

Orthotropism and the Unbinding of Morphological Potential

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The following article is based on a transcription of a lecture given during an advanced class, co-taught with Pedro Prado, on the beautiful island of Ilhabela, Brazil, July 11, 2000. Cornelia Rossi generously transcribed the original lecture. Some parts have been omitted, modified, or added to aid in readability, continuity, or to provide the necessary background material for understanding the discussion.

Q: HOW WOULD YOU REFORMULATE THE CONCEPT OF SUPPORT IN RELATION TO THE IDEA OF ORTHOTROPISM'?

First let me thank you for insisting on more clarification about the nature of support and its relation to the concept of orthotropism. Unfortunately, in our discussions we have not clearly distinguished between a number of ways of understanding support. These ambiguities have arisen because I put off working on my model's feet and lower legs until her fourth session and because I realize that I haven't spelled out how I was perceiving support well enough for you to understand. In terms of teaching a non-formulistic approach to the basic series, we were fortunate that my model's structure demanded the kind of work that violated most of the recipe strategy rules, most of the do's and don't's of the early hours. When you perceive the logic of her sessions and how her body responded, I think it is clear that the Rolfering she received brought about the best change for her body given the way her body wanted to unfold. I think it is also clear that if I had followed the traditional recipe, I

would have breached her morphological requirements. But what is not yet entirely clear is why I was able to put off second hour considerations until the fourth hour and in what sense her support was deemed good enough for this project.

As you may remember, she was concerned that I not go too fast or too deep and bring about the kind of overwhelming emotional flooding that her previous therapist had unleashed. Do you remember that she had, to speak loosely, a short fourth hour line through the left leg that extended into the trunk, and that there were restrictions and strains in the celomic sacs in both the abdominal and thoracic cavities? I began her series by dealing with the sac strains first in the hopes of facilitating her finding better core/sleeve balance throughout the trunk. This way of opening a basic series violated the implicit strategy rule of working the sleeve before the core, but because of how the deep sac strains were distorting her morphology, and because she was experiencing pain and distress in her shoulders and neck as a result of these sac strains, it

was clear that she needed this sort of an approach. This approach was also somewhat problematic because it could have easily induced a catharsis against her wishes. You may remember I reported later that she was on the edge of emotional flooding throughout the entire first session. So I had to walk a tightrope in trying to bring about better core/sleeve balance without touching off a cathartic response. Fortunately, thanks to the influence of Bill Smythe, I managed to walk this tightrope and I believe, even titrated some of her emotional responses in the process.

The first two sessions were about core/sleeve balance in the trunk and back/front balance. The third session was devoted to her shoulder girdle and arms. By the time we got to the fourth session, her back was longer, the core/sleeve balance was better, her back/front balance issues were better (although not perfect), the so-called fourth hour distortions were gone, she manifested a very nice center line when seen from the front, which to me is a very important indicator of integration, and her pain had almost completely disappeared. Her support was better but her legs were still hyperextended. Remember that it took three sessions to clear the strain in her trunk and pelvis. Had I done a traditional second hour approach and worked on her feet and lower legs, I would have driven more strain into an already troubled area, thereby making her worse. After the

fourth session, in which I finally addressed her feet and lower legs, we saw a wonderful sense of lift, length, continuity, and order that spread throughout her body, an order and continuity we probably wouldn't have seen if I had done this kind of work in the second session. The fifth session, which was devoted to her cranium, also helped to develop better support and lift.

I have been trying to demonstrate how to develop support by working on the trunk (and sometimes the cranium). When Rolfers see legs that don't appear to be a matched set, or are not under the body well enough, they are often prematurely tempted to direct their work to the legs. I have been asking you to look also at the trunk, in particular at the celomic sacs and the spine, for the source of these kinds of problems in the legs. We have seen over and over again how the right sort of work in the trunk often cascades downward and the legs begin to look more and more like they belong together and come under the trunk better. This is part of what I mean by developing support from the trunk. Don't forget, by the way, that the way the legs translate up through the trunk is quite different and very much less complicated than the way the arms are related to the trunk.

After the fourth and fifth sessions, my client's support was better, but many of you were still wondering about her hyperextended legs, which you drew attention to right from the beginning of her sessions. Of course, she needs more work and perhaps we would see her legs coming under her better after some more work. But we are only taking our basic models through five sessions in this class. We agree that my strategy worked rather well, but this question still remains: in what sense were her hyperextended legs providing enough

support for the strategy employed?

In order to deal with your very pointed and important question, I have to backtrack a little and remind you of some past talks we have had about related issues. The answer to your question lies in rethinking what we mean by organization of the human body. We say that Rolfing organizes or integrates the human body in gravity. But what does that mean?

