

Performance in sports is often explained by how well or fast we can perform a certain task or cover a certain distance. However we often don't fully acknowledge what the process involves when we seek performance. The first and most important process that we actually face when working on performance is a learning process, motoric learning, before training can be effective. This relates well to paddling a new boat, an elite ski or that beast of a K1.

Motoric learning is the first and most important step into achieving performance where we acquire and optimise central nervous functions to control skeletal muscles. Learned movements are spatial-temporal, dynamic-static and most typically unconscious. It's a central nervous process consisting of information intake, -processing, -storage, and -output and is closely connected to sensory inputs from the periphery. Therefore learned movements require mental training and observative training.

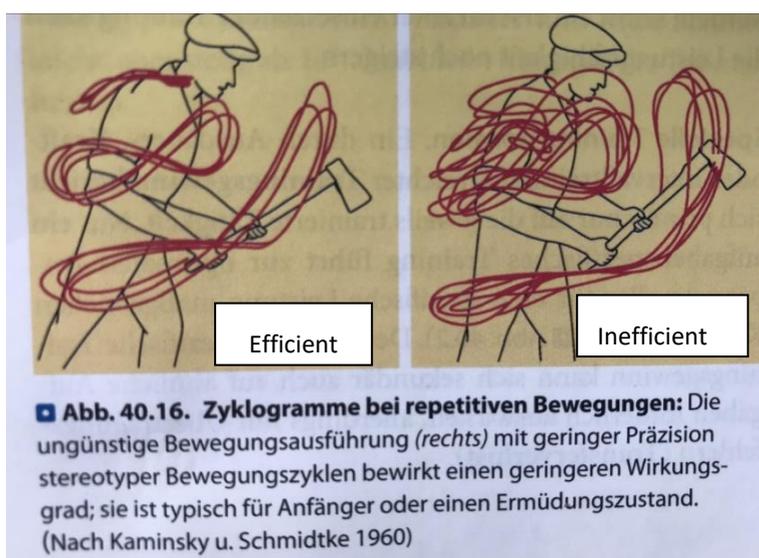
At the beginning of this learning process new movement patterns are uncoordinated and only very rough. With continued learning the intra- and intermuscular coordination improves, fine coordination will be achieved, your technique develops. During that stage unnecessary associated movements will be eliminated and sensory feedbacks calculated faster. This is the stage when efficiency and performance increases significantly while paddling at same effort or paddling appears "easier" because for the same speed we require less physical and mental energy.

Training, as the second factor of performance, is gradually increasing during the process of learning but fully dependent on the learning progress (you can't train while constantly capsizing in that K1). Continued training of what is learned will "fix" your technique to an unconscious movement.

Therefore it is often recommended by many coaches to first learn the specific movement patterns correctly and then train an efficient stroke before thinking about speed. Ladies are often more patient with that!

In summary:

- Motoric learning will develop fine motoric, reduces unnecessary movements and processes sensory input faster leading to higher efficiency → your technique develops.
- Training is the repetition of the learned movement → your technique becomes fixed/unconscious.



Cyclical or rhythmic movements can be stored in the long-term memory for many years. Unfortunately if technique is not taken seriously enough at the beginning, bad technique is also a learned movement that will last you for years, keeps efficiency low and has to be compensated by an extreme effort of muscle strength. The only way to deal with that is to go back to motoric learning of good paddle technique.