



The Best Brain Possible *With Debbie Hampton*

Information and Inspiration For Anyone With a Brain

BARBARA ARROWSMITH YOUNG

Is It a Behavior Problem Or a Brain Problem?

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What might look like impulsive, irresponsible, selfish, disorganized, or unmotivated behavior may actually be the result of a brain that is operating less than optimally. Often, characteristics attributed to personality traits or ADD/ADHD can be the direct result of neurological deficits tells Barbara Arrowsmith-Young in her book, *The Woman Who Changed Her Brain: And Other Inspiring Stories of Pioneering Brain Transformation* by Arrowsmith-Young, Barbara (2012).

The jacket of the book reads:





Barbara Arrowsmith-Young was born with severe learning disabilities that caused teachers to label her slow, stubborn – or worse. As a child, she read and wrote everything backward, struggled to process concepts in language, continually got lost, and was physically uncoordinated. She could make no sense of an analogue clock. But by relying on her formidable memory and iron will, she made her way to graduate school, where she chanced upon research that inspired her to invent cognitive exercises to ‘fix’ her own brain.

She founded the Arrowsmith School in Toronto, Canada, in 1980 and the Arrowsmith Program to train teachers across North America and has been bettering the brains of children and adults ever since.

In her book, she outlines two basic types of cognitive deficits in the frontal lobe of the brain. The frontal lobe of the brain is essentially our humanness. The deficits are specifically in the prefrontal cortex (PFC) which is central to judgment, problem-solving, self-direction, and self-regulation. A problem here might manifest, among other ways, as what looks like a behavioral problem.

Cognitive Calisthenics

Arrowsmith-Young developed “cognitive calisthenics” which take advantage of neuroplasticity, the ability of the brain to change its function and structure as the result of repeated activities, to encourage the brain to make permanent, physical changes to allow it to perform at normal levels. The mental tasks and activities are specifically targeted to work and challenge the under-performing parts of the brain that correspond with the difficulties or behaviors exhibited.



The first deficit Arrowsmith-Young calls symbolic thinking deficit. Depending on severity, this deficit can rob a person of mental initiative, make them easily distracted, disorganized and unable to plan or set goals with a lack of judgment and inability to foresee consequences. In this case, the left side of the PFC is not functioning optimally. People with problems in this part of the brain are often seen as flighty, irresponsible, impulsive and indifferent to their own problems. A person with this deficit may lack self-directed organization and be unable to multitask or maintain the focus to carry out a plan.

In the book, she tells the story of Johanna doing exercises to stimulate her left PFC which involved reading many fables and determining the underlying lesson. A person with a symbolic thinking deficit would get bogged down in the details of the story having trouble discerning the message. She also tells of Gabriela, who at 53 years old, worked to strengthen her symbolic thinking and noticed significant improvements in navigating while driving, memory, the clarity of her speech, and the ability to organize her thoughts. The brain is capable of change at any age.

The second PFC deficit, artifactual thinking deficit, indicates an under functioning right PFC and involves nonverbal thinking skills which would be anything beyond naming and numbering. The right PFC was traditionally thought to not be involved in higher cognitive functioning. It is now known that this area is involved in performing many higher level tasks. Weakened functioning in this area of the brain may appear as a lack of emotional intelligence or social intelligence with an inability to read other people or situations accurately. A person with a deficit here may not be able to evaluate courses of action or understand how their actions and behavior affect others. People may appear self-absorbed, selfish, insensitive and find themselves outcasts.

Arrowsmith-Young writes: “The right prefrontal cortex allows us to navigate our social and emotional world. Without this capacity in place, we are rudderless.”

Arrowsmith-Young tells the story of the tenth-grader, Nathaniel, with no “off” button. He could not read facial and body cues, had very few friends, and was unable to focus on anything beyond himself and his own immediate needs. After two years of cognitive exercises to address the artifactual thinking deficit, Nathaniel has numerous friends, a lively Facebook page, is doing well in school, and is happy.

Consistent behavior which is problematic and negatively plays out in homes, workplaces, and schools may really be a physical brain issue.

An under functioning brain can manifest as an inability to put oneself in another’s shoes, suppress impulses, consider another’s feeling, stay focused and organized, or follow through with a plan and can greatly impact a person’s education, relationships, happiness, independence and success in life. What may seem like behavioral issues or personality traits may well be a brain deficit.

People with learning disabilities due to a brain deficit often excel in some areas that utilize their strengths while struggling or failing in areas calling upon their weaknesses. They are often told things like “You have so much potential if only you would apply yourself” or “If you just tried harder, you could do better.” Arrowsmith-Young quotes Nathaniel’s mother as saying “Oh my God, I’ve been yelling at this child for years, and it’s not his fault.”

A better performing brain can also be achieved with neurofeedback (see blog: [A Mood Ring For The Mind](#) for more info) and Brain Wave Optimization (see blog: [It Begins In The Brain](#) for more info). Both are non-invasive therapies in which electrodes are placed on the head and the brain is trained to function more optimally.



The Woman Who Changed Her Brain



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Judy Hampton

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12 YEARS AGO

Hi there, great blog with valuable info for mothers and for each of us. Hope your book will be of as much help as it sounds like her book has been. Love to you Mom

Sandra / Always Well Within

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12 YEARS AGO

Debbie,

It's so exciting to read stories like this in which suffering is transformed into greater emotional stability, more joy, and more happiness. I feel your compassionate heart as you share these stories of brain training success.

**Debbie Hampton** Post Author[↩ REPLY](#)

12 YEARS AGO

Sandra,

I do feel excitement, inspiration and hope for many! As people become more aware of the potentiality of brain issues, I hope they will turn to alternative therapies and exercises rather than medication or behavioral modifying tactics. (I want to be part of spreading the word!) There is hope for so many to improve their lives as children and adults.

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