When Dr. Rolf talked about how the body was organized in gravity, she used two compelling examples: the block model, upon which the Rolfing logo is partially based, and the tent example.¹ The block model uses the line of gravity as a way to determine the degree of organization and the tent analogy appeals to the palintonic idea that organization is a matter of appropriate span and tension of the guy wires and fabric as they are pulled across the poles. Both of these models are compelling and useful. Both are also problematic because they force you to see the human body as if it were a nonliving object, as if it were a mere object that is being passively acted upon by gravity. Both these models miss entirely the nature of biological organization and the fact that human beings are always responding to gravity – they are never merely passively acted upon by gravity like a tent or stack of blocks.

Using the line of gravity to determine the degree of integration or organization can be very useful, as Hans Flury has clearly demonstrated. If you want to see just how useful this approach is, you should experience the power of his movement work.² Unfortunately, as Peter Schwind pointed out years ago, basing our concept of integration around how well a body approximates the line of gravity has a serious drawback. The model presupposes that the body is equally dense

throughout.³ But we know the body is not like a stack of blocks where each segment or cross section has the same center of gravity. As a result, it is not really possible to line the body up along the line of gravity or in some cases to even approximate it. So the attempt to understand organization of the human body in gravity in terms of physics, Newtonian or Einsteinian, while useful in some ways, is also limited. It also misses, for example, all the pushes and pulls in the body that affect how we respond and organize ourselves in gravity, as Peter Schwind has been insisting for years.

Diverting attention away from the question of biological organization also occludes how fundamental our morphology is to how we are organized in gravity. Structural integration is not only a matter of how gravity acts upon our bodies, it is also a matter of how our bodies are organized with respect to themselves and how they are organized to meet gravity, the environment, and our world. If we see the body only through the lens of physics, we will see it as a mere thing or soft machine and miss entirely how the human body actually organizes itself to meet gravity and its world. I don't want to go back over all that I have written about dualism and the mechanistic approach to biology,^{4,5,6} but let me remind you of the two arguments I have formulated against viewing the body as a natural machine or a mere object. One can be called the argument from organization and the other the argument from self-sensing (corporeal reflexivity).

The argument from organization demonstrates that the mechanical approach to organization occludes how spectacularly different the organization of living bodies is from the organization of nonliving things or mechanical objects. But, before I

get to the heart of this argument, I want to prepare the way with a couple of observations. Organisms establish their biological identity by differentiating themselves from inorganic objects, from their environment, and from other organisms. They are autopoietic (self-making), as Maturana and Varela claim.^{7,8,9} (In order to overcome the mechanistic presuppositions of the Santiago theory, which actually undermine the concept of autopoiesis, I have argued that we need to expand the concept of autopoiesis to include the concept of self-sensing⁵) As a result of this self-organizing, self-sensing rudimentary cognitive ability, organisms are continually in a process of defining themselves in opposition to their environment and world, and they are continually compelled to adapt their morphology to their ever-changing internal and external environments.

We can deepen our understanding of biological organization by looking at how Rudolf Steiner extended Goethe's morphological studies of the mammalian body. He saw the morphology of the mammalian body as an interpenetrating threefold organization consisting of the sensory-nervous system (structurally associated primarily with the head, but obviously extending through the whole body), the rhythmic system (structurally associated mostly with the thorax where you find the activities of respiration and blood circulation), and the metabolic-limb system (structurally associated primarily with the limbs and the abdominal cavity).^{10,11,12,13,14,15,16} Each member of this tripartite nature is an expression of the whole. Since they are interpenetrating, they cannot be spatially separated into discrete parts. They do not lie side by side like the parts of a machine. They live in each other, they are found throughout the body, they exist for and by means of each other,

and each enters into the constitution of the others.

Unlike human morphology, all mammalian forms tend to be adapted to a specific environment by making one member of the threefold the dominating feature around which the whole is organized. Powerful, impulsive, enduring, and quite differentiated movement, for example, characterizes the horse's morphology. Hence, the horse's body displays how the tripartite mammalian type is morphed and organized around enhanced leg formation (metabolic-limb system), which expresses and allows for a greater opposition to gravity than, say, a mouse with its short and less enhanced leg formation. The enhanced leg formation of the horse allows for greater freedom in relation to its environment. But this morphing of the tripartite mammalian type is not limited to the legs alone, it is also expressed in the organization of the whole organism. The horse's large chest illustrates how increased movement demands an increased oxidation process (rhythmical system). The horse's fiery movement also shows up in a greater need for food (metabolic-limb system). As a result, the horse's digestive system is organized to be able to daily metabolize 50 kg of grass and other vegetation. Accordingly, the horse's intestines reach a length of about 30 meters. The horse is also an extremely sensitive creature (sensory-nervous system). Its eyes, the largest of any terrestrial mammal, are situated on the sides of its head, allowing a full, expansive survey of its surroundings through which its organs are intimately connected and to which they are adapted.¹⁷

Compare the horse's morphology to other mammals. Think of how the giraffe's whole body is morphed and organized around its head/neck.

