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A COMPARISON BETWEEN TWO TREATMENT PROGRAMS FOR STUTTERING: A PERSONAL ACCOUNT

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This article features a personal evaluation of two treatment methods for stuttering, the Precision Fluency Shaping Program (PFSP) (Webster, 1980; 1986), and the Comprehensive Stuttering Program (CSP) (Boberg and Kully, 1985). The CSP program is described as promoting natural-sounding speech by focusing, from the outset, on smooth blending of syllables within breath groups. The PFSP program is described as tending to focus on syllables or words in isolation, particularly during early stages of instruction. In addition, the Boberg/Kully program featured individualized instruction by a series of clinicians interacting with clients in accordance with a rotating schedule. In contrast, the PFSP program emphasized solitary interaction with a voice monitor and client manual. Differences in timing of instruction and calculation of speech rates are discussed. Treatment refinements are suggested, including enhanced precision in distinguishing between soft phrase onsets and onsets on individual words.

INTRODUCTION

During the past decade, I have benefited significantly from two treatment programs for stuttering—the Precision Fluency Shaping Program, developed by Ronald Webster in Roanoke, Virginia (Webster, 1980; 1986) and Einer Boberg's program at the Institute for Stuttering Treatment and Research in Edmonton, Alberta (Boberg and Kully, 1985). This article offers an evaluation of these two programs, with a particular focus on the Edmonton clinic.

Like many stutterers, I have had many encounters with speech therapy. Over 20 years ago, for example, in my late teens, I was exposed to once-weekly therapy, based on Charles Van Riper's work, at Montreal's Royal Victoria Hospital. Through this I learned to maintain eye contact during blocks, made progress in eliminating word substitution, and become more aggressive in seeking out speech opportunities, such as on the phone.

About 15 years ago, I independently undertook a program for system-

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atic desensitization of stuttering based on a book by Joseph Wolpe. I achieved a fairly high level of fluency but relapsed after a month when I experienced a block when speaking in a university class.

Then 11 years ago I undertook Ronald Webster's Precision Fluency Shaping Program, offered by the Speech Pathology Department at the Clarke Institute of Psychiatry in Toronto. I was 30 then.

After the PFSP program, I was more fluent than I had ever been—but soon had a relapse talking with a friend on the phone, and still avoided some public speaking situations.

Nonetheless, the PFSP program clearly helped me—and it is also important to note that the program has been further refined during the past decade. I remember that after the program, there would be times when I would be speaking a sentence without much effort. The words would flow smoothly. This was a surprise and a delight—as I had lost hope that I would ever achieve this feat. I marveled at the thought that I was able to do it. However, I did not pursue the matter systematically.

Tapes of my speech from that time indicate a labored, hesitant, fast and tense-sounding speech which was, nonetheless, generally free of the severe blocks that were common prior to treatment.

I did not pursue a systematic maintenance program at that time. I was aware of abstract concepts such as the Stretched Syllable and Gentle Onset targets, but I was unclear about how such information could be systematically applied. Still, if I had not been through the PFSP program, I would not have entered the University of Toronto Faculty of Education, as I did at the age of 36, to become a special education teacher.

At the education faculty, I dreaded the prospect of a presentation in an educational administration course. For weeks before this event, I practiced single words (at the start of the PFSP program manual) on an electronic voice monitor. I got through the presentation—but just barely. I did not have obvious blocks, but I substituted words and was clearly struggling to get the presentation over with.

During my practice teaching, I performed adequately, though at times I felt I may have a major block. I recall I had to read a story to a large elementary school class. I had been thinking a few days earlier about the fact that as long as I keep on breathing in and then letting the words out as I exhale, I could keep on speaking. I did that—but it was touch and go.

Prior to the Edmonton program, I made presentations, some of them relatively well, some not so well, in classes for my part-time M.A. studies at the Ontario Institute for Studies in Education, in Toronto. As had occurred in school situations in the past, however, I was becoming increasingly apprehensive about class presentations as time went by.

In January 1987 I gave a brief talk at a Toronto film festival at which two of my animated films were shown to an audience of about 200 people.

I had been highly fearful, despite extensive rehearsal, and practice with single words on a voice monitor. The talk went fairly smoothly, but in the middle of it I felt momentarily stuck, feeling that I may not be able to continue to speak. I managed to keep on going nonetheless.

