts should be removed, and he states, "I've always thought stuttering may be a speech conflict in the processes of thought and speech."

CHANGE ENVIRONMENT TO FIT STUTTERER

Twenty-four of the subjects participating in this study feel that the environment should be changed to fit the stutterer. Fourteen, however, do not attempt this. One person states that the speech correctionist should change the environment if it is a factor, and another said that in some cases this is permissable. Ten subjects did not answer the question.

Mr. Falconer tries to "modify it as much as possible. I haven't known one who could afford much change." Mr. Carlile states, "If it is possible to improve the environment, I think it should be done."

Dr. Bender is of the opinion that the environment should be changed "when it is necessary and when it is possible." Dr. Parry tries to change the environment of primary stutters, and Mr. Wiley indicates that this technique is fine in the case of children. Dr. Anderson warns of the limits here. "Often some changes are indicated in the case of children, to fit the child; I am not sure that it would be 'to fit the stutterer.'"

DEVELOP AN OBJECTIVE ATTITUDE

With the exception of two subjects in this study, the participants indicate that they feel that the development of an objective attitude is important in the treatment of stuttering. Forty-eight answered yes, and two did not answer the question.

Dr. Anderson considers the development of an objective attitude essential in the case of the secondary stutterer. Mr. Moore states, "Very important." Dr. Bender develops an objective attitude except in small children. Mr. Carlile considers the developing of an objective attitude "a must."

E'PHASIS UPON MECHANICAL ASPECTS OF STUTTERING

Twelve of the subjects participating in this study answer yes to the question, "Emphasis upon mechanical aspects of stuttering." However, twenty-three answered in the negative. Dr. Wells utilizes this emphasis upon the mechanical aspects of stuttering "only as a part of the analysis of the blocks," Mr. Moore "only as they apply to the secondary characteristics and habit patterns associated with stuttering," and Dr. Parry, "to remove the symptoms." Twelve subjects did not answer the question.

Mr. Carlile, in putting an emphasis upon the mechanical aspects of stuttering, defends his position by saying, "The stutterer should know what he is doing when he stutters." Dr. Bloomer utilizes this technique "somewhat," and Dr. Cable states, "Usually, but only when the other malfunctioning aspects have been cleared up or are well on their way to being cleared up."

Mr. Chreist feels that an emphasis on the mechanical aspects of stuttering can aid the stutterer in "learning the individual pattern and acquiring an ability to fake the pattern." Miss Morris states that she would use it "with high school students and adults, only."

Dr. Anderson emphasizes the mechanical aspects of stuttering in a very limited way. "Only as necessary to include in the general re-education of the speech habits of the stutterer. Then, only as a pattern." Dr. Westlake points out that "in certain cases" it is feasible. Dr. Albright does not emphasize the mechanical aspects of stuttering, but he discusses it throughly with his subjects. Dr. Bryngelson emphasizes the mechanical aspects of stuttering only on secondary habit patterns.

TABLE IV

SUMMARY OF THE TREATMENT OF STUTTERING

Treatment	Yes	No	Sometimes	Seldom	Perhaps	Miscel-laneous	No Answer
Case history, detailed	44	3					3
Physical examination	38	5	2				5
Breathing exercise	24	19	3	1		1	2
Articulation exercises	18	25	1	1		2	3
Physical exercise	18	22	2	1			7
Group treatment	42	4	2	1			1
Use of suggestion	35	6	1		1		7
Use of relaxation	40	9					1
Psychoanalysis	18	19	3			3	7
Hypnosis	6	35				1	8
Insure stutterer's success	31	9	1				9
Use of the telephone	42	5	2				1
Much rest	31	14	1		1	1	2
Pseudo stuttering	23	15	3	1			8

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TABLE IV (Continued) - SUMMARY OF THE TREATMENT OF STUTTERING

Treatment	Yes	No	Sometimes	Seldom	Perhaps	Miscel-laneous	No Answer
Create singing method of speaking	6	36	1	1		1	5
Home cooperation	48	0					2
Depriving oral gratification	5	33					12
Simultaneous writing and speaking exercises	18	19	2	2			9
Training impaired muscles	15	24	1	1			9
Erecting psychological barriers	12	19	1	1			17
Keep normal routine	43	1					6
Get rid of "crutches"	43	4	1				2
Make friends with stutterers	38	9					3
Give stutterer responsibility	34	3					3
Stutterer reads about stuttering	38	4	1				7
Develop unilaterality	21	15	6				8
Mental hygiene	49	1					
Progression from easy to hard	41	6					3

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TABLE IV (Continued) - SUMMARY OF THE TREATMENT OF STUTTERING

Treatment	Yes	No	Sometimes	Seldom	Perhaps	Miscel-laneous	No Answer
Create singing method of speaking	6	36	1	1		1	5
Home cooperation	48	0					2
Depriving oral gratification	5	33					12
Simultaneous writing and speaking exercises	18	19	2	2			9
Training impaired muscles	15	24	1	1			9
Erecting psychological barriers	12	19	1	1			17
Keep normal routine	43	1					6
Get rid of "crutches"	43	4	1				2
Make friends with stutterers	38	9					3
Give stutterer responsibility	34	3					3
Stutterer reads about stuttering	38	4	1				7
Develop unilaterality	21	15	6				8
Mental hygiene	49	1					
Progression from easy to hard	41	6					3

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TABLE IV (Concluded) - SUMMARY OF THE TREATMENT OF STUTTERING

Treatment	Yes	No	Sometimes	Seldom	Perhaps	Miscel-laneous	No Answer
Phantom speech	5	27					18
Bounce technique	16	22	3		1	1	7
New social contacts	48		1				1
Work before mirror	32	7	4	2			5
Thought-training exercises	23	15	2				10
Remove speech conflicts	38	5					7
Change environment to fit stutterer	24	14	2				10
Develop an objective attitude	48						2
Emphasis upon mechanical aspects of stuttering	12	23	3				12

CHAPTER VI

SUMMARY

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SUMMARY

Summary of the Causes of Stuttering

Heredity. On the basis of this study, there is an indication that speech correctionists still believe that the factor of heredity is a cause of stuttering. Twenty-six of the people cooperating in this study hold that heredity is a cause of stuttering, while thirteen of the participants feel that it is not a cause. Three indicate that heredity may be a cause of stuttering, while six did not answer the question. One individual believes that heredity sometimes causes stuttering, while another holds that heredity as a cause, is questionable.

Environment. Forty-four of the people cooperating in this study hold that environment is a cause of stuttering, while four of the participants feel that it is not a cause. One other person concedes that environment is possibly a cause, and another does not answer the question.

Imitation. Twenty-two of the people in this study feel that imitation is a cause of stuttering, while twenty answer no to this question on the questionnaire. Four people think that it is possible that imitation may cause stuttering. One is doubtful that it has any effect, and another says that only when sympathy is at work will imitation cause stuttering. Two participants did not answer the question.

Habit. Twenty-five of the people cooperating in this study feel that habit is a cause of stuttering, while seventeen disagree and answer no, that this is not a factor. Two people concede that habit could perhaps

cause stuttering, while one individual points out that symptoms become habits. Five participants did not answer the question.

Neurosis. Twenty-eight of the people cooperating in this study feel that neurosis is a cause of stuttering, while nine are of the opinion that it was not a causal factor. One participant lists it as a secondary factor, another classifies it as a possibility, while two others point out that it is rarely a cause, and one feels that it is sometimes a cause. One other subject comments that people who stutter are sometimes neurotic. Still another believes that neurosis is a result rather than a cause. Six individuals did not answer the question.

Psychological. Forty-four of the subjects participating in this study feel that psychological factors are causes of stuttering, while two believe that they are not factors in causation. One subject lists psychological factors as a factor to be considered, another believes it to be a result, while still another did not answer the question.

Inferiority a factor. Thirty-eight of the people cooperating in this study feel that inferiority is a cause of stuttering, while seven others do not. Two participants are of the opinion that perhaps inferiority causes stuttering, but three others consider inferiority to be a result rather than a cause.

Fear a cause. Thirty-seven individuals believe that fear is a cause of stuttering, while six people are of the opinion that this is not a factor. One participant answers that in some cases fear is a cause, another calls fear an aggrative factor, and another refers to it as a precipitating factor. Where one calls fear a symptom, another prefers the term result. One person did not answer the question.

Conditioned inhibition. Twenty-four of the people cooperating in this study feel that conditioned inhibition is a cause of stuttering, while seven do not consider this a factor of causation. Two participants claim that possibly it is a cause, another states that sometimes it is a cause, while still another lists conditioned inhibition as a maintaining, but not causal, factor. One additional person is not sure if stuttering is an inhibitory phenomenon. Thirteen did not answer the question.

Social maladjustment. Forty-one of the people cooperating in this study feel that social maladjustment is a cause of stuttering, while four do not feel that it is a causal factor. One participant labels it a contributing factor, and two others believe social maladjustment to be a result, rather than a cause of stuttering. One other individual concedes that sometimes social maladjustment may cause stuttering, and one subject did not answer the question.

Stutterer wishes to stutter. Twenty people feel that a cause of stuttering is the stutterer wishing to stutter. However, eighteen participants answer no to the question on the questionnaire. One individual states that this cause is infrequent, while two others say that it possibly causes stuttering. Three subjects are of the opinion that sometimes it is a cause, while still another alters the question to read, stutterer needs to stutter. Five persons did not answer the question.

Stuttering a symptom. Forty-one of the people feel that stuttering is a symptom, while five answer in the negative. One participant believes that in some cases stuttering is a symptom, another concludes that stuttering is seldom a symptom, and two subjects did not answer the question.

Stuttering a compensation. Twenty-five of the people feel that stuttering is a compensation and a cause of stuttering, twelve believe that it is not, while five individuals feel that it is sometimes a factor. One subject states that perhaps this is true, another accepts the theory that it is infrequently a cause, and still another points out that stuttering is not a compensation in its beginning. Five subjects did not answer the question.

Personality difficulty. Thirty-eight participants feel that personality difficulties cause stuttering, but six people do not believe that this operates as a cause. One subject indicates that it is a circular process, another feels that this is sometimes a cause of stuttering, while three people did not answer the question.

Neurological. Twenty-eight of the subjects participating in this study are of the opinion that neurological factors are the cause of stuttering, while nine disagree and answer in the negative. Three participants hold the belief that neurological factors possibly cause stuttering, one feels that they seldom cause stuttering, while still another points out that sometimes neurological factors are a cause of stuttering. Eight subjects did not answer the question.

Abnormal breathing. Nine of the subjects cooperating in this study feel that abnormal breathing is a cause of stuttering, while thirty-one do not believe this to be a causal factor. One participant points out that it is related, another calls abnormal breathing a concomitant, while still another feels that this factor possibly causes stuttering. Two individuals list abnormal breathing as a symptom, while five people did not answer the question.

Physiological. Twenty-eight people accept physiological factors as a cause of stuttering, while fifteen do not consider this to be a cause. One subject points out that there is a normal structure but an abnormal use of it. Another participant feels that physiological factors possibly cause stuttering, while still another points out that sometimes this is a causal factor. Three participants did not answer the question.

Lack of cerebral dominance. Twenty-one subjects feel that a lack of cerebral dominance is a cause of stuttering, while seventeen answer no to this question on the questionnaire. Three participants concede that perhaps it is a cause, three others list it as a cause in some cases, while one believes that it seldom operates as a cause. Five people did not answer the question.

Sidedness or laterality. Twenty-two people list sidedness or laterality as a cause of stuttering, while thirteen conclude that this is not a cause. Four people acknowledge that perhaps it is a cause, but one individual classifies it as an irritant. One other subject feels that laterality seldom operates as a cause. Eight people did not answer the question.

Semantic association. Twenty-eight subjects believe that semantic association is a cause of stuttering, while ten people do not accept this as a causal factor. One subject feels that sematic association is a factor, another concedes that it is sometimes a cause, while still another participant suggests that perhaps this is a cause. Nine subjects did not answer the question.

Lack of visual imagery. Nine of the people cooperating in this study conclude that a lack of visual imagery causes stuttering, while twenty-seven are unable to accept it as a cause. Three subjects feel that perhaps a

lack of visual imagery is a cause, one states that it seldom operates as a cause, but still another believes it to be related. Nine participants did not answer the question.

Association. Thirteen individuals believe that association is a cause of stuttering, while eighteen do not accept it as a causative factor. One individual indicates that association is possibly a cause of stuttering, but eighteen participants did not answer the question.

