

Find the Dyslexics Strengths  
Before their weaknesses define them

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**British Dyslexia Association**  
**8th International Conference 2011**

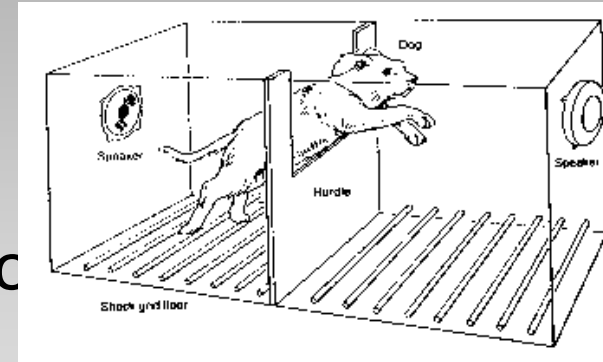
# Social emotional development

- How this is affected in the Dyslexic child by 7 years old.
- How this can lead to frustration, stress, shyness, negative thinking, uncertainty, depression and life-long lack of confidence.
- And plans The Arts Dyslexia Trust has to stop this downward spiral spinning out of control.



# Martin Seligman

- Dogs learnt helplessness
- So do victims of unexpected, uncontrolled trauma.
  - executive monkey – earthquakes.
- Depressed people learn that nothing they do affects their life



But some people can pick themselves up dust themselves down and start all over again



Others conclude they are useless, everything is hopeless and nothing will ever change

# Good Event



## Optimism

- I am responsible (*credit*)
- It will last forever
- It will affect everything else

## Pessimism

- I am not responsible (bit of luck)
- It won't last
- Won't affect anything else

# Bad Event



## Pessimism

- I am responsible (*blame*)
- It will last forever
- It will affect everything else

## Optimism

- I am not responsible (bad luck)
- It won't last
- Won't affect anything else

So, what allows anyone to  
feel in control

- able to cope -

# “Learned Optimism”

by Martin Seligman (1991)

For children: “The Optimistic Child” (1996) Harper Perennial

I’m to blame.

Personal

It was just  
bad luck.

it’s always going  
to be like this.

Permanent

it’ll pass.

it’s going to affect  
everything else.

Pervasive

I can still do X.

# How to get an Optimistic thinking style

- Progressive mastery that can be built on or generalized to the new situation.
- Or a command of resources you can bring to bear on the problem... get help
- An optimistic thinking style is a belief that one can change things, that one's effort will produce a response, a belief in one's ability to cope (parental)



When there is a gap between  
input and output  
there is a lack of control



Breeds stress and the potential for demotivation,  
helplessness, low self-esteem and depression



The gap between potential and performance – effort and achievement is nowhere more poignantly obvious than to the Dyslexic child at 7 years old –

“I can’t do what everyone else finds so easy”  
Susanah York .. Disappoint your parents puzzle your teachers ..

# Some have many advantages

Parental backing

Understanding teachers

Comfortable life style

Opportunities to excel in other areas

Early identification/treatment

But none can overcome the  
feelings of lack of control

Of finding that despite all the efforts  
of the child, they can't make sense of  
those squiggles on the page

# Dyslexic response

- Self-blame (**I'm stupid**)
- Everything is hopeless – **I can't read, never will**
- And nothing will ever change – **generalize the specific**



# The depressive triad

at it's worst and if there is also lack of parental and school support (lazy) the child experiences continued stress and can resort to maladaptive strategies - class clown to withdrawal and consequent shyness, lifelong vulnerability to stress and pessimism

# Changing the attribution to adversity whether it's can't read/write/do sports/concentrate/socialise

- You are not responsible (genes, wrong teaching style, etc)
- Won't last (remedial reading/writing/motor/social skills)
- Won't affect (whatever their strength is)

# Language

- Never, none, always, noone, everyone to sometimes, tends to, some people, many etc

Qualifying words and reframing attributions

To limit the time frame or extent of adversity

e.g. Only just passed degree

I'm too old, everyone else just out of school

Vs.

- (don't have kids/husband/housework) even just passing means brain is making new connections... a pass is a pass - lot's of things you can do with a pass degree...can teach an old dog new tricks

# The Hidden Upside

- From the Geschwind hypothesis claiming genetically biased differential brain structure to more developmental models such as later neurological growth favouring right hemisphere v/s abilities - Dyslexics show a better ability to:
  - Make mental models of concepts - to “see” how things fit.
  - Perceive patterns.
  - Remember the visual field (in contrast to auditory)
  - 3-D ability and multi-dimensional perspective.

Which leads to the ability to:

Conceive and build models, sculpting

solve complex puzzles

Imagine and create

Physics, geometry, sciences in  
general,

Use computers and technology

# Weaknesses of the visuo/spatial learning style

Sequences - the opposite to simultaneous processing

Poor phonics, spelling, handwriting, listening,

Difficulty memorising verbal information,

Disorganised, forgets detail,

Weak calculation,

Timed tests

# What you learn

When words **could** be this, **might** be that – have to wait till the end of the sentence to see how it fits ,  
forget what you were going to say,  
can't remember names or facts about the subject under discussion,  
find people speak too quickly,  
and can't focus in a group.