Throughout the decade between the PFSP program and the Edmonton program, there were times when I would have severe blocks. Often these occurred on the phone. I had learned not to let these occurrences influence me too strongly. I realized that even after a severe block, I would be able to speak more smoothly on the same day in other situations, such as when speaking with colleagues at work.

INSTITUTE FOR STUTTERING TREATMENT AND RESEARCH

I learned about the Edmonton clinic through a Canadian Press article in the 4 May 1987 edition of the Toronto Star.

When I met Laura Manz, the Institute's staff clinician, for my assessment prior to the clinic, I was intrigued with her reference to learning to speak in smooth *phrases*. As a result of the PFSP program, my orientation toward speech had been on a word by word approach. Granted, there had been practice with Short Speech Chains and Long Speech Chains, but what had stayed in mind were the hours of practice I had devoted to Gentle Onsets on single words, sitting in front of a voice monitor. By now, I was generally fine on onsets, but my speech was punctuated by pauses and hesitations.

At the assessment, I said that I hoped that, after treatment, I would be able to speak freely in front of groups, and be able to use my voice effectively in my professional life. Laura had said the clinic liked to ask people about their expectations about the program, because expectations may be unrealistically high. I thought that perhaps I was asking too much in expecting to be able to perform well before groups. However, Laura thought my goals appeared realistic, and I thought to myself, "Well, that's interesting."

Equipment

I had heard the Edmonton program uses aspects of Webster's PFSP program. I was wondering if I would encounter a voice monitor—and was intrigued when I did not. Until that time, I had assumed a voice monitor would likely be a central feature of any behavioral program that dealt with stuttering.

Then it occurred to me that in Einer Boberg's clinic, skilled clinicians—and, in time, the clients themselves—do the work of the voice monitor. I was delighted to realize this.

I was also delighted to encounter the equipment used for clocking syl-

lables. I realized that counting syllables is more precise than counting words per minute. In the latter method of measurement, the proportion of multisyllabic words in a given speech sample will obviously make for inaccuracies in comparisons among different samples.

I also liked the fact I could calculate the rate of a recorded passage myself, by writing out the passage, counting the syllables, and then calculating the rate on the basis of elapsed time. I now routinely do such calculations as part of my maintenance work.

The PFSP program had clients measuring the length of individual syllables using a stop watch. This method is less precise than clocking a 1- or 2-minute speech sample.

I also liked the way video equipment was used in pre- and post-treatment assessments in Edmonton. I liked that assessment recordings were made using both conversational and oral reading tasks. I thought it apt that the post-treatment assessment was with a listener who was a stranger to the clients. I appreciate this kind of thoughtful and well-thought-out attention to detail.

I also found it interesting to encounter software which enables clients to get information about their rates from a monitor as they are speaking. I was interested to hear comments from clients and clinicians about what works with the current software, and what could be even better. The Edmonton clinic appears to be an ideal setting for development and field testing of computer applications in stuttering treatment.

Individualized Instruction

At an early stage, Deborah Kully, the Institute's clinical director, visited the group I was in and checked my approach to the gentle onset. She observed that I was extending the exploratory breath just prior to the onset of voicing a little longer than appropriate. She said the clinic aimed for less of an exploratory breath than was characteristic of the Webster program. She recommended I focus on getting into the voicing just slightly earlier than I had been doing. I found I was readily able to follow her instructions.

I was impressed with Deborah's readily evident clinical expertise. I also liked the way the clinic worked on the gentle onset concept. We had a simple, easy to understand diagram. The two clients in my group took turns demonstrating gentle onsets, with the second client giving feedback on the first client's demonstration. This was an excellent way to introduce the gentle onset. I preferred this over the use of a voice monitor for introduction of the gentle onset concept.

I particularly liked the emphasis on individualization of instruction, which I was to encounter throughout the program. This was in contrast to the PFSP therapy, which tends to have an assembly-line approach. In

the latter program, there is a manual and a voice monitor, and much of the client's time is spent in solitary interaction with these.

Another instance of individualization occurred with reference to my breathing. Early in the clinic, I was aware that learning to breathe in a way that would enhance rather than diminish my fluency was a special challenge for me. For a time, I thought that the appropriate strategy was to make my phrases sufficiently short, by including only a small number of syllables within each breath group. I was experiencing audible gasping while attempting to do this. During one session, however, Deborah noted I was perhaps taking in too much air for the amount of syllables I was working with in a given breath, and that this may be responsible for my gasping.

