Syntax of Growth

The Language of Movement, Part Two

By Thomas Myers

In our previous column, ("Kinese: The Language of Movement," December/January 2007, page 18), we thought about how we might intervene earlier in the development of poor postural habits, under the principle of "as the twig is straightened, so grows the tree." In that discussion, we introduced the concept of Kinese—the language of movement. This is the nonverbal language a baby speaks in its first year, and it was suggested that we—therapists, parents, adults in general—would do well to learn it. Understanding the language of movement would allow us to communicate delightfully and completely with the youngest members of our society and to spot incipient misplaced patterns before they become the major strain patterns we deal with every day.

Of course the use of Kinese does not stop with children—it remains as the nonverbal support to spoken speech we call body language. The ability to read this code is obviously very helpful to the bodyworker as visual assessment in everyday practice.

Kinese is a language better understood in third-world cultures, especially in those places like Bali where residents love their children and have a highly developed sense of play. We in the developed world claim to love our children, but often actually combine ignoring them with spoiling them instead. Sometimes we act as if we do not really like or understand them, expecting them to be little adults and viewing most of our interactions with them as a form of work.

Our society is also very horizontally stratified, so that age groups are warehoused with each other much of the time—the old in nursing homes, the young in day-care centers or various strata of schools, and those in between in offices. Thus, many of us without young children do not have regular contact with them unless we seek it out. If we do that, as human beings and as therapists, we can learn more, and then teach more, about the playful and kind aspects of Kinese. This will lead, ultimately, to the more humane use of human beings.

In this column, we intend to explore a major part of the "syntax" of Kinese relevant to the development of good structure—the progressive series of supporting postures children use in the process of growing up to standing. To complete the circle, we will carry this knowledge back to our table in the treatment of adults.

Weights and Spaces

To begin, we need a very basic anatomy lesson. Human bodies have seven major weights—two arms, two legs, the pelvis, the chest, and the head.

Between each of these major weights is a free space that rotates—the two shoulders, the two hips, the waist, and the neck. (Why isn't this simple but profound fact at the front of most anatomies? Not even Blandine Calais-Germain has this in her otherwise thorough Anatomy of Movement.)

The massive weights—especially head, chest, and pelvis—tend to be bony on the outside and organically soft on the inside. The rotational spaces between are soft tissue on the outside, hard joints in the middle. The process
of standing up is a series of steps to use the muscular power of the spaces to locate the weights on top of each other in a supportable way. Each child’s process of doing this varies widely, but the following route map can be helpful in tracking the general unfolding.

Now, most people seem to act as if we stack the weights from top down. Have you ever noticed that many of your clients, when they are ready to move at the end of a beautiful bodywork session, often lift their heads first? Perhaps you’ve seen this and winced, as they put the tension back into the neck, chest, abdomen, and hips that puts the head forward posture back into their bodies. Perhaps you have even encouraged them to roll to their side and sit up, rather than crunching their way off the table. This is an intuitive venture into the world of Kinese. When you lift the head off the table first, you have put a large weight at the end of the lever of the spine, and every subsequent movement in the process of finding your feet is going to involve extra effort. Lifting your head first may get your eyes out there early in the process, but every other part of you is going to suffer for that privilege.

Rolling to the side and letting the feet swing off the table to the floor recognizes two principles in the syntax of Kinese: 1) the pelvis lies in the center of most movements, and 2) you build these weights up into support from the bottom up, not the top down. By rolling to the side of the pelvis and letting the head go along for the ride, you centralize and thus make the movement more efficient. By letting the feet find the ground, you build the support into standing. Not head-chest-pelvis-legs-feet, but feet-knees-hips-chest ... with the head rising to let the eyes look forward as the last event in the chain, not the first.

**Rolling Over**

The first major postural change, occurring at about three months or so, is to roll over onto the belly. This involves rolling onto the side first, which might be considered the first postural change, but most kids don’t hang out on their sides for very long; it’s too precarious.

This ability to roll over is discovered by random experimentation; the look of total surprise on a baby’s face when it achieves the change can only make you laugh out loud. It often happens as a result of the body following the eyes: mom moves out of sight overhead and the baby, to keep the object of most interest in view, swivels its head and body around to try to follow Mom, and—whoop—finds itself on its stomach.

(You can reproduce this for yourself, even though your adult proportions are a little different from a baby’s. Lie on a carpeted floor on your back. Look to the side, then look up. Keep these two motions going—keep looking to the side and at the same time letting your eyes look up. Let your body follow this movement and you will find yourself on your belly with ease. It helps if you raise your arm overhead first on the side you are looking to, so that you roll over your armpit, rather than your shoulder.)
Getting the head off the ground leads to more freedom for the baby, more access to the world.