Imagine the intensely nervous activity of rodents as they scurry about, whiskers twitching, continually gnawing and nibbling on things; notice how their paws are more developed for holding things, and you realize that they are organized around the sensory-nervous system. Or picture a cow, blissfully chewing her cud and you see that such creatures are organized around their digestive processes. In all other mammals, except the human, one member of the tripartite nature dominates the organization of the whole organism. Human morphology represents the harmonious interpenetrating of all three systems in which no one of the threefold is more dominant than others in the organization of the whole.^{10,12,17}

Now here is the important point about organization: these morphological considerations illustrate that living organisms are not serially cobbled together from pre-shaped parts the way machines and other constructed material structures are. Living organisms are self-shaping, irreducible complexities constantly responding to their environments. They are self-sensing unified seamless wholes in which no one aspect, detail, or part is any more fundamental to the makeup and organization of the whole than the whole itself. Unlike a machine, a tent, or a stack of blocks, every detail of the organism, whether it is an organ, a bone, or a myofascial structure, is an unmistakably clear, although differently formed, expression of the same self-shaping wholeness and biological identity. Every aspect (or, to speak loosely, every part) of an organism is an expression of its self-organizing unified wholeness, every aspect of the organism exists for and by means of every other aspect, and every aspect enters into the constitution of every other aspect of the organism.

You are not an aggregate of single characteristics or pre-shaped parts. Every aspect of your psychobiological nature is a matchless manifestation of your self-shaping unified wholeness.

Although the human form has evolved from the animal form and shares the same anatomical structures common to all mammals, human morphology is quite different. By vertically appropriating gravity, human morphology transforms these common animal structures and organizes them into to an upright, self-directed, self-sensing, self-conscious orthotropic whole in which no one aspect of the threefold dominates the body's organization. Verticality and consciousness evolved together and are inseparable in the human form. Verticality and consciousness have indelibly shaped our form. From inside to outside, from head to toe, our morphology is forged by our verticality and reflective consciousness. Seen posteriorly, an infant's calcaneus is quite rounded. But with the attainment of a more mature upright form the calcaneus expresses the body's verticality by elongating. Look at how the human femur contributes to our erect morphology and you are immediately struck by how it is more developed and elongated than the femurs of other mammals. In the human cranium, the animal snout retreats into a face, the jaw ceases to hang heavy as it does in the gorilla, and the upward-striving orthotropic forces create a vault that is more or less rounded into a peak.^{17,19}

The second argument against the mechanical approach to biology is the argument from self-sensing. We have talked about this and I have written a number of articles about it, so it is not necessary to go into too much detail. The essential point is that organisms have an ability that cannot be ac-

counted for or modelled by the mechanical approach to life, and that is the capacity for self-sensing. You could reasonably extend the notion of perception to cover what some robots do. But while a robot can register a change in its surroundings, perceive a change, if you like, it cannot sense itself sensing this change. Self-sensing is central to the autopoietic, self-organization of the living organism^{4, 5, 6}, and autopoiesis is an impossible concept if it is understood in the manner of Maturana and Varela as a mechanical process.

I should mention that as soon as you start insisting that the mechanical approach to life misses something important about the nature of living creatures and that you want to try to understand the living body outside the mechanistic framework, you run the risk of being accused of being a vitalist, of taking the position that there is some mysterious force or *élan vital* over and above the material/mechanical aspects of the body that makes it alive. Let me remind you that I am trying to formulate a non-dualistic, non-mechanistic understanding of the body that captures its living wholeness, consciousness and all, without falling into the quagmire of vitalism.

If I am right about the mechanical approach not capturing the integration and wholeness of living beings, then it means we not only need to rethink the concepts of integration and organization, but also most of our other fundamental concepts, not the least of which is the concept of support. Just think about the myriad self-maintaining, self-shaping activities of the human body and you will see that there must be more to integration than treating the body as a mere thing to be lined up in gravity. Our morphology is shaping and being shaped by a throng of internal and external forces. There are motile

forces always at work in the body, the abdominal and thoracic cavities express different pressures, the hollow organs are continually maintaining their shape by means of pushing-out forces, there are emotional ups and downs, there is the continual flow of peptides that agitate and mollify, there are the rhythms of the heart and lungs to contend with – and all the while our organismic identity and consciousness maintains itself and its upright-ness amidst all these and other forces as well as against a host of perturbations coming from the outside.