Later, outside in the playground north of the building which houses the Institute, I worked with one of the Institute's therapists, Cathy Newman. Again, the gasping was evident, and toward the end of the session, Cathy demonstrated how she herself breathes when speaking. She asked me to try to breathe in a way that was, as she demonstrated for me, subtly different from how I had been breathing until then. I tried it and realized that for me, the key was indeed to add some extra syllables to each breath group, instead of trying to keep the breath groups as short as possible. This led to elimination of the audible gasping.

Thanks to Deborah's earlier comment and Cathy's timely discussion and demonstration, I achieved a breakthrough in my breathing, for which I am grateful.

This was different from the PFSP approach to breathing, in which instruction consisted of a written description, in the PFSP manual, of the Full Breath Target. Despite careful reading, I never fully understood what it was about—and the instruction was not individualized for my particular breathing pattern.

It is interesting, in this context, that for other stutterers, decreasing the number of syllables per breath group *is* just the right strategy, as otherwise they will often be speaking on residual air as they approach the end of a phrase. At an earlier stage in the program, I had in fact *had* to reduce my phrase length to avoid residual breathing, but after that I apparently had proceeded to the other extreme—to phrases that were now too short.

As well, I prefer the lack of undue focus on terminology in this case, as in others, in the Edmonton clinic. In the PFSP program, I would be thinking of the Full Breath Target—a label that someone else has given me to carry in my head. In Edmonton, I had my own internalized, individualized, personal sensory impression about what appropriate breathing is about. I prefer to carry that around with me rather than the Full Breath Target.

I liked the fact that all instructions were delivered verbally by the clinicians, rather than having clients sit down by themselves and read them

in a manual. I am reminded here of research findings in education which favor cooperative learning over individualistic learning in many situations (Johnson, 1987).

I liked the fact that all the basic concepts—including short phrasing, gentle onsets, blending, diaphragmatic breathing, light contacts, adequate voice loudness, shorter prolongations on unstressed syllables, natural prosody, and (in my case) 90 and 120 syllables per minute rates—were introduced on the same day. This is in contrast to the PFSP approach, where the relevant targets were introduced separately over several days of instruction. Introduction of important concepts on the same day helped me think of them as interrelated rather than as separate from each other.

I enjoyed the subtlety that was evident in the instructions concerning natural-sounding speech. For example, I was reminded that I should not try to "add" inflection to my phrases; instead, it is better to simply focus on the distinction between stressed (longer) and unstressed (shorter) syllables.

I also liked the instruction, for times when we must increase our volume, to go soft on consonants and then to increase the loudness on vowels. And I appreciated the attention to detail evident in the instruction that I should avoid inappropriate pauses between breath groups.

Still another apt observation I recall from a clinician was the comment, after one of my transfers, that when blending and phrasing go out the window, interjections come in, and then the contacts and onsets become hard. Another equally apt comment was that as a person speeds up, the volume shifts from the vowels to the beginnings of words, leading to hard contacts and potentially dangerous errors.

Naturalness

As a graduate of a PFSP program, I find some irony in the passage, in the clinical workbook on maintenance, from the Rehabilitation Centre in Ottawa, which says, "For some weeks immediately after the intensive fluency shaping course, the speech of most clients will sound slow and very controlled, lacking in spontaneity and inflection" (Webster and Poulos, 1987, p. 64).

The challenge for a behavioral program for stuttering is to turn out clients whose speech sounds relatively natural—more natural, in fact, than the speech referred to in the foregoing quotation from this excellent workbook, which was originally written for graduates of the PFSP program.

I liked how smooth blending of syllables, along with natural intonation, was emphasized in the Edmonton program from the start. This is preferable to the PFSP method, which begins by teaching gentle onset skills as applied to isolated sounds, before moving sometime later to individual words and finally to phrases.

Early in the Edmonton clinic, I learned to speak each phrase as if the syllables were blended together to create a single long word. My controlled speech sounds markedly more natural—and it is a pleasure to practice using it during transfers.

Also with reference to naturalness, I was interested to learn from a clinician that the criteria for the determination of disfluency had changed in the clinic during the past year and a half. That is, there is recognition that because normal speakers are not 100% fluent, it is not necessary for controlled stutterers to aim for a lower percentage of disfluencies than normal speakers. I like the quest for accuracy here—and the sense that the clinic is constantly changing and growing.

