

AN EXPERIMENTAL STUDY OF THE EFFECT
OF EVALUATIVE LABELLING
ON SPEECH FLUENCY

by

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Speech Path

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I. INTRODUCTION

Certain published statements (Johnson, Language and Speech Hygiene) and examination of case histories suggest the possibility of regarding the diagnosis of stuttering as one of the factors responsible for the development of the disorder.

An investigation of the effects, particularly on speech fluency, of such a diagnosis is indicated from this point of view. In view of this consideration the present study has been done.

II. PROBLEM

This study was designed to answer the following questions:

1. Will "removing" the label "stutterer" from those who have been so labelled have any effect on their speech fluency?
2. Will endorsement of the label "stutterer" previously applied to an individual have any effect on his speech fluency?
3. Will endorsement of the label "normal speaker" previously applied to an individual have any effect on his speech fluency?
4. Will labelling a person, previously regarded as a normal speaker, a "stutterer" have any effect on his speech fluency?

III. PROCEDURE

The children used in this study were taken from the Soldiers and Sailors Orphans' Home in Davenport, Iowa.

On January 17, 1939 a survey of 256 children picked at random from the preschool to the ninth grade, inclusive, was made by five individuals trained in speech pathology. To these were added all of the children regarded as stutterers by the teachers and matrons in the institution.

The five judges listened to each child's speech for three minutes. His fluency was rated on a five point scale, using 3 as average, 5 as fluent as one would expect anyone to be, 1 the lowest relative degree of fluency.

The judges were instructed to use the rating scale as follows. "Judging the entire population at the age level of the subject you are rating, assume 40 percent are to be rated 3, 20 percent 2, 20 percent ⁴/₃, 10 percent 1, and 10 percent 5.

In addition to rating the fluency of each child, each judge indicated those children regarded by him as stutterers or articulatory defectives.

Of the 256 children examined, 3.9 percent were regarded by the judges as stutterers and 18.3 percent as having articulatory defects.

From the total group of 256 children 22 were selected for the main part of the present study.

These 22 children were first divided into two groups. The first group consisted of ten children, who were all of the so-called stutterers in the institution; that is, all of the children who had been labelled stutterers by the teachers and matrons in the institution.

The second group consisted of twelve normal speakers with varying degrees of fluency selected at random by the five judges from the 256 children surveyed.

Each of these two groups was then divided. Group IA consisted of five children who had been labelled "stutterers" by members of the institution. An attempt was made to remove the label "stuttering" from the children in this group; that is, they were told that they were not stutterers, but normal speakers who had been erroneously called stutterers.

Group IB consisted of the other five children who had been labelled "stutterers" by members of the institution. In the case of these children the judges endorsed the label.

Group IIA consisted of six normal speakers with varying degrees of fluency. To this group the judges attached the label "stuttering"; that is, they were told that the type of speech interruptions they were having indicated that they were stutterers.

Group IIB consisted of six normal speakers matched in age, sex, intelligence, and fluency with the corresponding six normal speakers in group IIA. No negative evaluative label was attached to this group. They were

merely complimented on their speaking ability, and the label "normal speaker" was endorsed in each case.

Before a label was applied to any subject, each subject underwent a series of performances. First each child was asked to read for five minutes and speak spontaneously for five minutes on a subject suggested by the examiners. Several problems arose during these performances. For example, it was very difficult to get a number of the children to speak because the situation seemed very difficult for them. Besides this several of the children were unable to read, and all of the intelligence quotients were low; in fact there are very few children with high normal intelligence quotients in the institution.

During this performance speech interruptions were recorded, a fluency rating was given, and a descriptive evaluation of each child's speech was given by each of the judges.

Second, each of the twenty-two subjects was given handedness and eyedness tests.

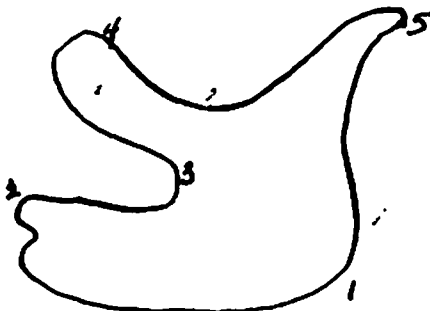
The first handedness test given to each subject was the angle board test which consists of two parts. The first part involved the drawing of a standard pattern (kinaesthetic pattern) by both hands simultaneously, while blindfolded. The pattern was drawn on a board placed perpendicularly to the surface of the table on which it stood. The board hinged in the middle, was made up of two halves that could be moved from the "horizontal" or 0° position (in which position writing on the board was like writing

on an ordinary blackboard) to the 10° , 20° and on up to the 90° position (in which position writing on the board was like writing on the two outer surfaces of a closed book). The pattern was drawn at each of ten positions or angles, spaced 10° apart, from 0° to 90° . The kinaesthetic pattern is so termed because it is learned by the subject while blindfolded (he never sees the pattern) by moving the end of a stylus, held in both hands along a groove in a board, the groove being in the form of the pattern.

