I have auditory processing problems and although I find it annoying that I can’t always understand or remember things, I have noticed that, as a side effect, I have become much more sensitive to mood, body language, and mind reading; and have developed excellent interpersonal skills. The brain compensates for deficiencies. Instead of analysing a person’s weaknesses and focusing on them, try instead to discover their strengths and focus on them.

Auditory Processing Disorder (APD) is a disorder where the actual hearing may be fine but the brain is unable to “translate what the ear hears”. This is very common amongst pupils with dyslexic type problems and practically every dyslexic pupil I have ever taught has displayed this disorder to some extent. It is very well understood in Australia, but not in Scotland where I failed to get it recognised as a disorder among specialists or teachers.

The Brain Learning

Human babies are not born with the ability to interpret the many sounds around them. They learn to do this as they grow up. But sometimes this learning is not carried out correctly. It may be that the child’s hearing is not perfect when the brain is learning to understand sounds and then it never learns them properly. Or it may be that the neural pathways are not working perfectly (this could be what happens to dyspraxic children).

If the brain does not learn to correctly understand sounds then the child grows up with some form of Auditory Processing Disorder. This disorder mainly affects the understanding of speech. If your child has APD then some of the information s/he is told will not be successfully interpreted by the brain.

This condition is made worse by background noise and echoing rooms. Children with APD cannot take in long explanations or lists of instructions and it is not because they are not paying attention. It is because the brain has not developed properly to translate long lists of instructions. People with APD often process speech more slowly than the speed at which it is being delivered. The child with APD needs breaks in what is being said to them, to allow time for the brain to process the information and to catch up with the speaker.

Short and Long Term Memory

A young man I worked with had this disorder and described it in the following way.

He said that his memory for what he hears seems to be divided into two. Everything he hears goes first into a sort of antechamber, or if you wish to use an analogy of a house – a porch. In this analogy what we hear is replaced by people visiting. Visitors – things we hear – come to the house and are left in the porch until we decide whether we want to invite them into the house itself – or which sounds we wish to remember long term.

The doorway between the porch and the house proper, can be small or large. In the brain of a person with Auditory Processing problems, it appears to be extremely small. So people, or what we hear, can only enter slowly. When a teacher talks for more than, in this young man’s case, three minutes, this porch or antechamber gets full, and there is nowhere left for the people, the sounds we hear, to go. The brain then switches off while the sounds in the antechamber move into the long-term memory to be permanently stored. When the porch is full, no more people can come in until those in the porch move through to the house. We may never know who tried to visit us during this time because they do not enter the porch but go away again.

It does not matter how hard the child tries to concentrate on what s/he is being told. If this antechamber is full, there is just nowhere else for the talking to go and it will be forgotten. In fact the child will very often be absolutely certain that things were not told to him/her.

This shows the memory as being a two-staged thing. This we now understand to be correct. Information reaches us as stimuli that we have heard, seen, felt, tasted or smelt and enters as a short-term memory. Our brain has to decide whether it intends to retain (or store) this information as a long-term memory, or forget it. If everything that we heard, saw, felt, tasted or smelt were retained and stored in our brain it would become overloaded very quickly.

If you process new information very quickly, as it is thought Autistic children do, then you can listen for much longer before your brain switches off. But it is also thought that the slower you process new information, the better it is processed. Autistic children process everything very fast but can then get lost in a sea of information because their brains do not have time to store it all correctly.

What Tests to Ask For

Hearing and listening tests can be carried out by most
audiologists but make sure that the following tests are carried out.

- Hearing tests and examination of ear canals
- Filtered words
- Auditory figure ground
- Completing words
- Completing sentences
- Short term auditory memory - STAM
- Scan composite

Now, I have found that auditory processing problems are not always picked up by these tests, so I think there is something else that is happening of which we are not yet fully aware.

**How to Help**
(From my book *Dyslexia - How to Win*)

- Ensure that the pupil is looking at you when you speak to him.
- Sit her at the front of the class where she is less likely to be distracted and where she can hear more easily.
- Avoid big rooms that echo and tend to distort sounds.
- Ensure that he is not sitting next to an electrical item that hums or buzzes because this can distract him and prevent him from hearing properly. Very often these pupils find the noise of a computer very loud and can actually hear it give off a high-pitched whine – which you cannot hear.
- Give instructions one at a time and write down for her any pages, names or reference numbers she needs. In a classroom, always write this information on the black or white board and keep it there until the activity is complete.
- Always check that any pupil with this disorder is actually working from the correct page and understands what their homework is and when it is due. Never assume that he has heard this information or that he actually realises that it is written on the board.
- Sit the pupil next to a pupil without a hearing disorder and ask that pupil to be her “ears”.
- Highlight important information so that the child’s attention is drawn to it.
- In particularly bad cases of this disorder a radio kit can be used. This consists of a transmitter that the teacher wears and headphones that the pupil wears so that the pupil can hear clearly what the teacher is saying. This also helps the pupil to focus upon the sound of his teacher’s voice.

