HOW WE DEVELOPED
AN INCORRECT PICTURE
OF STUTTERING

By John Harrison

How We Developed An Incorrect Picture of Stuttering

There was a time when I was so petrified by having a moment that was not filled by words that I would sooner die than stand up here and be silent. I'm pleased to say those days are long past. I can't think of anything more fun or more fulfilling than standing in front of an audience and feeling like I have something worthwhile to say.

The stuttering you saw a moment ago is indicative of how I would have spoken if you were in my high school class, and I was up in front of you giving an oral report. My dysfluencies began when I was three and my speech blocks started appearing a few years after that.

Unlike those who stutter most of the time, my stuttering was very situational. I could talk just fine when I was in the schoolyard chatting with my friends or playing football. But when I had to talk to the very same people in a classroom…or when I had to talk to an authority figure…or stop a stranger on the street to ask a question…or go to the market and ask for a container of milk…or get on a bus and ask for a transfer…I almost

always had periods when I would lock up and not be able to speak.

So I know a lot about stuttering from the inside. I dealt with it until I was about 30 years old. And as a member of the National Stuttering Association for over 27 years, I've been intimately involved in all aspects of the stuttering community.

My participation in the NSA has given me exposure to a huge stuttering population. Not only did I function as the Associate Director for 14 years, I also participated in meetings of the San Francisco chapter for over a decade. And I was editor of the NSA newsletter, *Letting GO*, for nine years.

I've also conducted workshops all over the U.S. for people who stutter. And I've run workshops in Canada, Ireland, the U.K. and Australia.

Over the last 15 years, I've had extended correspondence on the Internet with literally thousands of stutterers around the world. I've taped scores of interviews. I mentor people on the net from many countries. I do coaching sessions over the phone. And I've followed people's lives, some for as long as three decades. All this has been quite a learning experience. It has also validated the conclusion I came to almost 35 years ago…that for all the years we've been trying to understand stuttering, we've been using

the wrong paradigm or model. We have incorrectly characterized what stuttering is all about.

But first, how many people are good at math? Okay, I have a little puzzle for you. These numbers are in this order for a particular reason. Can you tell me why they are in this sequence?

$$8...5...4...9...1...7...6...3...2...0.$$

Take about five minutes or so and see if you can solve it.

(Really take five minutes! And don't cheat. Remember, you're being watched.)

Figured it out?

Many of you could spend a week trying to solve this puzzle (as I did) and still not find the answer.

Why is that?

Let me ask you -- did I make it easier or harder for you to solve?

Harder, you say? Why is that?

Oh, you're telling me I led you astray. I got you thinking along mathematical lines when I asked, "How many of you are good at math? I got you to use the wrong paradigm.

I'll cop to it. That's just what I did. And you went for it.

Do you know what a paradigm is? A paradigm is a filter through which we look at the world. A paradigm tells us what's important to pay attention to…and what's not. It's the way we frame reality.

For example in governance, a democracy would be one kind of political paradigm. A dictatorship would be another. Communism would be a third. There's also a monarchy, oligarchy, socialism, and so on. Each paradigm shapes how you look at governing people. Thus a crowd gathered in the square might be perceived by the head of state very different, depending on whether he was looking at it through the filter of a democracy, dictatorship, or another kind of political paradigm (filter).

In order to find the answer to the number puzzle, you had to approach it from within an entirely different paradigm. You had to drop the idea that this was a numerical puzzle and think outside the box.

If you still haven't figured it out, flip forward to end of the article for the answer.

So what can we conclude from this? We can conclude that if you don't use the right paradigm, the problem at hand becomes impossible to solve. This is precisely what has happened with stuttering since the

development of speech pathology over 80 years ago.

Let me give you a little background. The birth of speech pathology is attributed to Carl Seashore who back in the early 20s was head of the Department of Psychology and the dean of the Graduate College at the State University of Iowa.