# Is how to get the most from the least information

Using eyes and brain – screening out the detail to focus on the essential, filling in according to plausibility, suspending judgement until the information “fits” and how to tolerate ambiguity

Visual thinkers with auditory difficulties have had to learn to survive education and the workplace with registering, absorbing and retaining less information than others and develop methods to select the important

# Develop a visuo/spatial learning style

- The ability to perceive the visual world accurately and to re-create those visual experiences - to see form, shape, colour and texture in “the mind’s eye” and to be able to transfer these to concrete representations in:
  - Design, art, graphics, media, models, architecture, choreography or anywhere relation of objects in space is important - sports, games from cricket to chess.
  - Or anywhere a visual representation comes from multiple perspectives.

# a global visual spatial learning style

gives a better chance to learn what they don't need to know!

- while the verbally fluent, well focussed and disciplined may miss the interesting, odd bit of info that leads to an unexpected discovery - a novel viewpoint, why things fail instead of giving up - too focussed means too narrow a vista, missing the underlying issues.
- Recipe for creativity.

# Thomas West

With the advent of computer graphics, data visualisation, net-worked global interconnection and super computing... information and communication is becoming a world of images, not the world of words we learn at school



# Scientific visualization in the 21<sup>st</sup> Century

Computers have given us masses  
of data and information

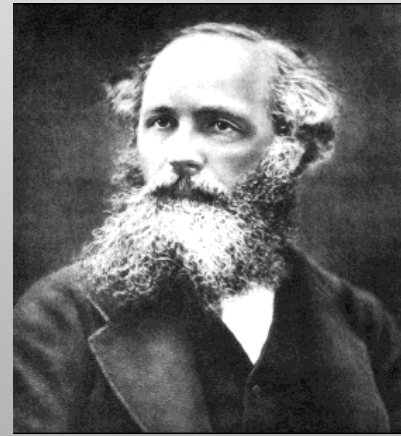
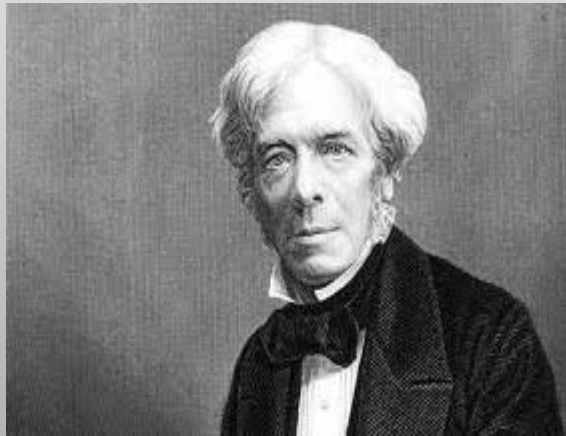
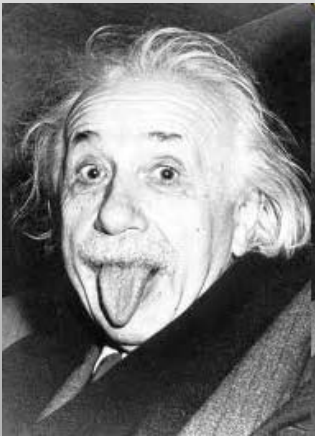
BUT not the uniquely human ability to recognize the  
meaningful patterns in it.

# Rate of knowledge increasing

- What a human needed to know in the past
  - doubles exponentially every decade.
- We need to see larger patterns - wide angle lens - backing off instead of burrowing in.
- Not learning more about less – (specialization) but how to connect disparate information
- How to anticipate trends - necessary in innovation and the business world as well as politics, economics and science.

# Einsten, Faraday, Maxwell, Tesla and others

All describe the productive visual thinking (playing with images of complex systems) that led to insights which only then were translated into words and numbers that could be communicated.



# A visual culture needs a visual language

- In different states of consciousness - dreams, intuition, “aha” experience, models in the mind, data visualization.
- Vision swift, comprehensive, simultaneous uses little energy holds an infinite number of items.

# Arts Dyslexia Trust

*To promote greater understanding and appreciation of minds usually labelled as “dyslexic”.*

To show Dyslexia is a difference ABILITY, Not a disability.



[www.artsdyslexiatrust.org](http://www.artsdyslexiatrust.org)

# Aim to supply schools with a test battery

- That is fun and can be used for the whole class.
- Will identify the children who have visual/spatial ability – who will tend to be Dyslexic...7/8 yrs old
- And allow the teacher and Dyslexic him/herself to realise their strengths rather than their weaknesses - prevent the “halo” effect when reading difficulty becomes obvious.

# Visual/Spatial Test Battery

- 3-D – blocks, origami.
- 2-D - what fits there - jigsaw puzzle, mazes.
- Visual Memory - producing an image from memory, which colour with which shape.
- Pattern perception - what should be there.
- Drawing from different perspectives.
- Drawing from a story or a dream.

# Also included

- A broken object: - **toy/old clock**
- A picture of an object in pieces: - **what could it make**
- A measure of creativity:
  - **box of string/buttons/cardboard/pieces of material/plasticine/felt tips/a plastic bottle/cog/fork/etc.**
- \* A measure of self-esteem
  - biggest influence at 7/8 is reading
- Manual of teaching tips on ways to enhance visuo/spatial talent - even in word based lessons i.e. venn diagrams, portfolios, show and tell
- Examples of famous Dyslexic visual or spatial thinkers.

# Thank You

I hope you have found your talent



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