Summary of the Treatment of Stuttering

Case history detailed. Forty-four people consider a detailed case history as essential to the treatment of stuttering, while only three feel that it is unnecessary. Three subjects did not answer the question.

Physical examination. Thirty-eight of the subjects cooperating in this study report that a physical examination is a part of their treatment of stuttering. Five individuals consider it unnecessary, but two believe that it is helpful in some cases. Five participants did not answer the question.

Breathing exercises. Twenty-four of these people participating in this study utilize breathing exercises as a part of their therapy, while nineteen answer that they do not consider this a part of their therapy. Three participants use breathing exercises sometimes, and one subject states that she does not utilize them too much. Another participant feels that breathing exercises are incidental to treatment, not *per se*. Two people did not answer the question.

Articulation exercises. Eighteen people indicate that they believe articulation exercises should be a part of the therapy for stutterers. On the other hand, twenty-five of the subjects feel that these exercises should not be included in the treatment. One participant feels that they should rarely be used, another claims that articulation exercises may sometimes be used, while still another participant concedes that they may be used to satisfy teachers and parents of young children. One subject feels that articulation exercises serve a purpose when utilized as they come in vocal exercise. Three participants did not answer the question.

Physical exercise. Eighteen of the subjects contributing to this study feel that physical exercise is indicated as a part of the therapy for stutterers. Twenty-two believe it to be unimportant. One subject states that physical exercise should not be employed too much, but two subjects find it useful in some cases, and seven subjects did not answer the question.

Group treatment. Forty-two individuals consider group therapy a necessary technique to employ in the treatment of stuttering. Four disapprove of this type of therapy. Two participants indicate that sometimes it is of value, while one subject finds that group therapy has value only in the case of parent group meetings. One person did not answer the question.

Use of suggestion. Thirty-five of the subjects responding on the questionnaire used in this study indicate that the use of suggestion is a part of the therapy they utilize with cases of stuttering. Where six participants do not include the use of suggestion in their treatment, one other participant feels that it probably should be used, and still another

subject employs the use of suggestion in some cases. Seven participants did not answer the question.

Use of relaxation. Forty of the subjects cooperating in this study consider the use of relaxation to be a part of their therapy. While nine do not include relaxation in their treatment of stuttering, one participant intimates that she has not yet made a decision as to the value of this technique.

Psychoanalysis. Eighteen of the participants reporting in this study feel that psychoanalysis should be a part of the treatment of stuttering. One participant contends that psychoanalysis should be used only when a psychiatrist is on the case, while another subject would utilize this as a probe technique. Three people use psychoanalysis sometimes. Nineteen individuals do not use psychoanalysis, in addition to one other participant who points out that she is not capable of utilizing this technique. Seven people did not answer the question.

Hypnosis. Thirty-five of the subjects cooperating in this study report that they do not use hypnosis as a part of their therapy when working with stutterers. While one participant might utilize it as a probe technique, six people report that hypnosis is an established part of their therapy. Eight subjects did not answer the question.

Insure the stutterers success. Thirty-one of the subjects cooperating in this study believe that insuring the stutterer's success should be a part of the treatment of stuttering, while nine do not consider this to be necessary. One person feels that this technique should be used in some cases, and nine people did not answer the question.

Use of the telephone. Forty-two people report that the use of the telephone should be a part of the treatment of stuttering. Five subjects indicate that they do not utilize this technique in their therapy. One subject sees the use of the telephone as a situational assignment, and another finds it necessary to employ the use of the telephone in some cases. One person did not answer the question.

Much rest. Thirty-one participants feel that much rest for the individual who stutters must be incorporated into the therapy. On the other hand, one participant maintains that normal physical hygiene is adequate. Another subject stipulates that in some cases much rest is recommended, but not in all cases. Still another person takes the position that perhaps much rest is indicated. Of the other sixteen reporting, fourteen feel that much rest is not a necessary part of therapy, and two people did not answer the question.

Pseudo-stuttering. Twenty-three of the subjects participating in this study indicate that they employ the use of pseudo-stuttering as a part of their treatment of stuttering, while fifteen people respond that they do not include this in their program. Three people use it in some cases, another rarely uses pseudo-stuttering, and eight people did not answer the question.

Create a singing method of speaking. Thirty-six people feel that creating a singing method of speaking should not be included in the treatment of stuttering. Six others, however, believe that this technique should be utilized. One participant reports that she has tried it, another uses it occasionally as a beginning therapy, and still another contends that a singing method of speaking should not be used as an end in itself. Five people did not answer the question.

Home cooperation. Forty-eight people indicate that home cooperation is necessary to the treatment of stuttering, while two participants did not answer the question.

Depriving oral gratification. Thirty-three of the subjects participating in this study do not deprive oral gratification as a part of their treatment of stuttering, while five other participants feel that this technique should be an integral part of therapy. Twelve people did not answer the question.

Simultaneous writing and speaking exercises. Eighteen people include simultaneous writing and speaking exercises in their treatment of stuttering, while nineteen individuals do not consider this to be a part of their therapy. One subject indicates that she has tried it, and two others utilize this technique sometimes, while another rarely employs it. Nine participants did not answer the question.

Training impaired muscles. Fifteen of the subjects cooperating in this study answer that the training of impaired muscles is a part of their therapy in working with cases of stuttering. However, twenty-four of the participants report that they do not utilize this technique. One subject uses the technique sometimes, another rarely, and nine people did not respond with a yes or no answer.

Erecting psychological barriers. Seventeen people cooperating in this study reply that they do not erect psychological barriers as a part of their therapy in treating stuttering. Twelve participants consider this to be a part of their therapy. One subject uses it sometimes, while another uses it rarely. Seventeen of the subjects did not answer the question.

Keep a normal routine. Forty-three of the subjects participating in this study feel that keeping a normal routine should be a part of the treatment of stuttering. One person, however, does not feel that this is necessary. Six subjects did not answer the question.

Get rid of "crutches". Forty-three of the people cooperating in this study are of the opinion that getting rid of "crutches" should be a part of the treatment of stuttering. However, four participants do not agree with this, and answer no to the question on the questionnaire. One subject believes that sometimes the stutterer should get rid of these "crutches". Two people did not answer the question.

Stutterer makes friends with other stutterers. Thirty-eight of the subjects cooperating in this study are of the opinion that the stutterer should make friends with other stutterers. Nine others answer no to this question on the questionnaire, while the remaining three subjects did not answer yes or no.

Give the stutterer responsibility. Thirty-four of the subjects cooperating in this study feel that giving the stutterer responsibility should be included when planning a treatment for him. Three subjects indicate that they do not utilize this technique and three did not answer the question.

Stutterer reads about stuttering. Thirty-eight of those cooperating in this study believe that the therapy of a stutterer should embrace the point of having the stutterer read about stuttering. Four indicate that they do not approve of this procedure. One, however, feels that in some cases this therapy might be helpful. Seven people did not answer the question.

Develop unilaterality. Twenty-one people feel that it is necessary to develop unilaterality in their patients who stutter. Fifteen subjects conclude that this is unnecessary to the program of re-educating the stutterer, while six others are of the opinion that sometimes this technique may be utilized. Eight people did not answer the question.

Mental hygiene. Forty-nine of the subjects participating in this study consider mental hygiene to be a phase of their therapy in dealing with stutterers, while only one participant does not utilize this technique.

Progression from easy to hard. Forty-one of the participants cooperating in this study use the technique of progressing from the easy to the more difficult when working with stutterers, but six of the subjects do not organize their therapy in this way. Three people did not answer the question.

Phantom speech. Five of the subjects cooperating in this study indicate that they employ the technique of using phantom speech in the therapy for stuttering. On the other hand, twenty-seven subjects do not use it, and eighteen people did not answer the question.

Bounce technique. Sixteen of the people cooperating in this study include the bounce technique in their therapy for treating stuttering. However, twenty-two report that they do not use this technique. Three other subjects state that they employ it sometimes. One subject employs the bounce technique if it works, another concedes that perhaps it could be used as part of a sequence in training, and seven people did not answer the question.

New social contacts. Forty-eight of the subjects conclude that new social contacts for the stutterer is important when planning a program for him. Two individuals feel that this should sometimes be done, and one person did not answer the question.

Work before the mirror. Thirty-two of the people participating in this study include some work before the mirror in their therapy for a stutterer. While four others indicate that they may use this in some instances, two subjects use it seldomly, and seven others answer that they do not use the technique at all. Five of the subjects did not answer the question.

Thought-training exercises. In this study, twenty-three of the subjects hold that thought-training exercises should be a part of the therapy for stutterers, while fifteen other subjects do not use it. Two additional participants employ it in some cases. Ten people did not answer the question.

Remove speech conflicts. Thirty-eight people indicate that they consider the removal of speech conflicts as a part of their therapy. Five subjects answer no to this question on the questionnaire, and seven participants did not answer the question.

Change environment to fit stutterer. Twenty-four people feel that the environment should be changed to fit the stutterer. Fourteen, however, do not attempt to do this. One person states that the speech correctionist should change the environment if it is a factor, and another believes that in some cases this is permissable. Ten subjects did not answer the question.

Develop an objective attitude. With the exception of two subjects in this study, the participants indicate that they feel that the development

of an objective attitude is important in the treatment of stuttering. Forty-eight answered yes, and two did not answer the question.

Emphasis upon mechanical aspects of stuttering. Twelve participants emphasize the mechanical aspects of stuttering, while twenty-three do not place their emphasis on this. One individual utilizes this emphasis upon the mechanical aspects of stuttering only as a part of the analysis of the blocks, while another only as they apply to the secondary characteristics and habit patterns associated with stuttering. Another participant emphasizes the mechanical aspects of stuttering to remove the symptoms. Twelve people did not answer the question.

BIOGRAPHY

The author was born in Mason, Michigan, a small community twelve miles from East Lansing, on February 2, 1925. She was named Lulu Mae Johnson by her fraternal grandmother, after her only daughter, who had passed away at a very young age. "Little Lulu" was enrolled in kindergarten at age four, in the year 1929. This year was noteworthy in her life, as two major developments took place. The first was the birth of a sister, Betty Jean, and the second was a mastoidectomy performed on her left ear. Two years later a brother, James Gorman, was born.

In 1933, the James Reginald Johnson family moved to East Lansing, Michigan, where they continue to make their home. The author attended elementary school, junior high and high school in that locality, being a member of the June, 1942, graduating class.

In the interim of graduating in June and beginning college in the Fall, the author attended Lansing Secretarial School. Her choice of colleges was Michigan State, which she attended through 1947, majoring in Speech Correction and Education, with minors in Science and Social Studies. She graduated with a Bachelor of Arts Degree.

In the Fall of 1947, she journeyed to nearby Flint, Michigan, where she held the position of speech correctionist in the Flint Public Schools. The following year she was appointed Graduate Assistant in the Written and Spoken English Department at Michigan State College, at which time she began work on her Master's Degree, majoring in Speech Correction, and minoring in Psychology.

1948 was a memorable year for another reason, too, for she was married to Noah Alonso, an art student at Michigan State College, on December 17th.

In the Fall of 1949, the author accepted a position at the Michigan School for the Blind in Lansing, as a teacher of the first and second grade sight-saving room. At the end of that teaching year, she returned to Michigan State to complete the requirements for the Degree of Master of Arts, which was awarded to her in September, 1950.

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This yearbook consists of a series of papers on stuttering presented at the meeting of the American Speech Correction Association in 1930. Causes and treatments are presented, in addition to some public school programs in speech correction.

_____, Proceedings, Vol. VI, Madison, Wisconsin: College Typing Company, 1936. 202 p.

This yearbook contains seven addresses on stuttering by outstanding correctionists in the field.

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Seven addresses on the problem, causes, and treatment of stuttering, are included in this yearbook.

_____, Proceedings, Vol. VIII, Madison, Wisconsin: College Typing Company, 1938. 95 p.

Several articles dealing with the problem and treatment of stuttering, including an explanation of the two-room technique for treatment, are included in this yearbook.

Bender, James F., and Victor M. Kleinfeld, Principles and Practises of Speech Correction. New York: Pitman Publishing Company, 1938. 298 p.

Bender and Kleinfeld survey the problem of stuttering in Chapter Eleven of this book. Therapies are included in the discussion.

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Chapter Nine discusses the problem of stuttering, while Chapter Ten suggests general therapeutic measures to be taken by the speech correctionist.