Although interest in speech and hearing processes was developing in a number of universities, it was Seashore who really molded the new discipline.

The next point I find particularly interesting. Originally, speech pathology was not just focused on the production of speech. Rather, it was conceived as an interdisciplinary specialty that focused on the scientific study of human communication. And listen to what it included -- psychology, speech, psychiatry, otolaryngology, pediatrics, child development. In short, it was a discipline that looked at the whole person.

Now, into the picture comes Lee Travis. In the early 1920s, Lee Travis was a brilliant undergraduate at Iowa. Seashore recognized the potential of the young student, and in part, designed the new specialty of speech pathology around Travis' talents. In 1924, Travis became one of the first people in the world to receive a Ph.D. based on study in this new field.

Travis stayed on at Iowa and headed the program

through the 1930s, a period during which many of the future leaders of the field ended up as graduate students.

In the late 30s he left Iowa to become a professor at the University of Southern California. When Travis left Iowa, Wendell Johnson, one of his prize students, took over the speech program.

Johnson was a different kind of bird. Whereas Travis was basically a research scientist, Johnson's interest was in developing effective therapy programs. He had made a name in General Semantics, and his diagnosogenic theory soon became the prevailing view of how stuttering developed. Johnson maintained that stuttering was caused by the parents' misinterpretations of their child's speech. They confused the child's normal dysfluency for stuttering. In doing so, they required from the child a level of performance that the child could not attain. The subsequent reactions of both child and parents resulted in a worsening of the child's speech.

By the early 1940s, the way people viewed stuttering was being influenced by four widely accepted misconceptions. First, there was the belief that all the various different kinds of stuttering were basically a manifestation of the same problem. This idea goes all the way back to Lee Travis. Listen to this quote from a chapter on how to deal with stuttering that Travis wrote in 1926 for a book called *The Classroom Teacher*.

"Basically," said Travis, "stuttering and stammering are the same; practically, there is a slight difference. Both are due to the same causes and consist in the malfunctioning of the same mechanism, yet there is a slight difference in this malfunctioning.

"Stuttering," said Travis, "may be thought of as an inability to combine syllables and words into words and sentences, which results generally in the repetition of the sound or word causing the difficulty. It is in the majority of cases an incipient form of stammering.

"Stammering, on the other hand, is a complete block in the flow of speech. At times the individual seems utterly incapable of producing the desired sound. He is, for the time being, obliged to give up entirely his efforts at speech production."

Travis goes on. "More often the same person will stutter one time and stammer another. In this discussion stuttering will be used to include both terms."

Believing that all stuttering was essentially a variation on the same theme was misconception number one. And it caused more confusion through the years.

Misconception number two was fostered by Wendell Johnson. His diagnosogenic theory, as I mentioned

previously, focused on the way the parent related to the child's speech. That, according to Johnson, was what caused stuttering. Period. End of discussion.

Well, he didn't have the answer. All he had was a PIECE of the answer. But as a result, people stopped looking for any other contributing factors.

The third misconception came about because many of Johnson's students at Iowa were headed for jobs in the school system. What do teachers and parents and school administrations look for? They look for fast, efficient answers. If Johnny can't read, let's teach him to read. If Johnny can't do math, let's teach him math. And following the same logic, if Johnny can't speak properly, then let's *teach* him to speak properly.

It built on the belief that stuttering could be addressed with a simple, direct approach, similar to how you might approach an articulation problem. Once again, it discouraged people from looking at the whole person.

The fourth misconception had to do with the belief that a third party observer could determine to a certainty whether or not someone was stuttering. Most stuttering research involved third party observers. I've had people tell me, "I know you're a stutterer because I heard you stumble on a few words. The truth is, someone may be fairly disfluent and yet be totally relaxed and unselfconscious about their speech and never once

actually block. Another person may sound totally fluent, and yet may be doing a great deal of avoiding and substituting and be living in constant fear of blocking.

