In our Spring issue we carried the first of a two-part series on brain hemispheres and right/left dominance. While the first installment tended to be more theoretical, the second is more practical. Here, again, is Mrs. Quenga.

Fearfully and Wonderfully Made

(2)

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In my first article under this title I wrote about hemispheric specialization, about which areas of brain activity were in what hemisphere, and gave some characteristics of right-brain dominance and left-brain dominance.

The scope of this second article is the importance of the physical development of the child in relation to his mental activity and some of the observations you can make that might indicate a hemispheric preference.

I will begin by saying that the human being is a unity. One cannot separate the various aspects of the person. We have a tendency to think the physical body doesn't have much to do with the way we learn. But it is just as likely that there be a lack of co-ordination in the body as in the brain, which is truly affected by it. Most of the children have exercised well their large motor muscles, especially the lower half of their bodies. Have you ever watched to see if the top half co-ordinates with the bottom half – if the right arm swings with the left leg, left arm with right leg? Or does the right arm go with the right leg? Are the arms moving at all or are they crossed, or hands in pockets when legs are going? Are the feet coming off the floor or are they shuffling? How is the fine motor control? There is a direct connection between the vision area in the back of the brain, and the fingers by way of the neck, shoulders, and arms. When the right hand is touching each finger to thumb, are the fingers of the left hand unconsciously moving, too? Can the child do a head lift? He should be able to lift his head off the floor easily, drop his chin on his neck, and return to the floor position without straining these muscles. Strengthening these muscles helps support the nerves that control the eye-hand co-ordination.

Now the eyes. These are far more complicated than we are usually aware of. I would dare say that many of the learning problems, especially in young

children, are due to some lack of development or inequality in the eyes. Some of these have to wait for maturing while others need the care of a developmental optometrist. Sometimes the eyes do not track (follow a line of print), or one eye is being suppressed (watch for tilted head), or there may be a lazy eye. I am told it is normal for young children to be far-sighted and for their eyes to have difficulty focusing close-up. Yet we give them a great deal of seatwork to do. And sometimes what *you* see is not what the child sees. There are special exercises we can do to strengthen the eye muscles, too. The goal of all this physical activity is to have a well co-ordinated body, to support and assist a well co-ordinated mind.

The overall goal, of course, is to be a balanced person – physically and mentally. In order for a person to attain his fullest potential, then, it is important that he exercise all elements that are located in both hemispheres of the brain. We have a tendency to go heavy on the left-brained academic activity. Often we feel inadequate in teaching art, music, and physical education, so we put that on the bottom of the list and they're the first to go when time runs short. Art, music, and phys. ed. are all right-brain activities, so in effect we tend to cut out the use and exercise of half of our brain. Besides that, these areas serve to enhance the self-esteem of a right-brained child because he often has difficulty with the left-brained activities.

I have hinted in the foregoing about some of the things to look for in body and eye movement. Now look at this part. Teachers and parents alike will recognize some of these characteristics in their pupils and children. I think when we realize the hemispheric dominance of these children we tend to be a little more patient and understanding. Not all of these will be found in each "different" child, but here goes.

A right-dominant child may appear to daydream frequently. He may talk in phrases or leave words out when talking, or confuse the order of words or syllables. He will often use his fingers to count. He loves to doodle on his papers. He will often have difficulty following directions. He may communicate non-verbally: by his facial gestures, his hands, by the way he walks. He will often have trouble with fine motor skills such as cutting, pasting, writing, or drawing. Phonics are often difficult for him to handle or use. He moves a lot – in and out of his seat, will often fall off his chair or sit down where the chair isn't, or sit with knees on chair, toes hooked on back, or he may stand up. His pencil always needs

sharpening, he goes to the bathroom more often than usual, his shoelaces are often not tied. He often will have a messy desk. He'll have trouble getting his work done. Sometimes he will be able to give the right answer to a question but won't be able to tell how he got it; on the other hand he will often give responses that are unrelated to what is being discussed. He will chew on his pencil, his eraser, even on the metal tops, or his tongue, or hair. He needs body contact – he likes to touch, trip, poke; he is likely to be affectionate and emotional. He may be very color sensitive. I once had a 6-year-old at my house for dinner who wouldn't even try the red cabbage because it was not the right shade of purple. They are often creative, imaginative, and tell "tall tales."

Keep in mind that "balanced" children may show characteristics of both right and left brain. And there are the alternators, those who switch back and forth either at will or without control or awareness.

When a child, usually an older one, says, "I can't draw," or "I can't write," or "I can't sing," it is often because he has allowed his bossy left-brain to build a fence around his exciting, creative right-brain! There is a need in our schools not just to expand the left-brain, but we need to teach the children how to open the gates in the right-brain wall so they have access to all the delights cooped up in the right hemisphere.

Now the questions are: What difference does this make in how I look at each child? What difference does this make in how I teach the child to look at himself?

First, when I look at a child, I spend a good deal of time analyzing what "equipment" he has brought for me to work with – physical and mental. I know what results I want to achieve and my challenge is to figure out how I can best attain those results with the equipment each child possesses. I know the child very much wants to learn (at least the young ones); it's my business to discover a way in which he *will* be able to learn.

Secondly, I believe that a child should know, as much as his understanding will allow, what kind of a brain he has to work with, what his strengths and weaknesses are.

The most important thing of all is to get across to each child that all of God's children are equal and precious in the sight of God, Who made them exactly as He wanted them. Each one is just right for the task God has planned for him or her in His Kingdom, and sometimes the Lord takes longer in getting one individual ready to serve in His Kingdom than He does with another. ■□■