

Carla Oswald Reed

Implications of Intervention Strategies for Physically Challenged Children from the Child's Perspective

A child doesn't know he has cerebral palsy until someone tells him." These words of Moshe Feldenkrais have profoundly affected how I work with children with cerebral palsy or any other condition that affects their ability to learn movement and thinking. As a physical therapist trained in the Neuro-Developmental Treatment (NDT or Bobath) approach to cerebral palsy since 1972, I thought I knew a lot about human motordevelopment and learning. Training with Moshe Feldenkrais deeply challenged my old professional paradigms and helped me evolve completely new perspectives on the developmental experience of children. His statement gradually shifted my focus from an academic or intellectual abstraction to the perspective of an individual child's experience.

Most healthy babies learn easily. Even brief opportunities to engage in moving freely allow them to learn at least average human functioning, despite many periods of adult interference. My concern is that, with specially challenged infants and children, well-intentioned interventions may actually interfere with the conditions they need to learn even average functioning. I want to explore inside a child's experience to find out how a healthy infant organizes his own spontaneous learning process and how conditions provided by the adults in a child's environment impact the child's learning.

SPONTANEOUS LEARNING IN HEALTHY INFANTS

What aspects of the child's experience allow learning to happen? An infant initially knows only his sensory experience. From his experience, he learns about himself and how to interact with his environment. When laid on his back, a healthy infant spontaneously initiates a rich variety of wiggling and kicking. Even a newborn moves his limbs and learns to feel how they are connected to the strong muscles of his pelvis and spine. An infant of a few months old lying on his back spontaneously lifts his hands and feet into his visual field and becomes intrigued with the result. He begins to integrate

Adapted from a presentation to the American Academy of Osteopathy at their 1993 Annual Convocation, "Osteopathy and Children," March 24-27, 1993 in Dallas, Texas, originally written in collaboration with Anat Baniel.



his visual sensory experience with his kinesthetic sensory experience as he sees his limbs in his visual field while he feels himself moving them. He easily moves his spine in a way that recreates that pleasurable experience predictably. He looks beyond the top of his head and quickly learn show to use his arms and legs in relation to his spine to make that easier. This action is exactly what he then uses to successfully move his spine against gravity to turn to his stomach and lift his head.

A healthy child attends to the seemingly random actions of his limbs that occur repeatedly and predictably and create a pleasurable experience for him. From his spontaneous variety of movement, he initiates the same actions voluntarily and recreates the pleasurable result. He moves efficiently with minimal effort. The low level of tension he uses allows him to discriminate subtleties among the variations of his actions. He learns that a particular intention on his part creates a voluntary action of his whole self that has a predictable result. A complex of differentiations occurs until his brain spontaneously integrates a whole new function. Each bit of his experience in this way is necessary to the next to acquire more and more complex functions.

The child's brain does the job for which it was so elegantly designed: creating order from disorder, creating predictable patterns in his reality. There is a continuum of progression to the increasing complexity that requires opportunities for experience at each stage. The child is in charge of his own learning and only the child can *do* the learning.

He initiates the variations and creates from his own experience the patterns of order within his nervous system. He moves to a new body position *only* when he has developed the skills needed for him to successfully relate to gravity in that position. If any learning opportunity is detoured by artificial interference from the child's environment, there will be gaps in his function reflecting the missing information.

ADULT INTERFERENCE

A healthy newborn struggles when he is placed on his stomach or in any position from which his power to initiate is limited. His attention is preoccupied with his feeling of discomfort. With his struggle to cope with a position in which he is incompetent, he increases his effort, resulting in a decreased ability to discriminate among the sensations of his actions. How would this experience feel to the newborn? It might be somewhat as if someone you loved took you to a precarious mountain top without your consent and left you there without any instructions or equipment. You would know something is expected of you, but you wouldn't know how to begin moving in any direction without a risk of falling. Even trying to lift your head to look around might feel dangerous and your arms might be fully engaged just holding on. You probably would become very tense and anxious. Even healthy infants, placed on their stomach before they have organized a response to gravity, can experience movement and learning as a struggle instead of a joy.