What was lost over the years was the original idea that dealing with stuttering called for an interdisciplinary approach that addressed the entire person – their emotions, perceptions, beliefs, intentions, physiological make-up as well as the physical things they did when they spoke.

What I'm saying is that almost a century ago, when people attempted to characterize stuttering and how to address it, they did the best they could at the time.

But *they got it wrong*.

And those misconceptions have been perpetuated to this day and accepted as truth.

As a result, the first professors of speech pathology installed the wrong paradigm of stuttering in their students. Some of those students became professors, themselves. And they, in turn, passed along the same misconceived paradigm to *their* students. And so it went from generation to generation.

By the way, this kind of thing has happened in other areas. I remember when it was a commonly held belief that peptic ulcers were caused by worry and an overly acidic stomach. Then in 1982, Dr. Barry Marshall right

here in Perth discovered that most peptic ulcers are actually caused by *H. piloroi* bacteria and could effectively treated by antibiotics.

Until then, treatment of peptic ulcers was not very effective, because doctors were looking at these ulcers through the wrong paradigm. That's the same thing that happened with stuttering.

Why didn't anybody question the model of stuttering? First, the problem was very complex and therefore, very elusive and hard to define. The contributing factors were all things that lurked beneath the surface.

Secondly, the opportunities for self-discovery that exist today did not exist back in the 40s and 50s. Third, we in the west were not used to thinking holistically. Interdisciplinary studies were not very prevalent when I went to college. Every discipline was fit into its own separate pigeonhole.

Finally, there was little likelihood that students would challenge accepted beliefs. For one thing, they didn't have the background to do that, especially if they didn't stutter themselves. Would YOU have challenged the information in YOUR textbook? So the basic misconceptions of 80 years ago were passed along as the truth from one generation of teachers to the next. This made it extremely difficult for anybody to

think outside the box.

But things began to change due to several major developments. The first was the *evolution of holistic thinking*, thanks to ideas coming to the West from Asia and to the evolution of new computer technology.

The second was the personal growth movement, which in the early 60s was just then taking root in California.

And the third, in the late 80s, was the birth of the Internet.

I came to San Francisco from New York in 1961. It was one of the best moves I ever made. Not only was northern California a Mecca for those seeking a different way of life, it was also the center of the burgeoning technology industry in Silicon Valley. As an advertising copywriter, I was exposed to systems thinking as I turned out promotional material for technology companies on the San Francisco peninsula.

I got to read the trade publications, and although a lot of it was over my head, I could usually pick up the gist of what they were saying. I saw how systems interacted and how and why computer intelligence was possible. I could see how, when you combined the right elements together, you could come out with something entirely new…something that was greater than the sum of the parts.

The second major development, as I mentioned, was the personal growth movement that began in California just about the time I came west. Two years with a psychoanalyst didn't do much for me, but being a participant in self-discovery groups did. I got involved with them….not because of my speech, which was bearable…but because I was living on my own 3,000 miles from home without a clear sense of who I was. I was suffering enormous separation anxieties because I was away from the people who defined me, and I was unable at that time to define myself. And so, at the age of 26, I was feeling very desperate.

I made some enlightening discoveries in those groups. I discovered that I was a very emotional person who long ago had buried his feelings. And that wasn't all.

I had a major self-assertion problem. I was afraid to speak my truth and say what I wanted. I was an approval junkie. I wanted everybody to like me and was devastated if somebody didn't approve of what I did. I was overly impressed by authority. If I said "red" and somebody else said "blue," I would automatically assume that it was blue. I didn't trust my intuition. I had little self-confidence and self-esteem. And I was a perfectionist who was constantly afraid of doing something wrong. In short, I was so busy pleasing others that somehow the real me got lost.