**Other Hearing Disabilities**

**Disorder in Listening**

This is much rarer and much harder to detect in the classroom or at home. Basically a child suffering from this has not learnt how to interpret speech properly so has stopped trying. The pupils that I have taught with this disorder seem to have experienced ear infections and blocked or “glue” ear when little and were, as a consequence, unable to hear properly. As they got older they became able to hear properly but did not know how to interpret the sounds so stopped focusing on speech, or even sometimes, on sounds altogether. They may also have experienced some trauma that triggered the disorder.

The longer children continue in not listening, the more frightening the idea of listening becomes. To get them to try to listen again, therefore, I have found that they need to be “bribed”

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**Quick checklist of possible indicators for Central Auditory Processing Problems**

- Has difficulty in following a list of instructions.
- Gets lost in conversation.
- Tends to interrupt speaker with questions.
- Talks very loudly or very quietly.
- Does not always know what s/he is doing in class.
- Behind at school.
- A history of late or poor speech development.
- Ear infections when young.
- Slow learning to read.
- Unhappy at school.
- Turns the volume up high on CDs and TV.
- Problems answering the phone.
- Often lives in world of his/her own especially when the environment is noisy.
- Has trouble paying attention to and remembering information presented orally.
- Has problems carrying out multi-step instructions.
- Has poor listening skills.
- Poor concentration.
- Problems completing schoolwork.
- Needs extra time to process new information.
- Has low academic performance if in mainstream schooling.
- Does not always hear what was just said.
- Lip-reads.
- Only understands what a person is saying if they are looking at them.

If scoring more than 12, consider getting testing for Auditory Processing Disorder.
into listening. They need to be shown repeatedly that listening can be fun.

These pupils are hard to identify because they may not display the normal traits of a hearing-impaired pupil. They may not attempt to lip read or look up when a person is speaking. What they do instead is to completely disregard the person talking and do something else. Be very sure that any pupil diagnosed with ADD does not suffer from a listening disorder.

This disorder can be helped and I have completely cured pupils of this in quite a short time.

Other things that help

- There is a computer-based course called “Fast Forward” which is aimed at helping children to overcome hearing difficulties and Central Processing Disorders. Many leading hearing assessment centres run this course in Australia. There is also a DVD program called “Earobics Home”, by Cognitive Concepts.²

- Make the pupil want to listen. Try to ensure that everything you say, to him/her while helping with this disorder, is interesting and useful to that pupil. Try not to suggest that the pupil is “not paying attention” or being bad in some way. Discuss things that s/he may be interested in, such as planets, monsters or dragons. Give them lots of positive feedback and encouragement.

- Often the pupil cannot interpret sounds at normal reading or speaking speed. Slow your speaking right down until s/he can understand what you say and then speed up again very gradually. I find that the easiest way to do this is to read aloud a book that the pupil is really interested in. Begin by reading it very slowly and quite loudly and ask questions about the content to ensure that the pupil understands what s/he has been listening to. A picture book may help to keep the pupil focusing on the story or topic. If s/he does not seem to be paying attention then run your finger under each word as you say it.

It may take several months of slow reading or talking before the pupil can understand speech at normal speed.

- Play listening games. One is to ask the pupil to tell you how many sounds s/he can hear at one time. Another is to tell a story slowly and keep adding characters. If you do this with a group of children each child has to try to remember all the characters. But make the stories very interesting and memorable.

- Teach phonic sounds one at a time and always teach with added endings. For example when teaching “sh” words teach “short” and then “shorter”, “shorten” “shortening” etc.

- Allow the pupil to watch TV or DVDs with the sound up high and encourage him/her to talk about the program afterwards and to ask further questions so that s/he begins to think of listening as fun.

- Give instructions one item at a time until the pupil can handle more.

Please do not mistake this for Autism or ADHD. These kids do lose concentration but it’s hard to keep concentrating when you have very little idea of what is going on.

This article was taken from the book ADHD Drug Free “Cures” by Dawn Matthews.

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References

1 Western Hearing services – information booklet on Auditory Processing Disorders in Children 2004 PO Box 217 Karrinyup WA 6921

2 www.earobics.com

Percy Jackson

At the start of the Percy Jackson series we meet Percy, a troubled twelve year old who had been diagnosed with ADHD, dyslexia and ‘behavioural problems’. He has been kicked out of every school he has attended.

He later learns that he is a demi-god (with a mortal mother and god father).

The author, Rick Riordan began making stories for his son Haley who had just recently been diagnosed with ADHD and dyslexia. His son had been studying Greek mythology in second grade and asked that his father come up with bedtime stories based on Greek myths. Eventually, Riordan ran out of myths and his son requested that he make new ones using the same characters and adding some new ones. The result was the character Percy Jackson and the story of how he travelled across the United States to recover Zeus’ lightning bolt.

Percy’s qualities which were viewed as problems in his old life, turn out to be advantages in his new life. His Dyslexia is because he is tuned to read Ancient Greek and his ADHD is just the label given to people who were meant to be a lot more active than sitting in a classroom.