

# Two Factors Which May Create Mixed Types in Sultan's Internal/External Typology

by Jeffrey Burch, Advanced Certified Rolfer

In the early years of his practice, Rolwing® Instructor Jan Sultan noticed that the classic Rolwing recipe worked best for people who were slumped or collapsed and less well for people who were hyper-erect. The directives of the recipe just did not fit this later form. Lengthening the front of a man who has an inspiration fixed ribcage and a flat thoracic curve does not move him toward good alignment. Taking the waistline back on someone with a posteriorly tilted pelvis and lumbar is similarly non-productive. Jan made adaptations of his methods to work with this type of person. Then after seven years of practice, Sultan attended an Upledger CranioSacral class where he saw pictures of CranioSacral flexion and extension patterns, and the lights went on. Here were the two types for which classic Rolwing recipe worked and did not work. There was an underlying rhythmic impulse expressing a preference for form. Sultan spent the next several years feeling the CSR in all his clients and making corresponding observations about form. Some clients were pure types and many were mixed types.

## HERE ARE THE BASIC DISTINCTIONS

The Primary Respiratory Rhythm (PRM), otherwise known as the CranioSacral Rhythm (CSR), is felt in all parts of the body. Local details are important, but the big picture is that limbs externally rotate as the cranium fills with CranioSacral Fluid (CSF), and as the cranium empties they internally rotate. Iliac and costal margins follow suit, externally rotating as the cranium fills.

Each person in their current state of adaptation to restriction has a preference for one side of the cycle. The PRM movement is

named for the motion at the sphenobasilar junction (SBJ). Viewed from below, the SBJ flexes as the cranium fills, and extends as the cranium empties. This cycle repeats every 6 - 12 seconds. The nomenclature is unfortunate. It would have been better if William Garner Sutherland had named the motion at this joint as viewed from inside the cranium, rather than as viewed from the outside. We are now stuck with the anomaly that CranioSacral flexion involves biomechanical extension in the rest of the body.

The CranioSacral Rhythm fluctuates about 10,000 times per day. If this motion is restricted so that the motion is freer in flexion than in extension, the legs are externally rotated more than they are internally rotated 10,000 times per day. In the first 20 years of life that is 70 million repetitions of an aberrant motion. If the legs externally rotate more than they internally rotate 70 million times during growth and maturation this will produce bow legs = external rotation = O legs. If the legs internally rotate more than they externally rotate 70 million times during growth and development then the legs will be formed internally rotated = X legs. This is the theory of the Internal/External typology, also known as the X/O typology named for the leg shape.

The I/O typology then describes the collection of tight spots that results from each of the two versions of this pattern. This typology provides valuable predictive power in analyzing human structure. Most bodies, however, are of mixed type, exhibiting some features of internal and some features of external typology. Thus the typology provides a list of places to look for restrictions, not a list of where restrictions will certainly be found. The question arises: what are the other factors that contribute to these mixed types? Here I will mention two sources of

mixed types. There are doubtless more, and I will be grateful to others who will elucidate these.

## FIRST FACTOR

If the PRM is palpated at the ilia it may be equal on each side. If the PRM is then palpated at the knees in the same person it may not be found to have reduced amplitude at the left knee. This indicates a restriction in the tissue between the left hip and left knee. This variation in PRM from Rostral to Caudal is in itself a useful assessment tool, helping to locate restrictions. If, however, the PRM is biased to flexion it will, in the situation just described, have full asymmetric force at the hips, but at the knees the force of the aberration will be reduced in the left knee or below. Thus the restriction in the left thigh will produce a mixed I / E typology. The restriction in the left thigh will have been produced by one of the usual means: injury, infection, emotional holding, or compensation for one or more of the above.

## SECOND FACTOR

Each organ has a periodic, oscillatory movement analogous to, but different from, that of the CranioSacral system. The CranioSacral system typically has an oscillatory period of 6 - 12 seconds. This rate is not affected by exercise, but is affected by fever states, general vitality, and idiosyncrasies of the individual. Each organ should oscillate at 7.8 cycles per minute. Variation from 7.8 cpm is regularly observed and is viewed as representing pathology. This is different than the variation in CSR between 6 and 12 cpm which is considered a normal range, just as 72 cpm is the average cardiac periodicity, while 55 - 85 cpm can easily be normal and healthy, depending on cardiovascular tone and individual difference.