LEARNING DIFFICULTIES IN CHALLENGED INFANTS

When a child with cerebral palsy is lying on his back, his attention to his sensory experience seems less focused than a healthy infant's. He sometimes moves with low effort, which should allow him to discriminate the feeling of his actions, but his random movements occur with much less repetition and predictability than a healthy newborn's. He also initiates much less variety in his self-initiated actions than healthy babies. He is in charge of his own learning, but generates insufficient data for his brain to create a functional body image and reproducible movement patterns from the disorder of his experience. He may turn himself to his stomach with excessive tension or effort, but he doesn't know how to function effectively against gravity when he gets there.

When a child with severe cerebral palsy is placed on his stomach, he struggles even more than a healthy newborn. And the child with severe cerebral palsy is able to initiate very little that will change the experience. It is likely that those caring for such a seriously challenged child will place him on his stomach often and may even verbally request that he lift his head. Common sense tells many parents and professionals that the child needs to be placed on his stomach to "practice" lifting his head, but what is actually happening when he is placed there? From the point of view of the child, he doesn't know how to use his spine against gravity and each time he is placed in this position he struggles. The excess effort of the struggle causes him to increase and "practice" the mistakes in tone distribution that so often become habitual to cerebral palsied children, such as excessively rounding his upper back and stiffly straightening his legs. His discomfort preoccupies his attention and the increased effort prevents him from discriminating among any of the sensations he is experiencing. Nothing he does gives him the information he needs to learn to lift his head. This position offers him only an opportunity to "practice" his spasticity. He gets to experience only his inability to lift his head. Only the child can do the learning to acquire the function of lifting his head, but in this situation he is denied access to the information he needs to learn how.

To place the child in the position of any desired outcome is to expect his brain to learn without even the information a healthy child requires. The interference caused by well-intentioned parents and/or therapists forms a continuum depending on how far the position of desired outcome in which the child is placed is from the child's competency. If the physically challenged child manages to learn anything in these severely limited learning conditions, he will create the stereotyped patterns of excessive effort and/or spasticity so common among children with cerebral palsy and other physical challenges. *I have seriously begun to question if the patterns of spasticity seen so commonly are a necessary manifestation of the child's damaged brain or whether they are made manifest by the conditions imposed on the child with well-intentioned interventions.*

What experience would be comparable for us to placing a cerebral palsied child in a position of desired outcome? It's hard to imagine a position in which we could be placed without our consent that would be extremely uncomfortable and would limit us from learning what we need to do. Maybe, if you're not a dancer, learning to do a split would be a relevant analogy. It might be like someone placing you in the split position, when you've expressed no desire to do a split, and telling you to sit up straight and smile. Most people don't know how to move the pelvis and spine to make a split possible. Being placed in the desired outcome of the

split position would cause significant discomfort and no opportunity to learn how to do it.

Often children with movement difficulties are braced with appliances to hold them in positions of desired outcomes, such as standing, that they do not know how to assume on their own. What is this experience like from the perspective of the child? Continuing with the previous analogy, imagine that the legislature passes a law tomorrow that says that all people must be able to do a split. All the people around you who are making the decisions are three times your size. If you are not able to do a split, you are sent to a doctor (three times your size) who examines you and documents that you do not meet the criteria for doing a split. The doctor then orders a device for you made of metal, plastic, velcro, and/or leather that holds your legs apart in a full split and holds your pelvis upright, simulating sitting. The doctor tells your parents, who are also three times your size, that this device is to be kept on all day in order to "teach" you how to do a split. He has assistants who teach your loving parents or caretakers to put the device on every day. Furthermore, he orders another device that holds your legs in a split while you are lying down sleeping. When you still don't learn how to do a split, you are taken to the hospital where the doctor puts you to sleep, cuts the muscles between your legs and puts you in a cast for a few weeks in the split position. When the cast is removed, you are again placed in the position of the split with or without the same devices used previously. No one asks you if it is important to you to be able to do a split, how the devices feel, or if you find that the devices or appliances help you to do a split.

