## Stimulating Behavioral Changes in Children

by Joyce Ann OTR/L, GCFP

hen I first met Enrique\*, a cute three year old boy, he stood by the doorway, tilted his chin downward, moved his eyes upward and growled at me. He wanted to play with a simple shape sorter. However Enrique had difficulty focusing, manipulating and matching the objects. He sat on his heels, leaned on one hand, and would not let go of one shape until another was given to him. Enrique required redirection to the sorting activity every 5-15 seconds. When it was time to put toys away, he cried and flung himself on the floor. In order to calm him, his mother quickly gave her son another object to hold.

Enrique's mother said he did not like to swing or climb on the playground and I learned that he did not like to lie on his stomach. When working further with Enrique, we discovered he liked doing backward somersaults with help. During the session, Enrique imitated words, but he did not initiate them, and he babbled quietly to himself.

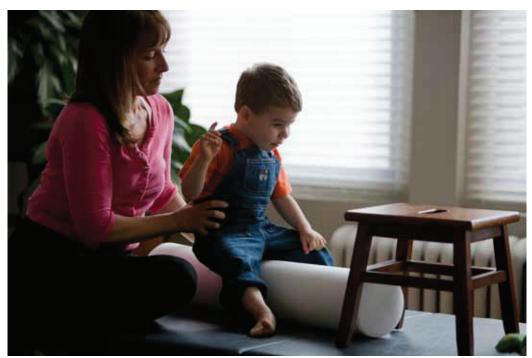
Six sessions later, Enrique opened the door for me to enter the room, gestured to me and told me, "Come on in." Enrique not only quickly completed an alphabet puzzle independently, but did so by turning it around to match the pieces correctly upside down. He did this without help or breaks.

During later sessions Enrique spontaneously talked to me in both English and Spanish, shared stories, and drew and described colored pictures using 3-5 word sentences. Enrique was no longer upset when it came time to put the toys away. In addition, a speech therapy evaluation showed an eleven month improvement within a three week period, which brought his language skills to an age appropriate level.

When a child makes this type of rapid progress, it is often justified as "maturity." Skeptics think Enrique would have improved regardless of the type or quality of intervention he received. I suppose that's always a possibility. However, I would like to offer another explanation for the reason Enrique made this dramatic change in a relatively short time period.

Enrique had poorly formed habits and

(continued on page 7)



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## ....Stimulating Behavioral Changes

(continued from page 6)

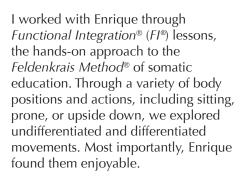
difficulty multi-tasking. His delayed fine motor skills (speech and hand function), and his inadequate attention span, were indicators of a poorly organized central nervous system. He could not group together simple tasks necessary to perform a more complex activity, such as sorting blocks into groups prior to matching them to their holes. These are tasks which require the physical abilities to look, reach, grasp, place, and release. All these tasks are actions dependent upon a well-functioning central nervous system.

As a Feldenkrais Practitioner, I asked the question: How were Enrique's poorly formed physical patterns of self-use affecting his overall function? He appeared to be distracted, perhaps because of his poorly organized torso, along with the rigidity in his spine, shoulders, ribcage and pelvis. This rigidity meant each action required more effort to meet with success and perhaps it distracted him from the task at hand. If a three year old child like Enrique is hindered by physical tension and rigidity, then it is no wonder that new challenges are met with growls, with the expectation of failure.

What if shifting weight with ease leaves a child free to reach with more relaxed shoulders and ease of grasp? Would this in turn leave a child freer to think and do? To answer these questions it is important to look at and understand habit.

## What is a habit and how are habits formed?

A habit is something that we do automatically and don't have to think about. It is a frequently used brain pathway or a group of neural connections that repeatedly fire together. These neural pathways start out as separate motions and as we become more proficient, gradually, our brain groups these multiple tasks together and forms a new pathway. The familiar pattern enables us to perform complex activities. When movements become more automatic, our brain can focus on higher levels of functioning. For example, after learning to balance on a bicycle, individuals can pay attention to the streets while riding. A child who can sit comfortably in the classroom, can



Undifferentiated movements are more primitive movement patterns that engage larger areas of the body as a single unit. Differentiated movements separate the undifferentiated



Daniel and Ty. Photographer: Joyce Ann. Used with permission.

then listen to a teacher or take notes.