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Froeschels, Emil, Speech Therapy. Boston: Expression Company, 1933. 252 p.

Part II is devoted to a thorough discussion of the problems and therapies of stuttering.

Gifford, Mabel Farrington, How To Overcome Stammering. New York: Prentice-Hall, Incorporated, 1940. 169 p.

Mrs. Gifford's book is addressed, in the main, to the stutterer. She feels that stuttering is an emotional or mental problem, and the techniques for therapy are pointed to this theory.

Hahn, Eugene F., Stuttering, Significant Theories and Therapies. Stanford University, California. Stanford University Press. 1943. 177 p.

Hahn's book gives the theories and corresponding therapies of twenty-five authorities in the field. The appendix includes "Procedures in a Clinic For Stutterers."

Johnson, Wendell, Because I Stutter. New York: D. Appleton-Century Company, 1930. 128 p.

This book may be used by both the speech correctionist and the stutterer. The latter will find that the author's own experiences as a stutterer may help him to gain insight into his problem.

_____, People In Quandries: The Semantics of Personal Adjustment. New York: Harper and Brothers, 1946. 214 p.

Stuttering is discussed in Chapter Seventeen, but the reader will discover the whole book to be very valuable reading.

_____, Spencer F. Brown, James F. Curtis, Clarence W. Edney, Jacqueline Keaster, Speech Handicapped School Children. New York: Harper and Brothers, 1948. 434 p.

Chapter Five, dealing with stuttering and written by Dr. Johnson, presents a very comprehensive discussion of the problem and its treatment. The group technique, the Iowa Speech Clinic Check List for Stuttering, an open letter to the mother of a stuttering child, and a case history are available in the Appendix.

Van Riper, C., Speech Correction, Principles and Methods. New York: Prentice-Hall, Incorporated, 1939, 434 p.

The treatment of stuttering is given primary importance in this book by Dr. Van Riper. The "shot-gun therapy," used by the author, is included. The reader will also find a usable case history form in the Appendix.

Wedberg, Conrad, The Stutterer Speaks. Boston: Expression Company, 1937. 121 p.

This book is another that may be recommended to the stutterer. It is the story of Dr. Wedberg's life, his stuttering, and how he overcame it.

West, Robert, Lou Kennedy, and Anna Carr, The Rehabilitation of Speech. New York; Harper and Brothers, 1937. 475 p.

The authors discuss stuttering in Chapter Four and Twenty-Two of this book. Case histories are presented in the Appendix.

B. PERIODICAL LITERATURE

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Mr. Glasner discusses the disorder and lists possible causative factors. He also includes suggestions for treatment.

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C. BULLETINS

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An explanation of the problems of the stuttering child, with suggestions for his parents, teachers, and school nurses to aid him to make a better adjustment.

Garrison, Geraldine, Stuttering. Connecticut State Department of Education, Bureau of School and Community Services. April, 1947. 6 p.

An explanation of the causes and treatment of stuttering for the parents.

D. WORKBOOKS

Bryngelson, Bryng, Myfanway E. Chapman and Orvetta K. Hansen, Know Yourself; A Workbook For Those Who Stutter. Minneapolis: Burgess Publishing Company, 1944. 55 p.

This workbook can be used by speech correctionists with secondary stutterers. Mental hygiene and an objective attitude toward the disorder are stressed throughout all the assignments.

APPENDIX

CAUSES AND TREATMENT OF STUTTERING

Mr. Philip J. Glasner, in charge of speech therapy at the Children's Psychiatric Service in the Johns Hopkins Hospital, rather than filling out the questionnaire sent him, preferred to set down his views in a letter.

> ...It is my experience that the cause or causes of stuttering varies with each patient and only after a careful study of the child and his environment can we hope to draw any conclusions as to possible causes. It has been my experience that the factors known as causes are usually complex and not usually clear-cut. It is also my experience that the interpretation of causes will depend upon the background and training of the examiner. Undoubtedly every item listed, with few exceptions, are taken into consideration when a child ix examined.....
>
> Regarding the treatment of stuttering, I have similar views. The treatment, I believe, should be based on the results of an examination taking into consideration such factors as age, both chronological and mental; possible cause, environment, emotional needs and problems, length of stuttering, attitudes, symptoms, etc. The type of psychotherapy varies with each patient as well as the re-educational approach will vary as to kind and degree...

Dr. C. E. A. Moore, in addition to filling out the questionnaire, elaborates:

> As you might very well guess from my answers to your questionnaire, I am of the opinion that the causative factors behind stuttering may very well be many and varied that in most cases are a result of pressures. These pressures may very well be physical, environmental, psychological, social, hereditary, etc., each playing its own part in different weights, depending upon the individual. The strongest of these pressures in the majority of cases, I feel, is the psychological factor; therefore, the chief therapy revolves around psychotherapy and the development of objective attitudes.
>
> It should not, however, be assumed that there is one and only one therapy or technique for all stutterers. In many cases the emphasis must be upon the environmental or upon the physical, so that the therapy is adapted to the individual personality.
>
> Although the research of years has given us a great deal of information about the stutterer, we must realize that there could very well be factors at work of which we are totally ignorant at the present time. It is interesting to note that whatever therapy is used at various places, the results in the long run are very similar.

Dr. Eleanor M. Luse, too, included some other information:

I use an eclectic approach to stuttering. Although I use a case history, I believe that whatever the cause may have been, the stutterer must learn to live with his handicap and learn to control his speech.

The health of the stutterer is very important. He should be conscientious about keeping himself fit and getting adequate sleep. Although therapies vary among speech correctionists, most therapies begin with a period of relaxation. I feel that this is basic to my training of stutterers. Because I felt so firmly that the stutterer should learn to relax, I took work with Dr. Edmund Jacobson in progressive relaxation. I have found his techniques invaluable for the stutterer. Each stutterer is seen once a week for individual work in relaxation.

The stutterers meet for group therapy once a week. This hour begins with a period of relaxation. This is followed by breathing and vocal exercises, designed for the non-stutterer as well as the stutterer. During this hour, the stutterer has practice in reading, in chorus and alone, in speaking, in conversation and in imaginary situations which cause them difficulty - introductions, meeting people, ordering, asking directions, etc. The speech at these times is to be controlled - the words are to be blended into thought units and speech is to be slow. The objective attitude is stressed from the beginning and various periods are devoted to discussion of improving social and mental attitudes. Since each is an individual case, various methods, such as the bounce pattern, may be used if I feel such techniques will be of help. I do not put every stutterer through the same run-of-the-mill exercises.

Instructions for Keeping a Psychological Diary

Carl Ritzman, Ph. D.

Director, Speech Clinic
University of Oklahoma

Get a loose-leaf notebook, preferably half as large as the regular 8½ by 11 size. Be sure it's loose-leaf so you will be able to remove pages and add them.

Keep the outside appearance as inconspicuous as possible and arrange to sotre it in a place where it will not be tampered with. Your diary should and must be entirely confidential otherwise you will not feel free to record everything as it occurs to you.

Date each entry. Put the complete date at the top and in the middle of each new entry. Do not omit the year or the month. Ten years from now this will be extremely important to you. Right now it is extremely important to us.

Use a new page for each new day's entry. Do not run them together.

Write in ink or type -- and in any case write so that we can read it. Pencil is too easily obliterated by smudges over the years; we want this to be permanent.

Spend about 30 minutes each day on your entries. Spend only one minute if that's all you can spend -- but make some sort of notes to aid your memory each day.

You will miss writing your entry from time to time because of resistance and lack of time. Don't worry about it, but get started again as soon as possible. Don't try to catch up by writing up all of the time you missed. Summarize that period very briefly or skip it entirely. You may never get started again if you feel you have to catch up before you start again.

Write only for yourself. That means ignore style, grammar, punctuation. Be as sloppy about sentence structure and choice of words as you like but get it down. And be sure you can read it a month later.

Furthermore, be frank. Write as if you were talking to yourself -- and that means don't leave out the profanity, the bad words, the bad thoughts, if they are a part of the experience or reaction you are reporting. These words and ideas are all grist in our will --- they tell us what we need to know to help you to talk it out in the clinic and to think it through --- and that is half the job of solving the emotional problem back of your speech.

Bring this diary with you for each interview at the clinic.

A psychological diary will serve these purposes in our work with you:

Continues your autobiography	(1) It will supplement your autobiography. Put in it additional information about yourself each day as it occurs to you.
Checks on your speech progress	(2) It will provide a way to check how you are progressing from day to day. We will see this in your reports of how your speech was that day, how you felt, what you were able to do which previously you wouldn't do and so forth.
Dreams	(3) It will provide us with information about your dreams, both asleep and awake. Very important.
Helps us tell what's making you better or worse.	(4) When your speech gets worse or better it will tell us what we need to know to discover the cause. Your speech will worsen and improve as the result of the things that happen to you that day and the way you react to them. These experiences and your reactions to them will be in your psychological diary.
Helps you understand what is going on and to remember what has gone on.	(5) It will give you a place to do the thinking you must do as your part of the treatment. Record your version or summary of each interview in the clinic as soon as you can. Put there, also, your notes on what you are reading for the clinic. Write out your questions, arguments, as they occur each day so you will not forget them.

Instructions for Writing the Autobiography

Carl Ritzman

Speech Clinic
University of Oklahoma

It helps to have a short story of your life at hand at the beginning of your treatment in the Clinic. We want to know as quickly as possible what kind of family you have, what they have meant to you, what they mean to you now, and many other things. Remember that speech is personality and personality is the product of your experiences. So the sooner we get a line on the outstanding experiences you have had, the sooner we will be able to get at the personality problems tied up with your stuttering.

It would take you months to write the whole story of your life. Take about two or three hours to write this one. It will be about five pages long, maybe less; the length isn't important so long as you get down the things you want to.

You might divide your autobiography into the parts given below, but don't feel you must. Use the suggestions only as a guide: write about the matters which seem to have meant the most to you.

FAMILY: Describe your father and mother and tell how each has brought you up. Describe your family's economic and social status. Which parent do you get along with best? Have you always felt that both your parents like you? How did they discipline you and how did you react to it? Describe your brothers and sisters and how you get along with them. Which is the favorite in your family and how have you felt about it? Everyone has some outstanding memory of his childhood such as the time she heard a neighbor say that her mother always wanted a boy before she was born---what is your outstanding memory?

PERSONAL: To what extent are you conscious of feelings of inferiority or of superiority with regard to your looks, brains, personality, personal achievements, and family?

What are your sexual "skeletons in the closet"? Write out all your outstanding sex worries and memories.

What kind of a person have you got yourself sized up to be--too aggressive, too submissive, etc.? Did you worry about your cowardice as a kid? Could you fight? Are you a good fighter now? Do you think you are well-liked (in the way you want to be liked) by both boys and girls?

When do you cry? When did you last cry? Why can't you cry, (so far as you know) when you are supposed to, as at your grandmother's funeral, or a very sad movie? Can you laugh when you're supposed to? When can't you, as at a very funny movie, etc? Describe the people you

tend to like, and those you tend to dislike. Do you have to watch yourself in social situations lest you offend people or fail to impress them favorably? How do you react to disappointments, defeats, failures? Do you sulk at home, carry a peeve a long time, show your feelings to others? Do you have a hard time controlling your temper? With whom?

RELIGIOUS: Sketch very briefly your religious experiences. Do you believe in God? When and how did you lose your religion, or find it? Do you have a strong conscience? What is on your conscience (the memory of some petty thievery as a kid--that sort of thing)? What was your family's attitude toward religion? Do you usually feel "guilty" when something goes wrong with which you are connected? Do you usually tend to be the first to take the blame, to admit your errors, etc?

Have you prided yourself on your intellectual independence and sophistication---on your freedom from the superstitions of the average religious person---on your objective, realistic attitude toward Death, and sin---or your feeling that you and you alone are responsible for what happens to you and if anything goes wrong you have only yourself to turn to?

SPEECH: Sketch briefly the story of your speech troubles. When they started; how; what you have done about it. Your explanation of your speech trouble. How has it handicapped you? Has it been of any use to you at home at any time---maybe to protect you from criticism for not measuring up to an older brother, or to prevent the old man from expecting as much from you as he would if you didn't have something wrong with you.