The second part of the test was the same as the first, except that it involved a different pattern. The pattern is termed the visual pattern because the subject looks at it, but not at his hands, while he draws it on the angle board.

Only the horizontal movements involved in the patterns were analyzed, and both patterns were scored in terms of the percentage of principal horizontal movements made normally. The total number of these horizontal movements has been arbitrarily set at five for the kinaesthetic and six for the visual pattern. These movements are illustrated in the figure below.

Principal horizontal movements



Kinaesthetic Pattern



Visual Pattern

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The patterns were scored in terms of the dexterity quotient, which may be defined as the percentage of the total achievement involved in any test of handedness which is to be credited to the right hand. The percentage of horizontal movements made normally was computed for each hand on each pattern at each ten-degree angle from 0° through 90°. The following formula for obtaining the D.Q. was then applied:

$$\text{Dexterity Quotient} = \frac{R}{R + L}$$

In this formula R equals the sum of the various ten-degree angle percentage scores for the right hand, L the same for the left hand. This gives, then, two scores for each subject, i.e. one for his productions on each pattern. This formula then gives us the percentage of the total number of normal drawings performed by the right hand.

The second test given was an eyedness test. This was administered in the following manner. A small hole was cut in the middle of an 8" by 11" piece of cardboard. This card was brought in front of the subject's eyes from four different directions--from above the subject's head (up), from below the subject's head (down), from the right of the subject's head and from the left of the subject's head. His eyedness was determined by the eye with which he looked through the hole. He had three trials from each position. If in two out of the three trials he looked with the same eye it was recorded as his dominant eye in that particular

position.

Convergence was the third test. It was administered in the following manner; The subject was asked to focus his eyes on the end of a pencil as it was brought in towards his nose. The eye which converged first or "stayed in" the longest was recorded as the dominant eye. In some cases both eyes converged equally. The subject had four trials in this test. The eye that was dominant in three out of four trials was judged to be the dominant eye.

The fourth measure was the dynamometer test. The subject was asked to squeeze a Smedley dynamometer first with his right hand and then with his left. He had four trials with each hand. This test was scored in terms of the dextrality quotient, $\frac{R}{R + L}$, in which R represents the best score for the right hand and L represents the best score for the left hand.

The fifth measure was spool packing. The subject packed as many spools as he could in ten seconds in a shallow rectangular box. He had four trials with his right hand and four trials with his left. This test was also scored in terms of the dextrality quotient, R representing the number of spools packed with the right hand and L representing the number packed with the left hand.

Third, a dictaphone record was made of each child's speech. These records were transcribed and the following procedure was used in analysing them: The total number of words on the record, the number of syllable repetitions, the number of phrase repetitions, the number of word

repetitions, the number of interjections, and the number of pauses were tabulated for each subject.

After this series of performances each subject had an interview with the writer at which time he was placed in his respective group and labelled either a normal speaker or stutterer.

On May 24, 1939 each subject underwent this same series of performances.

In the first interview held with each of the subjects a standard procedure was followed. To each child in Group IA, consisting of the five children from whom the label "stutterer" was "removed"; the following statements were made, with slight occasional modifications.

"Do you like to speak? Do you like to read aloud? You should do more speaking and reading aloud. Many children have this same kind of trouble that you seem to be having. But it really isn't trouble; it's just a certain stage that children go through. In no time you'll outgrow it and you will be able to speak even much better than you are speaking now. Pay no attention to it, and soon you'll find that you will be speaking very freely and well. Pay no attention to what others say about your speaking ability for undoubtedly they do not realize that this is only a phase in speech development that you are undergoing. In a short while you will be able to speak well."

In Group IB, which consisted of the other five stutterers who were not told that they were "normal speakers,"

No particular instructions or suggestions were given, but a number of questions were asked of each child. The questions were:

1. How long have you stuttered?
2. When did you begin to stutter?
3. What happened that caused you to stutter?
4. Was it a person, an incident, or an accident?
5. What were you told to do about it?
6. Did it get worse or better?
7. Are there any words that you find especially hard to say?
8. What sounds do you stutter on most?
9. Is it harder for you to talk to some people than others?
10. What do these people do?
11. Were there any stutterers in your family?

