

unbelievably The Power of Music

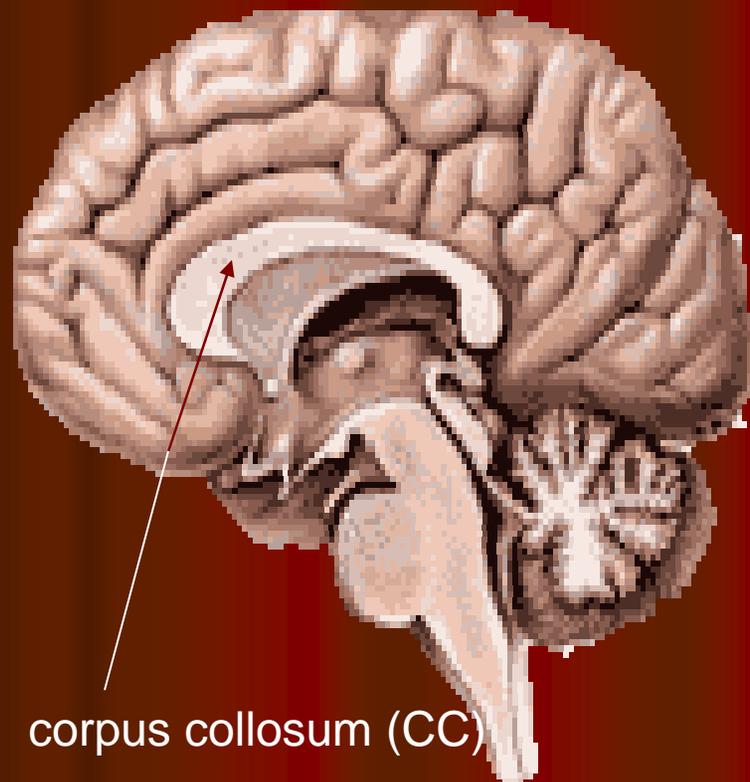


By

**Max Stanley
Chartrand, Ph.D.**

(Behavioral Medicine)

Introducing the right brain to the left brain



The right hemisphere of the brain is utilized for aesthetics (art & music), emotion, expression, sees “whole”.

The left hemisphere is used for math, deduction, abstract thought, sees only small parts of the whole.

The Corpus Collosum (CC) is the tiny area that connects the right & left hemispheres of the brain.

CCs are smaller at birth in boys & take longer to develop. If the boy has chronic OME, he may be diagnosed as “learning disabled”.

4-Decade Intergenerational Changes in Demographic Profile

- Dramatic increase in allergies (OME)
- Increased development delay (primarily males)
 - ADHD
 - Dyslexia
 - Asperger's/HF Autism
 - Speech/language/auditory delay
- Continuing Math & Science scores decline since mid-60s (SAT, etc.)

Underlying Causes of Developmental Disorders in 0-18 year olds (U.S.)

- **OME/Allergy 0-3**

Iron overload in infant formulae (mostly male response)

Sugar intake increased 5x since 1970 in U.S.

Microwave foods cause DNA changes

Caffeine intake >10x since 1980

Environmental pollutants

Mass-produced foods comprise most of the diet today
(hormones, antibiotics, plastics, dyes, preservatives)

Psychopharmacology (medication that delay development)

Heavy metal toxicity (lead, mercury, cadmium, formaldehyde, arsenic, etc.)

What is needed to change profile

- **Dietary changes**
(per previous lists)
- **Physical education**
(re Fitness, Spatial IQ)
- **Music Education** (re
Cognitive IQ,
developmental delay)





unbelievably
The Power of
Music

One of Today's Best Kept Secrets

- Nations at the top of the worldwide Science & Math Survey require music as core curriculum from K-9
- Today, only the top 10% of U.S. students can compete with "average" students from these nations
- In Math, the U.S. is at the bottom of every survey since the 1980s, primarily because music programs have been phased downward in favor of other priorities
- U.S. schools that aggressively promote musical skills development continually perform at the highest academic levels in the U.S.

Research Suggests that Music Students:

- Do better in reading and math
- Overcome learning disabilities easier
- Go to college in higher numbers
- Are better behaved
- Are more successful in their careers

Music Heals

- Kids with developmental delay in the Corpus Collosum (Language, speech, auditory, spatial, ADD, Dyslexia, HF Autism, other learning disabilities) often “catch up” and sometimes surpass their normal peers after only 4 years in a dynamic music program (Kodaly et al)
- Kids from inner-city schools where HS drop out rates are typically 60-80%+ rose to #1 in their school districts in math and science when music programs were instituted (LA, Houston, NYC)
- In one inner-city school that requires music in their core curriculum, 98% of students read at grade level or better (99% of these students were minorities).
- Development of musical skills has been found to be the most universal and economical way to resolve many disadvantages.
- Musical skills development provide lifetime advantages in every area of your life

Taking music lessons & practicing just 25 minutes a day can...

- Stimulates the CC to grow faster, so that the slow learner catches up and often passes normal learners
- R/L hand coordination raises Spatial IQ
- Sensory (visual/auditory) stimulation of good music raises Cognitive IQ
- Good music makes smart kids smarter



Different kinds of music stimulate different parts of the brain...