Many habits are wonderful and help us get through life more easily and we must rely on them. The problem begins when our habits are not useful or hurt us instead of help.

How did Enrique learn to change his habits and how did this improve his overall functioning?

movements into segmental movement patterns and provide a backdrop of new sensory information. This new sensory based information provides fertile ground for the development of newer, more efficient motoric habits. Some applications of this would be as follows: Could Enrique learn to sit comfortably and rotate his torso to reach for a toy or would he need to completely shift his position, and disrupt his thought process in order to grasp the toy? Similarly, if you want to turn to look into a window while walking down the street, is that possible? Or, would

you need to stop, turn your whole body toward the window, look, and then resume your walking? Once Enrique learned to move fluidly and with less effort, these movements became more comfortable and automatic. He started to multi-task, which raised his self-confidence and allowed him to pay more attention to cognitive challenges. He sat in

(continued on page 8)

## ....Stimulating Behavioral Changes

(continued from page 7)

a variety of positions, shifting his weight, rotating and bending his torso, and at the same time, he could scan his environment, reach, manipulate objects, or explore his options. Enrique learned to expand and contract his ribcage more easily and this allowed him to feel the vibrations and movements of his tongue and palette as he explored speaking. Suddenly Enrique had viable options to growling, enjoyable ones.

Early in his life, Enrique formed semifunctional habits that were reinforced daily through repetition. Other children may behave differently due to a poorly organized central nervous system. They might be shy, unable to sit still, fidget with their hands, or flop down on the floor or at their desk. They may be uncomfortable with tags in their clothing or dislike being touched. They may frustrate easily and refuse challenging tasks or give up easily.

Children sometimes become more distractible or disorganized just before or after a growth spurt. They may be moody, sleep poorly, or not listen as well. This can happen if the child is trying new things and has not yet found the most comfortable way to accomplish a task. The child may be organizing new information and integrating this new learning.

Keep in mind that the brain does not learn in a linear pattern. It is not always possible to predict what effect improving movement will have for a child. This depends greatly on the child's wishes and desires, which may be different than the wishes of caregivers in that child's life. What is clear is that there is an overall benefit when children move more fluently and have a more clearly defined use of self, and that other changes will happen elsewhere, sometimes in surprising ways.

When Daniel, a 10 year old nonverbal child with Down's syndrome, first came to me, he was unable to remain in one place for the Functional Integration<sup>®</sup> (FI<sup>®</sup>) lessons and frequently ran to the light switch and turned on and off the lights and ceiling fan. He was afraid of dogs, and shrieked and jumped when he saw one, even from a distance. Daniel was not toilet trained. However, according to his mother, within a few months, he began to sense when he needed to use the toilet and with assistance learned to use it appropriately. Daniel currently sits with me for longer periods of time, comfortably leaning against me, sometimes for a whole session without turning on the fan or light. He currently seeks out and pats my dog. According to his mother, he now eagerly approaches other dogs as well.

Last week Lasked the mother of a two year old what she noticed new about her son over the last several weeks. Kevin\* was tired and cranky that day, and his mom was frustrated with his behavior. At first she answered: "Nothing changed." As she continued telling me about the week, she said, "Well, he's talking more spontaneously, he's easier to take places, he's cooperating more, and he hasn't (intentionally) banged his head very much lately."

During the difficult moments of childrearing, especially a special needs child, it is important to appreciate even the smallest changes the child makes. These changes are the building blocks for further growth. Enrique, Daniel and Kevin each made positive behavioral changes by learning to move more efficiently and joyfully through the *Feldenkrais Method*® of Somatic Education. Enjoyment brought a willingness and interest in exploring new options which generated new behaviors and habits. Given new learning opportunities, this growth will continue with each child throughout the child's lifetime.

\*Enrique and Kevin's names have been changed.

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