The left thumb

How many joints

The very first thing to understand about the thumb is that, like the other fingers, it has three phalanges. Over the years I have asked many hundreds of violinists how many joints they have in each finger. Everyone answers three, and then when they are asked how many they have in their thumb, nearly everybody says two.

This is because their mental picture of the thumb is that it begins where it seems to join on to the side of the hand. Instead you can feel the third phalange of the thumb going all the way down to the wrist. The thumb is the longest finger on the hand, not the middle finger. When someone thinks that their thumb is that short thing on the side, and they try to relax it, what can they do? There is nothing to relax in it. Instead, the place to soften is the base joint.

Naturally the realisation that the thumb goes all the way down to the wrist also affects how we use the right thumb. Many a cramped, rigid bow hand originates in the concept of the two-jointed thumb.

• The single most important thing to avoid is squeezing together the thumb and the first finger, and the way to avoid that is to keep space open at the base joint of the thumb.

Where to put the thumb

In first position, where should the thumb sit in relation to the other fingers? Leopold Auer, Heifetz's teacher, would tell you to place it opposite 2nd finger F on the D string; Ivan Galamian between the first and second finger or opposite the first; Carl Flesch opposite the first; Sinichu Suzuki between the first finger and the nut. That just about covers everywhere, so where should it be?

Since every hand is different, the best approach is the one advocated by Kato Havas: relax your hand, shake it about, let it go limp, and see where your thumb naturally ends up in relation to the other fingers. Surely that is the best place for your thumb.

But of course, the First Commandment of violin playing is 'Thou shalt not be fixed'. In other words nothing must be held in one, rigid position but be ever-changing according to the situation and in a constant search for balance and rebalance. This natural position of the thumb is the place from which it departs and to which it returns, but if it is relaxed and left to its own devices it constantly moves and adjusts as the fingers play.

The very idea of the thumb being held in one rigid position is actually horrendous if you look at it objectively; yet it is the most common violinistic problem which one sees every day. Try this experiment:

- Watch the thumb in a mirror as you play, say, a two-octave scale in broken thirds in first position, and see how it never stops moving, always making clever little adjustments to its shape, and its contact with the neck, with every note.
- Play the same notes, but this time strive to keep the thumb in one place, and without it moving whatsoever as if the thumb is to be photographed and you don't want the image to be blurred.

Notice how impossibly tense the entire hand feels the second time.

Thumb rotation

Another thing that curiously few players appreciate about the thumb is that as well as being placed further up or down the neck in relation to the fingers, it can also rotate on its own axis.

• Rotate clockwise and anticlockwise between closer to the left side of the nail (Fig. 1), and as near as you can get towards the right side (Fig. 2).

Again, feel the movement of the thumb going all the way down to the wrist.

Fig 1 After rotating the thumb clockwise

Fig 2 After rotating the thumb anticlockwise

Counter pressure

Where there is pressure there must be counter pressure. The harder the left fingers press into the strings, the more the left thumb needs to counter balance on the side of the neck. One of the most crucial things to avoid is any feeling of pressing directly against the neck with the thumb, so the first thing is to make sure that you are always using the minimum finger pressure possible. The general rule is to use only as much as necessary for a pure tone, and no more – even if the string does not actually touch the fingerboard. Of course, sometimes different tonal colours are created by unconsciously using extra finger pressure, but again there is nothing wrong with that so long as it is not a fixed, permanent state.

Rolling not pressing

Apart from ensuring that you are using the minimum force to stop the strings, there are other things you can do to minimise thumb counter pressure. The first is to get a feeling of countering the finger with a backwards direction of energy from the thumb, never a direct pressure sideways into the neck.

The following experiment uses exaggeration to establish the principle; afterwards, exactly the same thing happens but to such a slight degree it cannot easily be seen.

- Place the third finger quite upright on D on the A string. Position the thumb so that it has rolled back as shown in Fig. 1. Then roll the third finger back so that it nearly plays a C#; at the same time roll the thumb to the position shown in Fig. 2. Go backwards and forwards between the two: the finger goes forwards, the thumb goes back and vice versa.
- Allow the tip of the finger to roll into the string as it rolls forwards, moving the string towards the fingerboard; allow the finger to release the string slightly as it rolls back towards the C#.

Notice how there is almost no feeling of 'pressing' with the thumb, and the hand feels free.

Then, instead of rolling the third finger back towards a C#, only push it down vertically towards the string; and instead of rolling the thumb, press it directly towards the neck as the finger stops the string.

Notice how there is a pronounced feeling of pressing and counter pressing, and after only a little while the hand becomes tight.

Although in the end the rolling movement of the thumb may be so slight that you cannot see it, the difference in the ease of the hand, between direct pressing of the thumb and the backward motion, is enormous.

Playing without the thumb

An effective way to teach the thumb not to counter press too much is to take it off the neck and play for a few minutes without it. You need to rest the scroll of the violin against something, or have a handy assistant who will hold it for you.

Make sure that although the thumb does not touch the neck, you keep it otherwise in a normal position. Sometimes when students try this, they allow their thumb to stick out in all directions spasmodically. Keep it free and uninvolved as you try the fingers in different patterns on different strings. Then recapture the same sensation of independence of the thumb when you play normally.

With the scroll supported you can even play whole passages – or whole pieces – without the thumb. You may be amazed at how good the hand feels afterwards.

Independence exercise

This is quite tricky to do until you get the hang of it. While moving the thumb backwards and forwards in a slow, non-stop action, from near the nut to as far up the neck as you can (opposite the third finger), at the same time very slowly raise and drop each finger, one at a time, on and off the string.

The point of the exercise is to use your willpower to ensure that the movement of the thumb is not affected by the raising and dropping of the finger. It moves slowly and steadily, horizontally on the side of the neck, without any reaction whatsoever as the fingers move vertically.

• First move the thumb on its own without the finger action. Do remember to move it slowly. Then add the finger action without the movement of the thumb changing in any way.