To each child in Group IIA, consisting of the six normal speakers to which the label "stutterer" was applied the following statements were made:

"The staff has come to the conclusion that you have a great deal of trouble with your speech. The type of interruptions which you have are very undesirable. These interruptions indicate stuttering. You have many of the symptoms of a child who is beginning to stutter. In fact, you are beginning to stutter. You must try to stop yourself immediately. Use your will power. Make up your mind that you are going to speak without a single interrup-

tion. It's absolutely necessary that you do this. Do anything to keep from stuttering. Try very hard to speak fluently and evenly. If you have an interruption, stop and begin over. Take a deep breath whenever you feel you are going to stutter. Don't ever speak unless you can do it right. You see how (the name of a child in the institution who stuttered rather severely) stutters, don't you? Well, he undoubtedly started this very same way you are starting. Watch your speech every minute and try to do something to improve it. Whatever you do, speak fluently and avoid any interruptions whatsoever in your speech."

To each child in Group IIB, consisting of the six normal speakers used as a control group for Group IIA, the following statements were made:

"Do you enjoy speaking? You speak very well. Your speech is of very good quality. Speak whenever you have an opportunity. You have the earmarks of a fine speaker."

The language actually used in these statements was modified, of course, so as to make it comprehensible, to the child with whom the interview was being held.

The matrons and teachers in the institution were also informed about the group of children from which the label "stuttering" had been removed and the group of normal speakers to whom the label "stutterer" had been applied.

The following statements were made to each of the teachers and matrons about the group of five stutterers.

from which the label "stutterer" had been removed:

"The staff has come to the conclusion that these children are not stutterers. They exhibit a special type of speech which they will soon outgrow. It is quite common among children. They are only going through a temporary stage in speech development which they will soon overcome. In a survey made at Council Bluffs, forty percent of the children that they called stutterers outgrew it and many of them exhibited this same type of speech. Pay no attention whatsoever to their speech. Do not work on it or try to correct it. Take their minds off of it as much as possible. Don't, above all things, ever call it "stuttering", because it isn't stuttering and they will soon outgrow it."

The following statements were made to each of the teachers and matrons about the group of six normal speakers to which the label "stutterer" had been attached:

"The staff has come to the conclusion that these children show definite symptoms of stuttering. The type of interruptions that they are having very frequently turn into stuttering. We have handled a number of cases very similar to these children. You should impress upon them the value of good speech, and that in order to have good speech one has to speak fluently. Watch their speech all of the time very carefully and stop them when they have interruptions; stop them and have them say it over. Don't allow them to speak unless they can say it right. They

should be made very conscious of their speech, and also they should be given opportunities to talk so that their mistakes can be pointed out to them.

"It is also important to watch for any changes in the child's personality, in his attitude toward his school work, in his attitude toward his playmates, etc."

The results of the series of performances and the procedure used in handling each subject will be treated in a series of case presentations.

At the end of the experimental period, the twenty-two subjects were rated as to fluency and were diagnosed stuturer or non-stuturer by all of the judges except the writer, the writer being the only one of the judges who knew what label had been attached to each subject during the experimental period.

IV. RESULTS

Group IA

Consisting of five children who had been labelled "stutterers" by members of the institution. From this group an attempt was made to remove the label "stuttering."

Case 1
Group IA

Date of Birth: 2/23/28

Age: 11

Grade: Third

Intelligence quotient: 73

Fluency rating at the beginning of the experimental period:
2.3

Fluency rating at the end of the experimental period: 3.2

Handedness tests:

	Beginning of Period	End of Period
Dextrality Quotient (Angle Board)		
Kinesthetic	.29	No learning
Visual	.45	.50
Eyedness (positions)		
Up	L	R
Right	L	R
Left	L	R
Down	L	R
Convergence (trials)		
1	L	B
2	L	B
3	L	B
4	L	B
Dynamometer (average)		
Right hand	15	16.5
Left hand	15	16.3
Dextrality quotient	.49	.50
Spool Packing (average in 10 sec.)		
Right hand	5.5	5.5
Left hand	5.5	5
Dextrality quotient	.50	.52

Description of speech given by the judges at the beginning of the experimental period.

Judge A.

"Repetitions of whole words. Stuttering but with little noticeable tension."