From the point of view of Rolfing, this self-defining, self-maintaining, self-sensing capacity has one feature, unique to our upright form, which is fundamental and central to our work. This truly amazing feature is our body's ongoing activity of seeking the vertical. This activity of seeking the vertical can best be captured by the word "orthotropism."

"Orthotropism" is composed of "ortho" which means "right," "straight," "upright," "correct," or "vertical," and "tropism" which refers to the tendency of an organism to grow toward or away from something. Thus, as a plant is heliotropic because it grows toward the light, the human body is orthotropic because it grows toward the vertical. But I want to emphasize a very important point here – the human body does not just grow toward the vertical, it *seeks* it in every moment. The way the human body is constantly negotiating its verticality is a central activity of its self-organization and self-shaping. As a Rolfer you don't need to impose verticality on the body because it is an activity intrinsic to how our morphology lives to express itself. When you look at the human body, you can easily see the imprint of orthotropism. The effect of verticality on the shape of the calcaneus and the

cranium are two examples I mentioned earlier.

When a body exhibits thwarts to its morphological potential in the form of fixations (joint, myofascial, organ, energetic, worldview, etc.), it tries to negotiate its verticality the best way it can. Striving for verticality, it hastens around the fixations seeking the best vertical compromise it can manage, analogous to the way a stream flows around a boulder. In so many ways, the body is continually negotiating vertical and spiraling tendencies. When the spiraling impulses accumulate and overwhelm the vertical ones, you see curvature and scoliosis. By dealing with these order-thwarters in an orderly and systematic manner, Rolfing unbinds the morphological potential in the body so that it can renegotiate its verticality. In fact, because Rolfing cultivates verticality, it has the potential to actualize the human form. Our work should not be about imposing a template on every person, because there is no one way every body expresses its orthotropism. Rather, our work should be aimed at activating the orthotropic effect by finding the best and most systematic way to unbind the unique morphological potential that is striving to express itself.

Not only can you see how orthotropism is expressed in every detail of the form of the human body, you can feel it assert itself when you Rolf people. I have been encouraging you to feel for the orthotropic effect when you are Rolfing because it makes your life as a Rolfer much easier and because it causes less discomfort for your client. Instead of imposing your will on the body, you wait for the body's response to your touch. You feel your way into the person and you wait in such a way that you allow what is there to show itself to you. When the body is recognized, it begins to unwind from

its misery. When it finishes unwinding, the tissues soften. But if you wait just a little bit longer, realizing that you are not finished when tissues soften, you notice a wondrous thing—you feel the effect of your touch spreading above and below where your hands are as the body begins to organize itself around the vertical (actually it also organizes itself around the coronal and transverse planes). This is the orthotropic effect.

Like all living creatures, we are always involved in this self-maintaining activity, constantly defining ourselves in opposition to otherness. In order for an organism to have a world, it must be capable of meeting what comes its way with a constancy that matches what comes its way. It must continually define itself by maintaining its boundaries.²⁰ This self-defining, self-making activity is the biological root of psychological boundaries. But unlike other mammals, part of our self-defining activity consists in seeking the vertical. We have seen examples where work with the celomic sacs or the cranium or the shoulder girdle is sufficient to better bring the legs under the body. By releasing a restriction in one place, you activate the body's own aspiration to negotiate its verticality anew. Where it fails to negotiate verticality, you see loss of continuity. This is what I mean when I say that the body is not merely acted upon by gravity, but always responding to it. The human body is ceaselessly seeking the vertical in gravity. If you evaluate your clients only according to how well they approximate the line of gravity, you will systematically miss how your clients struggle to find their own verticality – and it is immensely important for our work that you don't miss this struggle and that you learn how to cultivate the orthotropic effect while you are working.

If enough bound morphological

potential is unleashed, the body palintotically settles down to the earth and lifts skyward. Seeking the vertical is about finding the earth and the sky. Lift is not some vague, ill-defined metaphor or fantasy, as our mechanistically-oriented colleagues like to think. If your perception is informed by the presupposition that the body is a mere object being acted upon by gravity, then it is unlikely that you will understand or perceive lift. Lift, however, is a reality – it is a wonderful expression of the body's orthotropic nature.