Once on the belly, the baby puts its forearms on the surface and spends most of its time with the head in the air, looking around. This represents a good deal more freedom of movement for the baby, more access to the world. Eventually, the child will learn to creep in this position, a motivation it could not manage on its back. But for the purposes of our discussion, this first move gets the head off the ground.

Sitting Up

What is the baby’s next change in posture? To sit up. Again, following the eyes, the baby moves its head around, pushing with the hands, until its weight rolls over the upper thigh onto the ischia, and—boom—the baby suddenly discovers sitting. Again, it is precarious for a while, but the muscles and neural coordination soon catch up and the baby is confidently sitting—and sitting by and large more comfortably than most of us. Sitting up represents another step toward independence: the neck and eyes are more free to scan a greater part of the world with the trunk rotation, and in this new position, the hands are free to manipulate the environment, to bring new (and occasionally nasty) things to the mouth, for instance. (You will notice that each progressive stage requires a greater degree of childproofing the house.)

Now do this one for yourself: lie on your belly with one knee cocked. Look toward that knee, and continue looking sideways and up over your shoulder on that same side while pushing off the floor with your hands. You will soon find yourself rolling over the straight leg into sitting. Repeat until fluid.

Achieve this postural change, and you will notice you and the child now have two of these big weights off the ground.

Rolling onto the belly lifted the head. Pushing into sitting supports both the head and the chest aloft above the pelvis.

Crawling

What is the next stage then? From the sitting position, as the child reaches forward for whatever is in front of it, it will go over its knees to arrive at the next stage—crawling. To make this easier for yourself and your knees, spiral away from whichever foot is more forward—if your left foot is in front, turn to look up and over your right shoulder as you put your hands down to catch yourself—coming off the pelvis along the thigh onto the knees, and thus from sitting to crawling. The all-fours position represents a new set of freedoms—whereas belly creeping was limited in scope, crawling gives us access to stairs (yikes) and all manner of ability to follow Mom or the cat wherever they might lead.

It also raises another of our weights into the air—in crawling (approximating, of course, the position of most quadrupeds for most of their lives), the head, the chest, and now the pelvis are all supported off the ground. The other four (hands and legs) are required to keep contact—three of them at least—for stability. How does the baby negotiate getting those upper limbs off the ground? By another spiral or two, of course. Ultimately, for sure, one limb at minimum has to be touching for anything we would call a posture, but we do get ourselves onto the very ends of two of those limbs for the precarious and dynamic balancing act we call standing up. This is where we stop building the weight from the top down and start supporting them from the bottom up.
Kneeling
From a four-legged position, the child moves toward kneeling with one foot on the ground, usually through the use of a nearby table, chair, or pant leg. You can do it yourself without any help: from a crawling position with one knee well in front of the other, look over your shoulder and up toward the forward knee side. Let your hands leave the ground, and let the foot on the forward side roll over itself from the top of the foot to the sole. It is not necessary to pick up the foot to do this (too much effort and coordination required for a baby to "speak" this way anyway), but just allow the foot to roll over itself as you look its way.

Standing
Now you and the babe are kneeling with one foot on the ground—you are going to get the other foot on the ground and come to standing? By another spiral, of course: from this position, swing your pelvis over the "standing" leg while "pointing" upward with the opposite arm. With a little strength (which we adults often lose because of the ubiquitous use of chairs), you will swing right up to standing.

If this proves difficult for you, try it in reverse: start standing and point up with one arm. Bring the hand down in front of you diagonally—like a sword stroke—while simultaneously bending the same knee to the ground. Go up and down through this motion a few times and it will become natural to you; then you will find standing from one knee an easy and graceful single motion.

For fun, go down through these series of spirals—from standing, use the "sword stroke" to come to kneeling. From kneeling, look down and around toward the kneeling knee to come to crawling. Look down and to the other side to spiral back into sitting. From sitting, turn away from whichever leg is in front and slide your hands on the ground to arrive on your belly. From your belly, looking down under your armpit and allowing your body to follow will bring you back onto your back. Now reverse your way back up again until all the motions are second nature.

All babies go through this sequence in learning to stand up, though there are many variations in timing, and some stages may be only minutes long as the baby finds a way around a particular posture. Stages that are missed can have consequences for later life. No matter what the "experts" say, I have found that true contralateral crawling is a necessary precursor to easy reading (for reasons too complicated to spell out here, but having to do with the asymmetric tonic neck reflex), and some cases of dyslexia will respond to programmed crawling or other Brain Gym contralateral exercises.