Judge B.

"Lots of whole word repetitions. Slight facial expressions. Little sound repetition. Little strain. Air shuts off sharply at the end of some words. Time interval between repeated words varies greatly, sometimes being surprisingly long."

Judge C.

"Marked reading difficulty. Slight tension in eyes when he tries to read. Word repetitions in reading and speaking without any tension. Doesn't pause to think; repeats words and phrases while he thinks."

Judge D.

"Repeats a full word with very little strain apparent. Sometimes a slight tendency to close or squint the eyes. Repeats quite a lot. Not always as preparation for the next word. Seemed almost compulsive. Very willing to talk."

Judge E.

"Repeats whole words and blinks eyes. Slight strain before some words. Stops before some words then says them."

Description of speech given by the judges at the end of the

experimental period:

Judge A.

"Not a stutterer."

Judge B.

"Seemed willing to talk and had seemingly no difficulty. Sentences came out about three words at a time with a quick breath in between.

A mild stutterer."

Judge C.

"Poised, pleasant smile, Seemed quite intelligent and responsive. Seemed to enjoy the situation, Voice fairly adequate. Articulation fair to good.

Non-stutterer."

Judge D.

"Speech had some repetitions but no forcing nor straining.

Not a stutterer."

Judge E.

"Speech had some repetitions but apparently no tension."

Dictaphone records: At the beginning and end of the experimental period.

	B	E
Number of words	485	470
Percent of Syllable repetitions	3.30	.64
Percent of word repetitions	9.07	1.91
Percent of phrase repetitions	2.27	1.70
Percent of interjections	1.44	4.68
Percent of pauses	2.29	5.32
Total percent of speech interjections	18.37	14.25

Case Number 1 was one of the five subjects from which the label "stutterer" was removed. During the experimental period the writer had four interviews with him.

The first interview took place on January 19. At this time he said, "I stutter...sometimes stop on my words then I go, then I stop, then I go." I explained to him that I thought he spoke very well and that he repeated words probable because he wasn't sure what he was going to say. I also told him that many boys his age repeated words and that this was just a habit he would have to break.

At this time during one interval of ten minutes, he had 25 speech interruptions or 2.5 speech interruptions per minute. All of these interruptions were repetitions.

After I had heard him read and speak on February 22 (the second interview) I informed him that he showed a great deal of improvement.

He said that his teacher had asked him how he was getting along with his stuttering. I informed him that he didn't stutter but he seemed hesitant to believe me, and he was much harder to convince than the other children. The results of his performances were pointed out to him, and I explained to him that he repeated no more words than I did. During an interval of ten minutes he had 22 interruptions or 2.2 interruptions per minute.

On March 23, Case Number 1 reported that he was getting along "pretty good" now. During this conference he spoke more freely and had only 1.2 speech interruptions per minute.

On May 24 he reported that he was getting along "all right" now. He said, "Just stop on one word then went on an went on." During this interview he had 3 speech interruption per minute.

In talking with his teacher and matron I explained to them that he was not a stutterer, and that although he repeated words frequently, this was merely a habit and a device for gaining attention. I gave them the following instructions to follow in helping him to improve his speech:

1. Have him read aloud frequently.
2. Ignore repetitions completely.
3. Compliment him on his speaking and reading.
4. Have him recite frequently.
5. Never refer to the child as a stutterer.

Case Number I's teacher cooperated very little. She made the following statement: "There's practically nothing that can be done for children of this caliber and raised in this environment."

Case 2
Group IA

Date of Birth: 10/6/29

Age: 10 years

Grade: Second

Intelligence quotient: 76

Fluency rating at the beginning of the experimental period:
1.4

Fluency rating at the end of the experimental period: 2

Handedness test:

	Beginning of period	End of period
Dextrality quotient (Angle Board)		
Kinesthetic	.49	No learning
Visual	.14	.09
Eyedness (positions)		
Up	R	R
Right	R	R
Left	R	L
Down	R	R
Convergence (trials)		
1	R	Both
2	R	Right
3	R	Both
4	R	Both
Dynamometer (average)		
Right hand	20.2	19.7
Left hand	19.8	21
Dextrality quotient	.51	.48
Spool packing (average in 10 sec.)		
Right hand	3.5	4.8
Left hand	4.2	4.8
Dextrality quotient	.45	.50

Description of speech given by the judges at the beginning of the experimental period:

Judge A.

"A more or less inadequate speech sample. Only single words (nouns) spoken. Some tension noticeable but difficult to distinguish from emotional tension or fear."

