

Enrolling Clients in Perception-Based Movement for Self-Care in the Context of Structural Integration

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Abstract: *Tonic Function, Hubert Godard's model for structural integration, relates perceptive and coordinative structures to physical structure. Frank and McHose suggest that early introduction of the movement-oriented concepts of Tonic Function to clients increases the likelihood that they will adopt effective self-care strategies. A client who comes away from a Structural Integration series with an understanding of perception-based movement is more likely to avoid or reduce musculoskeletal problems. This article is an adaptation from a presentation at the 2005 International Association of Structural Integrators symposium.*

What does a movement-oriented approach offer the SI client? Traditionally, good posture has often represented the goal of SI. Although reference to static posture can be a good didactic or marketing tool, no one stands (or wants to stand) absolutely still. Good posture is a limited goal for SI because it does not represent true integration. From a functional perspective, better movement is the goal. Musculoskeletal dysfunction arises from faulty movement; and a client's complaints usually refer to aspects of their movement. Emphasizing better movement aligns the focus of the work with the client's immediate concerns.

What's more, clients who understand how they can improve their movement patterns are more likely to succeed with self-care – especially if they experience success early in the SI series. Starting with the first session, we can frame the client experience around coordinative learning. An SI practitioner can begin the process by distinguishing faulty from successful movement – and can then empower the clients

to find this clarity for themselves. Learning how the body moves becomes a central theme – not an embellishment. How can we best speak of these things – both amongst ourselves as practitioners, and with our clients? Hubert Godard's Tonic Function¹ model offers a movement-oriented logic of why SI works.

How does movement go wrong and what physiology underlies movement change? Fascia – the organ of physical structure that records our movement patterns over time – is certainly part of the equation. But movement patterns and potentials are also influenced by the non-physical “structures” of perception (the way we organize sensory information), coordination (our acquired sub-routines), and psycho-social disposition (beliefs that give our activities meaning). An injury, or trauma, or learned habit is interwoven with these four kinds of structure.

As each of these structures influences the others, the question is where best to intervene if the goal is to improve movement. Our “movement brain” is only indirectly reachable through conscious thought; it exists throughout the body as proprioceptive and connective tissues, as well as in parts of the sensory and motor cortex, and in the cerebellum. When we speak to the movement brain, we go under the radar of learned habits of effort – e.g., the tendency to co-contraction of both agonist and antagonist, which is the biological equivalent of pressing the gas and the brake pedals at the same time. What is the moment we might interrupt the pattern?

MOVEMENT-ORIENTED STRATEGIES

Once we have already started a poorly coordinated movement, it is too late to correct it. Coordination improves because we change how we prepare to move, or the pre-movement. Changes in pre-movement can be induced by refocusing the client's perceptions to realities the movement brain understands; i.e., by intervening in the perceptual structure. First, the client can learn to perceive weight and space, and to feel how an amplified sense of weight or space changes the movement. Perception can be further organized by attention to imagined vectors of direction through space, to which the movement brain responds.

Pre-movement is also enhanced by sustained attention to sensory impressions from our hands and feet, which are dense with afferent nerve endings. The presence of sensory flow not only informs the movement brain, but also inhibits learned effort and faulty body image, both of which impede good coordination.

Enrolling the client begins with small successes that show how movement change is possible. In practice, we can induce perceptual changes immediately – even before the client ever gets on the table. For example, after a baseline knee bend, the client is taught to sense the sitting bones, and then to imagine the body projecting in two directions – the sitting bones backward and the knees forward. Or, while walking, can the client feel the floor touching the feet instead of the feet touching the floor? A small request to notice a shift of perception leads to a shift in movement. The client can then practice initiating a movement with new pre-movement. By taking care to orient and refocus perception, the client learns new coordination – new automatic sub-routines to use in daily life. If the client observes the new coordination to be easier or more comfortable than the old, the client can imagine how it might speak to their musculoskeletal concerns.