RESPONSES TO TRAUMATIC EXPERIENCES

One of the Feldenkrais trainers, Anat Baniel, recently introduced me to a book called *Trauma and Recovery* by Judith Lewis Herman. Dr. Herman states that the response to trauma is predictable.

"The ordinary human response to danger is a complex, integrated system of reactions, encompassing both body and mind.... These changes... mobilize the threatened person for strenuous action.... Traumatic reactions occur when action is of no avail. When neither resistance nor escape is possible, the human system of self-defense becomes overwhelmed and disorganized.... Traumatic symptoms have a tendency to become disconnected from their source and to take on a life of their own."

Ms. Baniel noted that this book clarifies that what constitutes trauma to an individual is how the actions on him are perceived *by him*, regardless of the intent of the person acting on him. Ms. Baniel identified three main characteristics of experiences that create a traumatic response in individuals. These include:

- 1 intrusion into the experience of oneself in painful and/or destructive ways (that trigger the pain receptors or sympathetic nervous system);
- 2 infliction of conditions without the person's consent that create an experience of physical, emotional and/or mental anguish (that triggers the limbic system); and
- 3 situations in which no action the individual takes has any effect in changing the conditions (helplessness and hopelessness).

It is crucial to keep in mind that these characteristics are by definition of the recipient of the experience, regardless of the intent of the person acting on him (personal communication with Anat Baniel, March 1993).

Dr. Herman outlines a large pattern of responses in her delineation of "Complex Post-Traumatic Stress Disorder." Presumably, the more severe the traumatic experience is, the more extensive the symptomatic responses will be.

It is difficult to allow ourselves to realize how traumatic the experience of well-intentioned interventions may be from the child's perspective. However, this excellent book about the effects of trauma and abuse provides shocking parallels to some responses I have commonly seen in physically challenged children, especially the classic features of "alterations in consciousness" called "transient dissociative episodes." Dissociation is a last resort attempt to cope with conditions that are out of the child's control by suspending his attention to his own experience. This is a normal reaction of the nervous system to a painful experience. Like an adult in severe pain, the child is preoccupied with trying to find comfort and is unavailable for thinking and learning. The following are some examples from my professional experience.

I have worked with a six-year-old boy who experienced a near drowning incident when he was two years old. Since two years of age, this little boy had had extensive physical, occupational and speech therapy; was placed in apparatus to stand and kneel him; had short leg braces and splints applied to his legs and arms; and had orthopedic surgical procedures to his hips with extensive immobilization afterwards. He had selective control of his head, but he was prevented from doing any of the most basic infant movements by strong excess muscle tone in all other parts of his body. When I first saw him, he often screamed whenever a teacher or therapist approached him. He used selective control of his head to swing it at anyone handling him, or turned his head to lick or bite. He engaged in repetitive nonsense syllables described by the professionals working with him as "perseveration."

In our sessions, I carefully provided many comfortable and meaningful experiences about which he had choices. He gradually began to smile and laugh with his peers and during our sessions. He began to speak in two word phrases or sentences. Initially, I believed his "perseveration" was evidence of brain damage. Later, I realized it was a way to dissociate from the painful experiences with which he had to cope.

I worked with a charming seven-year-old who was born prematurely from a substance-abusing mother. She was hospitalized in a Newborn Intensive Care Unit (NICU) for at least a month, rehospitalized for failure to thrive (lack of weight gain) at four months of age and then taken by an aunt and uncle to raise. She had had physical therapy since she was at least two years old. At four years of age, she had a selective dorsal rhizotomy, an extensive neurosurgical procedure in which approximately 70% of her sensory nerve roots were severed to decrease her spasticity. Previous post-surgical physical therapy was focused on getting her to walk with long leg braces and a pull-behind walker. When I saw her, I found that she had very strong arms but didn't know how to balance with her trunk to use her arms freely in sitting or how to organize herself over her legs on all fours or in standing. On all fours without her braces, she bore weight primarily on her hands and dragged her legs behind her in rapid, alternating movements. With her braces on, she could not move about freely on the floor to sit or creep. The teacher reported that this child got her adopted parents to send her to school without her braces whenever she could.