EDUCATIONAL: Sketch the story briefly. What was your family's attitude toward your successes and failures in school? Who were your worst teachers---what did they do to you--how did they effect you? What were your worst and best subjects? How has your educational experience effected your choice of vocation? How did you get along with your classmates? Did you feel you were "one of them", that you "belonged"? How did you tend to interpret your social difficulties---did you decide that you were simply inferior, that there was "something wrong" with you which made it impossible for others to accept and like you, even your own family? Or did you tend to think that your sensitiveness and intelligence made you so superior and different from others that they couldn't understand you?

THERAPEUTIC CRITERIA, PRINCIPLES, OR FORMULATIONS

By

W. Arthur Cable

Individual Uniqueness:

Individual differences in any two cases of stuttering and in any two stuttering personalities; differential diagnosis required; differential therapy required. (Thus one cannot properly think of nor speak of the stutterer; but must, instead, think of and speak of a stutterer, another stutterer, a third stutterer, etc.

Continual Flux:

No case remains stationary; changes in degree, direction, relationship, configuration, etc., constantly occur.

Case-plus-Milieu:

Treating the stuttering while disregarding the remainder of the stuttering psycho-biological organism is not enough. And treating the total organism while disregarding his environment, is inadequate. The therapist must take into account the total complex person-in-his-environment, as he reacts to people in his milieu and as they react to him.

First Things First:

First determine and then remove each active cause before trying to remedy the symptom--i.e., the stuttering.

Self-understanding:

The ancient maxim, "Know Thyself," is of special importance to those who stutter, provided that excess introspection does not result. One source of enhancement is a wise interpretation of personality tests such as the Rorschach, Thematic Apperception, Miller-Murray Personal-social Adjustment, and Bernreuter tests.

Adaptation, Adjustment, Contentment:

Many cases can be remedied; most cases can be improved; all cases must be weaned of their bitterness, resentments, rebellion, anti-social attitudes. Some must learn to live contentedly with their stuttering (but not necessarily in its present form), and take it as a matter of course. They must learn not to care, both consciously and subconsciously, that they stutter.

TYPES OF EVALUATION

By

W. Arthur Cable

Physical

Medical:

- Endocrine
- Neurological
- Biochemical

Speech

Personality:

- The Rorschach Technique of Personality Diagnosis
- The Thematic Apperception Test
- The Bernreuter Personality Inventory
- A Test of Neuroticism, adapted from Louis E. Bisch, Be Glad You're Neurotic, pp. 165-169, McGraw-Hill, 1936

From the Case:

- Case Histories
- Biography: Factual, mental, social

From Associates of the Case:

- Parents
- Siblings
- Other Relatives
- Teachers
- Family Physician
- Neighbors and Neighbor Children

DIAGNOSTIC CRITERIA

By

W. Arthur Cable

Inclusiveness:

Omit no aspect or fact of the total situation from consideration in relation to the remainder of the synthesis.

Discard no aspect or fact until after it has been considered adequately.

Differential Diagnosis:

Not the either-or basis of diagnosis (i.e., was this the cause, or was that the cause?); but, when the various contributing causes, both major and minor, have been determined, then proceed, in turn, with each of them; How much of cause No. 1? How much of cause No. 2? etc., throughout the list of potential causes.

Multiple Causation in Individual Cases:

Recognize that, in any case, two or more causes may have acted conjointly to produce stuttering.

STUTTERING

An Organismic Treatment of the Disorder

By

George A. Kopp

Introduction

The organismic method for treatment of stuttering was introduced at Teachers College in 1940. It has evolved from fifteen years of study and research of the disorder. Six of these years were devoted to intensive biochemical studies of alveolar air, urine, and blood of stutterers and non-stutterers in an attempt to find the cause or causes of stuttering. Differences in blood patterns between stutterers and non-stutterers were established and on the basis of these findings stuttering was arrested in seven subjects by experimentally changing the composition of the blood. The substance used was an extract of the parathyroid glands sold under the name of parathormone. The effects of the parathormone disappeared after two or three days, and in each subject the stuttering returned. Since parathormone stimulates absorption of calcium from the skeleton, it could not be used therapeutically. The specific connections between the biochemical changes in the blood and the arresting of stuttering have not yet been discoverdd. Experiments attempting to substitute other substances for parathormone failed. A series of injection and ingestion experiments designed to experimentally cause a non-stutterer to stutter also failed. Nutritional studies, especially those dealing with vitamins, were successful in arresting stuttering in several children. In others this therapy was not effective. These studies point to the possibility of there being more than one cause of stuttering, and they also support the contention that there may be a common denominator for the defect. This common denominator is believed to be present when stuttering begins, but it may or may not be present after the stuttering has continued for some time and the so-called psychological factors have complicated the problem. It is believed that stuttering continues after its predisposing causes are no longer present, and that its continuation may be due to many factors. When we know what processes are reversed when the child naturally stops stuttering, we will be able to prevent and control this disorder of speech. Until such knowledge is available, we are compelled to work with the stutterer, and it seems reasonable that the method used should incorporate as many as is possible of the limited facts that can be proved to be related to the disorder in its inception and continuation. This is the basis of the organismic method of treating the stutterer. It has developed from a slow synthesis of the results of surveys and research projects. It is a combination and modification of many methods. It includes the whole organism and is not limited to one aspect of the organism such as the biochemical, the psychological, the naurological, the physiological, the sociological, or some other partial point of view. It is based on the fact that the highly intergrated and automatic activities involved in speech are subject to

analysis and synthesis, and that the elements of speech and sound have their organismic counterparts in the bodily processes that function during speech. For example, the pitch of the voice is determined by the rate of vibration of the vocal cords. This is a part of the process, and it is specifically related to rhythm and force. Resonation determines the quality of the voice and is controlled by the action of the muscles that regulate the size, shape, and alignment of the resonating cavities. The groups of muscles that are known as articulators modify the voiced and voiceless breath stream into the various sound units of the language. The over-all controller of the speech processes is the brain. Here the vocabulary and speech patterns are retained, coordinated, and directed. There can be no speech without cerebration, but we must keep in mind the fact that the responsiveness of the muscles of respiration, phonation, resonation, and articulation to the impulses sent out from the brain also determine the nature of the speech produced. All of these processes are interdependent and related to each other. The automaticity of speech must be conceived of as involving all of these processes working as an integrated whole. Since they are related, the principle of relativity (that the qualities of related things are determined by their interrelationships) can be applied. It follows that a change in the condition of any component of the system of forces conceived of as the speech mechanism entails a change in the unity of the entire system. The concept has a universal application, but it is used here in connection with the structure and function of the component parts of the speech mechanism as they are related to the total act of speaking. Another concept which is basic to this system of therapy has been derived from personal research and has been subsequently verified by others. It is the additive phenomena present in the acquisition of language. For example, it has been proved that if a person learns to pronounce a word correctly that he has mispronounced for years, the old pronunciation is not conditioned or modified, but a new habit is established for the correct pronunciation. The old habit pattern remains, and may be subject to recall under certain conditions. This applies to all language habits and is beautifully demonstrated in the speech habits of foreigners. During periods of emotional excitation they frequently revert to a more unintelligible dialect, and it is not uncommon for them to return to the use of their native language without being aware of doing so. Native-born Americans who have overcome a regional dialect also frequently return to it when they are excited.

Research using hypnosis has established the fact that language habits, both oral and written, change throughout life. The pre-existing habits remain in the organism and are subject to recall in deep hypnosis. What is the significance of this observation? It would seem that we should recognize that in language re-education we are establishing new habits and we do not erase the old. It explains the inconsistency of pronunciation of certain words in an individual's speech as well as the return to old, incorrect habits by those who have been taught to speak correctly in our schools and clinics. It explains why one may speak in one way in school and in another way in the home, or in the alley. It is believed that the same principle applies to stuttering when the predisposing causes are no longer present. Therefore, new and complete speech habit patterns are necessary to replace the old stuttering patterns.

Neurologically and psychologically the method requires a redistribution of energy from a pattern that produces stuttering to a pattern that will result in normal speech. If only one part of the speech mechanism is treated, respiration, phonation, resonation, articulation, or cerebration, the chances are that the old patterns of action will reassert themselves. Likewise, to focus the training on two phases of the mechanism such as respiration and articulation, without attention to the other three parts may prove to be inadequate. However, if the stuttering has just begun and the difficulty can be located in respiration, in the mental state, or elsewhere, and removed, the stuttering may not return. This is illustrated when a normal speaker becomes so frightened that he stutters. The internal bodily state due to the fright may persist for an hour, or possibly for a day or two. When the internal bodily functions return to normal, usually the speech returns to normal. When he is again frightened in the same way, his stuttering returns. Continue the state of fear and its concomitant bodily changes long enough to establish the stuttering psycho-motor patterns and it will be more difficult to return to the normal pre-existing habits. Regardless of the duration of the stuttering, its record remains in the organism associated with the total experience and subject to recall ten or twenty years later under the experimental conditions mentioned above. It is because of this fact that it is unfortunate to speak of "curing" stuttering. Adult stutterers may learn to speak without stuttering, but the stuttering psycho-motor patterns are never erased or removed from their organisms. Conversely, the normal speech patterns are not erased, removed, or modified when a person requires the stuttering habit. The same person may stutter in one situation and not stutter in another. Why? He is using two psycho-motor patterns. The changes in his internal environment precipitate the shift. Remember that the foreign-born who has learned to speak English correctly is likewise taken back through various states of incorrect usage of the language during emotional excitation. The stutterer may manifest various degrees of severity of the defect just as the foreign-born may speak with varying degrees of accent. Others may revert to another type of speech when stimulated or excited in another way. This point is emphasized because it is contrary to the usual way of thinking. Most people think that stuttering is a disturbance of the normal speech, and that there is just one speech pattern which is influenced by mental, emotional, and physical conditions. I believe that every form of speech that has been used imprints its psycho-motor pattern in the organism and is subject to recall when similar states prevail. There isn't just one speech pattern, but there are many, all subject to use when the conditions under which they were implanted recur. The bodily changes that take place during growth and development make it difficult, if not impossible, for an adult to consciously return to the speech of his childhood, yet the person who has never matured emotionally finds it difficult to keep from using the childhood patterns.

In order to have the maturative processes helping to establish normal speech habits, stuttering should be supplanted at as early an age as possible. The deeper the stuttering patterns are buried in time, experience, and growth, the less likelihood there is of return to them.

If stuttering continues until adulthood, it is still possible to acquire normal speech for most situations, but the possibility of the stuttering returning is great.

Definition

Stuttering is a disturbance of metabolism manifested in tonic and clonic oral myospasms.

Synonyms

Stammering, spasmophemia, speech blocking, speech hesitation, spasmodic speech, broken rhythm, aphenia spastica, dysphemia, logospasm, dysphonia spastica, spasmophemia clonica - stuttering, spasmophemia cryptica-silent stammering, spasmophemia tonica - stammering, and others.

Prevalence

The most commonly quoted guess concerning the number of stutterers in the United States is 1,400,000. It has also been estimated that approximately 1% of the school population stutter.

Description of Stuttering and Stutterers

Stuttering is used synonymously with stammering in this country. In Europe a differentiation is still made. There stuttering is thought of as being characterized by clonic oral myosphams. For example, the stutterer may say b-b-b-b-b-oy. The spasm is repetitious. Stammering speech is characterized by blocking or stopping, which is balled a tonic oral myospasm. For example, the stutterer may say b---oy. Because both types of spasms are so frequently found in the speech of the same individual, American workers have come to think of the two as one, and stuttering is now the preferred term. There are those who fight for the term stammering, and there are others, including myself, who can't be induced to participate in the silly argument. What is heard and seen is actually a manifestation of the organismic disturbance, regardless of its unknown nature. Stuttering is a symptom. The true disturbance, call it dysphemia or anything else, is on the inside of the organism and it can neither be seen nor heard. We similarly look at the bowed legs of a child suffering from rickets, and call the bowed-legged condition rickets. The disturbance that caused the bowed legs is known to be an inorganic deficiency inside the body. We should keep this differentiation of symptom and cause in mind.

The results of the White House Conference Survey revealed that; the number of children who stutter continues to increase up to the sixth grade of school; the majority of stutterers begin to stutter before the age of six; the majority of stutterers (but not all) have a period of from one to several years of normal speech proceding the incidence of stuttering; stuttering boys outnumber the stuttering girls by a ratio of about four to one.

