

Antagonistic Pulls, Gravity and Positions of Mechanical Advantage

When you are in a monkey, and inhibiting and directing reasonably skilfully, there will be subtle counter-balances set up between different parts of your body. These counterbalances help you keep your balance, reduce to a minimum the muscular effort required to maintain the position, and tend to keep the large postural muscles of the neck, back and legs lengthened.

Structurally speaking, you will be functioning a bit like an *anglepoise (luxo)* desk light. In monkey, the forward and up direction of the head is intensified by the forward inclination of the torso from the hips, whilst the weight of the pelvis falls back and down away from the head, the knees fall forward and away, and the shoulders fall away from the neck and away from each other. This process, whereby the major weighted parts of the body fall away from each other, keeps our structure usefully opened out by creating two-way stretches or what Alexander called **antagonistic pulls** throughout the body.

In fact, even when we are standing fully upright, we do not become like a vertical stack of building blocks, but rather built-in slight imbalances of the head, pelvis and leg joints ensure that the monkey-like antagonistic pulls are still present.

In a stack of blocks (in engineering terms a compression structure), each successive layer simply sits on top of whatever is immediately underneath it.

Something like this seems to happen if we are badly pulled down – the weight of the head pushes down onto the neck, the shoulders squash the ribs, the ribcage presses down onto the abdomen, the weight of the whole torso compresses the hip and knee joints and all the internal organs seem simply to be piled on top of each other. In contrast to this, when the antagonistic pulls are working well, we become more like a suspension structure (a suspension bridge or a hanging column of shelves, for example) in which each part is suspended in its own free space above the parts beneath it.

In a well coordinated person, healthy antagonistic pulls are almost always present, regardless of the position they happen to be in at a particular time. However, certain postures undoubtedly accentuate the antagonistic pulls, positively encouraging release and expansion, and almost “doing the directions for you”. Formal practice of these postures is invaluable to students of the Technique. Alexander called them **positions of mechanical advantage**. They include:

- Semi-supine
- Monkey
- Hands on the back of the chair.¹

The antagonistic pulls are most obvious (and most beneficial to our well-being) when they affect directly the relationship between the head, neck, back and legs. However, when you have grasped the basic idea you can apply the principle of antagonism in more subtle ways, for example, a two-way stretch between the wrist and

elbow, or between, the tip of the thumb and the tip of the index finger.

The major antagonistic pulls are developed through our relationship to gravity (I have said that the head, pelvis and knees *fall* away from each other). Indeed it is useful to think of “going up”, the major organising factor of good use, as one big antagonistic pull – a creative tension between our weight taking us down, rooting us into the earth, and our directional energy taking us up as a *natural response to gravity*. To put it another way, the fundamental dynamics of postural activity are organised through the reactions of our postural reflexes to our weight.

That going up – expanding into relative straightness – is a response to gravity is demonstrated by certain experiences of astronauts; in a weightless environment the body collapses to around the mid-point of the range of movement of all the major joints – a sort of crouch which you may recall from watching televised space missions.²

Counterintuitive though this conclusion may be, our weight does not have to “drag us down”. In fact *we need our weight to keep us opened out*, in the same way as penny-weights sewn into the hems of curtains help keep them stretched and smooth.

¹ See page 27, *Hands on the Back of the Chair*.

² Interestingly, astronauts also report that weightlessness disrupts the kinaesthetic sense, it being quite normal to “lose” a limb for example until you move it or look at it.