

Performing at sight and dyslexia: with reference to Gillingham.

Michael Lea 17/03/10

As presented to the conference on Music and Dyslexia held at the Royal Academy of Music 25th March 2010.

Summary

Performing at sight might well seem to be a particular difficulty for dyslexic musicians. However it is my experience that for some there are advantages in being dyslexic when performing at sight. In this talk I explore some of the paradoxes and advantages of being dyslexic and a musician. I point to an approach for overcoming the widely differing difficulties of dyslexia.

My talk is divided into three parts. My own experience performing at sight, containing clues relating to dyslexic teaching methods. Secondly a few of the many insights from the world of dyslexia that I suggest can be applied to musicmaking in general, and performing at sight in particular. Thirdly I quote Gillingham as a parallel learning method for teaching reading writing and spelling that I suggest mirrors successful music teaching down the ages.

From my training and experience as a musician I was able to recognize immediately that Gillingham worked not just for dyslexics but for everyone. I recognized that Gillingham was soundly based.

Start here?

I came to dyslexia as a musician first.

As professional musicians we walked into a studio, unpacked our instruments and played whatever music was put in front of us. It might be a film score, a pop record backing, an opera, or anything. After one play through, the red light was put on and the recording was made. What you hear on countless recordings is what we played.

(Hummel track six)

It is my experience that performing at sight like this is, perhaps paradoxically To Some, A Way Of Working That Is Particularly congenial to the dyslexic musician; a type of dyslexic musician that is.

Performing at sight is what I had been doing since my first step into the world of music when I became a chorister at Salisbury Cathedral aged 7 ½. Salisbury Cathedral was then around 700 years **old** and the choir had been in continuous existence for longer than the cathedral. We sang eight services a week, 44 weeks a year. Our repertoire covered **every age and style of music** with little repetition during a year. Performing at sight is what we did and what the choir had been doing for centuries.

As a result of my time as a chorister I knew from a young age **the nuts and bolts**, the myriads of little things, that go together to make it possible to perform. I also knew that there were **age-old principles** involved in playing music, principles which each generation of musicians applied to the music and instruments of their time: hands, arms fingers bodies and minds **work the same way** whatever the instrument being played.

Being taught.

In my years of music lessons I had learnt, been taught, how to **build up** the **neurological connections** that enabled me to play my instrument even in challenging and stressful situations.

Though I had started to learn the cello when I was 12, it wasn't until I had settled in to the Guildhall School of music that I began **to systematically** construct the necessary technique to make my way as a professional musician.

In my weekly cello lesson with Ken Heath at Guildhall, I was building my technique **from the beginning** starting with longbows on open strings. Studying closely for instance **every aspect** of holding and using the bow.

I was **connecting sound with movement**. I was establishing the neural pathways that connected directly what I heard in my ear with particular movements of, for instance, my fingers.

After a while I had advanced to the point where I was studying Duport cello studies. Ken Heath sat opposite me in lessons with his cello ready to play but listening intently to every note. If there was any kind of blemish we stopped immediately and **worked out the cause**, and I then started the study from the beginning playing slower than before. The idea was to find a speed however slow at which I was able to play the two pages of the study with a metronome and without a blemish. I was effectively having to argue and justify every note.

Attitude

Ken Heath was not only teaching me to play the cello, he was teaching me the **constructive attitude of mind** to understand and learn.

Consider a note that might be flat in relation to the previous note. If I kept playing correcting the notes as I went, I was effectively making two mistakes - one the original mistake and then a further mistake to return to the correct pitch for the next note.

The method for correcting the original mistake was first to work out why the note was flat in the first place. Then to play the interval correctly not once, but **three times to establish the neurological connection, the neural pathways**. After this it was then back to the beginning of the study playing the whole study through slower than before. This way the corrected mistake was played in context.

The **attitude** of Ken Heath was most important. It was a **matter of interest** to find out why the blemish had occurred and to correct it. I experienced this learning technique as **a therapeutic approach to learning**. In the wrong hands this learning technique is very destructive.

It will be noted that it was me, **the pupil, doing the playing**.

Double bass

After two years of cello study the opportunity arose to change to the double bass. I was able to apply all I had learnt on the cello to double bass playing. Though I soon left music college to take up my first full-time job as a professional musician, my studies continued with various teachers. I was still having regular double bass lessons 12 years later.

Early on one of my teachers was Robin McGee, the double bass professor at the Royal Academy. Of particular note here is that Robin taught me **what to think as I played** passages with complex rhythms and timings. Not just what to think, but what to **say out loud to myself** as I played. I learnt how to count out loud, and what to count, to make passages with complex rhythms and timings work. The idea was to break down the rhythms into their smallest component parts and be able to count these rhythms out loud to yourself as you played.