Let's return to the issue of support. If you look at your clients with the eyes of a mechanist, with only the block model and line of gravity in mind, you will be concerned only with the question of how well their legs are under them. I am not denying the importance of getting the legs under a body. But, I am saying that many of our traditional ways of evaluating structure presuppose a mechanistic orientation that occludes something about support just as important as the idea of getting the legs under the body. I am also saying that even if you get the legs under the body, you may not get this deeper kind of support that I am asking you to look for. And if you don't see this kind of support, all your attempts at integration will be limited accordingly.

When your client stands before you and walks, ask yourself about how she appropriates gravity. In what way does her body organize itself to meet the floor? Is there a juicy, soft, responsive, expansive way her body meets and surrenders its weight to the earth, or is it stiff and wooden? Problems in support are not just about whether the legs are properly under the body, but also about whether the legs meet the floor in this fluid, responsive, soft way. The feet should engage the floor easily like a big soft paw. In weight-bearing the

arch should flatten a bit and during the push-off phase it should spring back to its unloaded form, thereby creating a springing effect up through the leg, as if the foot subtly bounced off the floor and the force went up through the legs. Imagine the tibia and fibula like a bow with the interosseous membrane stretched between. When the leg meets the earth, do the bones easily bow apart thereby absorbing the shock or does the lower leg respond like one stiff thing?

Now expand this way of looking just a bit more and ask about where your client's orthotropic response is being compromised. How is her body organized to meet the earth? How does she find the earth and surrender her weight to it? How and where in her body does she fail to find the earth? Does her body sink into the earth too much or does she push away from it? How well or poorly does her body appropriate gravity? Think even bigger than how she meets the earth and ask where her body loses its open, expansive, juicy response to her world. Does her form seem unable to meet her world and environment, or does she push too strongly into her world? Where does she do this in her body? Where is she pulled? Where does she push? Where is her form struggling to express itself? How does she maintain the form that is living to express itself? How she does this is who she is. Look for where and how your client's morphological potential is being bound, about where the morphology that is living to express itself is being thwarted. How can we become who we are if our morphological potential is thwarted? As I have said many times, freedom is the creative appropriation of limitation, and Rolfing is the creative appropriation of gravity.^{21, 22} You should be asking yourselves about these inherent responses

and forms of intentionality, about how the being of the whole person shows up in meeting or failing to meet gravity, the environment, and the world.

By the way, you can see how this way of asking questions can lead you to look at your client through the lens of every taxonomy of assessment. You can see how you might be led to attend to structural issues, gait issues, energetic issues, worldview issues, or emotional issues, or all at once.

Notice that this way of thinking and seeing leads directly to the kind of approach that Pedro is developing. When he asks you to look at your client's psychobiological intentionality, he is not asking you to do a psychological reading. He is asking you to look at how they are orienting in time and space. He is trying to get you to see who they are, how they are trying to become who they are, and where and how they are able or unable to manifest who they are.

When I worked on my model, I kept saying her support was good enough for the project. What I meant was that her legs were under her well enough, but more importantly I was noticing how wonderfully she appropriated gravity and met the earth. Her legs and support continued evolving from the work on the trunk. From a purely mechanical point of view, yes, she looks like she is not stacked up as well as she could be; her legs weren't under her as well as they could be. But from the perspective I have been developing here, she was meeting the floor without effort or trouble and, as a result, she was gaining more and more lift, continuity, core openness, and support. None of these gains would have been possible or lasting if she didn't have the kind of support I am encouraging you to see.

In any case, I hope I have made myself clear. There are two kinds of

support that you must always attend to in your work. One has to with how well the legs are under the body (or the thorax is under the head, for example) and the other has to do with how the body is organized to meet the earth and how freely it appropriates gravity. I didn't clearly articulate my perspective in the beginning because I wanted you to experience the orthotropic effect before we talked about it and because I was still working it out.

This way of thinking and seeing is also behind my saying, "I am more interested in function than in position." In a way I am exaggerating a point when I say it this way. Like all Rolfers, I am also interested in seeing and managing changes in position and shape. But I believe if we organize our way of touching the body around activating the orthotropic effect, then the body will release itself the way it needs to and find the best possible structural change for itself. Instead of imposing our will and a template of the ideal body on the body, we will find ourselves involved in a process of discovery, where we unbind the morphic potential in the way that most suits the individual person we are working with. If you work this way, in conjunction with the principles of intervention, you will see this open, expansive, juicy, self-shaping response to the world coming from the body itself. As a result, you will see the shape change that matches what works for the uniqueness of the person's morphology, instead of one that has been imposed on the body. Learn to unhook the idea of changing shape from the idea of changing organization because you may also see profound changes in the body's organization and integration without seeing a profound change in shape.