Whenever I had sessions with this child at school, I would first involve her in removing her braces if she was wearing them. Then she would act

silly and giggle, constantly moving about the room rapidly on her hands and knees. She effectively blocked me from having any physical contact with her unless I restrained her on the table. She was in a self-contained special education classroom and my initial expectation was that she was very limited intellectually. However, when I gave her the opportunity to initiate her own agenda, she repeatedly created a pretend "doctor" drama. With very sophisticated and appropriate vocabulary, she "examined" me, apologized for keeping me waiting and "operated" on my back. I believe her giggling and hyperactivity in our initial sessions was an attempt to stay dissociated from the experience of things being done to her without her consent. Furthermore, these behaviors constituted a learned skill for deflecting people from doing things *to* her. Within and around her "doctor" drama, she demonstrated much more "intelligent behavior" than she did in her dissociative state. Later, she began to engage in movement explorations in which she slowed down and paid more attention to what she was doing with her legs.

I worked with a ten-year-old child who was born with a spina bifida and lumbar myelomeningocele. He had had numerous surgeries including the initial repair, shunting for hydrocephalus at least twice, arthrodesis (fusing) of his ankles, and detethering of his spinal cord. He had been wearing a polypropylene body jacket for scoliosis for twenty-four hours a day (except for bathing) since he was two years old. During his waking hours, he also wore long leg braces. For short distances, he moved in an upright position using an alternating four point gait with forearm crutches and his braces locked at his knees. When I first began working with him at school, I mentioned removing his braces and he told me he wasn't allowed to. I had to call his mother and get permission to reassure him that he wouldn't get in trouble if we removed his braces.

Initially, this child would lie down and tell me to remove his braces and clothes as though his body belonged to me. He would stare at the ceiling and wait for me to finish in what appeared to me to be an automatic response of dissociation from past experience. I found that he was unable to reach his own feet when wearing the body jacket. Even with the body jacket removed, he no longer knew how to bend his knees after holding them straight in the braces for so many years. I involved him in the process of removing his pants, shoes and braces. I respected his competence by waiting for him to find ways to participate in things that had always been done for him. I provided minimal assistance in areas where it was clear that he had no chance of success. He quickly became more engaged in our sessions and began initiating doing more and more for himself.

For one of our sessions, I took him to the school playground without his braces and helped him get down into the sand. He dug around playfully, engaging in much more variety of movement than I had ever seen him do before. He asked, "I wonder if it's possible to bury yourself in the sand." To hear a ten-year-old child ask such a basic playful question, presumably for the first time, brought tears to my eyes and made me realize what a limitation of experience his bracing had imposed on him. I began to wonder what children felt about the bracing that was presumably being done "for their own good." I asked him on the way back to the nurse's office, where we would put his braces back on, "If it were up to you, how much time would you wear your body jacket?" At first, he didn't reply as though he didn't think I was serious about wanting his opinion. Then, he replied, "Never! I hate it!" Surprised, I asked for more, "When would you wear your long leg braces?" "Never!" he said again. I said, "How would you get around?" He said, "In my wheelchair." I asked, "You mean you would rather get around

in the wheelchair without your braces than wear your braces and walk with crutches." "Yes," he said.

I believe this verbal interchange would be replayed with minor variations many times over if children were involved more in the planning for themselves and their conditions. If some kind of bracing or restrictive appliance is considered absolutely necessary to replace permanent paralysis or prevent deformity, a balance must be sought between the benefit the appliance may be providing mechanically and the learning and experience the child can gain when free of it. When bracing or other aids are considered for a physically challenged child, the question must repeatedly be asked whether the pace of the child is being followed or whether the position of a desired outcome is being imposed on him without opportunities for learning to acquire the function. The facade of professional expertise must be dropped to ask the child to give us feedback as to what the appliance feels like to him and whether the limitations the appliance imposes are worth the benefits *from his perspective*.

