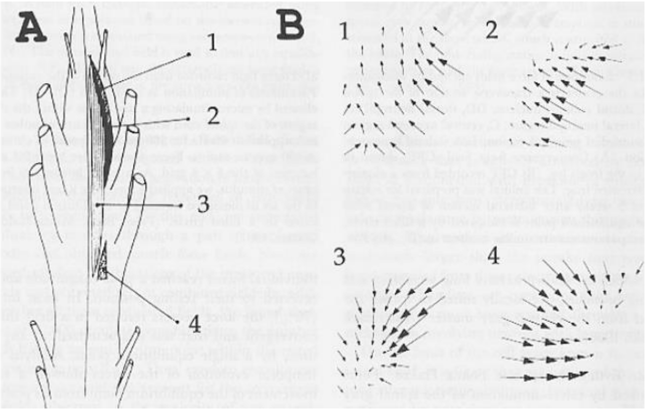
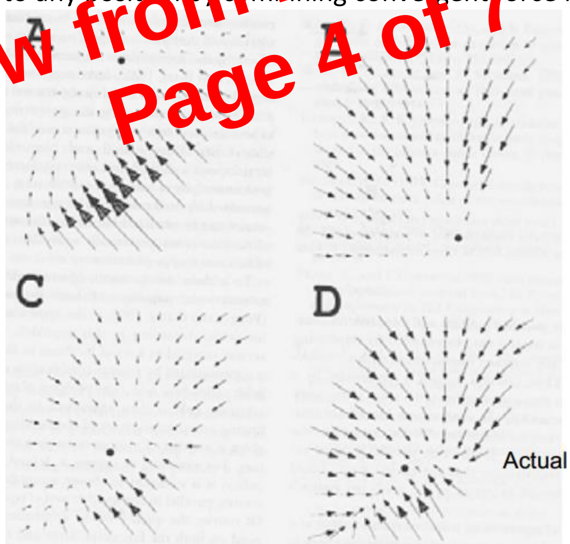
convergent on a particular equilibrium position. They were called convergent force fields, CFF. (picture B and C)

So depending on where the frog leg starts, the force generated would be varied and take the frog leg to a single location, called equilibrium position. In other words, if the leg was already at the equilibrium position to start with, stimulation of lateral neuropil region would produce no movement.



Micro-stimulation at different levels of the spine produces CFFs with different equilibrium positions. This shows that there is complicated wiring, maybe from evolution and a bit during development, to take a blob of activity caused by glutamate in the spinal cord, and produce a movement always towards the same location. It is not certain how this happens, but it is potentially useful. All the equilibrium positions are usually at the edge of the limb's possible movements. So if I wanted to move my leg to that equilibrium position, then the brain just have to signal a particular level of the spinal cord, and then the interneurons would send activations to all the necessary motorneurons to generate that muscle movement to the desired location.

Maybe you can move your leg to any position by combining convergent force fields?



Equilibrium point control hypothesis

So combine one CFF with another to form an intermediate equilibrium position, by taking the average vector in each location. When Bizzi did the actual experiment, they stimulated both A and B CFF at different levels of the spinal cord simultaneously, and they found an intermediate CFF. This is potentially very useful, so if you will your leg to go anywhere, you can take it there from any position, just by giving the right amount of relative activation to different CFF generators, with equilibrium positions around the edge of the work space, by combining them, the leg can move to any intermediate position.