Another instance of welcome growth and change within the treatment program is seen in the fact that the recommended cancellation procedure originally involved *three* repetitions of the stuttered word. Originally, the idea had been to bring *attention* to the fact one was indeed stuttering. Earlier clients did not follow this procedure, and by the July 1987 clinic, clients were free to proceed with a single fluent repetition of the stuttered word combined with a rate change.

Similarly, I was interested to learn that recorded transfers outside the clinic were originally set at 5 minutes. However, it was found this appeared to be an unnaturally long time to buttonhole a listener, and the time was reduced to 2 minutes.

I also liked it that the clinic did not focus on the secondary symptoms of stuttering. Instead, it focused on fluent speech—with the expectation that the symptoms would take care of themselves.

Transfer

The clinic used a structured, systematic approach in teaching clients how to transfer fluency skills to situations outside the clinic.

I liked the fact I had a precise list of criteria to deal with in assessing my recorded transfers. I also liked the fact clinicians were rigorous about whether or not I had passed a particular transfer exercise. I was momentarily discouraged when I failed my first transfer exercise, but I was delighted with the valid and encouraging comment I received—namely, that I had done an accurate written self-analysis of my performance.

Maintenance

Having relapsed after I had achieved a relatively high level of fluency in an intensive program a decade ago, I came to the Edmonton clinic with a strong interest in learning about successful maintenance of fluency skills.

The clinic offered clear and systematic instruction for post-treatment maintenance of these skills. Einer Boberg's presentations and small-group

discussions on avoidance and maintenance were useful. I agreed with his comment that avoidance is the major part of the handicap.

I liked the fact that Einer, the clinic's executive director, encouraged discussion by clients during his presentations. In encouraging clients to extensively discuss maintenance and other subjects, and to ask questions, the clinic enhances retention of the concepts that are being taught.

I also liked the fact each client was encouraged to write down his own maintenance program, to discuss it with Einer in a small group—and to share it with other clients through having copies made of each such program, for distribution as a package to each of the clients.

I left the clinic with a structured format to follow in my maintenance work. I practice rates and rate changes morning and evening, recording each session for immediate playback. I also do daily recorded transfers, which I analyze using the format learned in the clinic.

I found the clinical workbook (Webster and Poulos, 1987) from the Rehabilitation Centre in Ottawa useful. The discussion in the manual of ways to address what cognitive therapists would call automatic negative thoughts about one's speech is helpful. Such automatic negative thoughts, the legacy of years of disfluent speech, must be systematically altered to enable a controlled stutterer's self-image to catch up with newly acquired fluency. The manual also discusses systematic methods to enable controlled stutterers to learn to act assertively in social situations in which, in response to their disability, they may have had many years of practicing nonassertive behavior.

A comprehensive overview of research issues concerned with maintenance of speech skills acquired in stuttering treatment programs is offered by Boberg et al. (1979) and Boberg (1986).

Speech Rates

I find the client tape narrated by Deborah Kully useful, especially in focusing my attention on appropriate blending and intonation while speaking at different rates. As well, especially when I practice following along at 190 syllables per minute, I have a chance to also check on my phrasing.

The tape, entitled Client Manual Audio-Cassette, is available along with an accompanying client manual from College-Hill Press, which also publishes a clinical manual and tape (Boberg and Kully, 1985).

Schedules

The clinic excelled in its handling of the logistics involved in providing effective clinical treatment for the 12 clients in the program.

For example, during the first 2 weeks, prior to transfer activities, I

would spend an hour or so with one therapist after another throughout the day. I would be in a group of two or three clients. This was an excellent arrangement for several reasons.

I found it preferable to spend hour after hour with other people rather than with a machine such as a voice monitor. Similarly, I would prefer to work with people hour after hour rather than interacting with a computer.

Also, the rotation of clinicians meant I was interacting with a series of clinicians, one after the other, rather than with the same clinician hour after hour, and day after day. This ensured that I had the stimulation of interacting several times a day with a new clinician, with her own particular characteristics. This helped me to maintain a high level of interest.

This arrangement also helped me to focus on the content of the instruction as it was explained to me by several persons, rather than having the content associated in my mind with one particular clinician. The concepts were something that were in the air, so to speak, in the whole clinic, instead of being something imparted by a particular clinician to a particular client. This is a subtle but important point for me.

As well, because I received instruction from a series of clinicians, each with a subtly different point of view, I perhaps received a richer, more fully textured definition of concepts such as phrasing, easy onset, and the like, than I would have received through getting the instruction from just one person—or from a manual.