Unfortunately, the children I described are not isolated examples. Every child with whom I have worked who has had previous interventions exhibits some form of dissociative behavior. The youngest ones initially cry or pull away or cling to the mother. The older ones, who are verbal, use complex strategies with conversation to shift my attention and their own away from themselves. The nonverbal older ones initially cry or create an empty look in their eyes. They appear to have suspended their attention to any experience at all.

It is notable that in each case the child displayed symptoms that may have been presumed to be caused by brain damage. However, since the symptoms disappeared with a change in conditions that I provided in the environment, I came to see the symptoms as responses to traumatic stress. My hope is that these kinds of responses in physically challenged children begin to be differentiated as symptoms of coping with traumatic stress rather than symptoms of brain damage.

THE FELDENKRAIS METHOD

If the usual well-intentioned strategies for intervention sometimes create traumatic experiences and stress responses in physically challenged children, what alternative is there to help these children learn? The physically challenged child's nervous system is designed to make order from disorder the same way as any other child's, but his limited spontaneous movement prevents him from becoming a successful learner. At the risk of being redundant: *The child is the only one who can do his learning*. This child will learn through the same process as a healthy child, but at his own pace, if given the opportunity to experience complex kinesthetic sensations of himself in the gravitational field.

Feldenkrais found ways to provide the conditions these children (and people of any age and difficulty) need to learn to change habits of action that limit their choices. He explored the way each individual's nervous system can create patterns of order and predictability from the initial disorder in infancy and throughout life. He used his rigorous background in the scientific method to distill well-known information from the fields of physics, psychology, anatomy, learning theory, neurophysiology and the martial arts. He clarified how aspects from all these areas were involved in the learning process. He looked functionally at the emerging skills that occur spontaneously in an average infant. He identified the patterns of



order that emerge in the child's action as the learning process progresses and looked at a person functionally to determine what function is most accessible for learning next and what information is necessary to learn it. He introduced a quality of touch in the Feldenkrais Method that provides a feeling of safety and comfort for the individual so that his full attention can be on his own learning process.

What are the underlying processes of a healthy infant's early learning that are occasioned in Feldenkrais lessons? Babies are simultaneously learning language, gross and fine motor movement, identity, emotions and body image. In fact, these categorizations of the infant's learning are an artificial linguistic separation which may confuse one's thinking. All these aspects are concurrent and one integrated experience for the infant and are necessarily involved simultaneously in any learning. In everything the child is doing, his brain is learning to relate his voluntary actions to his intention. For the learning to proceed successfully, four processes occur in the brain. They are:

- 1 attention,
- 2 discrimination,
- 3 differentiation, and
- 4 integration.

The notion of **attention**, neurologically speaking, is the subject of much literature and conjecture. Neurophysiologically, the reticular activating system and the sympathetic nervous system are crucial. What attracts an individual's attention, i.e. triggers the reticulating activating system, is novelty—information that is different from what one has experienced before. What triggers one's "fight or flight" responses, i.e. the sympathetic nervous system, is sensation that is so different from what one has experienced before that it is judged as meaningless or dangerous by the brain. The sympathetic nervous system will also be triggered by experiences that are similar to those an individual has experienced as dangerous or painful in the past. When the sympathetic nervous system is triggered, the child becomes focused externally on "fight or flight" avenues for escape rather than internally, where he would be available for learning. There is a physiological arousal of the system with increased adrenalin, heart rate and breathing; constricted pupils; and smooth and striated muscular contraction. Attention without involvement of the sympathetic nervous system has the opposite physiological characteristics, including slowed heart and breathing rates, dilated pupils, and smooth and striated muscular relaxation. This is the state in which the brain is most available for learning.

