

## OF TWO MINDS

The brain has two sides – the visual right and the logical left – and one is dominant. Knowing they exist can help an artistic parent and junior Einstein live together in peace

*By Dr Neala Schwartzberg*

“Draw a flower”. The instructions were clear, but Holly, six, couldn’t conjure up a picture of a flower in her mind. While several of her classmates took up their crayons and started drawing, Holly was looking around the classroom for a flower to copy. Fortunately, she spied a daisy sitting in a vase on the teacher’s desk. She studied it carefully, “there’s a straight stem”, she thought, ‘with petals – like triangles – around a circle at the top’. Holly can’t draw anything unless she analyses its shape and thinks about how each part fits with the next. She’s what’s come to be known as ‘left-brain’child.

Visualising things in space is a speciality of the brain’s right hemisphere, while solving problems with verbal strategies is a speciality of the left hemisphere, according to Rosemarie Kraft, professor of human development at the University of California. Holly’s approach is verbal – she must translate spatial tasks into verbal ones to accomplish them.

For reasons even scientists don’t understand, many people are orientated in one way or another – verbal or visual, left or right – and those strengths start showing themselves early on. For parents, learning how to recognize a child’s better half has its benefits as well as a few problems. A parent can spot and then encourage a child’s innate skills. A parent can also find creative ways to engage, and thereby strengthen, a child’s weaker side. Of course, labeling a child can leave a parent closed to surprising possibilities. Finally, since parents, too, tend to be more right or left brain – and more stuck in their ways – it’s best for them to find sensitive routes to understanding and stimulating a child who approaches day-to-day tasks from a different way of thinking.

### **Side by side**

The left brain is specialized for both language and comprehension. When you reach for a particular word to name an object, express a thought in speech, understand what your child is saying, you’re calling on your left brain’s unique language centre. The left brain seems to think logically and sequentially, breaking things down into steps. Like Sherlock Holmes solving a mystery, a left-brain child deduces things from a set of facts.

But the right-brain child is more holistic and simultaneous. When you draw a picture or visualize where the new chair will go in the living room, you’re using your right brain’s visual-spatial ability. It also processes subtle, not-verbal information such as intonation of voice, body language, and facial expressions. You know when another person is annoyed because your right hemisphere picks up a shift in voice and body posture. The right brain picks up cues, interprets them, but then sends the information to the left brain for verbalizing a response.

## **Right or Left – there's no wrong**

So, on what side of the brain does that leave your child? Children who use more right brain tend to prefer visual activities, and may find it hard to describe their day in words. Children who use more left brain prefer activities with a language components or a beginning-to-end flavour. Working on jigsaw puzzles, they may try to fit pieces that clearly don't work.

But don't be hasty deciding where your child's abilities reside (or fail to lie). Even if a label seems to fit, it can also be too hasty. Kids change, after all. The boy who shunned reading at five may love it at six. The girl who thought art was torture at three could be drawing with gusto at four. In fact, a certain amount of brain maturation must occur before some abilities can even emerge. Three year olds are not exactly one-step-at-a-time people. And motor skills must develop before a child is able to draw.

More often than not, your child will be some combination of left and right. Steven Sabat, a neuropsychologist at Georgetown University, believes that environment plays a huge role. "If you read to a child, the left brain must be active. If you're engaging him in spatial activities, the right brain is involved."

The big plus is figuring out your child's strengths is that you can identify weaknesses, too. Helping him solve problems in ways not as natural for him exercises the less-used hemisphere, narrowing the gap between right and left. Here are some ways to strengthen your child's weaker half.

### **Activities to encourage your child's left-brain skills**

- Cut out a picture from a magazine and take turns making up a story about it."
- Play "what if". Ask your child to imagine what would happen if animals could talk, birds wore clothes, we didn't need to sleep.
- Do simple science experiments, encouraging him to explain what's happening.
- When 'reading' picture books, ask your child to describe the action on the pages.
- Encourage him to collect rocks, shells, leaves, and other natural objects, then discuss how they can be sorted.

### **Activities to encourage your child's right-brain skills**

- Help your child collect bits of paper, string and shells to make art collages.
- Ask him to look for shapes in clouds.
- Ask him to explain the emotions of people he sees in magazines and picture books.

- Read a story to your child and encourage him to draw a picture about it.

### **Two halves make a whole**

Brain specialization does exist, but children do best when they can use the abilities of both hemispheres. The advantage was shown in a study by Dr Kraft in which six to eight years olds were asked to perform thinking tasks. In one, a child is shown two identical balls of clay. While the child's watching, the experimenter rolls one into a sausage shape. The child is asked whether the two items still contain the same amount of clay, and why.

Dr Kraft found that there was greater activity in the right brain while watching the transformation and greater activity in the left brain while answering. But Dr Kraft also found that children who could explain what they'd seen had greater right-brain involvement even while they were answering questions compared to those who couldn't explain. In other words, while the left brain was explaining why the sausage and ball contained the same amount of clay, the right brain was going back over what has been seen, assessing the information.

### **Opposite distraction**

Although parents need to encourage their kids' abilities, they must realize that those abilities may be quite different from their own, especially when the child has the strengths of the opposite hemisphere. Imagine a logical, left-brain parent confronted with a visual-spatial youngster working on a class project. Kathy was to write a report on the life of a plant. She planted a string bean, watching a slender green shoot appear, topped by the remnants of the seed, and gradually saw two wrinkled leaves emerge and strengthen. Kathy captured these observations in a series of drawings.

Her father liked the art, but was unimpressed with her written report. 'Why didn't you write about why a plant needs light, or how often you need to water it?' he asked. Here is a man, oriented towards words and method with a right-brain daughter.

Now imagine a family with the opposite problem. David's art projects are unimaginative – triangle trees and square houses. Although David takes great pleasure in describing his daily activities, his uninspired art on the fridge is all his mother sees.

Parent-child combinations like these could be headed for a series of clashes. A child will have a hard time building his self-esteem if his abilities aren't acknowledged, and the interests he lacks are held up as the standard. If you're a parent who approaches problems logically, and you're faced with a fanciful child, you may lose patience and criticize unjustly. So, too, the artistic parent with the verbal child. But you're older, wiser, and in a position to adjust your behaviour and expectations.

First, realize that when you and your child do clash, it's not necessarily because your child's rebelling – he could be approaching a task with another set of skills. Take time to listen to your child. As odd as it seems, his way may not be wrong, just different.

Second, don't make your praise contingent on your expectations. Your child may have a different set of strengths from you. So compliment his good work and give your full support for his endeavours – his self-image depends on it.

And, finally, continue to gently strengthen your child's weaker spots, as discussed here. If he's a left-brain kid, exercise the artist in him. If she's right-brain oriented, encourage discussion. After all, the great brain, like a great family, is one whose parts are all working together.

### **Is your child left or right brain?**

#### **A right-brain child is given to visual and holistic reasoning. He:**

- Doodles or draws
- Sees pictures in clouds
- Reads people's expressions
- Finds hidden pictures
- Enjoys arts and crafts
- Solves puzzles quickly
- Moves objects around to form interesting patterns.

#### **A left-brain child is given to logical, language-oriented activity. He:**

- Creates stories and scenarios during playtime
- Explains events logically and sequentially
- Solves problems by thinking aloud
- Reads for pleasure
- Does things in a step-by-step manner
- Likes wordplay, even jokes
- Plays computer and video games with a methodic approach.