As a *by-product* of three years of intense interaction

with others in a group environment, I began to see that my blocking was not primarily a speech problem. Sure, my speech was involved, but even though I had figured out what I was doing when I blocked, that knowledge was only a small piece of the puzzle. My blocking MOSTLY had to do with the difficulties I had with the EXPERIENCE of EXPRESSING myself to others. That's what drove the speech blocks.
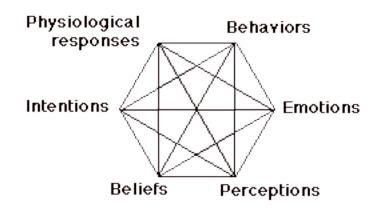
I began to see that my stuttering was not a single problem, but a constellation of problems in a dynamic relationship.

It's like this Lego car. I got this car at Toys R Us in San Francisco. But if you go into Toys R Us and look for this car, you know what? You won't find it. You will not find this car. What you will find is a box of parts. It's up to you to put the parts together in the right way to create the car.

That's what I discovered about the nature of speech blocks. It's not just any one element by itself that creates the blocking behavior. It's how these elements go together. It's about how they *relate* to one another.

This is why researchers looking for the cause of stuttering haven't been able to find the answer. There's nothing exotic about the parts of the system. What's exotic is in how the parts come together.

So what are the parts?

THE STUTTERING HEXAGON

Physiological
responses   Behaviors

Intentions   Emotions

Beliefs   Perceptions

Stuttering can be more accurately understood as a *system* involving the entire person—an interactive system that's comprised of at least six essential components: behaviors, emotions, perceptions, beliefs, intentions and physiological responses.

This system can be visualized as a six-sided figure—in effect, a Stuttering Hexagon—with each point of the Hexagon connected to and affecting all the other points. It is the moment-by-moment dynamic interaction of these six components that maintains the system's homeostatic balance.

You'll understand this a little better when I tell you about the Hawthorne Effect. Anybody know what it is?

For many years until the breakup of AT&T, Western Electric Company was the manufacturing arm for all the phone companies of the Bell System. In the 1920s, the

Western Electric plant in Hawthorne, Illinois, employed a small army of over 29,000 men and women in the manufacture of telephones, central office equipment, and other forms of telephone apparatus.

In the mid-20s, the plant began a series of studies on the intangible factors in the work situation that affected the morale and efficiency of shop workers. They figured – "Hey, we make so many parts here that even if we can increase production 1 percent, that can add up to big numbers. So let's see if we can figure out how to improve worker output."

In particular, the company wanted to know whether changing the lighting, break schedules, and other workplace conditions would lead to higher production.

One of the earliest experiments involved a group of six women from the coil winding production line. These volunteers were pulled from the line and relocated into a smaller room where various elements such as lighting, room temperature, and frequency of work breaks could be manipulated.

The first experiment looked at whether changing the intensity of the lighting would have a positive impact on production. The experimenters started out with the same lighting intensity the workers were used to on the production line. They then increased the light a few candlepower.

Production went up.

Wow. Were they excited! They really had stumbled on something. So they increased the room light by another few candlepower.

What do you think. Did production go up?

You're right. Production went up again.

By now they were sure they were really onto something. So they continued to increase the room lighting a little bit more until the lighting in the room was several times the normal intensity. And each time they did, the production of the six women went up.

At this point, the researchers were really pleased with themselves.. But being good scientists, they felt they should validate their hypothesis that the lighting made a difference. So they brought the lighting back to the original starting point and dropped it by a few candlepower.

What do you think happened? Production went up.

So they dropped it even more. And once again, production went up. They continued to reduce the lighting in the room until the women were working in the dimmest of light. And production continued to rise until the lighting was so dim that the women could barely see their work. At that point, their output leveled

off.

What do you think was going on?

The researchers finally determined that it wasn't the lighting or any other environmental factor that accounted for the increase in production. It was the development of a social system. Something they weren't even paying attention to.

Before the experiment began, the women were just cogs on a production line. They lacked any sense of importance. They had few meaningful relationships with their co-workers. Their supervisor was seen as an adversary. They had little personal responsibility for turning out a quality product. Someone else set the standards, and they just performed according to instructions. There was not much pride in what they did.