Counting out loud was something I was also taught to do when learning to play the classical guitar, classical guitar being my second study at Guildhall.

For instance when playing scales on the guitar to a metronome I was taught to say 2,1,2,1,2,.. etc as I struck the strings alternately with the first two fingers of my right hand.

Playing scales in this way I experienced for myself the **powerful connections** being made.

Insights and Parallels. Dyslexia and Gillingham

In 1987 I first learnt about dyslexia. I also discovered Gillingham.

Listening to the playing from those days brings back good memories. I can remember the sound and feel of the studios. What it felt like to be there: **the experience**.

(Kern track 11)

Similarly even now, some 50 years later, I can remember what it was like to be in, and to sing in, Salisbury Cathedral with the sound of the choir echoing around the most distant parts of the cathedral.

Learning about dyslexia research and reading Gillingham, I realised that it was this **experiential memory, the memory of the experience, together with the kinesthetic memory involving many senses** that accessed the long-term memory directly and enabled me to play my instrument.

Studying Gillingham I recognized that it was the long-term memory that Gillingham accessed in similar ways in order to teach literacy skills: reading, spelling, and penmanship.

Studying Gillingham, enabling me to understand how I had been able to learn to play the double bass, in turn enabled me to refine and improve my playing.

Discovering the paradoxical world of dyslexia was a great shock at first, although life and work continued as before. I read everything on Dyslexia that was readily available. I attended meetings and lectures organised by the Barnet Dyslexia Association. Most importantly I had discovered Gillingham.

So far.

I was now 40 years old making my way as a professional musician, with, up till then, no knowledge at all about dyslexia. As a musician I had followed the same path that many others had followed, studying, with the help of teachers, the mainstream methods for learning to play the double bass. In my case Simandl and Bille for the Double Bass.

I knew from the text and pictures in books such as Galamian for violin playing and William Pleeth for cello playing that the principles I was learning covered all string instruments. Through studying the books of Baroque masters such as Leopold Mozart and Geminiani I knew that this technique belonged in an age old continuum.

I was now to find out for myself that **the world of music that I lived in was dyslexic friendly - for some types of dyslexics**. For instance, just glancing over a page of music **gives an immediate general impression** of the music in a way that looking at a page of text doesn't.

I had established myself as a musician first. It was in the context of being a musician that I saw the value and importance of Gillingham's work.

First some insights.

As my readings on dyslexia continued I came across many useful insights. Here are just a few.

1) **the hare and the tortoise**. While both the hare and the tortoise might have fast and active brains, the hare races along skipping over the ground as it were, while the tortoise covers the ground slowly step-by-step.

Applied to reading text, the hare speed-reads missing out chunks of text, hopefully though with practice picking up on the important words. The tortoise on the other

hand reads each word slowly, perhaps letter by letter, hopefully in the process memorising much in the text.

Paradoxically both the hare and the tortoise approaches to reading and much else are typical, though opposite, modus operandi for dyslexics.

For the musician playing from music, the music goes along at its own pace. The hare type of dyslexic musician has to slow their mind down to play/fill in all the notes, while the tortoise type of dyslexic musician has to speed up, perhaps having to learn to miss out notes, in order to keep up.

Surprisingly perhaps I was a hare when singing, playing the cello, the piano and the bass, good at performing by sight but unable to play from memory; playing the classical guitar on the other hand I was tortoise like with a fast and accurate ability to memorise but no sight reading skills at all. I had the experience of being both a hare/ and a tortoise.

One of the useful skills the hare type musician develops is discovering which notes to bring out to help the music along, while also discovering which notes can be missed out. A skill which is good for performing at sight and also good for putting across the meaning/message of the music.

I am suggesting that for **the musician who wishes to perform at sight it helps to think of themselves as a hare.**

While entirely separately, for the musician who wishes to memorise it helps to put the music away and think of themselves as a tortoise.

Perhaps, again entirely separately for the musician who wishes to improvise, it helps to do without music altogether.

2 **finding a way around.** It is said that dyslexics can have a poor sense of direction. That dyslexics can often get lost travelling from one place to another. Paradoxically some dyslexics can be so uncomfortable at being lost that they become very good indeed at finding their way around.

Typically there are two different methods of finding their way that dyslexics use. One is to clearly define the route following an exact path. The other method is to set off in the general direction and go 'as the wind or the Sun' guides. The example sometimes used is in the South Sea Islands: some islanders when travelling amongst the many islands from island to island always go the same route: others sometimes go one way and sometimes another depending on how things are and how they feel on that particular day.