TOOLS AND TECHNIQUES

Engaging the client's participation through enhanced perception

The bodywork table can be positioned so its end touches the wall; or, a “wall” can be built to attach at the end of the table.² Either way, the supine client's feet have

"ground," the sense of which facilitates the work. For example, in the first hour, work to open ribs and breath can be facilitated by the client's first sensing through the toes to feel the texture and mass of the "ground." By pressing the toes, the client can lengthen the front line on inspiration. Conversely, the toes rest as the body finds weight, which encourages exhalation.

The eyes can be recruited, as well. During inhalation, the client gazes toward the space beyond the top of the head, and the head slowly follows the gaze. Head and tail motion is coupled with impressions from toes and eyes. Next, the fingers reach toward an imagined space beyond the head, and the entire front line lengthens in response to the sensory orientation to space. With exhalation, the eyes and toes rest, the attention drops inside, and orientation to weight predominates.

Each session is an opportunity to build sensory awareness through the feet. Pressure from the feet can facilitate other changes, such as improved spinal shape and better coordination of the upper limbs. To engage the feet and hands simultaneously, a foot presses the wall at the same time a hand presses or grasps some object. We emphasize the importance of beginning with orientation to weight and space, as well as sense impressions in the hands and feet. We invite amplification of the sense of space or weight – not increased effort – as the impetus to more dynamic movement.

Stability education on the table

Early in the series, we test spinal stabilization with supine and prone leg raises. As a baseline, one straight leg is raised without preparation. The client observes the degree of axial rotation in the hips and spine. Next, we ask the client to reduce that rotation by making an effort to stabilize the pelvis during the leg raise. Typically, the effort will involve the rectus abdominus. This only compounds the problem, because a muscle that should be in the "last line of defense" is recruited first.

To teach the client to stabilize properly – i.e., with pure recruitment of transversus abdominus, internal oblique, multifidus and serratus anterior – we invite a pre-movement in the leg opposite the one to be raised. The client lengthens the "support" leg into space through the heel, which presses in the direction of the table. At the same time, the client's eyes orient to broad space. As the raising leg chooses and follows a spatial

vector, the sensation is that the leg rises by itself – effortlessly – accompanied by minimal axial rotation.

We encourage the client to experiment with the baseline, and with both stabilization strategies. Which strategy feels more intelligent, more pleasant? The client feels the difference between "stability" that begins with muscular effort, and that which begins with attention to weight, space and vectors of direction.³ We explain enough anatomy for the client to understand the mechanics of hip flexion and extension. We describe and demonstrate the value of stabilization in walking.

It is important to make any exercise feel doable and successful. Otherwise, the body will revert to effort, to the faulty coordination that has become the source of their problem. This particular exercise is easier if both knees are bent and the entire stabilizing foot presses down into the table. If a client still has difficulty stabilizing with the legs, try establishing shoulder stability first. Invite the client to place one hand against your own, sense the hand, and then press the hand. As described below, a clear serratus anterior response will trigger the stability response in the lower torso.

Upright stability on one leg

After the previous exercises, standing work is not new. It is the same movement challenge the client has already done, only in a different position. The standing client can practice hip extension and flexion against the mild resistance of an elastic therapy band. The band is attached to a fixed object on one end and to an ankle on the other. The unattached leg builds a perception of the floor through the sense of a large foot. Simultaneously, the head notices omni-directional space. Accessing two directions in the long axis of the body and finding a generous sense of space and floor induces a stabilizing response in the transversus abdominus and multifidus muscles. The abdomen might hollow to one degree or another as the torso lengthens – but without an intention to do so. Paradoxically, if one tries to change the shape of the belly wall directly, rectus abdominus is triggered and produces its tell-tale bulge.

With bi-directional stability established, the band is stretched backward in hip extension while the same-side arm reaches straight forward in a contralateral reach. The body senses length that isn't born of effort. The client should walk immediately after this

exercise because contralateral gait will most likely be clearer. Gait improves best not through imitation or conformity to an idealized image, but when stability is augmented and the person feels bi-directionality.

Upper-girdle stability

Upper-girdle stabilization can start on the table, early in the series. The client learns to reach into space, often while holding an object; and to press against a ball, the wall, or the practitioner's hand. Reaching and pushing are preceded by sense impression and spatial orientation. Standing work can include pressing an elastic band with the back of the hand. Sense impression is taken in through the skin of the hand, and the elbow finds a vector into space before the movement starts. The client's free hand can reach behind to feel the scapula stabilize by flattening against the ribs and protracting slightly at the inferior angle.