The results of other reliable surveys and research indicate that; stutterers as a group have avera·e intelligence; stutterers are unable to move the paired musculature as rapidly as normal speakers; the severity of stuttering increases with fatigue; there is a tendency toward ambidexterity in stutterers; stutterers participate in acting and singing more easily than in conversation; stuttering varies in intensity or severity in situations and with different stutterers; stuttering is transitory in some persons and in others it isn't; stutterers as a group are delayed in school progress; stutterers as a group are slower in learning to speak; stutterers are likely to have stuttering ancestors, sinistrality is more common in the stutterer's family than in families free from the disorder; general motor skill of stutterers is inferior to that of non-stutterers; stuttering occurs in deaf and deafened persons; incidence of febrile diseases is higher for stutterers than normal speakers; and finally, and most important therapeutically, stutterers universally have a disturbed coordination of the respiratory muscles, their vocal inflexibility (phonation and resonation) is accepted as a fact, their inability to articulate properly (articulation) is characteristic of the disorder, their cerebration for speech is generally recognized as being faulty.

In light of the above findings, how is anyone justified in describing or defining stuttering as a disturbance of speech rhythm?

Muscles and Nerves Involved

For a complete discussion of the muscles and nerves involved in speech, you are advised to study "Voice Science," by Judson and Weaver; "The Bases of Speech," by Gray and Wise; Gray's Anatomy," or any other standard anatomy or physiology. Our syllabus for Speech Correction, Education 281K, lists the muscles and their function. Since the whole speech mechanism is involved in stuttering, a review of the physiology of respiration, phonation, resonation and articulation, is indicated. The muscle groups that control these processes are of primary concern to the therapist who undertakes to replace the malfunctions and incoordinations found in stuttering with normal movements. If one is to establish normal habits, the ability to recognize correct and incorrect coordinations is essential. Without this ability a knowledge of what to do in order to establish correct coordinations is worthless. It is granted that for practical purposes the clinician or teacher may not think of the terms of the integrity of the 5, 7, 8, 9, 10, 11, and 12 cranial, as well as the cervical and thoracic, nerves that supply the muscle groups being trained, yet their importance cannot be denied. This is obvious when we think of the cerebration involved. The aim is to establish a new psycho-motor pattern in the brain that is of a non-stuttering nature. This is done through the nerves that supply the muscles used in speech. In addition, there are the fears, anxieties, and fixations that must be replaced with confidence and controlled assurance. The mental hygiene in stuttering is all important in the opinion of many workers, and it should not be ignored by anyone working with the disorder. It is an important part of this organismic system of therapy, but it is not considered as being any more than a part of the total problem.

Etiology

The etiology of stuttering is unknown. The definition of stuttering given in this outline states its etiology as being a disturbance of metabolism manifested in tonic and clonic oral myospasms. This definition was written thirteen years ago. It is purposively general, vague, and indefinite. Yet it is inclusive enough to provide for the symptoms of the disorder and their general causations when and if they are ever discovered. Underlying the definition is the physiological fact that function is dependent upon structure. The structure may be muscle, nerve, blood, glands, brain, or something else, but something within the organism of the stutterer is different from that same something within the organism of the normal speaker. Metabolism includes all the bodily processes. The etiology of stuttering can therefore be logically placed in the metabolism of the organism until research yielded a more specific explanation. The definition necessarily does not name the specific metabolic difference, which is an unknown at the present time. This is recognized as the biochemical theory of causation of stuttering.

Other theories that are more widely known, more extensively and vehemently cussed and discussed, include the neurological, physiological, psychological, psychoanalytical, and the genetic. The educational theory of the causation of stuttering is a misnomer in that it fails to recognize that there is a cause for the disorder. To say that the natural hesitations of the child develop into the bad habit of stuttering ignores the fact that many a child stutters badly when he begins to speak. The proponents of the educational theory also close their eyes to the fact that many normal speakers stutter when excited or frightened and they are likewise blind to the many differences between stutterers and normal speakers that prove beyond any reasonable doubt that there is something more than habit present. So far as the other theories are concerned, they all have legitimate claims and a body of research evidence to support them. Yet when they are critically scrutinized, they are all found to deal with one phase or aspect of the function of the organism. This function must ultimately be thought of in terms of structure and the structure, in turn, is thought of in terms of biochemistry and metabolism. This thought is not presented as a defence of a definition but rather as an illustration of the totality of the organismic point of view. If we work with the stutterer in any way we are, whether we know it or not, affecting his physiology, neurology, psychology, and consequently his biochemistry. We need to widen our mental horizons and look beyond the limited, the partial, the restricted, and the biased explanations of the causes of stuttering upon which so many therapies are based.

Methods of Diagnosis

The diagnosis of stuttering, like that for other pathologies, should be directed toward determining the functional efficiency of the speech mechanism as a whole and the specific nature and extent of the incoordinations of the muscles that control respiration, phonation, resonation, and articulation, as well as the disturbances of cerebration.

1. Respiration: Practically all stutterers have an incoordination of the respiratory muscles during speech. Note the spasms of these muscles during conversation and oral reading. Observe the inefficient use of the breath stream resulting in breathiness, improper rhythm, phrasing, and poor support of tone. Frequently there are attempts to speak on inhalation, while holding the breath, or after the breath has been expired. Have the stutterer count to twenty-five or above without forcing. Have him hold a vowel sound as long as possible, on one breath. Time the effort. It should be twenty or more seconds if the person has good control. Repeat the prolongations of vowels, using different kinds of force. Note the inefficient use of breath. Determine where the breath stream is interrupted by the stuttering spasm. Is it in the glottis, the mouth, the lips, or does it take place in a combination of these places?

2. Phonation: Phonation takes place in the larynx and it is here that pitch is determined. Observe the rigidity or inflexibility of the voice. There is seldom a normal variation in pitch. Establish the pitch range by having the stutterer phonate vowels from the lowest to the highest pitches that he can make. Use both glides and step intervals. The natural pitch may be approximately located a few semi-tones above the lowest third of the entire pitch range. Make sounds on different pitch levels and see if they can be reproduced. Produce different types of inflections and ascertain the stutterer's ability to reproduce them. Use commands, questions, statements, and phrases connoting different moods. Mechanically, change the tension of the vocal cords by pushing on the point of the thyroid cartilage while the subject is phonating. The pitch should lower. If the quality of the voice improves, it is an indication that the cords are too tense. Change the alignment of the vocal cords by mechanically pushing the larynx to one side while the stutterer is phonating. Do the same for the other side. Ordinarily, this produces breathiness and an abnormal vocal quality. If breathiness decreases and the quality improves, it is an indication of asymmetrical vocal cords. A laryngoscopic examination is indicated. Whenever possible, the laryngoscopic examination should be given as a matter of routine to determine the possibility of structural abnormalities. When soreness or sensitiveness is present in the region of the larynx, the subject should be referred to a laryngologist. Observe the action of the muscles in the larynx geal region. Do they seem over-developed? Do they protrude? Is the larynx held high in the neck against the hyoid bone? These are indications of tensions and improper coordinations. When they are present one may usually hear glottal attachs and glottal stops in the speech. The vibration of the vocal cords is closely associated with the infra-glottal breath pressure. Have the subject vary the breath pressure (producing sounds varying in loudness) on different pitch levels. This is another way of determining if tension and incoordination are present. Another interesting test that I have used for many years in demonstrating the functional inefficiency of the phonatory mechanism is to have the stutterer imitate first voiceless, then voiced, sounds on different pitch levels. Varying the duration of the sounds emphasizes their inability to start and stop the vibrations of the vocal cords.

3. Resonation: Resonation determines vocal quality. The muscles that control the size and shape of the oral, pharyngeal, and nasal cavities, and align the vibrating cords with these cavities are the peripheral determinants of the tone produced. The central determinants are mainly the factors of hearing, especially tonal memory and the ability to detect consonance and dissonance. A simple yet practical test of the stutterer's ability to discriminate between good and defective voice qualities is to produce them and have him first recognize them and then reproduce them. Use such qualities as are commonly described as nasal, hoarse, or husky, breathy, guttural, and others. By varying the degree of defectiveness of the vocal qualities, a rough approximation of the stutterer's ability to detect differences in quality may be obtained. The preciseness of the test is limited only by the experimenter's skill. The Seashore Test of Musical Ability may be used to more accurately test for tonal memory and consonance. Observe the stutterer's voice quality while he is conversing and during oral reading. Is it nasal, tense, or husky: Explore the stutterer's control of the resonators by having him imitate voices of his acquaintances both male and female, young and old. Have him try to imitate two or three of the voice qualities on different pitch levels, and with different degrees of force or loudness. You may be surprised to note that many stutterers do not stutter when they change the quality and pitch of their voices. Many can sing and act without stuttering. The explanation is, in my opinion, to be found in the different alignment of the muscles. Prove for yourself that many stutterers can converse with you if they use different qualities on a higher or lower pitch than their stuttering speech, and you will appreciate one of the basic factors in the therapy that follows. Frequently the stutterer is unable to imitate very many voice qualities, but he can be trained to do so.

4. Articulation: Articulation is the modification of the voiced and voiceless breath stream in such a way as to produce the various sounds of a language. Usually the stutterer will inform you that certain sounds are his stumbling blocks. On careful examination you may discover that this is only partially true. Note where the blocks and repetitions occur. Check carefully his production of all the sounds of the language in conversation and in reading. Some can read without stuttering, others stutter more when they read, and there are those who stutter in all oral efforts. Note the nature of the stuttering. Are there facial grimaces and bodily contortions present? What happens when the stuttering occurs? Does he try to force the sound out? Is there an unvoicing of the sound? Does he stop and start again? Is there a voicing of unvoiced sounds? Are starters used? Your primary concern in testing articulation is to determine what sounds are faulty, under what conditions they are faulty, and the nature of the physiology that makes them what they are. In working with this phase of the stuttering problem, you need to know what the articulators do and when they do it in order to replace the stuttering habits with new articulative patterns.

5. Cerebration: The intelligence of stutterers as a group has been proved to be average or above. If there is any doubt or anxiety on the part of the stutterer or his parents concerning his intelligence, a standard test should be given. Hearing may be tested by using an audiometer, or if one is not

available the practical test using the speech sounds may be used. The fears, the anxieties, the stereotyped reactions of expectancy, postponement, and avoidance, are all mental concomitants of stuttering. They form a configuration which is associated with and is a part of the psycho-motor pattern of the stutterer. Because of the emphatic nature of the human animal, fear produces fear, tension produces tension, anxiety produces anxiety, expectancy produces expectancy, calmness produces calmness, and confidence produces confidence. The list may be extended indefinitely. The importance of the observation is in helping us to discover and eliminate the environmental influences that create the disturbed mental states that are manifested in the stutterer. When they are not present in the home, we must make sure that they are not in the school. Find out when the person started to stutter. Was there a shock, fright, or illness associated with its incidence? Are there places, or situations in which stuttering is not present? What factors increase the severity of the stuttering? What factors decrease the severity of the stuttering? What is the prevailing attitude of the stutterer concerning his handicap? Is he using it to get attention, or other regards? Does it make him despondent? Is he becoming asocial? Do his parents and teachers make special concessions for him? What are his interests, hobbies, desires and ambitions? The fundamental objective is to obtain a functional picture of the mental activities of the stutterer in order that you may guide and direct the establishment of a psycho-motor speech pattern which is used with confidence and assurance.

Other Tests

In testing the functional efficiency of any muscle or group of muscles, the speed, strength, and accuracy of movement should be determined. We are in need of tests that could be applied to the muscles of articulations, but before the results could be interpreted for the stutterer, norms would have to be established for the speed, strength, and accuracy of the articulators of the non-stutterer. No such tests are now available. Handedness of stutterers has been tested in many ways, and of the standardized measurements the Durost asterisk test for speech, the Smedley dynamometer test for strength, and the Wellman Tracing path test for accuracy are believed to be reliable. Since laterality is not included in this organismic treatment of stutterers, tests for handedness, eyedness, and footedness are not discussed. Tests for ability to relax are desirable, but again we have never determined the normal degree of relaxation of certain muscle groups when other muscle groups are active. Excellent techniques for relaxation are to be found in Jacobson's "Progressive Relaxation," and in Rathbone's "Relaxation." Since so many muscles are used in speech, the focus of attention should be on the degree of tension of the various coordinating muscles rather than on the complete relaxation of them. We should realize, however, the interrelationship of tension and relaxation.