- For instance, classical and some forms of jazz stimulate higher brain function, raise IQ potential
- Country and some pop music provide mild stimulation in the regions associated with social relationships and emotional expression
- Loud rock 'n' roll or music with a heavy drum beat stimulate the Amygdala or lower brainstem area and "crowds out" higher brain function

The cognitive genius instruments



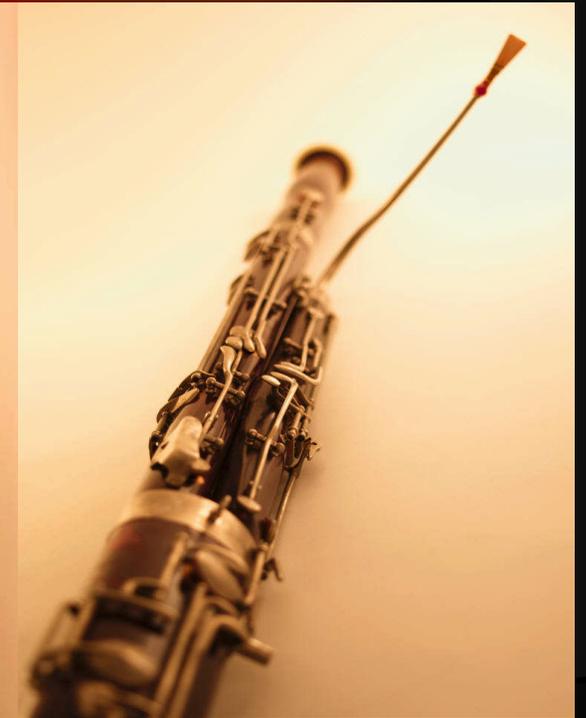
The spatial genius instruments



The fun instruments



The "serious" instruments

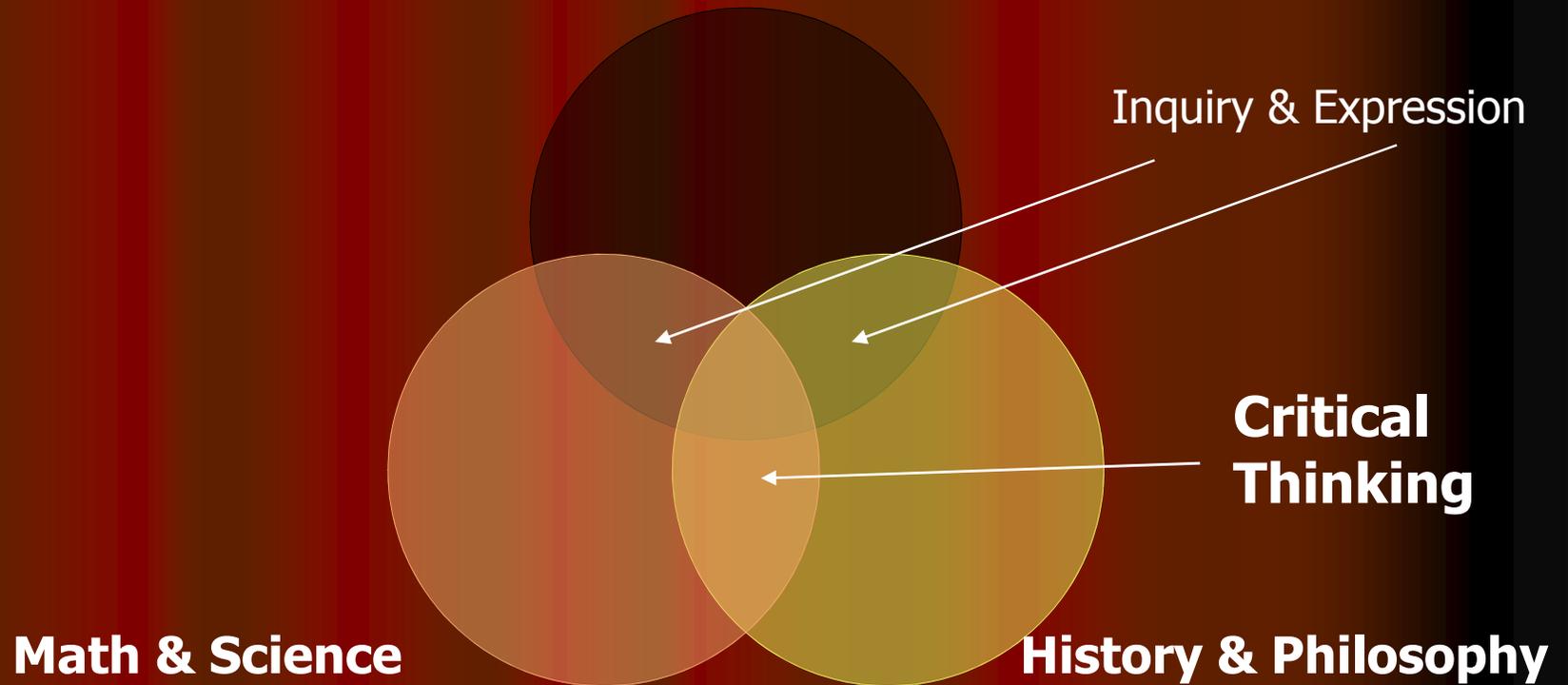


The human instrument



The Arts

Music, Visual Arts, Dance, Theater, Literature



Elegance + Holism + Coherence + Efficiency = Educational Power*

* From The Center for Arts in the Basic Curriculum, 2008



Deafness & Music:
*How Music Saved Me
from a Life of
Underachievement*