Attention to internal sensations of the self occurs very spontaneously in a child who has not yet been "told" he has cerebral palsy...or blindness...or paralysis, or has not yet experienced traumatic interventions. However, the child has usually learned to dissociate his attention when his past experiences haven't felt good, pleasurable or even safe—experiences such as survival treatments in the NICU; orthopedic evaluations and/or surgery; imposing interventions from therapists, parents and/or teachers; etc. Arousal of the sympathetic nervous system becomes part of the pattern his brain makes about the functions that the interventions were intended to "teach" him. He "learns" danger, discomfort and/or dissociation as part of the pattern of the function that was introduced with sympathetic arousal.

Practitioners of the Feldenkrais Method learn to use a quality of touch that provides the individual with an experience that feels comfortable and

safe. The touch is carefully modulated to be enough like the individual's feeling of himself and his habitual experience to feel safe and enough different from his habitual experience to be considered meaningful, novel, intriguing and, therefore, worthy of attention. Initially, the child must be in a position which feels safe to him so that his attention is not preoccupied with his safety. When he feels safe, and yet is provided with information that is slightly different from what he has produced for himself in the past, he attends carefully and spontaneously discriminates between the current information and his past experience.

Therefore, to learn to acquire a function that will be used spontaneously in his life, the child must feel safe and comfortable. The conditions for learning must be pleasurable and intriguing enough to attract his attention back to himself.

Feldenkrais understood that reduction of effort increases our sensitivity. **Discrimination** is the process in which one realizes any motor or sensory difference within oneself, between oneself and an object, or between oneself and another person. Attention must be present for discrimination to occur. Each time a child perceives difference, he can proceed to the next step of differentiation. One can't "teach" a child discrimination on this neurological level. One need only provide the appropriate conditions of sensory comparison for the brain to spontaneously do its job.

Differentiation is the learning process of separating out movements of one part of the self from movements of another, e.g. bending the knee when the hip is straight or looking down with the eyes when the head is tilted backward. All of learning is a gradual process of more and more refined differentiations. Differentiation can be continued throughout life, as it is in the learning of musicians, athletes and skilled craftspeople. There is a lot of variety in highly refined differentiations, but the most basic differentiations necessary for usual baby learning occur with remarkable similarity in everyone. Infants usually learn how to move the head separate from the trunk; the tongue and lips from the jaw; the pelvis from the spine; the elbows, wrists and fingers from the shoulders; the toes, feet, ankles and knees from the hips; etc. These basic differentiations are often difficult for children with brain injuries to learn spontaneously. But it is these basic differentiations that all children must have the conditions and opportunity to learn as a foundation for later motor skills.

The final process, **integration**, happens spontaneously in the brain when one has experienced enough differentiations in a meaningful functional context to create a pattern for a new voluntary action. This is what happens when a healthy baby achieves what is called a "developmental milestone." The term "developmental milestone" itself is, again, a misperception perpetuated with language. The event identified as a "developmental milestone" is just a moment on the continuum of the child's learning. The infant feels a new way to differentiate some of his body parts and discovers a new configuration of action, e.g. moving his pelvis on his spine and over his knees to allow lifting his belly off the floor to creep on his hands and knees. When the baby has experienced new components or differentiations in relation to his own intention, initiation of a new action can be successful. Then, integration happens within his own nervous system.