Methods of Treatment

The following therapy is designed to replace stuttering habits with normal speech habits. Basic to the method are, the concept of dealing with the entire speech mechanism and the corresponding elements of speech and

sound that are produced by each part of the speech mechanism, the belief that speech is produced from many psycho-motor patterns, the possibility of the replacement of the psycho-motor pattern that produces stuttering with a psycho-motor pattern that will result in normal speech, and the recognition of the fact that language habits, once acquired, are never conditioned, modified, or erased, and when new habits are established, as is necessary in the growing body, they take the place of the older habits. In order to replace stuttering habits with normal speech habits, the various muscles used in speaking must be trained to function to the extent of their physiologic limitations so that new coordinations may be established. The muscle groups involved are those of respiration, phonation, resonation, and articulation. They all must be exercised and the exercises prescribed should be for definite purposes. Thinking, imagining, hoping, and wishing have never been known to establish coordinations of muscles. Explain these principles to the stutterer, and in making assignments be sure that he understands what he is asked to do and why he is asked to do it. The explanations should not be given to pre-school children, for whom a more indirect approach may be preferred. However, there are some pre-school children who are so aware of their speech difficulty that they profit more from the direct attack on their problem. In any case, the explanations, instructions, and exercises must be adjusted to the development of the subject, and the cooperation of the parents and teachers should be enlisted to help with the training program.

General Health

To attempt to establish a distribution of energy that will result in normal speech when the organismic condition is such that normal functioning is impossible, will result in disappointment for you and the stutterer. The stutterer's mental and physical health should be made as normal as possible by his physician. He should check very carefully for nutritional disturbances, especially those due to vitamin and inorganic deficiencies. Allergies to certain foods and substances have been noted in some stutterers, and others have been found who have an endocrine embalance. Sometimes the stutterer possesses peculiar mental fixations and fears, is overanxious, over-sensitive, and worries unduly over unimportant things. Frequently, their emotional outlet through crying and bodily action is thwarted by domineering but well-meaning parents. Many come from high-tension homes, and the worries, fears, and anxieties of the parents are transmitted to the children. All of these conditions should be corrected and alleviated as much as possible. If the child is suspected of stuttering in order to get attention from other members of the family, remove attention from the stuttering and focus it only on normal speech.

The above factors and many variations of them have been definitely associated with stuttering, and the disorder has been corrected in young children by intelligent attention, treatment, and consideration of them. No exercises or therapy may be needed if the stuttering has just begun and the child has had a two- or three-year period of normal speech. A return to the normal psycho-motor patterns may be accomplished by removing the physical or mental conditions that are precipitating and causing the

establishment of the stuttering psycho-motor patterns. If stuttering characterized the first speech activities, then there are no normal psycho-motor patterns to which to return. Because of the rapid growth during these earlier years, if the stuttering habit has persisted for several months or longer, it may be assumed that the stuttering psycho-motor patterns are quite well-established, and that the earlier normal psycho-motor patterns are more definitely submerged in experience and structural change. We should all work toward the prevention of stuttering, but once it is established we should realize that normal speech habits can be attained by specific training of the parts of the rapidly growing organism that are used in speaking.

Respiration

We all know that primarily we breathe to throw off a gas, carbondioxide, which is a waste product, and take in a gas, oxygen, which is an essential fuel and constituent of our bodies. Good breathing habits are essential to good health. Breathing for speech has long been considered a secondary matter. But if we look at the expired breath stream as a carrier wave of meaningful and meaningless sound which serves to discharge physical, mental, and emotional (organismic) energy from the body, it becomes more significant. We are concerned with the establishment of habits of control that will result in an adequate carrier of voice and articulated sound. The terms used to designate the types of breathing are: natural, diaphragmatic, thoracic, abdominal, costal, and calvicular. With the exception of clavicular breathing, good breath support for speaking may be established with all of these types of breathing. The control is our major concern. I prefer the "natural" breath control, which includes a combination of the diaphragmatic, abdominal, thoracic, and costal. It is the type of coordination used by practically all normal children, and the one we all use when we are asleep or lying down. This type of coordination can be recognized by a slight outward movement of the abdominal wall just below the sternum when the diaphragm contracts on inspiration, and a simultaneous slight outward movement of the lower ribs. During this inspiratory phase the abdominal muscles relax to permit the displacement of the viscera by the downward moving and contracting diaphragm. In expiration, the diaphragm relaxes and moved upward forcing the air out of the lungs. The abdominal muscles contract, causing an inward movement of the abdominal wall and the lower ribs move inward. The movements may be easily detected by placing one hand just below the sternum and the other on the lower ribs.

Suggestive Breathing Exercises

1. Inhale slowly - noting outward movements of the upper abdominal wall and the lower ribs - hold - exhale slowly, noting inward movements of the upper abdominal wall and the lower ribs - hold. Repeat several times in a standing position and in a sitting position.
2. Repeat the above to counts of 2, 3, 4, and 5 for each phase of the cycle.

3. Inhale quickly, hold, exhale quickly.
4. Pant - inhale quickly, exhale quickly.
5. Practice inhalation and exhalation while walking, allowing 2, 3, 4, 5, 6 and 7 steps for each phase.
6. Practice the exercise everywhere until it becomes habitual.
7. Phonate "ah" for four seconds, six seconds, eight seconds, ten seconds, etc.
8. Phonate other vowels in the same manner.
9. Phonate the voiced consonants in the same manner.
10. Produce the voiceless consonants in the same manner.
11. Count to 5 on one breath, increase the count to 8, 12, etc.
12. Practice using varying degrees of force with the above exercise.
13. Practice speaking phrases and sentences of varying length:
    He is going.
    He is going home.
    He is going home today.
    He is going home today if he can.
    He is going home today if he can finish his work.
14. Practice phrasing numerals and sentences.

Phonation

Phonation takes place in the larynx, and because the larynx was primarily evolved as a valve to keep foreign matter out of the lungs, its use for speech has long been said to be an "overlaid" function. Since function, or its absence, changes structure, it is reasonable to believe that over a period of thousands of years the human larynx has changed. The vibrations of the vocal cords determine the fundamental of the tone produced. Thus, pitch of the voice is determined by the rate of vibration of the vocal cords. In working with the stutterer we need to extend his pitch range, increase the variation in pitch within that range, and train him to stop and start the vibration on different pitch levels using varying degrees of force. In this unit we are actually considering respiration and phonation because there can be no normal phonation without the breath support. Make sure that the breathing habits established in the preceding unit are used in the following exercises.

Suggestive Exercises for Extending and Varying the Pitch

1. Massage the larynx. Move it from side to side. Push it up, then down. This will stimulate circulation and speed up the removal of fatigue products.
2. Yawn and swallow - these are synergic actions that move the muscles of the throat in an unlearned manner.
3. Phonate the "ah" sound softly, making sure that the mouth is open and the tongue is immobile and flat in the mouth.
4. Repeat the above exercise, gliding from a low pitch to a high pitch and back to the low pitch. Explain to a child that he is sliding up and down a hill with his voice.
5. Use other vowel sounds with the above exercise.

6. Use the voiced fricative consonants with the above exercise.
7. Practice going up and down the pitch range in step intervals, using different vowels and consonants. Go up and down stairs with the voice.
8. Repeat the above using numerals.
9. Say short sentences, putting the words on different steps of the stairs.
10. Use longer sentences with the above exercise.
11. Vary the above exercises using different degrees of loudness.
12. Practice speaking words, phrases, and sentences with different inflections and stresses:

    I am going home.
    I am going home.
    I am going home.
    I am going home.
    Oh, no!
    Oh, boy!

13. Read sentences to connote as many meanings as possible.
14. Repeat the above for 5, 15, 25, 50, 100 people.

Suggestive Exercises for Starting and Stopping the Vibration of the Vocal Cords

1. Practice going from the "ah" to the "h" sounds, then the "h" to the "ah."
2. Practice producing combinations of vowels and voiceless consonants.
3. Practice the equivalent voices and voiceless consonants in pairs, a-z; f-v; th-th, etc.
4. Repeat the above exercises on different pitch levels.
5. Repeat exercises 1 - 3 using varying degrees of force or loudness.
6. Repeat exercise 4, using varying degrees of force or loudness.
7. Practice with words that begin with voiced and voiceless sounds.

Resonation

In working with resonation you are exercising the muscles that control the size and shape of the resonating cavities and those muscles that align the vibrating vocal cords with these cavities. As in the preceding exercises, the physiology is the important consideration. In this unit the focus of the attention is on voice quality which is inseparable from phonation and respiration. The skills required in the preceding units are extended to include different qualities of voice.

Suggestive Exercises for Training the Muscles of Resonation

1. Imitate the voices of animals.
2. Make the animals speak to each other, using their voices.
3. Practice imitating different voices that you have heard.
4. Practice exercises 3 - 15 in the preceding unit, using first one voice then another.

5. Practice reading plays assuming a different voice for each character.
6. Use games, marionettes, telephone and radio situations, to motivate children to use different voices.

Articulation

Articulation is the modification of the voiced and voiceless breath stream in such a way as to produce the various sounds of the language. The articulators are those parts of the speech mechanism that function in modifying the voiced and voiceless breath stream. They are the lips, facial muscles, jaws, teeth, tongue, hard palate, soft palate, and the pharynx. In working with the stutterer we want to exercise the muscles used in articulation to increase their speed, strength, and accuracy of co-ordinated movements. This will make it possible to establish new oral positions (casts, forms, or molds) from which the sounds can be made without stuttering. The aim is to vary the movements and positions in such a way as to make them more purposive and specific but not conspicuously so. When the stuttering spasm occurs, the stutterer should stop and not try to force the sound out. To continue the effort only makes for greater tension. Train him to vary the position or tension of the articulators so that the sound can be made easily. Be sure to use the skills acquired in respiration, phonation, and resonation.

Suggestive Exercises for the Articulators

1. Move the lips alternately from the positions of the i (meet) and u (foot) sounds.
2. Move the lips alternately from positions for whistling and smiling.
3. Produce the p sound in combination with all the vowels.
4. Produce the b sound in combination with all the vowels.
5. Produce alternately the i (meet) sound and the a (father) sound.
6. Repeat number 5, using all the other vowels with the a (father) sound.
7. Produce the t sound in combination with all the vowels.
8. Produce the d sound in combination with all the vowels.
9. Repeat exercises 7 and 8, using the k, g, s, z, f, v, , , , , etc., sounds.
10. Produce a series of 2, 3, 4, consonants with the same vowel:
    pa, ta
    pa, ta, la
    pa, ta, la, sa
11. Repeat exercise 10, using different vowels.
12. Introduce the nasal sounds m, n, and , in the above series.
13. Introduce the l and the r in exercise 10.
14. Repeat the above exercises varying the force or loudness.
15. Repeat the above exercises varying the speed or rate of utterance.
16. Pronounce words phrases, and sentences with different degrees of force.

17. Repeat exercise 16 varying the rate of speaking.
18. Use varying inflections, intonations, stresses, and rates to connote different meanings of words, phrases, and sentences.

Cerebration

In the preceding units we have trained the muscle groups that control respiration, phonation, resonation, and articulation. In this training process the psycho-motor patterns in the brain, with which the various muscular activities are associated, have been established. All the movements, of every exercise, for all the muscle groups, have been directed, coordinated, and controlled from the brain. As sounds, phrases, words and sentences were produced with different degrees of force, on varying pitch levels, with different qualities of voice, with various rates of utterance, and with varying inflections, intonations, and stresses, the psycho-motor patterns concomitant to the muscular activities were created. These new psycho-motor patterns were established, therefore, through exercises. Our objective in this unit is to train the mind of the stutterer so that he can use his acquired skills. He must be given definite things to do to help him speak in a new, easy, and effortless manner in all situations. He must have something positive to do when the stuttering occurs and he must be trained to do it.

The stutterer's attitude toward his defect is most important. Strive to get him to admit to himself and to others that he has had trouble in speaking. Remove the guilt and the shame that may be associated with the impediment by explaining the consequences of such attitudes. Discuss the effect of fear and anxiety on the speech of a normal speaker. Show the stutterer how fear of not being able to talk perpetuates the stuttering habit. Conversely, explain the advantages of a pleasant, relaxed, (indifferent) and confident attitude in building up normal speech habits.