In short, it was just a job.

But all this changed when the six women were pulled from the production line and given their own private workspace. From the very beginning they were special, and they loved the extra attention. Each of the women was not just an impersonal face on the production line. She was now a "somebody."

Because the women were organized into a small group, it was easier to communicate with one another, and

friendships blossomed. The women began socializing after hours. They even began to visit each other at home. They joined together in recreational activities like picnics.

The relationship with their boss also changed. Instead of being feared, he was now someone they could turn to. A group identification formed, and with it came pride in what they did.

The improvements that took place were primarily explained by the impact of the social system that formed and the ways in which it impacted the performance of each individual group member. The authors of the study concluded that:

> *The work activities of this group, together with their satisfactions and dissatisfactions, had to be viewed as manifestations of a complex pattern of interrelations.*

In other words, it was changing the nature of the social system that mostly accounted for the change. Over time, this phenomenon came to be known as the Hawthorne Effect. The Hawthorne Effect goes a long way to explain what causes the blocking and struggling we label as "stuttering." The Hawthorne Effect also explains why stuttering therapy does or doesn't work. And it explains why it's hard to maintain your gains in the outside world.

What I want suggest is that when therapy *does* work, it's not just the fluency techniques employed by the therapist that account for the improvement. Often, the speech therapy only plays a minor role. It's the speech related therapy *plus* the personal relationship between clinician and patient that leads to a greater level of confidence and self-acceptance on the part of the client.

The more the client feels okay about himself, the less he blocks his spontaneity, and the more he's willing to reveal his true self. Ultimately, this can lead to a dissolution of the holding back that underlies his speech blocks.

In short, fluency is to a large degree a *by-product* of the Hawthorne Effect. In fact, once you adopt this explanation, you can explain just about any question that anyone has ever had about stuttering.

Let's set up a hypothetical situation. Let's say that, as someone with a stuttering problem, you decide to work with a speech therapist. Let's call him Sean. Sean has set up a two-week intensive program for a half dozen clients and is holding it at a local hotel. You'll not only attend the program, you'll also live at the hotel during that time…away from your familiar environment in a whole new world.

In addition, let us say that Sean employs a fluency shaping approach, which involves hours and hours of

practice. In the first week you will also learn a whole lot about how speech is produced so that you can visualize the process in your mind. The second week is then spent practicing the technique in real-world situations, such as on the telephone, on the street, and in shops and restaurants.

At the end of the first week, you begin to see real progress. You have now demystified your stuttering by learning what's going on in your voice box when you block. And because of the electronic feedback, you can now distinguish the difference between tight and relaxed vocal folds, something you were not aware of before. All this is very helpful.

But is that all that is going on?

Hardly. There's a lot more, and it relates to the Hawthorne Effect.

Sean is an open and accepting person, and as you interact with him, you feel totally self-accepted, even during difficult speaking situations. Virtually every communication between you and Sean is designed, not just to pass along information, but to bolster your self-esteem. Every piece of negative feedback is accompanied by a positive statement that reinforces the idea that you're okay. Sean really listens to all your concerns, and he shows infinite patience in exploring the issues with you. Nothing you say is ever

devalued. And that's true in your relationship with all the others in the training as well.

If you were in that situation, how would that affect you?

Pretty obvious. You begin to trust. Your self-esteem builds. Your self-confidence grows. And you become more self-accepting.

Now, in this environment, does it feel safer to express the real you? Well, sure it does. You feel acknowledged. You feel accepted. You feel validated. You're no longer in crisis mode. All these positive changes begin to organize themselves into a self-reinforcing system that leads to letting go, and in many cases, to fluency which is a by-product of letting go. That is the Hawthorne Effect in action.

So lo and behold, by the end of the two-week program, your speech is easier and more fluent. And because, by this time, the system is self-supporting, your fluency continues…at least for a while…as you go back to your regular world.