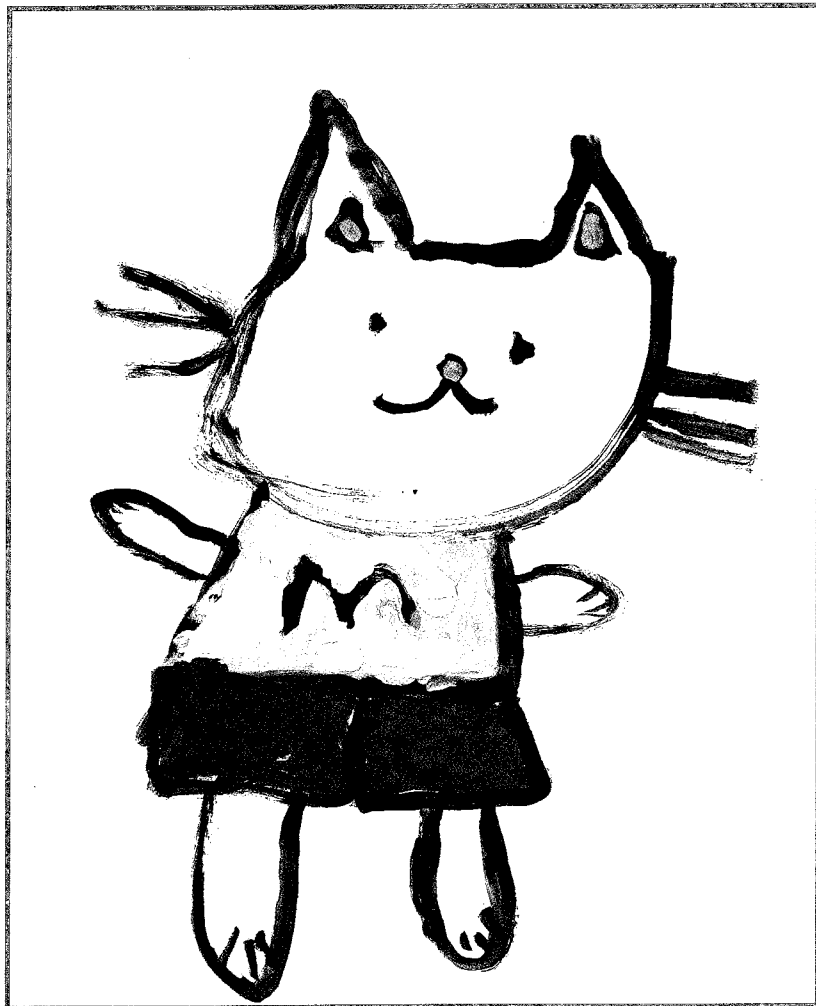
The challenge is to identify an area in the child's reality in which he can easily experience a successful integration. When the event of integration occurs in *any* area of the child's experience, the child experiences himself as a successful learner. Like wildflowers in springtime, new integrations will

begin to crop up all over. The brain will create patterns among the new integrations as they occur so that the learning will quickly take a recognizable developmental flow.

MEANINGFUL LEARNING OPPORTUNITIES

In order to attract a child's sensory attention, one must choose an entry point into the child's experience that *the child* finds meaningful. Every child is doing something spontaneously and it is only from what he is doing well that he can learn more. Those areas of the child's success must be found to "meet" the child in an experience that is familiar and meaningful to him. Any action can be the focus—his breathing, sound play or any random movement. Feldenkrais practitioners use whatever simple action is spontaneously occurring as an opportunity for the child to experience learning a successful intentional action.

Los Angeles infant specialist Magda Gerber teaches respect for what *average* infants learn from their self-initiated experience without any "teaching" from adults. Gerber's teaching and my own experience have shown me how a physically challenged child's developmental learning can also be negatively altered when adults attempt to "teach" them or



impose our agenda on them. Gerber says of adult interference, "What they (the babies) *can* do is not valued and what they *cannot yet* do is expected" (parentheses and italics added). When Feldenkrais practitioners choose an action the physically challenged child is already doing for the focus of the learning experience, what that child *is doing* is valued and what he is *learning to do* is anticipated but *not expected on demand*. The experience for the child and the practitioner is joyful and exhilarating.

ROLE EXPECTATIONS

Every individual and every child learns roles and establishes an identity in relationship to what each one controls and makes decisions about in his environment. If someone else makes all the decisions and controls the agenda for a person's life, sooner or later the person will experience a conflict between the internal voice of the self and the external pressures to please. This issue reminds me of two books I read thirty years ago that originally inspired me to become a physical therapist so that I could work with brain injured children. I recently came upon old copies of these books and reread them. I found in them a very valuable lesson for parents and professionals who work with physically challenged children.