In addition, each organ may oscillate at a different rate. While variability in rate of motility from organ to organ is viewed as pathologic, it is also the norm. Even when all the viscera are synchronized with each other, synchrony between CSR and visceral motility is extremely rare and probably fortuitous, just as momentary synchrony between CSR and resting respiratory rhythm is possible but rare and fortuitous.

Specific details of visceral motility account for part of the normally mixed X/O typol-

ogy. Visceral motility follows lines of embryologic migration. Organs attempt to continue along the lines in which they originally migrated, alternating with regression back along these same lines. Movement continuing in the direction of embryologic migration is named *inspir*, motion reversing along the line of embryologic development is named *expir*. Each phase normally lasts 3.9 seconds.

7.8 cycles per minute is within the normal range of variability of the PRM, and it has been theorized that PRM and visceral motility should ideally be synchronized. However, synchrony between these two rhythms has not been reported, suggesting that this state of synchrony is not only rare but non-physiologic.

The asynchrony between PRM and visceral motility may be physiologically important. This asynchrony would help to maintain independence of mobility. Mobility is defined as the ability of a structure to be moved by external forces, and is distinguished from motility, which is an intrinsic motion. Asynchrony between PRM and visceral motility creates shear forces that keep structures independent, allowing mobility. If the primary respiratory mechanism and visceral motility were synchronous, there would be more opportunity for adhesion.

The asynchrony between PRM and visceral motility, however, creates shear forces that maintain independence. A specific mechanism providing this valuable asynchrony is the motility of the large intestine.

Visceral motility like PRM can, for any given organ, be asymmetrical, preferring either *inspir* or *expir*.

The large intestine functionally originates in the lower right quadrant as the cecum. On the right side the cecum is firmly anchored by peritoneal folds to the right iliacus muscle and on the left side the sigmoid colon is anchored by looser and somewhat different peritoneal architecture to the left iliacus muscle. On *inspir* the whole of the colon rotates clockwise as viewed from the front. At the same time the colon externally rotates, along its long axis segments. The combination of clockwise movement of the whole organ as viewed from the front and external rotation along the colon's variably curved long axis produces a different resultant motion at the left and right iliac fossae. On *inspir* the surface of the colon adjacent to the right iliacus muscle moves left and

superior, exerting a mediosuperior pull on the iliacus, while on the left the sigmoid colon, adjacent to the left iliacus muscle, provides, by way of the sigmoid mesocolon, a right inferior pull.

The iliacus muscles are flexors and external rotators of the coxo-femoral joint. Cecum *inspir* will tend to shorten the right iliacus muscle, while simultaneous sigmoid colon *inspir* will tend to lengthen the left iliacus muscle to a lesser extent than the right iliacus is shortened. Thus an *inspir* preference of the colon will produce, over time, an X-type left leg and an even more strongly O-type right leg. Conversely, an *expir* preference of the colon will produce an O-type right leg and a less extreme X-type left leg.

While the colon is a strong example of an organ whose motility can contribute to mixed I/E typology it is far from unique. Exact left-right organ symmetry is rare, the ovaries are the only possible example. Approximately paired left-right organs such as the kidneys or the liver and its approximate, non-singular counterparts the stomach and spleen, regularly produce persistent asymmetric repetitive forces in the body.

If properly functioning, midline organs such as the bladder and uterus are innocuous in terms of the I/O typology. If a midline organ has an *inspir* preference it could contribute to an internal typology, and an *expir* preference to an external typology. Furthermore, if the suspensory ligaments of midline organs are of unequal span the organ is dragged off center, and its axis of motility moved from midline to a diagonal. In this all-too-common situation, the motility of ideally midline organs provides strong asymmetric influences on Internal/External typology, leading to left/right differences.

It is to be noted that both the CranioSacral mechanism and the viscera have more than one period of concurrent oscillation. I have named here the faster and easier-to-palpate rhythms. Two or more additional and substantially slower oscillatory rates are observed for each organ and for the CranioSacral rhythm. □

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*Jeff Burch's other articles may be found at his website, [www.jeffreyburch.com](http://www.jeffreyburch.com)*