Judge B.

"He talked very little and when he did talk stuttering was accompanied by puckering of the lips. Waited until he felt he could say a word."

Judge C.

"Closed lips tensely before saying words."

Judge D.

"Would talk very little. Some straining about the lips on first syllables. Seemed to wait until he felt he could say the word."

Judge E.

"Very long pauses. He closes his lips before saying the word. Spoke only one word at a time."

Description of speech given by the judges at the end of the period:

Judge A.

"Unwillingness to talk but certain definite "Stuttering" phenomena--tension, prolongations, explosiveness, repetitions. A stutterer."

Judge B.

"Head slowly and rather jerkily. Difficulty seemed

in reading rather than saying words. In speaking he paused a long time before saying anything, seeming to have trouble in getting started. Lips appeared to be moving in effort to talk during silent periods. Many questions necessary to draw him out."

Judge C,

"Many pauses, sometimes with small lip movements while reading. On the answers to questions he was slow to respond, sometimes not answering at all, and seeming to be quite hesitant. On two words "study" and "football" the first part of word was repeated, there was some prolongation and very obvious hypertension, or strain. His voice intensity was low and he had to some degree a "lazy-jaw" or oral inactivity.

A stutterer."

Judge D,

"Reading fairly smooth. Spontaneous speech forced. Often merely raised eyebrows and did not talk on. Some words quite obviously forced with tension noted about the lips, quick breath, etc.

A stutterer."

Judge E,

"Tension when he speaks. Numerous silent intervals. Difficult to get him to talk. Responses short."

Dictaphone records: At the beginning and end of the experimental period.

	B	E
Number of words	60	285
Percent of Syllable repetitions	0%	.35%

	B	E
Percent of word repetitions	0%	2.10
Percent of phrase repetitions	1.66	.70
Percent of interjections	0%	.35
Percent of pauses	8.3	5.26
Total percent of speech interruptions	9.99	8.76

Case Number 2 was one of the five subjects from which the label "stutterer" was removed. During the experimental period the writer had four interviews with him.

The first interview took place on January 19. During this period the subject seemed quite willing to talk, but he had a great deal of trouble getting his words out. He reported that he liked to talk and read aloud but that his teacher had told him he didn't talk very well.

The writer explained to him that he talked very well for a boy of his age and that when he got older he would speak even better. He was also told to talk more and read aloud whenever he had an opportunity.

During an interview of twenty minutes a total of forty-five speech interruptions were tabulated from his speech; that is, 2.25 speech interruptions per minute. These interruptions were characterized by repetitions, prolongations, silent intervals, lips compressed, phonations, breathiness, dilating nostrils, and excessive exhalation.

The second interview took place on February 22. He reported that he liked to read aloud better than he had and that he talked better in class, but that he did not like to answer his teacher's questions.

His teacher reported that he didn't seem to struggle

in getting his words out as much as he had formerly and that he offered more in class discussion.

It was very difficult to get him to speak continuously for any period of time. He nodded or shook his head or responded with uh huh whenever he had an opportunity.

During an interval of ten minutes fifteen or 1.5 speech interruptions per minute were tabulated from his speech during this interview. The only different phenomenon that he introduced during this interview was that of holding the teeth together.

The third interview which was held on March 23, was very much like the two preceding interviews. It was still rather difficult to get him to speak. He reported, however, that it was easier for him to read and that he liked to read much better.

During a ten minute interval he only had four interruptions in speech or .4 interruptions per minute.

The fourth interview took place on May 24. At this time the subject talked with much more ease than formerly. His reading had improved but it was still rather chappy, for he said only one word at a time.

He reported that he read aloud in school everyday now and that he didn't mind answering the teacher's questions.

He never volunteered any information, but by the end of the experimental period he did answer questions more fully.

During an interview the child had six speech interruptions in ten minutes or .6 speech interruptions per minute.

In talking with his teacher and matron I explained to them that the child did not stutter but that he was inhibited and shy. They both readily agreed with me. They took the diagnosis that I reported from the staff without hesitating. The following instructions were given to both the teacher and the matron:

1. Encourage him to speak more.
2. Ignore any difficulty he seems to have in speaking.
3. Have him read aloud frequently if possible.
4. Compliment him on his reading and speaking ability.

At the end of the experimental period his teacher reported that the child was overcoming his shyness, that he seemed willing and even anxious to read aloud in class, and that he answered her questions much more fully than he had formerly.