So, when you touch the body, don't treat it like a thing. Touch in such a

way that the body meets you and shows you its patterns of distress. If you drop your self sufficiently enough when you put your hands on your client, you become like an innocent child to whom the soma willingly reveals itself. Now here is the amazing thing: when you recognize the soma in this participatory pre-reflective way,²¹ when you innocently allow it to be what it is, it will seek the order that serves its own unique morphology by itself – you don't initiate the change, the body does. Your first job is to recognize the soma in this participatory, pre-reflective way so that the body can initiate how to unbind itself. Then you assist it where it cannot break through the thwart in order to find its verticality. By working this way, you are tapping into the self-organizing, self-making, self-sensing, self-shaping orthotropic nature of your client. When immaculately perceived, the whole person, without thought or will, simply moves toward the next highest level of integration and order it can. All you have to do is to find your way into that orthotropic activity.

Don't be a mechanic only. Explore ways to unhook your perceptual abilities from the hegemony of mechanism. Don't set yourself up as a traffic cop for order. Become a kind of midwife, and, with your assistance, the body will do whatever it can to find a new, more enhanced morphology. Maybe what results will match your aesthetic ideals and maybe it won't. But if the body renegotiates its verticality in the best way it can, it doesn't matter whether it matches your ideal or not, because it will be functioning better. And better functioning will create better structure. That is why I say I am happy with my model's support and changes in shape. When I look at her in standing and walking, I see how

her form is unfolding, how her shape is changing and appropriating gravity according to the specific requirements of her unique morphology. And she is free of her pain.

Q: IS IT IMPORTANT TO BE PRECISE ABOUT WHERE YOU CHOOSE TO WORK?

You can get away without knowing precisely where the order-thwarters are and still do a lot of good work. That is one reason why the recipe works so well. But don't be satisfied with that, because the effectiveness of your work will go way up if you can recognize and work (pre-reflectively in a participatory way) precisely where the difficulties are. As a side benefit, you also will develop a large practice.

When informed by knowledge, intuition always becomes more precise. I came to this understanding by learning how to drop myself and perceive what the body wanted. At first, I could feel where many of the restrictions were and how the body was struggling around them. The more I understood the precise nature of the restriction, whether it was organ-related, in the celomic sacs, or a facet restriction, the better and more effective my work became because I could feel and work more precisely. For example, when I started reading books about spinal biomechanics, and then figured out the techniques you've been learning,²³ suddenly, what had been a rather amorphous perception took on sharp contours: "Oh, this a facet fixed in flexion!" Then instead of mashing the whole area around the restriction, I employed one little move that simply released the facets and efficiently gave the body the chance to organize itself around the release.

When the body is precisely and pre-reflectively recognized in you, when the specificity of its thwarts comes to presence in you, the whole organism

responds and tries to reorganize itself around the vertical. But if I approach the body with the amorphous sense that there is a restriction in this or that area, and mash the area with my big flat elbows, the body may or may not change appropriately. Perhaps because it is the second session of the ten series and you are doing seated back work, you ask your client to drop her head forward and curl over. Then you go "grrrrr" and bear down on a myofascial restriction not knowing its cause is a flexion-fixed facet. The body will probably say: "Oh, yes, that's the spot, but, woe is me, what should I do?" Not a lot typically happens in a case like this. Maybe there is a momentary sense of relief and lengthening of the back. Certainly the tissue gets red. Now if the facet is extension-fixed, working on the back in a forward bending seated position will release the facet. The body says: "Oh, sweet mystery of life, I'm free at last!" Fortunately, you got lucky; but nobody, including the body, knows how the release happened and the change doesn't spread as well throughout the rest of the structure. When there is precision of understanding, there is precision in your hands. There is also precision of change, and the body will find its way to its most comfortable, appropriate balance and organization.

The whole lives in every detail. Every order-thwarter is a holistic pattern, a "holon" as Arthur Koestler calls it.²⁴ And every order-thwarter is a distortion in how the person's morphology is being expressed and a holon around which whole being is spiraling and negotiating the best form of verticality it can. The more precisely you recognize the order-thwarters, the more precisely you activate the orthotropic effect and the more precisely you work. When we do not clearly perceive what is before us, our hands don't work with clarity

of intent. As a result, we are more likely to employ shotgun techniques and appeal to pseudo-intuitive mystifications to justify what we are doing. But when a Rolfer's mind works well and her perceptions are clear, her hands also work clearly and well. Not only that, but the changes will cascade through the body more profoundly than if she happens to get a lucky release here and there.

I am trying to make two points. One is that the more precisely we understand and perceive the morphological thwarts, the more profoundly the body will renegotiate its verticality and organization in gravity. Not just in the local area where you get the release, but throughout the body as a whole. The other point is that you can't Rolf what you don't perceive – except accidentally.