Perhaps similarly, as a musician I was comfortable varying my performance each time starting with the first note and going on from there tailoring my performance to that particular occasion. Other musicians might need to clearly define their performance in advance.

When performing at sight I suggest being **relaxed** about which direction the music goes.

(3 **multi-spatial multi dimensional thinking.**

It is often said that one of the advantages of the dyslexic mind is being comfortable with multi-spatial, multi dimensional, thinking.

Performing music is self evidently **multi dimensional** in many different ways and not just in time and space. Consider the multifaceted emotional dimensions explored in an opera, with the words, actions, and music all interrelated and developing through the course of the Opera.

spatial awareness. Think of the number of instruments in an orchestra blending together in time and space in tune with each other. Think of the complexities of what it takes to have an orchestra in one room at one time to record a piece of music.

It is easy for a musician to take all this and much more multi-spatial activity for granted, after all ‘ everybody is doing it’, other musicians that is.)

When performing at sight I suggest being aware of everything going on around you.

(4 **foleys rocks**

in the introduction to her paper **Gifts, Talents, and The Dyslexias: Wellsprings, Springboards, and**

Finding Foley's Rocks

Priscilla L. Vail writes

Sometimes courage is heralded by trumpets, and successes make headlines in the newspapers or appear on the television news. But other times satisfaction slips in silently and triumph is whispered in a child's voice. We need to be on the lookout for both kinds of glory.

Annals of Dyslexia, Vol. 40, 1990.

In this paper Priscilla Vial introduces her concept of foleys rocks. These are small stones of an indeterminate muddy brown colour. Nothing much to the eye. However under a special light these small stones light up reflecting back many colours. Priscilla Vial is describing those children in the class who sit quietly out of the limelight hiding their gifts and talents. Priscilla Vial suggests it is the teachers job to find the switch that turns on these children. I suggest music can be that switch that brings out those hidden talents which can delight us all and encourage and strengthen the child themselves.)

When performing at sight I suggest encouraging and supporting those around you.

So to Gillingham itself.

REMEDIAL TRAINING for children with specific disability in reading, spelling, and penmanship. Anna Gillingham and Betty Stillman..green edition. EPS.

on page 40 of her method Anna Gillingham describes the basics of her technique.

Our technique.

.... the first principle of our technique is to teach the sounds of the letters and then build these letter sounds into words, like bricks into a wall. This method of word building cannot be used as a supplement to that of learning words as sight units. The two concepts are mutually exclusive

Not infrequently it is stated that there are three methods of teaching remedial reading: the "sight word method"; the "tracing method" which stresses the kinesthetic impression; and the "phonetic method," which is also often mistakenly said to be the essence of our technique.

*On the contrary, our technique is based upon the **close association of visual, auditory and kinesthetic elements forming what is sometimes called the "language triangle."***

Phonetic Associations

*Each new phonogram is taught by the following processes, which are referred to as associations and **involve the associations between visual, auditory and kinesthetic records on the brain.***

It seems to me that this language triangle: one corner being visual, another auditory, had the third kinesthetic, applies to musicians and explains much.

I suggest that it is the auditory and kinesthetic associations that are employed by every musician when playing their instrument.

For instance the musician playing a string instrument learns to associate a particular movement and feel of the bow on the string with a particular sound; a close association indeed which combines the kinesthetic and the auditory senses.

Going further, many musicians are introduced to playing an instrument by a teacher. From the beginning they do all their playing from the music which is propped up on a music stand in front of them. So strong is the visual aid allied to the kinaesthetic and aural associations that playing without music, whether improvising or from memory, can be difficult. Combining the kinesthetic, the aural, and the visual senses **simultaneously** makes powerful associations indeed.

In Gillingham's case she is using these three associations to teach all aspects of literary skills: reading writing and spelling, and she too is using these three associations simultaneously.

I note here that such is the power of these associations that Gillingham emphasises that accuracy is to be established before speed - just as Ken Heath had taught me on the cello.

I note also that the musician playing from memory is not using their visual sense, perhaps enabling them to develop fully, maximize, their auditory and kinaesthetic associations to bring out the very deepest parts of the music that they are able.

Similarly the improvising musician might be playing in a highly organised way whilst combining the auditory and the kinaesthetic senses, however not using their visual record.

Perceptions

Often I have found that the musician who can play by ear and the musician who can play by memory are concerned at being poor at reading music. This might well be an accurate perception. In which case I suggest that studying and applying dyslexic teaching methods will enable them to become comfortable reading music, and performing music at sight.