Having something positive to do when a block occurs tends to remove the anticipation that so frequently produces stuttering in both speech and reading. Consequently, the stutterer must train himself to vary the force, pitch, quality, rate and/or articulation in such a way as to eliminate the stuttering. He should attend to all of these factors until the new habits are firmly fixed. Having established normal speech habits in one situation helps to establish them in other situations, but it is no guarantee that stuttering will not recur. Confidence accumulates with each successful experience. Arrange a list of situations in which difficulty in speaking is experienced. Rank them from the most difficult to the least difficult. Begin with the least difficult situations and continue to work up through the list. This is essential because it proves to the stutterer that he can speak without stuttering and that he can return to the pre-established psycho-motor patterns from which stuttering is directed. The longer he uses the new habits the stronger they become entrenched in experience, and changes brought about by maturation. This explains why it is difficult for the stutterer to remember how he stuttered after he has used normal speech for awhile.

In conclusion, it should be said that this organismic method for treatment of stutterers has been proved to be effective in clinical work. It has never been tried with group instruction. We hope to do this in the near future. You are urged to compare it with other methods that approach the problem from limited and partial points of view.

You will find our professional literature filled with discussions of the stuttering problem. All the standard speech correction books list many references and an exhaustive bibliography on the subject has been compiled by Dr. Bluemel. These sources are so readily available that I have omitted the reading list from this unit.

SUGGESTIONS IN THE THEORY AND TREATMENT OF BILATERAL APRAXIA, AND ITS SYMPTOM, STUTTERING

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Since the author wrote the article "Theoretic and Therapeutic Considerations of Dysphemia and Its Symptom, Stuttering," found in Section I, page 19, in Eugene Hahn's book entitled STUTTERING, Significant Theories and Therapies, in 1943, many of my colleagues have indicated their difficulty in getting the full import and meaning of my ideas expressed therein, and have asked me to elaborate in hopes that greater clarification and elucidation will result. I hope that this elaborated revision will serve this purpose, and in addition help me clarify my own thinking on this very searching problem known to most of us as "Stuttering."

My present notions as to the etiologic factors in the speech disorder called "stuttering" are first, the result of my examining and studying upwards of 10,000 patients during the last quarter century and second, the result of my interpretation of the laboratory and clinical researches on the problem during the last three decades. Thirty-six citations of the most important of these studies are found in the March issue of the Journal of Speech Disorders, 1942. Whatever point of view I hold in this discussion should be dated as of March, 1950.

Bilateral apraxia refers to an irregularity of neural integration in that portion of the central nervous system responsible for the flow of nerve impulses to the speech musculature. The most commonly observed manifestation or phenomenon of this central state of neurologic disintegration is the clonic and tonic interruptions of the breath stream, accompanied by marked incoordination of the midline bilateral speech structures. Such disjointed peripheral behavior I prefer to call "stuttering."

The initial onset (45 per cent of which occurs at onset of talking) usually is characterized by short, effortless, repetitive interruptions of the speech act. The forced tonic blocks occur most often as secondary evolvements after the child has been exposed to maladaptive stimuli on the part of his social environment. Anxiety on part of parents is indicated by such suggestions as: "Take your time," "take a deep breath," "say the word over again." The child wishes to please the parents and thus tries to stop the involuntary interruptions, but with little success. In addition to the original neurologic blocks the child now has developed a number of accessory movements of the speech muscles which become "habits," built around his stuttering. He has also gotten the idea that it is wrong to stutter---thus fears and personality aberrations develop.

My present theoretic envisagement of "stuttering" is that most of it is a form of atavistic behavior resulting from a "throwback" state of the central nervous system. It is quite possible that as the human nervous system evolved from the lowly medusa to the highest order of asymmetry in the two cerebral hemispheres, strict symmetry, i.e., equal representation of bilateral innervation, obtained. Thus man with his paired muscles for speech already developed was unable to use them as single organs, due to this equal representation in the central neural mechanism. Could it, therefore, be that before man had a highly developed cortex with its present asymmetrical neural representation in the two cerebral hemispheres, he went through a long period of so-called "stuttering"? In this sense I speak of it as an arrested state of neural development. The complete maturation for a highly corticalized, one-sided gradient for smooth verbal expression does not obtain in the young bilateral apraxic whose "stuttering" is apparent at the time of his speech onset. The mechanism of central ambilaterality obtains, thus making it difficult for the peripheral speech muscles to function in a synchronized manner.

Quite often the two-sided state of the central nervous system is indicated by a lack of a preferred hand usage. Early peripheral ambidexterity, which is common in most children up to the thirteenth month, often persists and frequently is accompanied by retarded speech development or by broken speech when the child begins to talk: the motor sidedness pattern for handedness may be developing on the side of the brain opposite to the side of the native physiologic speech gradient. This condition which one can only infer exists may be of such a nature as to demarcate the "stuttering" child as possessing a nervous system differing in kind and not in degree from that of the normal speaking child. If this be the case, a clinician might be justified in not holding out too high hopes of a complete eradication of the deviation we call bilateral apraxia.

The apraxic state, producing peripheral myospasms, may also be established in a child whose inherent predisposition for the development of a complete and normal speech function is faulty. It may obtain when a child's native sidedness or brainedness pattern is altered. Bilateral apraxia may also arise as a result of accidents to a major cerebral hemisphere, preferred hand or eye. Prolonged febrile diseases and severe traumas may be inciting causes to the onset of the symptom "stuttering," in organisms predisposed to a lack of strong one-sided development. For further elucidation see "A Study of Laterality of Stutterers and Normal Speakers," Journal of Social Psychology, 11, 1940, and March, 1937, (Berneice Rutherford, Collaborator).

Before discussing certain aspects of therapy, I want to say that I do not believe that one method, and only one, can be agreed upon by speech pathologists. Because of our different backgrounds of training and clinical experience, we shall perhaps employ more or less different methods and technics in the treatment. The psychologic treatment, however, savors of a good deal of similarity.

In discussing the treatment of bilateral apraxics, because of the primary and secondary phases of the problem, I shall speak first of the management of children whose "stuttering" is still in the initial stage and secondly discuss the treatment of adult "stutterers."

I. THE BILATERAL APRAXIC CHILD

Provided the physical and mental conditions are normal, there are two main considerations in the parental management of the child.

First, there should be no interference with the natural motor development of the child's sidedness pattern. Peripheral hand preference more often than not is a symptom of native brainedness for speech, reading and writing. If there is any doubt as to his manual laterality by the time he is ready for the first grade, it would be well to take him to a speech clinic for a decision as to which side is the more likely to give his speech and most adequate neurologic compensation for its inherent central ambilaterality. Once strict one-sidedness has been developed, the child should be encouraged in manual skills in order to maintain, if possible, an asymmetry of neural innervation in the central nervous system. Ambidextrous acts such as piano playing and typing are likely to delay the setting up of such physiologic asymmetry as is essential for more smooth speech flow. So much for the neurologic phase of the problem.

Second, clinical experience teaches one that when the emotional environment for a "stuttering" child is full of tension, fear and anxiety, the child reacts unfavorably toward his inability to communicate like other children. It is therefore advisable, in order to prevent unwholesome speech mannerisms, (tongue protrusion, swallowing, head jerking, etc.) and emotional insecurities from developing as collateral patterns with "stuttering," for the parent to avoid making any maladaptive evaluation of the child's speech. When the child is old enough to realize his way of talking is different from others who do not "stutter" he should have a wholehearted sanction and approval from the parent. At this point it might even be well for the parent to speak very freely about the "stuttering." He should know the label commonly used in our culture for his "different" speech. The humor, which the playmates may later indicate, can also be developed between the child and the parent. Above all, a parent should respect the child's personality. He is performing according to the dictates of his organism and although the pattern may not suit the parental superego, it is well not to interfere with the child's emotional maturation. After the age of fifteen or sixteen when he will be personally motivated to work toward improvement of his communication, he will most surely respond to clinical treatment by a trained clinician. He can learn to minimize the speech output if he has developed any secondary patterns which in any way prolong his speech attempt. Talking-writing exercises are recommended. Many of the readers will note that this suggestion is the reverse of what has been proposed in the literature before. The change in my own thinking has taken place during the last fifteen years. Phylogenetically the speech act is much older than the writing act. Speaking being the act

with which we are most concerned in "stuttering" therapy, it would seem to be important to excite first that specific part of neural behavior, and second the later-acquired act of writing. If the child has difficulty in initiating the speech act in order to follow it with the pencil in copying material from a book, it is suggested that the child be taught to use one of the many voluntary technics, well known to clinicians, in order to get started on the word. Talking and writing are two symbolic activities, complex in nature, which in most of us are closely associated in the nervous system.

II. THE BILATERAL APRAXIC ADULT

Because of the frustration in communication and the inadequate home and school management of most apraxics, a warped personality is present as a second handicap of a person who through the years has "stuttered." It is somewhat rare to find a "stutterer" at the adult level who is able to live wholesomely with his speech difference. Most adult apraxics who come for clinical help are hypersensitive, socially morbid and cling to the thought that they are stigmatized on account of their speech difference. It behooves the speech clinician to deal with personality as well as with the disordered speech. In the subsequent paragraphs I shall indicate in somewhat summary fashion the main therapeutic considerations for the adult "stutterer."

A. PHYSICAL

The clinician should be sure that the patient is in good physical condition. It would be unwise to treat the bilateral apraxia while the physical organism was being affected by disease. A thorough physical examination should precede speech treatment.

B. NEUROLOGIC

(1) In order to build up as strong a neural compensatory sidedness pattern in the place of the central ambilaterality extant as possible, the clinician must determine within the limits of his knowledge the most probably brainedness of the patient. When this has been decided upon, all motor sidedness acts should be developed on the side representing the central brainedness. The larger muscles of peripheral handedness should be exercised first and later the correct orientation in writing should be introduced. Many hours of a clinical day should be devoted by the patient to talking-and-writing exercises.

(2) A voluntary reproduction of the first sound of words while reading aloud and talking should be taught. This clonic activity simulates the speech act which most people refer to as "stuttering" and tends to give the patient greater ease and fluency. This cortical exercise tends to relieve the patient of accessory muscle movements and also to redirect the speech energy into more favorable channels for expression. It also relieves the lower neural levels of the task of usurping the activity of the cortex. Normal speech is voluntary and cortical and the voluntary

simulation of "stuttering" tends to heighten the activity of the higher levels of neural action. There are other patterns of speech control he can be taught later, but because of the psychologic effects in relieving fear before his fellows, voluntary or "bouncing" is first recommended.

C. PHYSICLOGIC

Before a full-sized mirror the patient should sit simulating all his so-called "habit" patterns. These he has learned, in order to avoid "stuttering" speech. Now he tries to gain voluntary cortical control over them. In adulthood these habits of motor overflow should be mastered and eventually eliminated. They are not essential to "stuttering" communication. The slight neural interruptions which remain in his speech are of little consequence provided a wholesome attitude surrounds them.

D. PSYCHICLOGIC

This part of the therapy has to do with the basic and developmental phases of the patient's personality. He learns of the insecurities and their defenses which have developed around the fact that he is a "stutterer." Insight into mental mechanisms, attitudes, and unwholesome and infantile fears is essential for the maladjusted bilateral apraxic. He must learn new ways of evaluating his aptitudes and talents and seek to establish a new sanction for himself as a person. Relief of inward tensions tends to lighten the cortical load of individual and social inhibition.

E. SPEECH AND EYCTICNAL HYGIENE

The patient learns to accept himself as a "stutterer." After he has admitted this fact to himself and has learned to like to "stutter" in a new way, he experiences a sort of emotional catharsis which helps him accept himself as he is and not as he wanted to be (a normal speaker.)

F. SCCICLCGIC

The "stutterer" with a difference in the form and manner of communication does not live unto himself alone. He, too, is dependent upon other people for psychologic as well as economic security. Therefore he must have a good deal of experience in social projects by means of which he advertises the fact that he "stutters." These social assignments in the form of interviews with clerks, passers-by, etc., should be carefully supervised at first. Later on, in clinical therapy, the patient makes his own assignments, being very careful to analyze his and others' reactions to every situation. At this point in the therapy, the patient has so minimized the importance of his speech that he is experiencing for the first time emotional freedom. Good "stuttering" is in direct relation to emotional freedom.

With wholehearted cooperation and rapport between the clinician and the patient (using the above outlined therapy for at least three months six hours a day under clinical supervision), the patient should have ironed out his physiologic and psychologic "crutches," should have "stamped in" a

compensatory sidedness pattern, should have gained a good deal of insight into himself as a person -- a "stutterer," should have fewer overt, obnoxious myospasms. He should by now be a more livable person to himself and others. The eradication of all the original neurologic spasms might be too much to hope for. The few that may remain need not stand in his way to a successful way of living, if he has learned to accept and talk about them.

