7. Case Studies

Growing Out of Pain – A Series of Functional Integration Lessons

Sitting on the couch, Orit prepared herself to stand. She hesitated, calculating her next move, ever vigilant of the dangers of the transition. Once standing, she repeated the same process, preparing her walking cane in her right hand, hesitating before taking her cautious first step. With her torso skewed towards the cane, avoiding bringing herself above the left leg, she walked cautiously from the waiting hall in to my office.

Orit, a 32-year old mother of two, had worked until recently as a classroom teacher in an elementary school for special needs children. Aiding a student to transfer from her wheelchair resulted in a lumbar disc injury. After two spinal epidural injections, an endoscopic discectomy procedure, 6 month of physiotherapy, several trials of anti-inflammatory medications, which all resulted in very little improvement, she came for a medical consultation at Clalit Complementary Medicine, part of Israel's largest HMO. She was then referred to me for a series of Functional Integration lessons.

She described how severely limited she is in her daily functions, including basic chores around the house and taking care of her kids and how returning to work was unthinkable. She plans her day carefully, as the slightest excessive effort results in even greater pain and complete bed rest. Deeply demoralized, hardly making any progress, yet eager to improve, she was unwilling to accept her condition.

She complained of chronic, severe lower back pain affecting her left leg. Full weight bearing increased the sensation of compression and pain making her unable to walk without the cane. Her leg felt heavy, stiff and weak, alienated as if paralyzed, disobeying her attempts to bring it into proper alignment by trying to correct the excessive abduction.

The pain, coupled with disability, provoked constant anxiety about the possibility of further escalation. We later exposed how the mutual reinforcement of these components created a distorted body image, which further cultivated and justified the pain, disability, and anxiety. The distorted body image, shaped by these components, became their environment and was a major contributor to her sense of hopelessness and despair. Discovering the plasticity of the body image became the key to regaining control, hope, and potency.

Possibilities Reawakened

I asked her to lie on the table and she chose to lie on her back, which was her least painful position. I placed rollers under her legs, thinking this might accommodate her comfort, but she could not tolerate them exclaiming they increased the pressure in her spine. Without the rollers, her lower back seemed extremely arched and I was not sure how she could tolerate this position at all. I asked her how she sensed her leg, wondering if in this position she was experiencing a relief. She reported dramatic differences in her perception of the two legs, which resembled her sensations in walking and standing. Even when there was no need to bear weight, she sensed her leg as weak, heavy, alienated, and misaligned.

I was interested in finding out if these differences could be seen from the outside. To my surprise and in contrast to her subjective experience, any external difference between the legs

was hardly apparent. Could these differences be sensed through touch or movement? I did some preliminary movements of the foot, ankle, and knee, which also did not reveal significant differences in position, muscle tone, and ease of movement. However, her high degree of sensitivity to my touch on the affected leg and the anxiety provoked by these preliminary movements indicated that working with the affected leg could be counterproductive.

I started working with the non-affected leg, thinking about how not to provoke pain and anxiety. With my hands, I started to clarify the shape and size, directionality in space, relationships of articulation, and different combinations of movements of the toes, foot, and ankle. This strategy proved to be safe and created conditions that allowed for greater ease, softness, and flexibility. I sensed through my hands how she was accepting of my support by releasing excessive muscular tension and allowing the articulations of the leg to become more pliable. Wanting to make sure she was sensing these changes I pointed them out to her and I am glad I did because her input was of great value. Orit was not only sensing and tracking all these changes, but also deeply appreciated them. She valued that everything I was doing caused no pain and still achieved improvement. Apparently, she had been traumatized by the physical rehabilitation attempts that always involved more pain and no improvement. Orit's appreciation of this strategy was also augmented by realizing how, due to the constant preoccupation with the affected leg, the non-affected leg had been neglected and had shrunk in her kinesthetic perception.

Towards the end of the session I started to sense and see that the painful leg was responding to the work being done on the other leg. As if a spontaneous proliferation or a "spilling over" was happening from one leg to the other. There was a reduction in muscular tone in the quadriceps that was visually noticeable and slight external rotation from the relaxation of the adductors. Orit noticed these changes and remarked that now she sensed the leg much lighter without the excess weight that she sensed before. I was curious if the hyper sensitivity to my touch that she experienced in the beginning of the session has also been "normalized". Indeed, now the leg was permitting the preliminary movements that we tried before without the pain and anxiety.

She was amazed that the improvement was all a result of working with the non-affected leg, not involving any effort or needing to fight any disability. Once standing she was overwhelmed by how she sensed the contact of the foot with the floor on her painful side. She exclaimed she hasn't felt her foot like this in over 6 month, spread-out, soft, and reliable.

