The motion in bowing

By David Eriksson

The aim of this article is to have nyckelharpa players to pay more attention to the bowing technique in order to improve the quality of their music.

Before we start looking into the motion of the bow arm, let's take a look at motion in general. A motion is a physical transaction of energy that we use to interact and alter our environment in an endless number of ways every moment of our lives. Motion is everything our bodies do, and nothing is accomplished without it.

A good motion is carried out in the same way whether it is performed by an athlete running, a musician playing or someone sitting down eating dinner. So what is a good motion and what is not?

I would define a good motion as the perfect mix of control and relaxation, with all the muscles doing exactly what they need to do, nothing more nothing less. To accomplish this, it is important to be able to detect counterproductive tension and stop doing it!

Why is a good bowing technique important, and how does it affect the music?

I would like to compare the bow with the brush of a painter. Just like a painter draws landscapes, we create soundscapes with the bow as our brush. The better the bow technique the finer the details.

Another reason to strive for a good bowing technique is to avoid destructive and tense patterns that will lead to fatigue and possible injury.

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If I am tense, how do I get rid of it?

Tension, as we all know is not only confined to playing an instrument, it is something that we might experience every day in a number of different situations. The thing that every situation has in common is unnecessary and counterproductive muscle activity. I am not a medical doctor and for that reason cannot claim to have the answers on how to get rid of all the strange things our bodies do when we don't pay attention. But I will go as far as to say that the first thing you have to do is become aware of the problem.

I will mention two terms that are very important to know the difference between, and those are tension and muscle tone. Muscle tone is the continuous and passive partial contraction of a muscle that allows you to contract or extend, and helps maintain posture. Tension is a continuous muscle contraction that won't allow you to contract further and therefore inhibits you from having full control. It also prevents blood flow to the muscle.

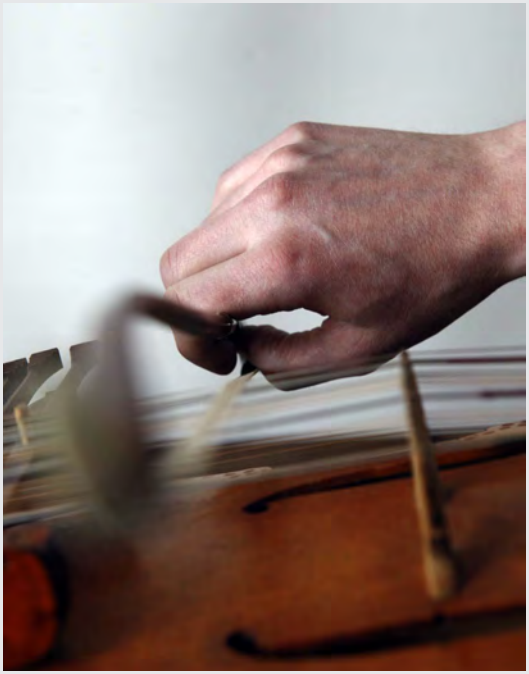
Ask yourself, and try to answer these questions:

1. What does tension feel like?
2. What does relaxation feel like?
3. What does controlled muscle tone feel like? (This can be experienced by gently picking up an object like a glass)
4. Do I experience fatigue and / or pains when I play, and if so, where and why?

I have limited this text to revolve around how to find the way to a healthier and better sounding way of bowing.

The bow hand

If you relax your hand you will see that your fingers curve naturally. This state of the hand is also what to strive for when holding the bow. This is true with the exception of the thumb that should be slightly curved when holding the bow.



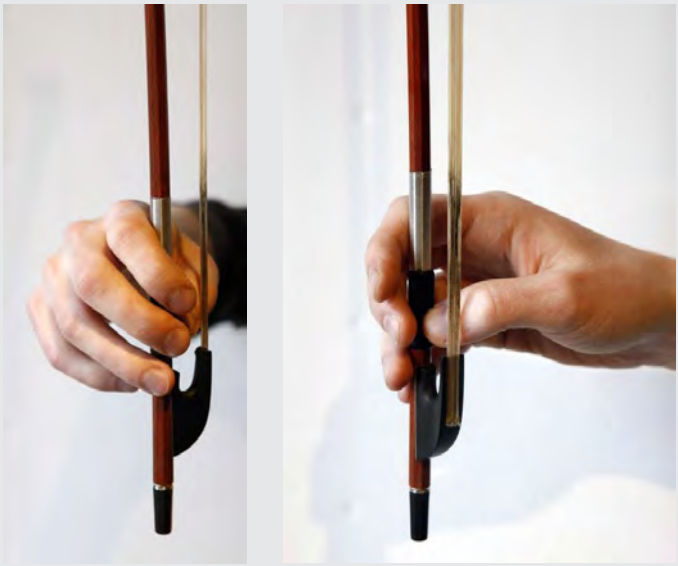
Here you can see the curvature of the thumb and fingers.