3. VOCATIONAL

This phase of the treatment refers to the aid the patient may need in working out his ego-ideal. Perchance because of his "handicap" he has become interested in a field of endeavor not suited to his aptitudes, he will need the help of a testing bureau counselor in order to learn where he best fits in a chosen vocation. The attitude he maintains and the amount of fluency he has in his speech will help the counselor in his evaluation for vocational placement.

In closing may I say that I have not tried in this writing to explain all stuttering, and even though it may be discovered at some future date that my thinking at present as to this one phase of the etiology of the bilateral apraxic is wholly inaccurate, I satisfy my super-ego by the fact that I attempt to represent a therapy which takes an over-all view of the "stutterer" and I recommend to the speech pathologists that knowing as little as we do about this most intriguing and age-long problem, we can do little harm in touching upon the problem from as many angles and points of view as is permissible within the scope of our training. We should all feel the pressing need of working in close cooperation with other scientists interested in the human being. Asking important questions, followed by serious research on the entire organism, is certainly a modern urgent need for curious, serious-minded speech pathologists.

CASE FOLLOWED THRU COURSE

By

Richard R. Hutcheson

I. Initial Contact:

A. Student wrote to clinic requesting information.
B. Personal letter sent telling hours of class, charges, and the date of the beginning of the next group.
C. Letter from prospective student requesting to be registered.

II. First Day:

1. Arrival of Student
2. Interview:

a. Examination:

(1) Found that tongue was all right.
(2) Tonsils and adenoids had been taken out at five years of age.
(3) There was no physical or exceptional psychological problem at this time that would have warranted referral to a physician or psychiatrist.

b. Case History:

(1) The student was the first to notice his speech difficulty at 11 or 12 years of age. Speech at that time and throughout the history was characterized by hesitation and later increasingly severe blocks. There was no history of repetition of sound.

(2) In the physical history were noted a strep throat at 8 or 9 years of age and an automobile accident at 6 years of age.

(3) The student made average marks in school and was a very active individual throughout his childhood. He believed, for quite some time, that he would outgrow stammering. He would fight his way thru blocks. The most difficult speech situations were found to be periods of excitement, saying numbers, and situations that required definite phraseology.

c. Recording of Voice:

(1) Findings of initial recording:

(a) Speech very fast.
(b) Voice high and weak.
(c) Severe blocking (no repetition).

d. Orientation of student.

(1) Expansion upon orientation outline presented previously.

3. Beginning of silence.
4. Presentation of manual and tongue and vowel chart.
5. Teaching of tongue exercises.

a. These are done for a quick response to a broken count 100 times a day in the group periods, and also by the student outside the class.

6. Introduction to vowels.

III. First Five Weeks - Word Analysis:

(Following outline already presented)

Single consonant positions taught in order given on chart - N thru X.
Double consonant positions PL, BL, etc., thru QU.
The balance of this report will be the relation of the weekly reports kept by the teachers on each student.

A. End of First Week - Weekly Report:

1. Responses to tongue exercises and vowels fair. Tongue uncoordinated, but not tied. Voice high and weak. Thru B with the vowels and words on word analysis.

2. The student is a worrier. He is keenly interested in correcting his speech - is quite analytical and anticipates problems that might come up in the future. Explanation that good speech is easy, fluent speech, suggested that he work on getting the feeling of easy speech rather than analyzing too critically.

B. End of Second Week: Weekly Report

1. Thru S words on word analysis. Improvement in ease of voice this week. Is beginning to realize the power of vowel fluency in speaking well. Stress this week in building voice.

C. End of Third Week - Weekly Report:

1. Off silence to teachers. Led his first exercise before the group. Speech in this instance and to the teachers well controlled. Made his second permanent record. This record shows a noticeable change in voice when compared to the first one. It is lower, has better quality and more power. Thru C words on analysis.

D. End of Fourth Week - Weekly Report:

1. Double consonants on analysis (3 groups - L, R and S Groups taught). Improvement in control of voice noted this week. Off-silence outside the Clinic. Stressing speaking on analysis extensively to strangers - in stores, on the street, etc., to build ability to pick out the vowel in each syllable and produce the consonant position properly. Emphasis on conscious production of each syllable. Explanation that at this time, when he comes off silence on the outside, the real work in the correction really starts. The fundamentals taught in class could be compared to a set of tools, they are effective only insofar as they are used properly.

E. End of Fifth Week - Weekly Report:

1. Word analysis on paragraphs in manual. Working on reading paragraphs on careful analysis with as much inflection and meaning as possible within the bounds of analysis. Tells paragraphs in his own words as well as reading them as written. Use of tape recorder as a check. Reports that his speech on the outside is good when he sticks to analysis. Emphasis on necessary change of personality from egotist (being extremely conscious as to the effect of his speech on the listener) to egoist (having the confidence to speak before anyone on analysis realizing that such speech at the moment is a necessary step in correction).

IV. End of Sixth Week - Weekly Report:

A. One word at a time. Joining syllables in polysyllabic words making sure that each vowel is clearly and easily produced. Spending mornings getting speech practice outside the Clinic. Working on easy inflection of voice.

V. Seventh, Eight and Ninth Weeks:

A. End of Seventh Week - Weekly Report:

1. Phrasing in manual on paragraphs formerly used for analysis. Thru M paragraph. Stress on planning each phrase carefully before speaking, and producing each vowel clearly and easily during the production of speech. Reports speech outside the school is progressing well. Frequent reminders concerning

necessity of careful phrasing and guarding against speaking on blind confidence.

2. Telling each paragraph in his own words as well as reading it as it is written. Answering questions concerning paragraphs.

B. End of Eighth Week - Weekly Report:

1. Phrasing paragraphs in manual thru [illegible]. Planning of phrases coming more easily, increased ease of production. Still using tape recorder. Checking tendency to speak too fast in conversation.

C. End of Ninth Week - Weekly Report:

1. Completed paragraphs in manual in phrasing. Is now phrasing outside the Clinic. - heading group exercises well.

2. Telephone practice in Clinic - calling airport, bus terminal etc., for speech practice.

VI. Balance of Course:

A. End of Tenth Week - Weekly Report:

1. Phrasing on conversation outlines in manual to develop his ability in class to organize his own ideas into phrases rather than just reading paragraphs as written.

2. Entered public speaking class this week. His first speech was well organized, the production however was a little fast.

B. End of Eleventh Week: Weekly Report.

1. Phrasing prose selections in manual. Pieces selected for control of voice; selections for lightness, power, softness, pauses etc., tendency to achieve effect thru speed. Explanation that good speech is the result of the proper control and use of voice, and not just speed.

C. End of Twelfth Week - Weekly Report:

1. Finished prose selections in manual and started selections of poetry. Emphasis on reading conversationally for meaning.

2. Work in public speaking class improved.

D. End of Thirteenth Week - Weekly Report:

1. Started advanced voice and diction class this week. Did well in that class with his speech before a group most of whom has no speech defect.

2. Is explaining quotations in the manual during class period. Stressing full explanation, presenting all ideas that come to his mind concerning the quotations. Since many of the quotations seem self-explanatory, he needed a little help at first in analyzing them thoroughly, but did nicely after he got the idea.

3. Went with Mr. Hutcheson when he gave a speech before a local group. Came back with the report that he did well in answering the questions of the group.

E. End of Fourteenth Week: - Weekly Report:

1. Started radio selections in manual on Monday.

2. Began on Tuesday with newspaper articles, reading them and then relating information in his own words.

F. End of Fifteenth Week - Weekly Report:

1. Short stories in Reader's Digest.

2. Reading stories and then telling them in his own words and answering direct questions concerning information in the articles.

G. End of Sixteenth Week - Weekly Report:

1. Three-way speech in manual. This checked the excess speed of his speech, and improved the care of his phrasing. Made his final recording. Improvement over preceeding record in control of voice, and smoothness of speech.

2. Completed course. Speech in and out of school well controlled. Stressed importance of daily voice exercises and continued control of speech after leaving the school.

[illegible] PLAN

I. First Day:

A. Interview:

1. Speech Examination:

2. Referred to neurologist, psychiatrist, or physician if indicated. (For example - taut lingual frenum)

3. Case history - including questions concerning psychological and physiological factors that might have been contributing factors to stammering.

4. Recording of voice on a permanent record.

5. Autobiography.

C. Orientation of the student to the general set-up of the Clinic and a brief outline of the work ahead. At this time, it is explained to the student that stammering can not be cured, but instead must be controlled.

The period of silence is also explained to the student. This silent period excludes all conversational speech during the time the first stages of the new speech patterns are being developed.

The Clinic Day is six hours (afternoon and evening classes). The student is expected to practice in the mornings.

Each student has a notebook in which he keeps suggestions given by the instructors concerning his individual progress, and also a diary of the progress of his speech.

B. Beginning of Silence:

C. Presentation of Manual and Card of Tongue Exercises:

D. Teaching of tongue exercises - stressed throughout the course. These are done to a broken count with the use of a mirror.

E. Introduction to Vowel Sounds:

Introduced first one at a time, then two at a time (AH-A) etc. for ease and smoothness of voice.

II. FIRST FIVE WEEKS - Word Analysis:

A. Word analysis is the analysis of each word into its component syllables. A position is given for the production of each consonant. The consonant position is first joined with each of the vowels. The consonant vowel relationship is then built into words - one syllable being produced at a time. After the words are completed (as presented in the manual) the student goes on to the paragraphs expressing as much meaning as possible within the bounds of analysis.

B. There are two periods of group work daily, composed of tongue exercises (responding to the broken count of the leader) and voice exercises. The voice exercises are designed for power, inflection, quick response, and fluency of vowel. These group exercises provide a change from individual practice - consequently are a relaxing period for the student. When the student comes off silence he is given daily opportunity to lead the class in one of the exercises. (These group exercises are done throughout the entire course, not only during the first five weeks).

C. All other work is under individual guidance. The student completes an assigned unit of work and comes to one of the teachers to be checked. At these checking periods, not only is technical instruction given, but also psychological orientation. A psychological approach to the individual problem is stressed throughout the course.

D. At the end of three weeks, the student comes off silence to teachers, at which time he speaks to them on word analysis.

E. At the end of the fourth week, the student comes off silence outside of the clinic at which time speech on word analysis in numerous situations is stressed. The student is encouraged to spend his mornings getting speech practice.

F. Stress throughout the course is on achieving the best potential voice of the student.

G. Books concerning the various theories of stammering and its correction are available to the student.

H. Psychological lectures concerning an objective approach to the correction of stammering are frequently presented to the students as a group.

I. The clinic frequently plays host to visiting groups, mainly embryo teachers from nearby universities. These visits give the students an opportunity in the school to speak before strangers.

J. At the end of the third week, the second recording is made. By this time, the student has usually developed a keen interest in an objective demonstration of the change in his speech.

K. Use of tape recorder as a self-check on speech.

III. Sixth Week:

A. One word at a time is the step presented during this week. This step is a bridge from Word Analysis to Phrasing. The student practices joining syllables in polysyllabic words, producing one word rather than one syllable at a time.

IV. Seventh, Eighth and Ninth Weeks - Phrasing:

A. Teaching of normal conversational phrasing.

B. Stress on inflection.

V. Balance of Course:

A. Expansion upon presented outlines to improve conversational phrasing.

B. Selections of prose and poetry designed to build control of voice, vocabulary and the ability to read meaningfully.

C. Telephone practice.

D. Advanced voice and diction classes. At this time, the student joins a weekly class of students most of whom have no speech defect.

E. Weekly public speaking class.

F. Continued use of wire and tape recorders.

G. Third permanent recording.

H. Stress on difficult speech situations outside the Clinic.

I. Private lessons in Public Speaking and voice when need is indicated.

J. Discussion of timely magazine and newspaper articles.

K. Expansion of quotations presented in manual.

L. Students at this stage of correction accompany Mr. Hutcheson when he speaks to local organizations.

M. Stress throughout the course is on consciousness of speech.

N. Work on radio material presented in manual.

O. The last week of the students work is spent in a review called 3 Way Speech. At this time, the student uses the paragraphs in the manual and other material, reading each sentence on word analysis, one word at a time, and then phrasing.

P. The Clinic attempts to keep in touch with the progress of the students after they leave the Clinic.