Orit's responsiveness encouraged me to believe that I could help her despite the severity of her condition, if we were given the chance to work intensely. But the reality was that even meeting once a week was hardly possible due to a very full schedule at the HMO and even then, the sessions are constrained to 45 minutes. Given these conditions will I truly be able to help? With so little time and so few repetitions will we be able to create a learning process that would be carried on outside the clinic?

Luckily, we could meet the next week and I was happy to hear that her foot maintained that new perception for a few more days. It seemed plausible to try and reconstruct the "results" from the previous session and perhaps explore movements that she would be able to do on her own. That was why during the next sessions I returned to using the non-affected leg as the primary means for introducing new combinations and qualities of movement, and as the catalyst for improvement and learning. I kept using simple movements of the foot and toes

that reinstated the image of the bending the knee and hip. Although impossible to do at first with the painful leg, sliding the foot to standing gradually improved to the point of being able to stand the leg, push into the floor, and lift the hip joint.

The assimilation of improvement from one side to the other, through noticing differences, contributed greatly to her understanding and control of her own sensations. This enabled her to keep using the simple movements that we explored together on her own, reestablishing the ease and lightness on one side, infecting the other side with the motivation to explore and move.

With new possibilities reawakened and hope regained, she reported a change in her attitude and perception: "I stop and listen before I move, not because of the pain, but because I know I can do it better." Her attention and caution that were guided by fear were now steered by exploration and curiosity towards better and more efficient solutions.

Reconstructing the Body Image

Her leg regained and her general abilities increasing, Orit was still suffering from her lower back. Asking her to walk in the hall, I noticed an obvious improvement in the mobility of her left leg. The knee was bending more easily, the hip was less abducted, and the transitions from weight bearing to swinging seemed much smoother. In contrast, her torso was still skewed with her head tilted to the right, leaving her upper body always above the right leg. When asked if anything caught her attention regarding the organization of her upper body, she reported only the improved perception of her leg and the constant pain in her lower back.

It seemed logical that the organization of her upper body in relation to her mid line was causing a torque on her lumbar spine, exacerbating her injury. It also seemed that the lack of perceptual acuity regarding this organization was eliminating the possibility to self-adjust and was eternalizing a pain-movement cycle.

Contemplating how to proceed, I reexamined the possibility of working in different positions, thinking of a non-habitual orientation that might assist in exposing elements of this organization pattern. The increased pain and discomfort in all other positions excluded that possibility, leaving us still constrained to the supine position, in which the marked tilting of the head and the side bending of the torso were still apparent from the outside, but elusive to her perception.

Hoping to gain some insight as to what approach I should take I decided to start simple and asked her to notice and describe how she was sensing herself when laying on her back. This we had done before when dealing with the sensations in her leg. Her verbal feedback was a great aid in exposing parts of her self-image and in deciding how to navigate from one step to the next. As she described where the pain was originating from she mentioned how closed and compressed she sensed her left lumbar region. This inspired me to inquire if "closed" and "compressed" were merely words that describe a sensation or do they entail particular physical characteristics. Does "compressed" have a particular direction? Is "closed up" made of parts being pulled in a specific way? Do they affect the sensation of weight? Do they influence the points of contact with the table?

She understood my questions and their logic perfectly and was astounded by how difficult it was for her to discern this kind of information. Trying to sense of these non-habitual details illuminated how the pain occupied her perception. It made me wonder about her kinesthetic perception on the non-painful side and indeed there she was able to discern these details. She sensed how parts of the pelvis, back, and chest were contacting the table and how other parts weren't. She also sensed how they are organized in relation to each other with a particular twist. It seemed to me again that through the non-affected side there might be an opening for clarifying and expanding the body image.

I started to explore the relationships she described with my hands, supporting and enhancing those directions she already had an image of. It confirmed for both of us that what she was sensing was true and brought her tremendous relief from feeling supported and reassured. As in working with the non-affected leg this had great importance in itself and it was also setting up the conditions to create novel associations.

When I thought of how these movements could be advantageously connected to the arm and leg the first novel association was created. Clarifying how the proximal and the distal parts move in relation to each other was constructing a clearer body image on the non-affected side. Funny enough this clarity was affecting the other side as she reported a significant reduction in the intensity of the pain, yet still "closed up" and "compressed" in relation to the other side. Using the new conditions of less pain and the contrast between one side and the other, discerning the physical characteristics of the painful side that were unclear to her before now became possible.

During the next few sessions we continued to clarify the contrast in sensation between the two sides which led to the development of the image of the five cardinal lines. At first, we could only work by accentuating the asymmetry of the lines, which was congruent with asymmetry in her sensation and perception of the two sides. She exclaimed that merely thinking about diminishing the asymmetry was triggering the pain in her lower back. Nevertheless, this clarified how her midline was bent making her tendency to position her torso above the non-affected leg very obvious now to her kinesthetic perception. She was perplexed by how the pain was embedded within the self-image making her eager to disassociate the pain from her ability to think about the image of the five cardinal lines.