It was also helpful to be working with a variety of fellow clients in intense small-group sessions, rather than having only the same group to work with at all times. This helped to keep things interesting, and was less stressful.

The rotation system was perhaps also helpful for clinicians. They were able to work intensively with a relatively wide range of clients. As was the case for clients, the clinicians' working day tended to be possibly more varied and less tiring than otherwise.

Finally, I enjoyed the speeches which ended the clinic. They were a timely way—an appropriate ceremony—to sum things up emotionally and conceptually.

Staff

I encountered a consistently high level of skills among the Edmonton clinicians at the July 1987 intensive clinic which included Deborah Kully, Laura Manz, Maryanne Caouette, Linda Disher, Marlayne Fraser, Janine McDade, Cathy Newman, Denise Sorensen, and Heather Vallieres.

I have referred to the expertise with which Deborah Kully and Cathy Newman addressed my breathing pattern. I have also referred to the apt-

ness with which a clinician addressed my initial failures in transfering my fluency skills to outside situations. Similarly, I have referred to Laura Manz's apt reference to phrasing in my pre-treatment assessment, and to Einer Boberg's personal interest in ensuring that clients started to think about their maintenance programs at an early stage in the program.

As well, the clinicians who were doing their practicums had been well chosen and, along with all other clinicians, played a central and significant clinical role. Their homework assignments for us were consistently creative, enjoyable, and useful. The office staff—Julia Boberg and Rae Buxton—were also consistently helpful and an integral part of the team.

Throughout the 3 weeks of the clinic, I marveled at the readily evident ability of the clinical staff to work together so effectively. The rotation system appeared to work smoothly. Later I noted how well the Faculty of Education and the Institute worked together to enable clients to make presentations to University of Alberta education students. Similarly, I was impressed with the close coordination between the Institute and the Neuropsychology Department at Alberta Hospital, Edmonton, which has resulted in significant advances in our understanding of the neuropsychology of stuttering (Boberg et al., 1983; Yeudall, 1985).

I was also impressed with the fact the clinic could routinely bring clients to the point where they were ready to make effective presentations to groups of strangers. In addition, I was impressed with the presence at the clinic of guest speakers and visitors who were graduates of the program.

Facilities

I was pleased with the layout, design, and color scheme of the facilities.

The meeting room where we had our morning meetings and some self-assessments offered a congenial space for discussions. The lobby area on that floor offered a good setting for informal encounters among clients and staff. I also liked the upstairs office area.

I liked the therapy rooms. I liked the fact they were of different sizes, had glass partitions along parts of some walls, and lacked decorations. I found it appropriate that there were no pictures on the walls. It meant clients could focus exclusively on fluency skills, without distractions.

I liked the neighborhood, and the fact the clinic was in a small, well-kept, low-rise building.

The Lister Hall residence played a central role in the formation of an informal support group for clients. The support group played a valued function in enabling clients to share feelings about their experiences before and during the treatment program, and to monitor and motivate each other in the application of fluency skills. The group was also a lot of fun.

HOW THE TREATMENT PROGRAM MIGHT BE IMPROVED

Feedback Mechanisms

The internal feedback mechanisms which stutterers use to assess their rate of speech appear to be faultily calibrated in many cases. Even controlled stutterers may require systematic practice in order to increase the accuracy of their rate-monitoring skills. It might be useful, in this context, to recommend to clients that they regularly do their own rate calculations after recorded transfers as part of their maintenance programs. I am aware, for example, that in transfer situations where I am making an appointment over the phone to meet someone, I may be consciously aware of speaking at what appears to me to be a slow rate, and it also sounds relatively slow to me on the tape—yet when I calculate the syllables per minute, I tend to find I have underestimated the rate.

To calculate the rate, I write out a paragraph or two, count the syllables, and then calculate the rate after measuring the elapsed time with a wrist stop watch. In addition to spot checks on rates during recorded transfers, I also calculate rates for my morning maintenance sessions when I practice speaking at 90, 120, 150, and 190 syllables a minute. I graph the results each day to keep track of how close I am to the target rates.

Transfers

It is possible there was a lack of precision in instructions about how clients might proceed through a hierarchy of activities during their transfers. In my case, however, this was not an issue. I found phone calls and talking to strangers in person about equally difficult, so I worked on both activities more or less simultaneously. Later, after experience with other transfers, I worked on public speaking and calls to an open-line radio show.