Here however I suggest that it is important to make the distinction between reading music and performing music at sight.

Puzzling out each note can be a time-consuming business causing the conscientious note player to fall behind the music.

However when performing at sight the main concern is to keep up and play what notes you can without getting in the way of the other performers. It is my experience that once the performer 'let's go' and plays only what they can, they often surprise themselves with just how many notes they manage to play.

I am suggesting that the musician whose perception is that they are poor at sight reading might well be actually playing more notes than the musician whose perception is that they are good at performing music at sight.

There is an element of magic in 'letting go' to perform at sight, for in time it is only necessary to think of the music for the notes to happen. Perhaps much in the same way that it is not necessary to think of every step when walking, rather the walker might think of where they are going and their feet will do the rest.

The importance of having a sympathetic teacher

Just as I had found that having a **sympathetic teacher** was an important part of learning to play the cello so Gillingham writes:

sympathetic attitude of remedial teacher..

... over and above this understanding of what she is doing , and devotion to work without ceasing in the application of the most effective procedures, there is still left the most exalted of all the requirements of the remedial teacher. This is a deep, unflinching sympathetic understanding of the unique plight of her pupil.

The appeal of the blind or deaf or crippled Child is so obvious that every heart is moved to sympathy and every hand outstretched to help. Accordingly, each blind or deaf or crippled child is conscious of a loving attitude on the part of friend and stranger.

They do not know the bewilderment and despair and sense of being objects of approach which are the common portion of the children whose school work is blocked by their poor reading and spelling.

This sympathetic attitude is of great importance to music teaching for I have often noticed how a pupil can ‘take on to the stage’ the attitude of their teacher. Further the sympathetically taught pupil learns to treat themselves and others sympathetically: learning and studying becomes a positive and therapeutic affair to be looked forward to.

Three more examples among many of parallels between Gillingham and music teaching.

1 posture causing stress.

In her chapters on penmanship Gillingham points out page 290 onwards, with photographs and diagrams, the detail of holding a pen and the slant of the paper. She writes: page 300 *with correction of posture and slant miracles cease.*

Similarly when learning to play an instrument much time is spent on correct posture in order to free up movement. I suggest that establishing a good posture helps not only the muscles and the bones to work well, but also by removing unnecessary strains, aids the good functioning of the neural connections.

2 Scales and drill cards - systematic and said out loud.

Gillingham makes the connection between the musician playing Scales and a pupil using drill cards to learn the alphabet and much else.

Gillingham starts by introducing a few letters, one at a time, holding up a card with, for instance, the letter ‘A’ on it. The pupil on seeing the card **says out loud** ‘A, Apple, a’: where ‘A’ is the name of the letter, ‘Apple’ is an example of the letter, and ‘a’ is the sound of the letter.

The pupil builds up until the teacher is going through the entire alphabet with the pupil one letter at a time with no mistakes. As always with Gillingham confidence is built up rapidly as **success builds on success.**

3 Repeating three times to correct mistakes.

Learning about Gillingham I soon noted the parallel technique of repeating something correctly three times in a row in order to correct mistakes. This is what I had learned to do first on the cello and then on the bass.

According to Gillingham repeating things three times provides ‘backup’. When one neurological pathway fails another is able to compensate.

Once correct neural connections are established when playing an instrument, fingers will know what to do automatically. I might ‘know’ bowings not from looking at the bass part, but only by playing a piece, a piece I might be playing for the first time in years.

It seems that repeating something three times to correct mistakes creates different pathways in the brain. If one pathway fails, another pathway will work.

Success.

All my life it had been very difficult for me to write legibly. Even after a few goes, writing an envelope that stood a chance of arriving was a big effort, even a cause of pain and certainly much cursing.

Recognizing that Gillingham worked I applied Gillingham methods to teaching myself how to write legibly. I learnt cursive script letter by letter, saying out loud as I wrote each letter.

I learned to spell accurately, necessary now with my legible handwriting, by saying out loud each letter as I wrote. Gillingham calls this SOS, simultaneous oral spelling.

I was writing slowly and accurately, and most importantly, legibly. Other people were finally able to read my writing - first-time too.

Just as I had finally aged 40 learned to write starting from first principles, and slowly, I now learned to memorise on the bass. First I learnt a piece using music. Then starting again as a beginner I learned the piece again without using the music.