This inspired me to keep exploring what other components could contribute to the clarity of her body image. As Orit was still maintaining a tendency to tilt her torso and her head to the right I decided to explore if the orientation of her head was influencing her perception. Indeed, we discovered that changing the orientation of the head from being turned to the right versus turned to the left had a great impact on her ability to sense and construct in her mind's eye the image of the five cardinal lines. With her head turned towards the right the image of the left side of her body (the painful side) became blurred and on the right side even more focused and clear, whereas turning the head to the left, still kept the image of the right side more prominent. Taking advantage of these relationships, we continued to expand those parts of the self-image by further lengthening and shortening through the arm and leg while clarifying their proximal counterparts. Gradually varying the orientation of the head created new combinations that eventually made it possible to shorten and lengthen either side regardless of the orientation of the head, gradually decreasing the pain as more complex and novel variations were introduced. Clarifying the association of the head in the self-image dissolved the association of pain with the self-image. The plasticity of the five cardinal lines became attainable and enjoyable, dismantling the pain’s habitual environment.

She gradually initiated more intentional walking during the day, which until recently she avoided doing from fear of exacerbating her condition. By reconstructing the image of her mid line as she walked helped to realign her head, spine, and pelvis, gave her control over the tilting of her torso. She realized that her automatic responses induced by pain, and by its mere expectation, were paradoxically those that created more strain and torque on the lower back pushing the leg into excessive abduction. Not through fighting these responses, but by using them to reconstruct the body image, was she able to regain her functional abilities and her sense of potency.

Moving and Changing

Orit was still visiting the pain clinic every couple of months. The same procedures that had had no effect in the past were now very effective in reducing the level of pain and overall sensitivity. She attributed their effectiveness to the work we did: "How would anything help if I kept walking on the side without even knowing it."

She was not pain free yet, nor had all the accompanying limitations completely subsided, but she returned to part time work, teaching first grade in a regular school and was tremendously happy. The need to rest and recuperate after a day's work was also gradually diminishing and she found herself in a more continuous flow between daily activities.

Working in different positions now became possible and it was no longer necessary to work with the non-affected side as a preparation. If before we had been constrained to working in small calculated increments that built on what had been done previously, now the work became more dynamic and diverse yet still very specific. We continued addressing the automated sensory-motor responses and their intricate relationship with the pain, discomfort, and expectations. Which component of the action preceded the others? Was it the pain that triggered the motor behavior (e.g. tilting the torso to the side) or the other way around? How does the expectation of pain influence the body attitude (e.g. over rigidity in preparation for standing)? Is the preconception of difficulty causing the difficulty?

Orit came a very long way from when we started, not only in terms of pain and function. Her capacity to learn and find novel ways of dealing, thinking, and coping with her situation were outstanding, and her appreciation of the process was admirable. Her ability to monitor, to actively listen, and to consciously access her own responses were constantly improving.

Yet, it seemed there was still a basic tendency to struggle with her situation. The struggle, a central component of her habitual response, was recreating a state of mind that was hindering the learning process. It became evident that the reappearance of pain, pressure, heaviness, or any other discomfort immediately provoked rejection and an immediate desire to get rid of those sensations. The **interpretation** and labeling of these sensations as a disturbance that needs to be eradicated was actually **interrupting** the process of working with herself.

Our explorations addressed with more details how interpreting the sensations as a **disturbance** can hinder the ability to find solutions that overcome the difficulty created by these sensations. The proposed alternative was interpreting and analyzing the sensations as **functional qualities** that can have a positive benefit instead of a negative impact. Disturbances can always be negatively associated. On the other hand, attributing functional qualities can lead to a more curious exploration and therefore is more conducive with finding

novel solutions. This is not a mere semantic difference in terminology but a conceptual difference that deeply influences the observer's point of view, his interpretation, and the conclusions that lead towards novel modes of action.

We transformed "heaviness" from a disturbance to a quality that can be associated with stability, which then enables lifting to become easy. The negative sensation of "condensed" can be connected to a skeletal compression that when initiated intentionally when lying on the side has an elongating effect. "Difficulty to inhale" as a reaction to pain could be used to improve the exhalation. Exhalation assisted with an expansion of the lower abdomen, as in paradoxical breathing, creates a relaxation of the back muscles which ricochets back to improved inhalation. The "becoming stuck" sensation in the lower back during prolonged sitting was used to trigger the pelvic clock in different variations, some of which were using the "being stuck" to move the torso with the pelvis creating the transition of movement down to the feet and up to the head.

The process of relabeling these sensations through finding their functional advantages advanced Orit's perception of how the body image is shaped and underscored her ability to apply and integrate these understandings in her daily life. She discovered that rushing to change her experience was a parasitic response, blocking her ability to track the qualities and characteristics of those sensations, only to realize that their true nature is to move and change.