



## The 'out of sync' child

The source of many school failures lies in a lack of communication. A child who does not concentrate, who is intelligent and yet slow to learn math, who makes 'stupid' mistakes in spelling, who does not really know how to create order in the chaos on his desk, may in fact just have to 'tune up' his ears.

### Understanding a Learning Deficit

From shortly after conception and throughout a lifetime, the nervous system will pattern itself in direct response to our life experiences. There is a direct connection between the way we perceive the world and the way we listen. And as we know there is quite a difference between hearing and listening. For listening we need an inner willingness to concentrate, to focus. Sometimes that focus is no longer there, due to physical (repeated ear infections, for example) or psychological factors.

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### As We Move We Learn

The richer our sensory environment and the greater our freedom to explore, the more intricate our neural pathways. Bad posture, clumsiness and lack of coordination may also be interpreted as a sign of listening deficiency caused by an under-stimulated vestibular system. The receptors for vestibular sensations are in the inner ear. They register every movement we make, even the most subtle. When the vestibular does not function in a consistent and accurate way, the interpretation of other senses will be inconsistent and inaccurate.

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### Recognising the 'Out of Sync' Child

A child with a vestibular dysfunction may find it difficult to settle down and be at ease. Everything may be distracting - the itchy label inside a t-shirt, background noises from the street outside, even the sound of paper rustling while the other children sit and do their work. As eye movements are also influenced by the vestibular system they may have difficulty to focus, especially at school when looking up at the chalkboard and back down at their desk. Some children develop some clever compensatory skills but they are easily tired. Disorganised in movement, as well as in the way they respond and (have to) interact, school life becomes terror for them. And at home the child may become defensive and put up a facade.

*"While they need even more love and approval than their siblings, they invite less." Alfred Tomatis*

There are several ways to deal with poor sensory integration. We can try to 'tune out'. In this case we would be diagnosed with attention deficit. Yet another way to make up for the lack of stimulation is to stir things up, mainly through body movements. In that case we would be diagnosed with hyperactivity. The great number of mixed diagnoses leads to the conclusion that actually both can happen alternately. Some children can be easily distracted, impulsive and restless and on other occasions tend to be very quiet and 'not there'.

Listening involves the ability and the desire to both tune in as well as filter out information. In a way you could say that the child that is so terribly demanding, that does not seem to listen, is in fact listening too much. They are too attentive but get lost because there is no barrier to protect them against the ongoing flow of information. Some children mishear frequencies in a drastic manner. That means they hear sounds that are going up a scale, as if they are going down. Or they hear

sounds coming from the left whereas in fact they are coming from the right and vice versa. This will lead to all sorts of distortions.

In the area of speech each group of letters of the alphabet, each phoneme has a precise place. But sometimes the perception of these sounds get blurred, which may lead to inversion of letters and a lot of guesswork. And as far as the written world goes, it's important to realise that learning to read and write is something quite remarkable. For thousands of years we mainly used our ears as a primary route by which language entered the brain. Reading and writing shifted the input to the eyes, requiring the brain to link written markings to spoken language. There are three sections in the left hemisphere of the brain that need to work together well in order to automate the process of recognising and analysing words. One of the sections, situated in the left inferior frontal gyrus, helps a person to vocalise words - silently or out loud - and then analyse them in small parts: the phonemes. All beginning readers start off developing this area - at least as long as they are allowed to learn to read this 'old fashioned' way and not trained to guess words by from their context as some modern reading methods promote. Dyslexic children are often imagery thinkers; they tend to be right-brain dominant and lean more heavily on these early stages of phoneme recognition. They need time and repetition to stimulate the connection to the language centres in the left hemisphere of the brain. They are not 'dumber', just different to the rest of their classmates who perhaps breeze through this phase. That's frustrating to say the least and depending on his or her temperament the child will then either dream away or become demotivated and try to affirm him or herself in ways that can cause him to fall behind and become disruptive.

The Out of Sync child is an individual who has been stalled at some point in his/her development. The use of the Electronic Ear is a second chance, taking him/her back on track, which may mean going back to the early stages of the child's existence. The mother's voice is recorded directly through the Electronic Ear and then filtered beyond 8000 Hz which will produce a sonic equivalent of listening through water. In case the mother's voice is relatively low and lacking harmonics this may have forced the child to focus on a frequency range that it could not perceive well enough while in the womb. Creating a so-called 'audio-rebirth' will usually result in a better understanding between mother and child. In the case of adoptive children, a recording of the adoptive mother's voice can be used to facilitate a better bonding and eliminate the deep-level tensions that may exist.

Besides practicing reading out loud with a microphone directly connected to the Electronic Ear, most children are also invited to do 'brain gym' exercises, a special programme of relatively simple exercises, devised to develop and strengthen the connections between the left and right hemisphere of the brain.

Some of these exercises are taught to be done at home and will continue to be beneficial in the period that the child needs to pick up his/her reading and writing in order to get back into sync with their peers and have an easier life.

Benefits that can be expected include:

- better muscle tone
- better hand/eye coordination
- better balance
- better listening skills
- better memorisation & concentration
- better spelling
- spatial and mathematical insight
- improved IQ
- better speech
- improved handwriting
- improved self confidence
- an overall happier child

Listening Training is an effective, subtle and non-invasive method to help improve the lives of those children confronted with labels such as ADD, ADHD, dyslexia, dyspraxia and the many others in the 'dys-' category - labels that may easily lead to over-simplification and even to a form of insensitivity towards the unique child behind that label.

Paulina's experience is that there are a lot of gifted children out there who unnecessarily suffer because of a lack of understanding in their environment. There is still a lot to learn, especially by those who teach.

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## **The Parent's Programme**

It is beneficial and in some cases even essential for the parent-child relationship that at least one parent 'listens in'. That is why the Joya Centre offers parents listening sessions without any additional charge.