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Homologous Movement: Yield & Push and Reach & Pull

NeuroDevelopmental Movement is a body-mind/brain program, using the body to impact the brain and its organization. But what we have overlooked so far is an in-depth look at the body organization process that is also going on.

Here, I am going to reference the book *Making Connections*, by my friend and colleague Peggy Hackney, as well as reference my own history in Somatics and Bartenieff Fundamentals training.

We see the body going through three repetitive phases of integration at each stage of development. First, there is the homologous stage in which the upper body and the lower body work separately and symmetrically. Next, there is the homolateral phase when one body half works as a whole unit in opposition to the other half. Finally, there is the most complicated phase, and the culmination of the integration process in cross pattern versions of each stage of development. The complex systems that cause the body to signal back and forth over the midline are the basis for both complex fluid movement and thought.

These three phases can be found in prenatal patterns, pons level development, midbrain level development, and cortical development. There is a repeated rhythm of homologous/homolateral/cross patterns that provides resilience to the whole developmental sequence.

Out of the unity of the fetal position, our body heads towards differentiation, and the first phase of this is figuring out what the upper body does and what the lower body does. This is the homologous phase.

It is the time in our development when we establish that the lower body is for support and locomotion, for “standing up for myself”, for grounding, and a sense of stability. This allows the upper body to take on a very different role, such as relating to the world, doing manual tasks, creating, pushing away, reaching.

If the lower body is not doing its job, as in children who do not use their legs for crawling, then they are moving through the world with a disability. It is as if the upper body were to use crutches for mobility. What you see most commonly is the tense upper body and rigid shoulders, the barrel chest and defensive posture of one who feels insecure because they have not claimed the use of the lower body. You might see the “clothespin shoulder” posture in your clients, or a child who is quick to strike out with their fists when afraid, rather than depending upon their lower body to allow them a more “grounded” stance and “stand up for themselves”.

The developmental sequence is the infant’s opportunity for upper and lower bodies to each learn their specific tasks, and if not learned, there are consequences neurologically, emotionally, and



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physically. One of the consequences in adults may be the client who has chronic neck and shoulder pain and may even have gotten chiropractic or massage treatments for this tension.

As the infant develops the distinctly different tasks of upper body vs. lower body, which you will see in homologous movement, they must start to work in coordination, through a fully developed core body, so that the body can function as a whole.

A quote from Peggy Hackney's book, *Making Connections*:

“Learning to set boundaries, learning to give and receive, learning how to support your reach for the goal with a lower body push which will get you there – these are some of the large tasks to be learned at this stage. Two polar aspects are particularly important. Stated as an inner monologue, they are:

1. “This is what I do to get away from what I don't want to be near, so that I can feel safe in my space.” (boundary setting by pushing away...sense of protection)
2. “This is what I do to move out into the world, so that I can get what I want.” (moving toward a goal by sequencing from a Yield & Push to a Reach & Pull - self-expression)

“Learning to be the commander of the troops, the physical resources of the body, is not an easy task. This is true whether you are less than a year old and learning to push away and subsequently travel forward on your belly, or whether you are an adolescent or adult approaching school, career, or relationships, reaching toward a goal and needing the grounded support of a Yield & Push to get you there.” (Hackney, Peggy, *Making Connections*, p. 112)

At this stage, the upper body and lower body function so that when a command is sent to one arm or leg, both arms or legs respond to the same command, symmetrically. When the baby lifts one arm, they will lift both at the same time. When they command their body to push away with the legs, both legs will push at the same time. This is the definition of homologous movement.

To more deeply explore the meaning of homologous movement, we are going to explore “Yield & Push” patterns and “Reach & Pull” patterns.

The Yield & Push patterns give one a sense of grounding and claiming one's own power, getting strength from the earth that moves up through the core of the body.



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These exercises are given for students to understand the function of homologous movement:

- Standing: Keeping the upper body upright, bend hips, knees, and ankles, keeping a sense of opening in the bottoms of your feet (partner give extra push downward on tops of hipbones). This is the Yield phase. Then push back up again against the resistance. “Push the floor away”. This is the push phase.
- Standing: Two footed jump (over a towel). Note that the legs have to yield INTO the floor by bending to use that energy of connection to move you up and forward. If your legs are stiff – if you do not yield, you can’t connect or “bond with” the earth to reach your goal.
- Standing: With something heavy over your head – lift just with your arms, then lift with your legs yielding and pushing.

Peggy Hackney makes the point that “bonding”, or yielding, first allows you to make a boundary. Connection through bonding vs. separation through defending (a stiff, unyielding rigidity) - this is the way to “claim your own space”. While this is very physical, it is also psychological.