Before I bring this talk to a close, I want to make one more point about perceiving wholeness. Once you see that there is more to the concepts of integration and organization than meets the line of gravity, the question of how to perceive wholeness becomes fundamental and crucial. In order to answer this question we must recognize that human perception is cognitive. As such, it is already interpretive. We do not perceive with our senses alone. There is more to seeing than what meets the eye, as a clever philosopher once said.²⁵ To speak loosely, our minds are also an organ of perception. Because of our great conceptual abilities, we are capable of what Wittgenstein,²⁷ who was deeply influenced by Goethe^{11,13,15} in these matters, called "aspect-seeing." We not only see objects in the context of a foreground and background, we also see these objects *as something*. We see this thing as a chair, or that thing as a tree, and that as a mountain,

Remember the illustration from Bortoft?¹⁵ When you first looked at it,

all you saw was a bunch of unorganized black squiggles. But when you were informed it was a giraffe and looked again, suddenly you saw it. Finding the giraffe is learning to see something *as something* - something, speaking loosely, that was not purely available to the senses alone. There is a difference between informed perception and uninformed perception. When you saw the giraffe, you didn't add the giraffe to the drawing, you suddenly saw what was there all along. You perceived the giraffe by means of an integration of the sensory and cognitive.

Perceiving biological organization and wholeness is also a matter of integrating the cognitive and the sensory—seeing something *as something*. This way of perceiving does not consist of abstracting from or willfully imposing a concept on reality. Rather it is a kind of participatory perception/understanding that allows aspects of reality to show themselves to you, aspects you might otherwise completely miss. Effective Rolting requires this sort of participatory cognitive perception. You need to know what it is you are seeing in order to see it. You need to know what it is you are touching in order to feel its morphology. You need to know what wholeness is in order to feel wholeness and the thwarts to wholeness. Cognitive seeing reveals aspects of reality that would not show themselves to non-cognitive perception.

When you cultivate this kind of pre-reflective, participatory perception, you discover that the being of the whole shows itself to you. You participate in the being of the whole to such an extent that it dwells in you. When wholeness is revealed in this kind of participatory embrace, the details of what interferes with the more complete actualization of your client also begin to show themselves

to you. Wholeness and the thwarts to wholeness begin to show themselves to your eyes, to your feeling sense (to your self-sensing), and especially to your knowing/seeing hands. Just as it helps to know that a giraffe is being pictured in all those apparently unorganized black squiggles in order to see it, it helps to understand the details of our morphology and how it gets in trouble in order to see its wholeness and its thwarts to wholeness. The more we understand about joint biomechanics, visceral manipulation, celomic manipulation, cranial manipulation, the breath of life, the tripartite orthotropic nature of living human morphology, and so on, the more precise and powerful the work of Rolting becomes. Understanding our living morphology then leads to a participatory perception of wholeness that in turn leads to more appropriate ways to manipulate and enhance the unique orthotropic form that is living to manifest itself in each one of us. Our intuition must be continually educated and our hands must become more cognitive. As a Rolfer, your evaluations and manipulations will be that much more effective if you come to not only see, but also touch in this cognitive and participatory way. Understanding human morphology and its unique self-shaping, orthotropic organization and learning how to let it show itself to you is therefore essential to every aspect of our work, especially how we use our hands.

Understand and use the mechanical models of integration where they are appropriate. But don't allow your perception and self-sensing to get locked into the mechanistic approach to life. As Bortoft astutely recognized, physics might be able to provide us with an atomic theory of matter, but not an atomic theory of life.¹⁵ Avoid being a somatic traffic cop. Learn to become a midwife for the self-

organizing, self-shaping activities of the body, especially for the orthotropic activity. Learn to listen cognitively with your hands and self-sensing. Remember that cultivating your intuition means educating it.