The first book is called *Karen* and is about a cerebral palsied child and is written by her mother, Marie Killelea. It is a tear-jerking human interest story of a spastic child over-coming her handicap against all odds and learning to walk, talk and read. Many well-intentioned professionals are charmed by her and become very invested in her progress. At many people's request, the mother wrote a sequel, *With Love From Karen*, describing Karen's adolescence. Here's where it gets revealing. Karen becomes very depressed and silent for over a year. Her mother is worried and puzzled, but waits for Karen to break the silence. Finally, Karen reveals that she has discovered that she is really able to be much more functional in her wheelchair than she is when she is walking with crutches and long leg braces. However, she's emotionally distraught because of all the people she feels she will let down, all the people for whom it was so important that she walk, all the people who put so much into that agenda.

SUMMARY

Is it the role of a physical therapist or any other professional to "make" a child walk? Since only the child can do the learning, only the child can demonstrate when he has had sufficient experience to integrate a new function. Each child has a variety of ways of communicating what is meaningful for him. Each child is able to learn through the same processes that are possible for each human being throughout his lifetime. But, each child needs to learn how to bring his attention back to his own internal sensations to use the self-correcting loop inherent in the physiology of the human nervous system.

There is a tremendous capacity for self-correction built into the human nervous system, and the Feldenkrais Method is an effective way to re-access that potential at any age and with any difficulty. The Feldenkrais Method helps children discover comfort and pleasure in themselves, learn how to bring their attention back to their own sensory feedback and engage the learning-how-to-learn processes of any human being. It is anchored in a profound respect for the wisdom of each child's nervous system. The classic patterns of spasticity and/or excessive effort are replaced by increased variety and decreased effort; often, many of the structural restrictions physically challenged children usually develop are avoided.

As professionals contact these children, careful attention should be paid to the impact interactions with adults have on the children's learning about themselves. All interventions should be made as safe, comfortable and pleasurable as possible so that the child's dissociation from his own experience is not being triggered. The child should always be involved in what is being done for or with him. The child should be told honestly what is going to be done before it is done even if he is considered too young or limited to understand the words. Inflection and tone of voice will communicate intent and slow the pace to give the child time to adapt to the adult's intent. The child should be empowered by being given as many choices as possible within the situation. The quality of the touch should convey acceptance of the child as a person rather than "telling" him he has cerebral palsy (or other conditions) and sending the message that he is defective, substandard or abnormal. There should be vigilance in choosing what is said about the child in his presence. The child should be spoken to directly rather than talked about in front of himself.

Parents should be listened to carefully and taken seriously when they say what the child is doing at home, and the professionals' responses should focus on respect for what the child is *doing*. Parents almost always know their child better than any professional and certainly see a better sample of his behavior and skills. Parents should be encouraged to follow and respect the individual pace of the child, and to involve the child in every aspect of his care. Parents should be trained to become expert observers of the subtle variations the child is initiating, and to describe the child's actions objectively and verbally to him as recognition of his efforts and explorations. Parents and professionals should learn to send the child the message that what he *is* doing is valued and that what he is still learning to do is anticipated but *not* expected on demand.

BIBLIOGRAPHY

- Bobath, B. & Bobath, K. (1975). *Motor Development in the Different Types of Cerebral Palsy*. London: William Heinemann Medical Books Limited.
- Gerber, M. (ed.) (1987). *A Manual for Parents and Professionals*. Resources for Infant Educators [1550 Murray Circle, Los Angeles, CA 90026].
- Gonzales-Mena, J. & Eyer, D. W. (1986). *Infants, Toddlers, and Caregivers*. Mayfield Publishing Company [1240 Villa Street, Mountain View, CA 94041].
- Herman, J. L. (1992). *Trauma and Recovery*. New York: Basic Books.
- Killelea, M. (1952). *Karen*. New York: Prentice Hall.
- Killelea, M. (1983). *With Love From Karen*. New York: Dell Publishing Co.
- See How They Move*, a videotape produced in 1990 by Resources for Infant Educators, 1550 Murray Circle, Los Angeles, CA 90026.