- On stomach with arms bent at elbows: Yield & Push with the upper; going up and down, not a push-up.
- Yield & Push with the lower; rocking from the feet. Let the movement sequence through the inside of the legs, up to the psoas muscle. This will later provide support for upright standing.

How Yield & Push is useful in the world – sports – jumping to put a ball in a basket. In personal relationships, being able to bring people in as closely as you need or keep them as far away as you want. This is the psychological side of the Yield & Push.

In this exploration of homologous movement and its meaning, the Yield & Push patterns provide the system with a pre-conscious/subconscious sense of power, grounded-ness, support and confidence.



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“Reach & Pull” is the other aspect of the homologous pattern of movement. It is Reach & Pull that gives us access to space to express ourselves and to interact with our environment. We can reach out and pull things towards ourselves. If we stay connected to our core, we engage with our whole body.

These exercises are given for students to understand the function of homologous movement:

- On your tummy, reach forward with your arms and pull from the muscles under your scapulae (not from the shoulders, which will disconnect the upper body from the lower body).
- Use Reach & Pull with your arms to go from being on your tummy to being on your hands and knees.

Going up a ladder is another good example of Reach & Pull.

Changing levels often uses the full Push to Reach to Pull sequence. Doing the full sequence makes level changes easier.

When the body has full access to this sequence, it’s creating a sense of self that believes “I can do” in the world. It is a trigger for INTENTIONALITY.

The child going through this phase is developing a sense of being able to say “no” and can literally “push back” on anything a parent wants of them, such as getting them dressed. However, this challenge is balanced by the satisfaction that they are able to indicate and reach out for what they want, to get to a goal they themselves have determined.

Another quote from Peggy Hackney’s book, *Making Connections*:

“Phrasing from a YIELD & PUSH to a REACH & PULL is effective for getting things done in the world and for offering your feelings out into the world and bringing response back into yourself. When you phrase movements in this way, you are both powering the movement and being empowered by it. The phrase is complete and satisfying as opposed to feeling the environment is pulling you around or that you can never accomplish anything.”

Ineffective development of a full early homologous pattern results in a person who has no internal support for reaching for their goals (no Yield & Push pattern), so they may “overreach” for something they cannot support. Or this might look like someone who is always pushing, but never accomplishing (no Reach & Pull pattern).



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The psycho-emotional aspects of homologous movement support these kinds of thought patterns:
(from Peggy Hackney, *Making Connections*)

I want. I will.

I can't. I can.

I struggle to claim my own power and use it.

I push away to make my space safe.

I reach out to go forward toward my goal

I fail... I push through... I succeed.

I stand on my own two feet

I am confident as I move into my world.

In NeuroDevelopmental Movement practice, we support the client as they go through the developmental phrasing of

homologous movement,

homolateral movement,

cross pattern movement

in a repeating upward spiral of achievement. This, if represented in a drawing would look like an upward spiral, a spring-like form that represents the resilience of the human central nervous system. The many “back up systems” that help us survive even in the presence of neurological injury, allows the human brain to overcome and succeed, despite gaps in the spiral of development.

Homologous, homolateral and cross patterns show up in every stage of development, from fetal movements to walking.



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Movements that are homologous or have a homologous phase in normal neurological development include:

- Frog Pattern
- Homologous Reach, 2 part and 1 part
- Truncal movement done on the side
- Crawling – the first stage is homologous
- Creeping – the first stage is homologous
- Walking – the early bounce on the legs and reach up (as for the fingers of a supportive adult) with the hands
- Jumping with two feet

What you might notice in clients who may not have fully developed the homologous phase:

- The most obvious sign of poorly developed homologous, or “Yield & Push, Reach & Pull” skills is crawling with an upper body pull with no use of the legs at all, or the legs bent at the knees and up in the air.
- Our clients with an under-integrated homologous phase may have “clothespin shoulders”, with shoulders held up towards the ears, and perhaps even a barrel chest. The barrel chest often is seen with a poorly developed, even a small, lower body compared to what might be a more balanced upper/lower body.
- On occasion you will see a lot of anger arise (and facial grimacing) in children who “crawl” without using their legs.

This practitioner has observed that those clients with an overly-developed upper body and a correspondingly small and ineffective lower body are more quick to anger and defensiveness. There are children whose anger is actually triggered by crawling when they have not yet developed the support of a lower body. We notice that as the lower body brings a better upper/lower balance, the crawl is less triggering. This is not only the result of crawling becoming easier and more efficient; I observe that it is ALSO the result of the upper and lower bodies taking on their appropriate roles in mobility.

It is crawling that will ultimately inform us that our lower body makes us safe and grounded; while our upper body can create and mold our world, push away the unwanted (with the established support of the lower body).