According to a story I heard and loved (but was not present for), Margaret Meade was once sat next to Moshe Feldenkrais at a dinner party and used the opportunity to ask him about men in Bali (I am paraphrasing, of course, not really quoting): "These men do all manner of complicated folk dancing, but cannot be taught or induced to hop from one leg to the other."

Feldenkrais replied (supply the Russian-Israeli accent): "It sound as if they are missing the stage of creeping."

At that point Meade metaphorically slapped her forehead: "Of course—no Balinese baby is allowed to touch the ground for the first 'rice year' (seven months), so they never have the opportunity to creep."

Creeping (how you motivate when lying on your belly) is
substantially different from crawling (how you get about on all fours) and involves—try it—that very shifting from hip to hip which is a precursor for hopping. Because they miss that stage, the Balinese—able dancers and sportsmen—are unable to organize a simple foot-to-foot hop. However, another consequence is that any Balinese three year old can easily and securely hold a baby—not something you can entrust to most Western toddlers.

For More Information
- Bonnie Bainbridge-Cohen, Bodymind Centering, www.bodymindcentering.com
- Beverly Stokes, Amazing Babies, www.amazingbabies.com
- Frank Hatch and Lenny Maietta, Touch In Parenting, www.kinaesthetics.com

Your Practice
Let's bring all this talk about how babies develop—the syntax of Kinese—back to your life and practice. We have already suggested that making these natural movements easy and effortless is a form of self-help—a way to go back though your own development and see what parts are easy and what parts of these sequences did not establish themselves so well in your brain and body. Once you have mastered them yourself, you can take others through the sequence and see where they get stuck and have difficulty moving.

All these various sequences boil down to one simple but revealing test on the table, one I have used for years for the wealth of information it provides. With your client supine, have her put both her hands over her head, so that the backs of her hands come to rest in the palms of yours. Grip her hands gently and comfortably but securely by curling your fingers around the wrists and base of the hand.

Lean away from the client so the arms are a bit stretched, and you can feel the weight of her body on the table. Maintaining this extension or pulling, rotate one of your client's hands medially to take up the spiral slack in the arm, and—keeping the extension and rotation—bring that hand across her body. Your client will start to spiral, as if to roll from the back to the belly. You do not want to go that far, of course, or the client will roll off the table, which will not be conducive to relaxation.

But there is no necessity to go anywhere near the edge of the table as you bring the arm across over her face, because all you are looking for is the sequencing. You will first lift the shoulder, the scapula. Then, if the sequencing is happening properly, you will begin lifting her ribs, one by one. If they come like that, like a slowly opening fan, that is good. If they come as a block, your test has indicated the client needs some opening and differentiating to let the ribs work separately from each other. The heavier someone feels, generally, the more work they need; the integrated person follows this movement easily—even a large person.

From the ribs, the sequencing moves to the lower back, which should again sequence into the movement vertebra by vertebra, not as a block. This leads into the hip, which begins to turn as you continue extending, rotating, and bringing the arm across the body. Soon you will see the knee and toes turn in, and you have reached all the way down the body to the foot. This will be long before the person is so close to the edge of the table that they are in danger of falling. (Some narrow tables will start to tip with this sideward movement, so keep a foot on the table leg.)

Of course, you want to do this on both sides for comparison. Although I cannot tell you exactly what you will feel, if you do this test with the next hundred people who rest on your table, you will immediately be able to tell how easily this person sequences and precisely where they do not (and therefore require work). This is the most telling, simple test I perform (along with checking the cranial pulse and listening to their voice), but speaks volumes about the client's relationship to their bodies and movement.

You can find a video demonstration of this test at www.anatomytrains.us/at/store. Click on "DVDs" in the left-hand scroll. Go to page 4. Next, click on "Technique Series: Functional Lines," and finally on "Video Excerpt 1." Or break down and buy the whole DVD.

In doing this test, you are recapitulating the first rollover sequence from lying on the back to lying on the front—the first spiral a baby manages. You are checking their most basic vocabulary in Kinese.

This plea for an understanding of primary movement—from the prenatal right up through infancy to adulthood, as the basic syntax for the grammar of posture and adult behavior—is where I am going to leave our discussions for a while. I need to turn my attention to other tasks, like a new book, but let me take this opportunity to thank Massage & Bodywork for allowing me this forum for so long, and for being so fun and professional to work with. And thanks to you, dear reader, who labored with me through the prose to this, its end.

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FEBRUARY/MARCH 2007 • MASSAGE & BODYWORK 59
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