

The Left-Right Brain Continuum

The fifth in a series of articles for parents on helping the bright, underachieving student succeed.

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As we have discussed in previous articles in this series, the average child today has been brought up on a visual diet of T.V. shows like *Blues Clues*, animated cartoons and computer games like *Pokémon*, and other electronic formats that provide an over-abundance of audio-visual stimulation. Children in America have learned to adapt to cultural signals that place an emphasis on overly-exciting, often disjointed visual entertainment, particularly boys, who are drawn to play that involves intense movement and an element of make-believe violence. Recent studies by Stanford University and the University of Michigan link sugar-and-fat-filled foods, as well as T.V. and movie violence, to hyperactivity and distractibility in children. The glamorization of violence and extreme sports leaves many students at risk of tuning out of “dull” schoolwork and creative, independent play. Furthermore, research has shown that television and computer screens flash up to 30 flashes per second, which is similar to the state of a brain in a focused mode. Thus, excessive eye fixation on a T.V. or computer screen causes the brain to gravitate to the speed of the screen flashes and adjust in an almost mesmerized state. The brain picks up the rhythm in the environment and changes to compensate for the speed. In such an environment, many children’s brains are being re-wired and, therefore, are in danger of developing less competence with slower-paced audio-visual input—i.e., reading the written word, listening to detailed explanations or instructions, and processing and orchestrating large amounts of information. For many, the right hemisphere of the brain—i.e., proficiency in the visual, spatial, conceptual, intuitive, problem-solving, pattern-seeking, geometric, creative, associative, holistic thinking—is developing at a faster rate than the left hemisphere—i.e., verbal, linguistic, symbolic, logical, formulaic, mathematical, linear, sequential, organizational thinking. As a result, many bright and talented individuals struggle with the “left-brain” nature of school, becoming bored with the slower pace, the format in which information is given, and the linear, abstract nature of academics. As whole-to-part learners, they are often inept at synthesizing the amount of details school presents. In addition, they may not recognize the relevance of the kind of thinking to which they are exposed in school, and they resist doing assignments or acquiring good study skills. These students develop underachieving habits that are difficult to break.

The two hemispheres of the brain are different, but complementary modes with specialized functions. Students who achieve a balance between both hemispheres of the brain have advantages in an academic environment, as well as in later careers where both visual-spatial and verbal skills are needed. Innovations in computer visualization and the graphic arts highly favor visual thinkers. When learners develop primarily right-brain competencies, through a disproportionate amount of adrenaline-producing audio-visual stimuli, the flip side is less patience with the slower pace of school and a struggle with executive functions, such as organizational skills, synthesis of large amounts of information, and the regulation of impulse controls. They may also have challenges with the mechanics of writing and mathematics, as well as with the mastery of content in a part-to-whole framework. On the other side of the continuum, those individuals with primarily left-brain traits may overfocus on details to the exclusion of relationships, concepts, and critical thinking. They may become stuck in rigidity and perfectionism and perform poorly on open-ended work that requires original thought, creativity, and complex thinking.

In my experience, a strong disposition toward one mode of thought can sometimes lead to difficulties with respect to the other. Those who are predominantly right-brain thinkers generally show hypersensitivity to their environment and are susceptible to a number of challenges, including, but not limited to, dyslexia, spelling and math inconsistencies, serious attention deficits, or even autism at the extreme end of the scale. They generally do not use consistent strategies or problem-solving techniques to translate the way material is presented in school to the way their brain is attuned. As highly visual, random processors who learn by remembering the way things look and by turning words and numbers into mental pictures, they become overwhelmed with logical-verbal-sequential processes for which they are ill-

equipped. Thus, these very intelligent individuals often give up on themselves and do not believe they have the ability to succeed academically. They are prime candidates for a crisis of confidence, loss of motivation, and tuning out, unless early intervention occurs. As the ageless maxim states: “The will to do stems from the belief one can do.” These children often feel like misfits; much of their frustration comes as a result of their own unmet expectations, besides those of their parents and teachers. If their behavior is driven primarily by urgency, mood, or opposition, they will perform inconsistently. Unless these learners change the way they see themselves (their paradigm), their behavior will revert to the habits that promote underachievement.

One of the first attitudes such learners must develop is optimism, i.e., celebrate their abilities and recognize that on the flip side of every weakness is a strong point. There are a number of successful strategies that predominantly right-brain or left-brain processors can use to even out the weak points. How they view themselves is projected onto their view of the world, so the way they see the problem is key. Awareness and acceptance of their kind of mind, coupled with making a decision to use compensatory strategies, will propel them to excel and to achieve balance. Right-brain learners benefit from a project orientation and must use independent will to make choices and transcend circumstances. They especially need to limit over-stimulating activities. Right-brainers must understand the need to pay attention to details, prioritize, break things down into manageable chunks, and synthesize information. These learners tend to focus on the forest to the exclusion of the trees. Left-brainers need to see beyond the minutiae of details, think more holistically, understand context, appreciate larger concepts, compartmentalize less, and use visualization skills that are generally intuitive in right-brainers. Left-brain processors will benefit from developing their creative imagination and taking the risk of considering possibilities beyond their direct experience. They tend to focus on the trees to the exclusion of the forest.

Both types of thinkers should gain awareness from each other of the advantages and disadvantages of different learning styles. As the ancient Sufi masters taught: “You think because you understand one you must understand two, because one and one make two. But you must also understand and.” One is not better than the other. Both styles have certain advantages. Discovering and valuing the relationships and differences in the continuum opens up exciting possibilities for both kinds of minds. Their areas of learning difficulty can become the areas of greatest strength. Parents who offer opportunities for their children to develop both sides of the continuum are preparing them for the demands and expectations of twenty-first-century society.

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Resources for Parents:

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