Case 3
Group IA

Date of Birth: 11/6/25

Age: 13

Grade: Seven

Intelligence quotient: 122

Fluency rating at the beginning of the experimental period:
4.2

Fluency rating at the end of the experimental period: 3.2

Handedness test:

	Beginning of Period	End of Period
Dextrality Quotient (Angle Board)		
Kinesthetic	.56	.51
Visual	.52	.50
Eyedness (positions)		
Up	R	L
Right	L	L
Left	R	L
Down	R	L
Convergence (trials)		
1	L	B
2	R	B
3	L	B
4	L	B
Dynamometer (average)		
Right hand	22.8	23.8
Left hand	22.8	23
Dextrality quotient	.50	.51
Spool packing (average in 10 sec.)		
Right hand	5.5	6
Left hand	4.8	5.5
Dextrality quotient	.53	.52

Description of speech given by the judges at the beginning of the experimental period:

Judge A.

"On the basis of this sample, not a stutterer."

Judge B.

"No noticeable stuttering during speaking."

Judge C.

"No stuttering noticed."

Judge D.

"No stuttering observed."

Judge E.

"Slight repetition of words. Stuttering not obvious."

Description of speech given by judges at the end of the experimental period:

Judge A.

"Choppy rhythm in talking. Not a stutterer, but a potential one."

Judge B.

"Seemed willing to talk and answer questions. Hesitations were short and frequently appeared to be due to an uncertainty of what to say next. Kept looking down."

Judge C.

"Quite at ease. Voice adequate. Articulation fair to good. Repetitions all apparently effortless and due to (a) uncertainty of choice of words or (b) uncertainty of

pronunciation. Non-stutterer."

Judge D.

"Both reading and spontaneous speech were quite ready and fluent. The repetitions were quite fast and scarcely noticeable. Not a stutterer."

Judge E.

"Didn't mind the situation. Repetition scarcely noticeable in speech."

Dictaphone records: At the beginning and at the end of the experimental period.

	B	E
Number of words	796	599
Percent of syllable repetitions	2.01	2.00
Percent of word repetitions	2.38	1.83
Percent of phrase repetitions	.50	.50
Percent of interjections	1.38	3.34
Percent of pauses	2.38	2.17
Total percent of speech interruptions	8.65	9.84

Case Number 3 was one of the five subjects from whom we removed the label "stutterer".

During the first interview which took place on January 19, he informed me that he stuttered once in awhile when he got mixed up, and that he thought it might get much worse if he got into the habit of it. He added, however, "I don't stutter as much as some guys do." I informed him that it was not stuttering but simply a habit that he had formed and which could be corrected very easily. He also said that he liked to read but that he didn't like to read aloud or speak in front of the class.

In a twenty minute interval he had twenty-five speech interruptions or 1.3 interruptions per minute. His interruptions consisted of repetitions, prolongations, silent intervals and phonations.

On February 22, he reported that he was improving, for he had no trouble reciting. He said, "I repeat because I'm reading along and look over the words; then I have to come back."

During this interview, in ten minutes this case had twenty-five speech interruptions or 2.5 interruptions per minute.

On March 23, he reported that he had no trouble talking and that his reading was all right.

I asked him if he had noticed any difference in his speech since the first time we had talked about it.

He replied, "Yah, I don't repeat so much--I'm getting used to it so I don't have to."

During the ten minute interval at this time, he had 1.5 speech interruptions per minute.

The last interview which took place on May 24, was very similar to the one on March 23. He reported that his reading was coming along "fine."

At this time he had .9 speech interruptions in a ten minute interval.

I informed his teacher and matron that he did not stutter and that his repetitions in speech was simply a habit that he could overcome very easily. The following

suggestions were given to the teachers regarding his speech:

1. Have him read and speak as much as possible.
2. Ignore the repetitions in his speech completely as they are not significant.
3. Compliment him on his reading and speaking.

Case 4
Group I A

Date of birth: 4/3/25

Age: 14

Grade: Third

Intelligence quotient: 70

Fluency rating at the beginning of the experimental period:
3.2

Fluency rating at the end of the experimental period: 2.2

Handedness test:

	Beginning of period	End of period
Dextrality Quotient (Angle Board)		
Kinesthetic	.45	.56
Visual	.62	.78
Eyedness (positions)		
Up	L	R
Right	L	R
Left	L	L
Down	L	R
Convergence (trials)		
1	L	B
2	R	B
3	L	B
4	L	B
Dynamometer (average)		
Right hand	28.8	26
Left hand	25.8	22
Dextrality quotient	.53	.54
Spool Packing (average in 10 sec.)		
Right hand	6.5	6.5
Left hand	6.8	4.3
Dextrality quotient	.51	.60

Description of speech given by the judges at the beginning of the experimental period:

Judge A.

