

Right, Left, or Both?

A discussion of Betty Edwards, *Drawing on the Right Side of the Brain* and the science behind hemispherical lateralization

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Betty Edwards was born in San Francisco, California, in 1926, and had an extremely prolific and influential career as an art educator up until her retirement in 1991 from California State University. During her experience teaching high school art she couldn't help but notice how much students struggled with learning to draw. She observed how one week a student wouldn't understand and then as if a light bulb would go off, the next week they would be drawing successfully. She started to analyze her own drawing process to gain better awareness and to try to develop a better teaching method for her students. In 1979, Edwards' book, *Drawing on the Right Side of the Brain*, was published. This book explains that the left and the right hemisphere of the brain have different specializations and that drawing and creativity occur on the right side of the brain, which is often suppressed because the skills of the left side, like speaking, reading, writing, math, logic, and reason are dominant and viewed as more important skills for the human to be successful in society.

Betty Edwards' book outlines five basic skills that need to be practiced in order to quiet the left hemisphere and allow drawing to become a global skill. A global skill is a skill that is never forgotten once it is learned, such as walking, talking, riding a bike, swimming, and so on (Edwards, pp. XVII-XVIII). Edwards created a theory and method for drawing that allows for anyone that desires to learn to draw to actually become successful at drawing by following a series of exercises that explore each of the basic skills. The skills are (Edwards, p. XVIII):

1. The Perception of Edges
2. The Perception of Spaces
3. The Perception of Relationships
4. The Perception of Lights and Darks
5. The Perception of the Whole or Gestalt

Edwards' book teaches how to draw based on scientific logic, explaining how the brain functions in simple, easy to understand language. Her method immediately became a hit with art educators. Why? Because the techniques yields successful results within approximately a week and give the student a logical explanation of how and why they are suddenly able to draw like never before. Edwards' teaching method is still frequently used today and her book has become a best seller in many countries across the world. Her method may still be very popular, but the science behind her brain-based theory has recently been disproved, bringing Edwards' teaching method under scrutiny.

In the late 1970s, neurologist Roger Sperry was conducting experiments on patients with sever epilepsy that had their corpus-callosum surgically severed in order to prevent further brain damage from violent and prolonged seizures. Through his research he concluded that certain areas of the brain specialize in specific brain functions, like language occurring in the left hemisphere and visual recognition of faces and objects occurring in the right hemisphere. Betty Edwards' research utilized the scientific discoveries of Roger Sperry, giving drawing a scientific foundation. Sperry's findings of brain function revolutionized the way people thought about personalities, brain behavior, and methods of teaching and learning in education, and earned him a Nobel Peace Prize in 1981.

The theory of hemispherical lateralization is still widely accepted today. The problem is that with the developments made in scientific technology over the last thirty years, Sperry—and therefore Edwards—theories have been disproven. Today's brain science community has concluded that Sperry's scientific discoveries are not as accurate as once believed due to the basis that his patients had suffered sever epilepsy as children, and since the child's brain is extremely plastic, it allows brain function to relocate, even across hemispheres, once an area of the brain has become severely damaged (Taylor, 2009). Also, modern day technology in the form of brain scanners has determined that functions like language, which was thought due to Sperry's research to only occur in the left hemisphere, actually lights up areas on both sides of the brain. With the modern technology of brain scanners, there is quantitative data that proves that both hemispheres actually work together for most tasks. In an article written by science writer John McCrone, he provides research information about recent brain scan studies from Joseph Hellige, a psychologist at University of Southern California that states,

Under the scanner, language turned out to be represented on both sides of the brain, in matching areas of the cortex. Areas on the left dealt with the core aspects of speech such as grammar and word production, while aspects such as intonation and emphasis lit up the right side. (McCrone, 2000, para 9).

Today, neuroscientists take a much more holistic view when thinking about the brain, considering how each hemisphere works together to contribute to brain specialization. Hemispherical lateralization is still proven to some degree, in that for the majority of people certain locations in the brain light up for specific behaviors, such as reading language, but there always seems to be some sort of collaboration between hemispheres for most tasks

and the results can also vary from person to person (McCrone, 2000). As explained in his blog posting, “Left Brain Right Brain- A Myth,” UK education advocate, Donald Clark states,

Research now sees the distinction between the two hemispheres as being very subtle. Every mental faculty seems to be shared across the brain, with complementary contributions. It is the combination, not separation, that matters. The mutually exclusive model has all but disappeared from the literature. (Clark, 2007, para 3).

With a new set of studies that provides a clearer picture of brain function, educators need to abandon the right brain left brain model in favor for a more accurate holistic viewpoint.

Eric Jensen is a neurologist that devotes much of his career to promoting empirical data and findings regarding brain development and education. In his book, *Teaching with the Brain in Mind*, Jensen provides countless examples, backed by quantitative results, that support thinking about the brain and learning from a holistic point of view in an effort to abolish the myth of right brain versus left brain ideology. He explains, “Creativity can be either be more right- or more left-hemisphere dominant. Logic can be either more left- or more right-hemisphere dominant” (2005, p. 14). The brain is extremely complex and neuroscientists are still discovering how the brain functions. With the aid of technology, scientists are developing a much clearer understanding of the right and left hemispheres and how they work together.

Betty Edwards’ method is over simplified, romantic, and essentially a myth—it has been proven that drawing does not only occur on the right side of the brain. Although scientific data has disproved Edwards ideology-- that in order to become better drawers, we need to tap into our right brain functions— this doesn’t necessarily mean we have to abandon Edwards approach, seeing that it yields very successful results. Art teachers may still promote the idea of creating a *cognitive shift* in the brain in order to focus on the different perceptive skills outlined by Edwards, but need to abandon the idea of hemispherical lateralization. Author Daniel Pink has gained the support of artists and art education advocates over the past six years with the release of his book, *A Whole New Mind*, which outlines how creative right brained thinkers are going to be the desired employees in the near future. Although his book has done much to bring light to the innovative problem solving skills of creatively minded individuals, his logic and reasoning is embedded with right brain/ left brain theory, which has caused his credibility to be questioned and highly criticized. It is

necessary to abandon thinking about the brain as two halves that exist and function separately from one another and to embrace a holistic brain approach to teaching in order not to cause further harm to the credibility of art education. To continue teaching right brained left brained theory would be socially irresponsible as teachers. Edwards developed an incredibly successful teaching method and the teaching of the five perception skills through her various outlined drawing exercises is completely acceptable. Rather than *Drawing on the Right side of the Brain* though, it is time to merge her method with the teaching theory of Eric Jensen; perhaps her method could simply be changed to, *Drawing with the Brain in Mind*.

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