How many people have had the experience of coming out of speech therapy really speaking well?

How long did it last for?

Why did you slip back?

Chances are, you didn't slip back because you stopped practicing the right techniques. A lot of people continue to practice proper technique and they *still* slip back.

Why is that?

The answer is, it wasn't *just* proper technique that made you more fluent to begin with. Sure, that was important. But it was also your relationship with those around you. They were there to support you. You felt good. You felt okay about yourself. But what happened when you left the training? Was everyone in the world committed to supporting you in the same way?

Uh-uh. In the real world, people were caught up in their own issues. They weren't thinking about you. In fact, they may have *actually* put their needs before yours. Imagine that! How many here have had to fight for a parking place or deal with a rude bus driver or sales clerk?

How'd that make you feel? Wasn't it more risky to let go and assert yourself in those situations?

So what happens? If you're not also working on the other parts of the stuttering hexagon...such as the way you think and feel...you end up reacting to these cues from other people and start losing your trust and self-confidence. Then one day you find yourself blocked. This triggers a downward spiral, and

eventually you're back where you started.

All this is due to the Hawthorne Effect that's operating in the background.

Over the years I've met many people who ended up relapsing after they had spent, in some cases, thousands and thousands of dollars in speech therapy programs. Some of the stories I heard really upset me.

I'm thinking of one very popular program in the U.S. that uses a fluency shaping approach. For years, people who went through this program were told *in no uncertain terms* that stuttering did not involve emotions and therefore, emotions would not be addressed. They were only going to work on mastering speech technique.

That's crazy! And yet there are many people – maybe most people -- who still believe this.

It's not that the therapists in these programs aren't sharp. They are. It's just that the model of stuttering that they grew up with…the model they were given in school and on which they base their therapy…is flawed. It's the wrong paradigm.

The concept of stuttering as, not a thing but a system, explains why stuttering is so hard to change. It's not just your speech that has to change. IT'S YOUR *ENTIRE SELF*. This includes how you think. What you

feel. What you believe. How you perceive. What your intentions are. What your self-image is. How you speak. All this is tightly organized into an interlocking, interactive system. It's a living, self-perpetuating system that does everything it can to maintain itself.

Try and change just one part of it and you push the system out of balance. To reestablish that balance, the rest of your stuttering hexagon will try and bring back your speech to the point it was at before you began therapy.

THE DIFFERENT KINDS OF STUTTERING

One aspect of the stuttering system that has through the years caused major problems has been the use of the word "stuttering." The ineffectiveness of this word to describe what's *really* going on has caused all kinds of problems and has led to immense confusion and muddy thinking.

Let me give you an example of how the sloppy use of language leads to problems. One of the most enduring lines of all time was spoken by Bill Clinton on TV when he said, "I did not have sex with that woman." Clinton took a very liberal interpretation of the word "sex." And it led to all kinds of interesting problems.

How many of you have seen Oprah Winfrey? Oprah is the most successful and admired TV personality in the

world and has enormous influence on millions of people in America.

On one of her programs, the subject was young, teenage girls who were having sex. There was this one 15-year-old who was going to parties and performing oral sex on some of her male classmates and this girl didn't thing there was anything wrong in it….something that was shocking to millions of viewers. When she was asked by Oprah whether she knew that young girls shouldn't be doing this, you know what her response was?

"That's not sex."

"What do you mean that's not sex!" says Oprah.

"Well," says the girl, "I know it's not sex because the President of the United States says it wasn't."

That's what happens when you don't use language precisely. It leads to confusion. And it has consequences.

The same thing happens with stuttering. What do you *mean* by "stuttering?"

Are you talking about pathological disfluency? Developmental disfluency? Bobulating? Blocking? Stalling? Even though they may look alike at times, they're all different. Each is driven by a different set of dynamics.

For example, bobulating is kind of a relaxed, stumbly disfluency that you hear when people are upset, embarrassed, confused or discombobulated. The person is able to talk, but their emotions are causing them to trip all over themselves.