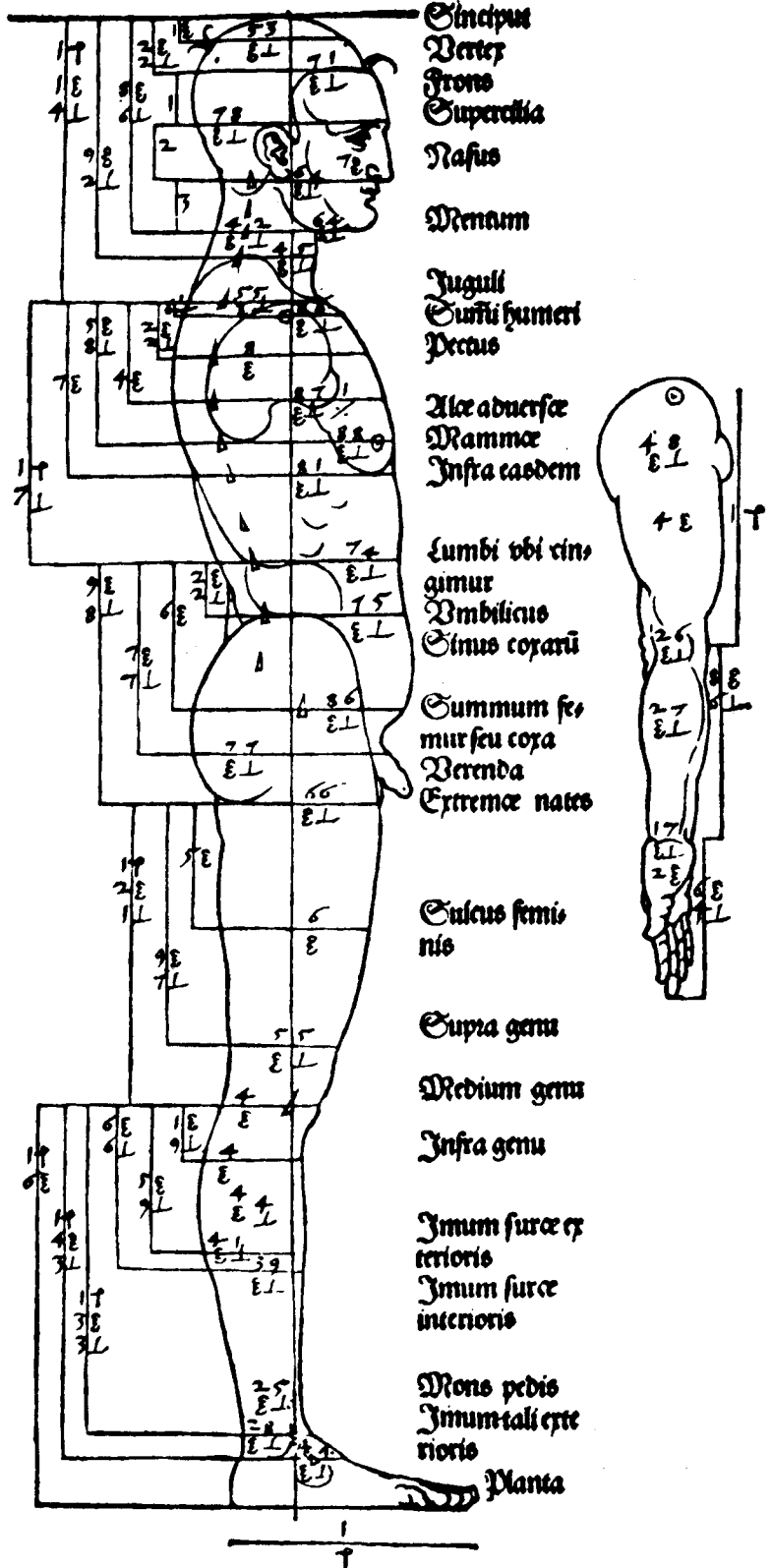
One last point. It is important to realize that living form is not a static thing, it is a living reality that is ever-changing over time, like a fugue in all its variations. We must also cultivate the ability to perceive human form as a temporal form. Much in the way the meaning and form of music is realized in time, our form is also actualized in time. Our morphology is not limited to the spatial alone, it is also temporal.^{15, 21}

Integration, like verticality, is an activity of our biological organization. It is not a static or passive occurrence that results from treating the body as a mere thing that you line up in gravity. If pre-reflectively perceived, our self-sensing, self-conscious, orthotropic morphology will find its own way of being whole and right in gravity, the environment, lived-spacetime, and our world. As Goethe said, "Do not seek anything behind the phenomena; they are themselves the teaching."^{13, 27}

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Regula
Venter



- Clavicula
- Venter
- Frons
- Supercilia
- Nasus
- Mentum
- Juguli
- Supra humeri
- Pectus
- Alae aduersae
- Mammæ
- Infra easdem
- Lumbi ubi cingimur
- Umbilicus
- Sinus coarcti
- Summum femur seu coxa
- Verenda
- Extremæ nates
- Culcus feminis
- Supra genu
- Medium genu
- Infra genu
- Imum surce exterioris
- Imum surce interioris
- Mons pedis
- Imum tali exterioris
- Plantæ

ILLUSTRATION: STUDY OF HUMAN PROPORTIONS BY ALBRECHT DÜRER