If one or more fingers are straight when placed on the bow, there is harmful tension that will affect you and the sound in a negative way.

But just being relaxed doesn't create a good sound. You have to place your fingers in such a way that the weight from the arm is transmitted through the hand and the fingers down to the bow and finally the strings.

Let's start by looking at two very important fingers: the thumb and the index finger.

When picking up a small object from a surface, most people use the opposition of the thumb and the index finger. This opposite force is also important in bowing, but not in the pinching sense. When holding the bow the thumb should line up with the middle finger instead of the index finger. This creates a distance between the thumb and the index finger; this is the yin and yang of bowing. When applying pressure to the string through the index finger, the thumb acts as the opposite force that stops the bow from dropping down. If the thumb and index finger are lined up, this balance is impossible. It is like using a seesaw with no one at the other end ... not fun at all!



Here you can see where the bow rod should be placed on the index finger and how the thumb and long finger should line up. Also note the position of the little finger.

The little finger plays a smaller role when playing the nyckelharpa. Because of the position of the arm and the hand, the little finger is more elevated than in the violin way of holding the bow. The nyckelharpa bow is also much shorter than the violin bow, which means that the required counter weight to maintain balance is less. So if your little finger has to be straight in order to reach the bow rod, just let it be in its relaxed state close to the ring finger. The little finger comes in handy when wanting more balance when playing close to the frog.

The bow rod should be placed on or behind the index finger's first joint. That's because you want to use as little effort as possible when applying weight from the arm.

If you have the bow rod in front of this joint you have to stiffen the finger so it won't flex upwards. This creates tension and the need to forcefully hold the bow instead of having it balanced in the hand. This happens, when you create this pressure with unnecessary muscle force and the ability to control the bow in a relaxed way gets lost.

The joints in relation to the arm

If any of the joints in your arm, wrist or fingers are in a position such that you can't flex them equally in all directions; there is tension, because being in that position requires muscle activation. You should always strive to be in the middle of the joints moving boundaries so you can flex equally in all the required directions. This is what I call the starting position. From here you will have a good start with a minimum of counterproductive muscle tension.

Never work against your body when playing. It should feel as relaxed as holding a fork or picking up a glass.

The arm

I would like to start by saying that the violin bowing technique is not directly transferable to the nyckelharpa. The holding of the two instruments is quite different and therefore also the physical parameters.

When holding the bow parallel with the bridge close to the frog, you should be able to see the upper and lower arm forming a 90-degree angle. If it doesn't, you should check the elbow joint and make sure that it is placed just underneath the string holder (tail piece). If it still doesn't work, you have to adjust how you hold the instrument. Try slightly different positions by tilting and rolling the instrument until it feels comfortable. When doing this it is also important to check the bow grip and make sure that the wrist joint is aligned with the direction of the arm, and that the bow is somewhat parallel with the bridge.

Here you can see how the positioning of the elbow, forearm and hand line up when holding the bow close to the frog.

When the bow is playing the strings near the bow tip, there will be a slight angle away from parallel due to the forearm's natural radius from the elbow. This is perfectly normal and in my opinion much better than trying to keep the bow parallel with the bridge at all times. If you try to keep the bow parallel to the bridge in this lower position, you have to move the right shoulder forward and straighten the fingers, which means tension and therefore loss of control. I don't recommend the par-

allel bow path be integrated into your technique in the hope of getting a better tone, because it doesn't really affect it. If it doesn't affect the tone, in my opinion, it's an unnecessary effort.

The bow's direction when following the radius of the forearm. (Recommended)

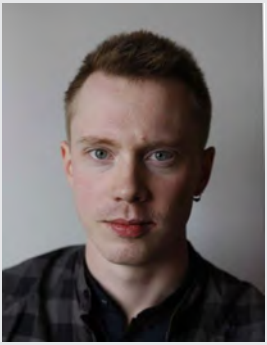
The bow being parallel with the bridge when at the bow tip (not recommended)

Remember!

If it hurts, you're doing it wrong! If it sounds bad, you are doing it wrong, and the two often go hand in hand.

Thanks for your attention
David Eriksson

David Eriksson (Sweden)



He comes from the region Västerbotten in the northern parts of Sweden and has been playing the nyckelharpa since 1997. He attended the one year nyckelharpa course at Eric Sahlström Institute 2000-2001. Currently he is studying folk music and nyckelharpa at the Royal College of Music in Stockholm.