On the other hand, when a person blocks, they are, for the moment, *unable* to talk. They're feeling helpless. That helplessness can lead to panic and embarrassment. They become self-conscious. It's a totally different kind of experience even though it may look the same.

When you call both of these stuttering…instead of bobulating and blocking…it forces you to make incorrect assumptions just like the girl did on the Oprah show.

An ineffective vocabulary is just one reason why this problem has not been clearly understood and in most cases, incorrectly characterized and addressed.

WE NEED TO APPROACH THE PROBLEM DIFFERENTLY

What does all this mean? It means we have to start approaching the problem of stuttering in a more, all-inclusive way. If I hadn't done that, I'd still be blocking.

Practitioners in the field need to broaden their perspective. That's tough, because there has been in the

past…and I think still exists in most places…a prejudice among professionals against those who take a holistic approach. I've had many conversations with speech pathologists who have taken this approach, and I've heard many of their sad tales.

I have a speech therapist friend, Claudia Dunaway at San Diego State University who I met about seven years ago. She had read a paper that I had delivered in a workshop at an annual meeting of the American Speech-Language and Hearing Association. Turns out, I was the first person from the stuttering community to confirm her own observations that this problem involved a lot more than just speech. She *knew* it did, but nobody had ever validated it for her. So when she read my article about the Stuttering Hexagon, she was so excited she flew up to San Francisco and bought me dinner. And we talked into the wee hours.

What's interesting about Claudia is that when she was younger, she was involved in the free speech movement. Meaning what? Meaning that she spent several years exploring her feelings and her beliefs. She examined different lifestyles and her own life issues. She became very open minded and sensitive to who people were *as people*. She learned to look below the surface. Later on, she applied this knowledge and sensitivity and perspective to her clients very successfully when she became a speech therapist.

But talk to Claudia and her associates at San Diego State and you hear about the closed minds they encounter at professional conferences. So many of the professionals just don't want to deal with this holistic view of stuttering.

If I have one bone to pick with the professional community, it's that more of you don't take advantage of the most important resource you have…the actual people who stutter…and especially, the most overlooked resource of all -- those who have recovered.

I mean, if you wanted to get to the top of Everest, where would you go for guidance? Would you only talk to people who have read books about climbing Everest or those who tried to climb it but haven't yet succeeded?

Or would you also chat with the 500 or so who have actually achieved the summit and ask them, "Hey guys, how did you do it? Tell me in detail what the problems were? What worked? What didn't? What did you need to know? What was helpful? WHO was helpful? What did you learn? There are a hundred questions you could ask.

But do researchers seek out recovered stutterers and ask those questions?

As a member of the National Stuttering Association, I've been in contact with the professional community

for over 27 years. How many researchers would you guess went out of their way to ask me how I recovered?

The answer is…only two! Two people in 27 years.

You saw at the beginning of this talk, how, in trying to solve the puzzle using the wrong paradigm, you could have worked on it for a week with no success.

From what I have seen, and from my own recovery, I am convinced that the mysteries of chronic stuttering have eluded us for the same reason. All this time, the pieces to the puzzle have been sitting there right under our very noses. The answers are found by using a different model of stuttering that takes into account the many aspects of the individual – his emotions, perceptions, beliefs, intentions, physiological makeup, speech behaviors – and how all of these factors are woven together to create what we call chronic stuttering.

If you professionals see us as partners, and not just patients, and if we in the stuttering community continue to play an active role by offering our own personal observations… and if we continue to share our thoughts and ideas and findings all over the Internet…we will begin to see answers to a problem that has eluded us for over 5,000 years.

So what do you say? Are you ready to challenge your

old beliefs? Are you ready to open your mind to new possibilities? Are you ready to make a paradigm shift?

It's been a real pleasure speaking with you today.

Answer to the puzzle: the numbers are in alphabetical order