Walking toward functional integration

If an exercise is followed by a walk, the client can observe the results. This supports change. The client may sense success from one or two repetitions of a light exercise, and learns that effective exercise does not require physical exertion, high resistance and many repetitions. In fact, high resistance is counter-productive to revival of core stability because it is too tempting to revert to coping strategies associated with failed coordination. Walking also lets the body use the intervention when it is fresh and most likely to integrate. This represents traditional SI philosophy: give the body better information and it will self-organize at a higher level.

All of the table work is in some sense about walking. With a wall to push against, the client can grasp this. Stability facilitates walking by keeping the axial components free enough from the girdles to permit contralateral gait. Stability also conserves the kinetic energy that recycles in the gait sequence. The model of recycled kinetic energy in gait is expressed in Serge Gracovetsky's theory of the spinal engine and is also a central topic of the authors' forthcoming book.⁴

The Flight of the Eagle

The authors regularly teach Godard's Flight of the Eagle exercise to clients. Flight of the Eagle is a series of spinal movements done with the feet on the floor and hands on a low

bench and parallels the sequence known in yoga as Salute to the Sun. A description of this series, with illustrations, was published in an article in the 2005 Yearbook of Structural Integration⁵ and in the authors' forthcoming book.⁶

CHALLENGES TO WORKING THROUGH PERCEPTION

We teach most effectively what we embody, what our bodies express in movement. To teach movement through perception, practitioners will gain advantage if they learn and practice the same exercises they give their clients. We live in a world that respects muscular effort – and one that can be suspicious of the ease that a perceptual approach yields. It is common for perceptual approaches to be eclipsed in “fitness” circles by less subtle methods. This is why it is helpful to practice and embody perceptual skills sufficiently so that they become un-subtle to us and we are able to demonstrate a contrast between effort and perception to our clients. □

1. Frank, Kevin, “Tonic Function - A Gravity Response Model for Rolfing® Structural and Movement Integration,” *Rolf Lines*, Boulder, CO: Rolf Institute, March 1995, pp. 12-20. This article describes much of the logic of Godard's model, including why the term “gravity response” is so apt for taking this approach.

2. Frank, Kevin, “The Relationship of Contralateral Gait and the Tonic Function Model of Structural Integration, Working with Coordinative Structure,” *Journal of Structural Integration*. Boulder, CO: Rolf Institute, Dec. 2003, pp. 17-21. This article discussed the use of a fixed wall at the end of the bodywork table and the ways one can use this set up to facilitate contralateral gait.

3. Newton, Aline, “Core Stabilization, Core Coordination,” *Journal of Structural Integration*, Boulder, CO: Rolf Institute, Dec. 2003, pp. 11-16. Newton presents a broad picture of what stabilization means and how to avoid some of the common pitfalls associated with this current topic in fitness and yoga.

4. Gracovetsky, Serge, “Analysis and Integration of Gait in Relation to Lumbo Pelvic Pain.” *4th Interdisciplinary Congress on Low Back and Pelvic Pain*. Montreal, November 2001. Gracovetsky, Serge, *The Spinal Engine*. Wien and New York: Springer-Verlag, 1988.

McHose, Caryn, and Frank, Kevin, *How Life Moves, Explorations in Meaning and Body Awareness*, Berkeley: North Atlantic Books, 2006. Gracovetsky has proposed a theory that finds the origins of human gait in the spinal movements of pre-human species. McHose and Frank present a curriculum that makes this theory an experiential lesson in anatomy and movement.

5. Frank, Kevin, “Flight of the Eagle – Self Care for Structural Integration Clients,” *2005 IASI Yearbook*, Missoula, MT: IASI, 2005, pp. 44-50.

6. McHose, Caryn, and Frank, Kevin, *How Life Moves, Explorations in Meaning and Body Awareness*, Berkeley, CA: North Atlantic Books, 2006.

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