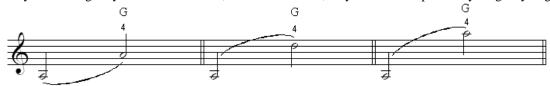
# **BASICS**

# Long shifts

A series of illusions can combine to give you a false impression that the violin string is much longer than it actually is. Shifting only a medium distance, such as an octave, may then seem a perilously long way to go:



By understanding what creates these illusions, it is possible for every shift on the violin to seem like a short distance, and suddenly feel more secure, reliable and easy. Never again will you think of any shift on the violin as being a 'long shift'.

# A thousand notes on each string

There are about 50 notes you can play on the G string if you count all the enharmonics separately (counting  $G^{\sharp}$  and  $A^{\flat}$  as two notes), and go up about two and a half octaves.

But these are only the correct, in-tune notes. What about all the out-of-tune notes between the in-tune ones? There are any number of 'notes' between  $G^{\sharp}$  and A that you can play too. They are all wrong notes in the sense that they are out of tune, but they are still there.

The awareness that there are a thousand notes on each string makes it seem very long.

## The fingers get all cramped together at the top of the string

Playing in 1st position there is space between the fingers, and a feeling of freedom of movement. Even if you have medium or large hands, when you play a semitone the two fingertips might not touch each other. In high positions the fingers are all crowded together and on top of each other. Even if you have small hands you cannot play a semitone and leave the lower finger down on the string. Everything feels contracted.

This creates an illusion of great height off the ground because, like an object getting smaller as it disappears into the distance, the semitone at the top of the fingerboard seems very tiny compared to the semitone at the bottom of the fingerboard. This makes the high positions seem very high up, and the violin string very long.

## It's so much easier to miss and play out of tune

Playing in 1st position, if you place a finger half a millimetre too high or too low, the note will be a fraction sharp or flat. At the top of the fingerboard, if you place a finger half a millimetre too high or too low, the note will be very out of tune.

This adds to the feeling that there is a long way between one end of the string, where the notes feel safe and easy to hit, and the other end of the string, where the slightest mishap spells disaster, like a trapeze artist doing acrobatics high off the ground without a safety net.

#### **Precariousness of the bow**

The higher up the string the finger stops a note, i.e. the shorter the string length, the less weight it can take from the bow.

Playing high up the string you have to be very careful not to accidentally flatten the pitch of the note by using too much bow pressure.

# **BASICS**

Every bow stroke in 1st position feels safer because the margin for error is so much wider, compared with playing at the top of the string. In 1st position you can unintentionally give a lot more weight on a particular note without causing the sound to break or bend in pitch. In 10th position, the slightest misjudgement, or 'pressing' instead of 'stroking' the string, could spoil the note.

This further adds to the feeling of great height when you are at the top of the string, and makes any shift into a high position seem a far greater distance than it is.

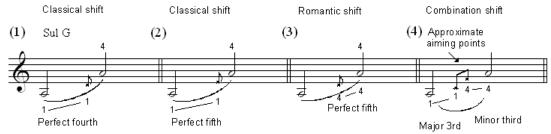
# **Optical illusion**

The strings are further apart at the bridge end, and closer together at the nut. The converging lines create an optical illusion of 'disappearing into the distance'. This greatly increases the apparent length of the string.

You can easily prove this simply by holding the violin round the other way and looking down the strings in the direction of the bridge. Notice how the fingerboard suddenly seems much shorter.

## Look at it from a different angle

Returning to the octave shift, the distance of the shift is not an octave anyway, but a perfect fifth at the most:



(1) and (2) show how you can move on the lower finger as a Classical shift (a 'beginning-finger shift') from A to either D or E. (3) shows moving on the upper finger as a Romantic shift (an 'ending-finger shift') from D to A. The Combination shift (4), where you share the shifting distance between the lower and the upper finger, is almost the same as the Romantic shift

Suppose you choose to play the Romantic shift. Put the violin on a table and measure the shift with your fingers: mark the beginning of the shift with a finger on one hand, and the end of the shift with a finger on the other hand.

Looking at the distance from this angle, the two notes no longer seem very far apart at all. You realise that your previous conception of great distance in 'shifting an octave up the G string', was more the picture you might have if you performed the same octave shift on a double bass.

#### **Slow Arrival Speed**

When you play a Romantic shift (3), the speed of the shift is not the same from beginning to end. The finger travels very fast until it is just below the arrival note, and then slides more slowly into the in-tune note.

Slowing the finger into the arrival note can be done in three ways: completely inaudible; faintly audible, mainly only to the player; and as a full *glissando*, audible to the listener.

One of the great beauties of slow arrival speed is that if you shift to 'somewhere below the arrival note', it no longer matters where exactly you shift to. If you feel worried about a shift, you must be looking at it like this: "I must shift to exactly the in-tune note. I must not be a millimetre too high or too low. There is one place where the finger will be in tune, and one place only. Anywhere else, and it will be wrong."

Instead, the need for precision and exactness – and thus any concern – is completely removed when you know that you can shift a little higher, or a little lower, and it makes no difference at all – so long as you arrive slightly below the destination note before slowing into it.

Once you know how to slow into the arrival note, one effect is that the idea of 'practising' such shifts suddenly seems pointless. What is there to practise? The shifts become so reliable and accurate, and become so much more a matter of listening than of practising, that suddenly you find that you have a lot of extra time in your practice – all the time that you used to spend practising long shifts.