"Very slight hesitations on beginnings of words occasionally. No noticeable tension."

Judge B.

"Repetition of a few words; prolongation of initial sounds-- especially."

Judge C.

"Repetition of words and phrases in entirety. No tension."

Judge D.

"In reading-- seemed to be unable to get out the words. Compressed lip and lowered head."

"In speaking, some sounds slightly prolonged. Occasionally a quick breath. Most consonants somewhat stressed after a straining pause. Little or no strain shown in the face. Very few words repeated."

Judge E.

"Speaking characterized by repetitions, excessive verbalization, breathiness, straining, eye blinking, and prolongation of sounds, especially S and T."

Description of speech given by the judges at the end of the experimental period:

Judge A.

"Slight instances of tension-- blocks. A stutterer."

Judge B.

"Poor reader. Trouble might be attributed to poor reading or inability to pronounce words. Spoke very jerkily, but appeared willing to talk."

"A stutterer."

Judge C.

"On many words he seemed not to know how to pronounce words and I can't tell whether the attendant prolongations and repetitions are due solely to this or not. Either a poor reader or else was stalling a great deal. Diagnosis based on speech rather than reading.

"A mild stutterer."

Judge D.

"Not willing to read, but he did finally. Very poor reader.

"A stutterer."

Judge E.

"Many repetitions in speech. Stalling present in speaking."

Dictaphone records: At the beginning and at the end of the experimental period:

	B	E
Number of words	274	526
Percent of syllable repetitions	0	0
Percent of word repetitions	6.20	2.47

	B	E
Percent of phrase repetitions	3.61	.57
Percent of interjections	10.58	6.44
Percent of pauses	10.58	.57
Total percent of interruptions	30.97	10.05

Case Number 4 was one of the five subjects from whom we removed the label "stutterer".

During the first interview with this boy on January 19, I found that it was almost impossible for him to read either silently or aloud. He didn't know how to read.

He informed me that he never recited in class because he hated to speak. I asked him why he didn't like to speak but he couldn't give me a reason. He believed that he did stutter because he had been to Iowa City and he had a record made of his voice.

I told him that according to the results of the tests we had given him, he did not stutter but he had difficulty with his reading. He agreed that he thought he would have no more trouble after he learned to read.

During an interval of twenty minutes he had 1.6 speech interruptions per minute.

On February 22, he made the following statement, "Kinda fun to talk in front of the class." He believed that his speech had improved because he didn't mind talking in front of people. I explained to him that he should do more talking, because we learned to speak well by speaking frequently.

In a ten minute interval during this interview,

he had three speech interruptions per minute.

On March 23, Case Number 4 said that he thought he was having less trouble. I complimented him highly on the way he was able to tell a story. I didn't have to urge him to talk during this interview and he talked very freely. He became interested in what he was telling me and not how he was speaking.

During a ten minute interval in this period, however, he had 4.5 speech interruptions per minute.

My last interview with him was held May 24. On this day he said, "I can talk a lot without stutterin!"

I explained to him then that he didn't stutter at all but that he had had a few speech interruptions to correct and that he was correcting them very well.

At this time during a ten minute interval he had 3.8 speech interruptions per minute. All of his interruptions are either repetitions, prolongations or interjections.

The child's teacher and matron readily agreed with me that his difficulty was not stuttering but serious reading difficulty. The following suggestions were given to them for the purpose of helping him;

1. Have him read aloud frequently if possible.
2. Ignore his speech repetitions completely.
3. Compliment him on his reading and speaking ability.
4. Above all things never refer to the child as a stutterer.

Case 5
Group I A

Date of Birth: 4/28/25

Age: 14

Grade: 8B

Intelligence quotient: 93

Fluency rating at the beginning of the experimental period:
4

Fluency rating at the end of the experimental period: 4

Handedness test:

	Beginning of period	End of period
Dextrality Quotient (Angle Board)		
Kinesthetic	.50	.48
Visual	.44	.50
Eyedness (positions)		
Up	R	L
Right	R	R
Left	R	L
Down	R	R
Convergence (trials)		
1	L	B
2	R	L
3	L	R
4	L	L
Dynamometer (average)		
Right hand	28.5	32.3
Left hand	27.3	27.8
Dextrality quotient	.51	.54
Spool Paking (average in 10 sec.)		
Right hand	7	5.5
Left hand	6.3	5.5
Dextrality quotient	.53	.50

Description of speech given by the judges at the beginning of the experimental period:

Judge A,

"Not a stutterer."