It would be useful to have a one-page information sheet describing how the scales on the transfer sheets work. Each transfer sheet has columns for the following items, with the numbers in parentheses indicating the range of possible responses: Rate (1–5); Onsets (1–5); Contacts (1–5); Blending (1–3); Volume (1–3); Eye contact (1–3); Naturalness (1–3). The final columns on the sheet refer to Words Stuttered and whether or not Cancellations were applied. Clients list all instances of hard contacts and hard onsets within a 2-minute recorded speech sample. They also list all instances of stuttering.

The 1–5 scale for the first few items can be a source of confusion. A written description of the scale would specify that the optimum score for every category is 3. For the Rate category, for example, 2 would represent a slightly too-slow rate, 3 would represent the client's optimal speaking

rate, while 5 would indicate a markedly too-fast rate. With reference to the 1–3 scale, in a category such as Blending, 1 would represent a very choppy-sounding speech, while 3 would denote a smooth, natural-sounding blending of syllables. These points were explained verbally, but a written reference would also be helpful.

Client Feedback for Clinicians

One clinician mentioned she would like to be able to get feedback, in some appropriate format, perhaps an evaluation form, from clients about what clients liked about her work and what she could do even better. She said such feedback helps her to continue to improve her work.

Variations in Playback Rates

It was noted in the clinic that when clinicians tried clocking the 190 syllables per minute passage on the client tape, some clocked it at 190, others at over 200. The relevant variable appeared to be the rate at which different recorders play back a tape.

One client suggested a method for checking the speed on tape recorders in the clinic. First, a tape could be created which would serve as a benchmark. A tone could be recorded marking the start of a tone test, with another tone recorded after 60 seconds had elapsed as measured by a stop watch. Once it was established that a given tape had a segment that was precisely 60 seconds long when played on a machine on which the clinic's taped 190 syllables per minute choral reading exercise was clocked at 190, then the tone-test tape could be played on all the machines, with each one being checked to see how close it was to 60 seconds.

Naturalness

The increase in the naturalness of my speech is a major outcome of my July 1987 treatment program. Since the clinic, I have studied definitions for some of the terms I encountered which have to do with features of speech which contribute to naturalness.

These include prosody, referring to the accent of a syllable; intonation, referring to the rise and fall in pitch (the highness or lowness of sound as expressed in the relative vibration frequency); and inflection, referring to a change in pitch or loudness. Perhaps it may be useful to define or explain these terms more precisely than in the July clinic.

Also with reference to naturalness in pronunciation, I liked the fact that it was stressed that words such as "generally" and "systematically"

should not be pronounced too precisely. This was because, as clinicians noted, it is easy to develop an artificial-sounding preciseness through practicing at a slower rate of speech such as 120 SPM. That's an important point.

I was additionally pleased that clinicians also noted that the preciseness with which clients speak in everyday speech is an individual characteristic. In that context, I would suggest that care be taken that the phonetic examples which are used are ones on which there is likely to be general agreement.

For example, I remain convinced that, instructions from the clinic notwithstanding, some people do indeed pronounce the "t" in "button," rather than leaving it out when they say the word. In some regional dialects, the "t" may indeed be unsounded, but can this be stated as a general rule?

Phrase Onsets

Until I listened once again to the client tape after the treatment program was over, I had not been clear about the distinction between soft phrase onsets and soft onsets on individual words. The introduction of this concept to clients could possibly have been a bit more precise—although perhaps I was confused because of my prior encounter with gentle onsets in the PFSP program, where the definition referred to individual words.

I remain a little unclear about what terminology to apply to hard onsets on vowels *within*, as contrasted to at the *start*, of phrases. In practice, however, this is not a problem when I analyze my transfers. I just use a single column to mark down all problems with onsets, whether they occur at the start of phrases or within them.

CONCLUSION

Nine months after the Edmonton program, I continue to carry out my daily maintenance and transfer program. I anticipate doing this for many years. Thanks to both the PFSP and CSP programs, my fluency skills, as a controlled stutterer, continue to be strongly in evidence. Among the happiest moments of my life have been recent occasions in which, for the first time, I have spoken out freely and clearly during informal debates involving sizable numbers of fellow teachers or graduate students. Speech therapy for stuttering has advanced markedly in recent decades, and I am delighted and deeply gratified that the progress within the field has so powerfully enhanced my own ability to communicate.

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