What seems to be happening is that one neural combination is used for memorizing while another combination is used for playing from sight. **Each part has to be taught and accessed completely separately.**

This powerful learning, the Gillingham way, over rides previous learning. While the new skills work, and can be depended on, the old ways are never entirely forgotten. Indeed such is the power of this new learning there is no need to even try to forget the old ways.

No confusion is the order of the day both for teaching literary skills the Gillingham way and learning to play an instrument.

For myself finding Gillingham was a miracle. **I realized that this structured sequential multisensory teaching worked both for learning to play an instrument and for learning literacy skills. Success engendered enthusiasm and built confidence.**

Conclusion

As a hare I was naturally good at performing at sight. Thanks to Gillingham I learnt to memorise by putting aside my ability when playing from music and learning the piece again as though a beginner. The authority that being able to memorise gave to my playing then enhanced my playing when performing at sight.

I suggest the musician to whom performing at sight is an insurmountable barrier, put aside their ability when playing from memory or improvising, and start playing from music as though a beginner, keeping time and playing only the notes they are certain of.

I am suggesting that performing at sight and memorising use the brain in completely different ways: I am suggesting that consequently the brain has to be trained entirely separately for each skill.

I am suggesting that dyslexic teaching methods, in particular Gillingham, provide a properly researched way of learning that can be of great benefit to musicians.

It is as a **result of my experience as a musician that** I know that Gillingham Works. That Gillingham has researched and written down every detail of how to teach reading, writing, and spelling in a neurologically sound way,

I commend to you Gillingham for teaching literacy skills, to everyone whether dyslexic or not.

(Hummel track seven: Winton Marsalis, a consummate improviser playing from memory accompanied by an orchestra performing at sight)

End

References

1 **REMEDIAL TRAINING** for children with specific disability in reading, spelling, and penmanship. Anna Gillingham and Betty Stillman..seventh edition February 1995 printing. EPS.

2 **Gifts, Talents, and The Dyslexias: Wellsprings, Springboards, and**

Finding Foley's Rocks *Priscilla L. Vail*

Sometimes courage is heralded by trumpets, and successes make headlines in the newspapers or appear on the television news. But other times satisfaction slips in silently and is whispered in a voice. We need to be on the lookout for both kinds of glory.

Annals of Dyslexia, Vol. 40, 1990.

3 **THE "SIGHT READING" METHOD OF TEACHING READING, AS A SOURCE OF READING DISABILITY**

DR SAMUEL TORREY ORTON

Reprinted from *The Journal of Educational Psychology*, February 1929

4 **Whole Language vs. Code Emphasis:**

Underlying Assumptions and Their Implications for Reading Instruction

/ . Y Liberman A. M. Liberman

Haskins Laboratories New Haven,
Connecticut

Promoters of Whole Language hew to the belief that learning to read and write can be as natural and effortless as learning to perceive and produce speech. From this it follows that there is no special key to reading and writing, no explicit principle to be taught that, once learned, makes the written language transparent to a child who can speak. Lacking such a principle, Whole Language falls back on a method that encourages children to get from print just enough information to provide a basis for guessing at the gist. A very different method, called Code Emphasis, presupposes that learning the spoken language is, indeed, perfectly natural and seemingly effortless, but only because speech is managed, as reading and writing are not, by a biological specialization that automatically spells or parses all the words the child commands. Hence, a child normally learns to use words without ever becoming explicitly aware that each one is formed by the consonants and vowels that an alphabet represents. Yet it is exactly this awareness that must be taught if the child is to grasp the alphabetic principle and so understand how the artifacts of an alphabet transcribe the natural units of language.¹ It here is evident that preliterate children do not, in fact, have much of this awareness; that the amount they do have predicts their reading achievement; that the awareness can be taught; and that the relative difficulty of learning it that some children have may be a reflection of a weakness in the phonological component of their natural capacity for language.

Various studies have estimated the number of children who fail at reading to be 20-25 percent of the school population (Stedman and Kaestle 1987). While it is generally agreed that this presents a serious problem, opinion is deeply divided about its underlying causes and inevitably, therefore, about the proper route to its solution. In this paper, we will explore two current views. One of these is commonly referred to by its partisans as Whole Language; the other, which we embrace, we call Code Emphasis,

borrowing the name given it by Jeanne Chall (1967).

Music references

Bass Methods:

Simandl

Bille pub Riccordi

Galamian I. (1962) *Principles of Violin Playing and Teaching*. Englewood Cliffs N.J. Prentice-Hall Inc.

William Pleeth *The Cello*

Leopold Mozart: A Treatise on the Fundamental Principles of Violin Playing.

Francesco Geminian: [The Art of Playing the Violin. \[Facsimile of 1751 Edition\].](#)