Judge B,

"Didn't stutter enough to get much to judge."

Judge C,

No comment.

Judge D,

"Stumbled only on words that he seemed uncertain as to pronunciation. No stuttering observed."

Judge E,

"Interjections and slight repetitions in speech. No stuttering observed."

Description of speech given by the judges at the end of the period:

Judge A.

"A normal speaker. Certain breaks during reading, but may be accounted for as reading breaks."

"Not a stutterer."

Judge B.

"Seemed willing to talk for the group. Experienced no trouble in speaking."

Judge C,

"Pretty much at ease with a minimum of hand and

foot movements. Quite fluent. Articulation fair to good.
Voice adequate.

Judge D.

"Not a stutterer."

Judge E.

"Seemed well adjusted to situation."

Dictaphone records: At beginning and end of the experimental period.

	B	E
Number of words	657	567
Percent of syllable repetitions	.61	1.23
Percent of word repetitions	1.07	2.12
Percent of phrase repetitions	.78	.35
Percent of interjections	1.52	1.23
Percent of pauses	6.09	4.59
Total percent of speech interruptions	10.07	9.52

Case Number 5 was one of the subjects that had been labelled a "stutterer" by the teachers and matrons of the institution. The judges removed this label. He had been in the institution for a year and he said that he had never been told there was anything wrong with his speech until he came to the home.

In the first interview on January 19, he reported that he didn't like to read aloud or speak before a group because "Some say I don't talk right." I explained to him that he did not stutter but that he had difficulty in reading because of his eyes. During an interval of ten minutes he had 2 speech interruptions per minute. These interruptions

were characterized by repetitions, interjections and phonations.

In the second interview which was held on February 22, he reported that his reading was better but that his eyes still bothered him. He also said that other children made fun of him when he spoke. He believed that he repeated while reading because he looked ahead and then had to come back and say the word again.

I informed him that his difficulty was wholly in reading and not in speaking and that by reading more he would soon overcome this difficulty.

During a ten minute interval, he had 1.4 speech interruptions per minute.

The last interview was held on March 23. This interview was very similar to the preceding interviews. The boy reported that he didn't pay much attention to the way he spoke anymore.

During a ten minute interval at this time, he had only 1.2 speech interruptions per minute.

In talking with his teachers and matrons I informed them that he did not stutter, but that he had a slight reading difficulty due to defective eyes. I gave them the following instructions for helping him to improve his speech.

1. Have him read aloud and speak frequently.
2. Ignore his interruptions in speech completely as they are not significant.
3. Compliment him on his reading and speaking

ability.

In this situation it is apparent that environmental influences have a great deal to do with a child's attitude and self evaluation. Until he entered the institution he had never realized that there was anything wrong with his speech but due to the fact that people were constantly pointing out the child's errors and defects without offering any constructive suggestions, he had become very conscious of his speech and avoided as many reading and speaking situations as possible.

SUMMARY OF CASES IN GROUP IA

These were the cases who had the label "stuttering" removed from them.

Case Number 1.

Considering all of the data obtained at the beginning, during, and at the end of the experimental period this subject showed an increase in speech fluency and a decrease in the percent of speech interruptions. By the end of the experimental period he had apparently accepted the fact that he was not a stutterer and the schoolroom situation was not as difficult for him as it had been.

Case Number 2.

This subject also showed an increase in speech fluency and a decrease in the percent of speech interruptions. By the end of the experimental period his teacher was able to get him to enter into class discussion, and to read aloud. He more or less enjoyed these situations which had been very difficult for him before.

Case Number 3.

This subject showed a decrease in speech fluency and an increase in the percent of speech interruptions. He is the only subject in this group who did not show a decrease in the percent of speech interruptions.

Case Number 4.

This subject showed a slight decrease in speech fluency and a marked decrease in the percent of speech

interruptions. At the beginning of the experimental period the child had never recited in class unless compelled to, but at the end of the period he reported that he enjoyed reciting in class. He also apparently accepted the fact that he didn't stutter.

Case Number 5.

This subject's fluency rating remained the same but he showed a slight decrease in percent of speech interruptions. The child, having been in the institution for only a year, still had a great adjustment to make, for he had not been wholly "accepted" by the group.