
BASICS

Vibrato

What is vibrato? The answer to this question is surely not: 'Vibrato is what happens when you wobble your finger backwards and forwards on the string'. Vibrato is the quiver of emotion in the singing voice of a string instrument. The vibrato throb can be like the sound and physical feeling of crying, which curiously is often identical to that of laughing. This makes vibrato sometimes joyous, sometimes sorrowful, often both at the same time.

If you try to vibrate only as a physical action it is never the same as when you picture its expressiveness or colour and let it happen by itself. If you try to vibrate fast, the action may seem tiring. If instead you direct only one or two things, such as to keep it narrow or free the left upper arm, and meanwhile you picture its expressiveness or colour, and truly listen, you will find the vibrato 'playing itself' and working quite differently. This is a great example of how in the end fine technique comes from musical imagination and expression, rather than music somehow coming out of mechanical technique, which it can't.

There are many ways to think of vibrato beyond the merely physical motions of the finger on the string. String players have used vibrato since the earliest times, and Leopold Mozart's instructions in 1756 included vibrato:

For if we strike a slack string or a bell sharply, we hear after the stroke a certain wave-like undulation (*ondeggiamento*) of the struck note. And this trembling after-sound is called tremolo...Take pains to imitate this natural quivering on the violin, when the finger is pressed strongly down on the string, and one makes a small movement with the whole hand; which however must not move sideways but forwards toward the bridge and backward towards the scroll.

The elements: width and speed

Having said that the best vibrato comes from musical intention rather than mechanics, there are physical facts about vibrato which are easily explainable and understandable. The two main factors are speed and width. Slow and wide tend to go together, as do fast and narrow; but also possible are slow and narrow, which gives the least energy, and fast and wide which gives the most. The classic analogy for vibrato is the artist's palette, on which every possible colour is produced by mixing together the basic ones. The string player must have every possible shade and colour of vibrato available to them.

Teachers of elementary students often encourage their pupils to develop a much wider, looser vibrato than will be desirable in the future, since you can always reduce it later on and you don't want them to start off all tight and constrained – but leaving that aside, in working on building and improving your vibrato the first thing to do is to endeavour to make it as narrow as you can. One thing which affects the width is which part of the tip or pad contacts the string. For narrower vibratos, place the finger more upright, and for wider vibratos more on the pad.

Finger pressure and rhythm

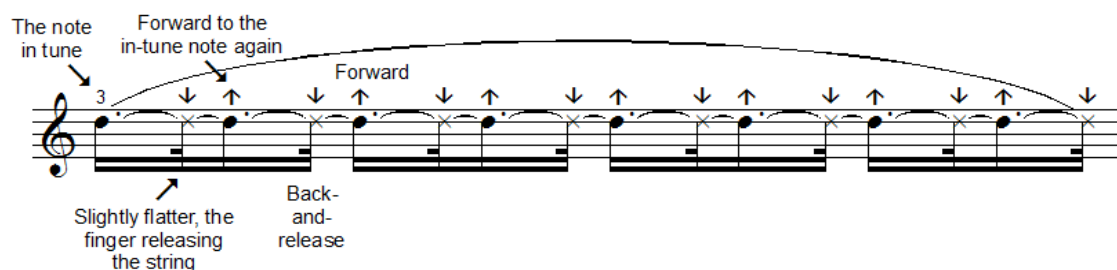
The vibrato movement always goes from the principle note to a place a fraction below, and then back to the principle note. It must never go above the principle note since the listener's ear catches the upper pitch of the vibrato as the note itself – so if you vibrate sharp it simply sounds as though you are playing sharp.

But when you listen to the vibrato of great players of the past, what is often striking is not only the narrowness of the vibrato, but a certain sort of unwobblyness. 'Wobblato' is what some players call vibrato when it is too-wide (and usually therefore too slow), and which can be likened to a sort of extremely narrow trill (1). Instead, if you liken vibrato to *sautillé*, instead of 'down and up' on the note you get the sound of 'D, D, D, D, D, D', as shown in (2):

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There are two chief factors which produce this effect of not 'bending' the pitch to make the vibrato. The first is the rhythm of the movement, which should not be equal backwards and forwards but a dotted rhythm up to the principle note. The second factor is the weight of the finger in the string, which goes more heavily into the principle note and releases ever-so-slightly in the backward movement. The combination of the narrowness of the movement, the rhythm, and the release of the string, all reduce the audibility of the lower pitch of the vibrato:



The great Hungarian teacher Sandor Vegh used to complain about students using vibrato 'like slapping on layers of makeup'. The best vibrato seems to come out of the tone itself, or is part of, or in, the tone, not something added on top of it. And he hated a 'pingy' vibrato. Again, what is so striking in players such as Ysaye, Huberman and Enescu is not so much that they did not do 'continuous vibrato', but that most of the time the vibrato was so minimal and so part of the sound that it did not sound as if they were 'doing vibrato' at all – and yet most of the time it was there. Then the vibrato really is like a singer's, where the vibrato is part of, and develops out of, the quiver and undulation that is a natural part of the voice.

Exercise

Playing one long note, with continuous whole bows, first get the string really vibrating by finding the right balance of speed and pressure to make the amplitude wide (blur of the string as the string swings backwards and forwards). Then, listening closely to the sound, rock the finger in the slightest, narrowest, hair's breadth of a movement. On each backward motion feel the string release slightly (shown as an x-note); feel the finger lean more heavily into the string on the forward, into-the-note motion. You can even allow this so much that you can see the string itself move up and down with the change in finger pressure:



See how the vibrato seems to come out of the tone and out of the string itself, rather than being something separate and 'on top of' the sound. But keep it as narrow as you can: halve the distance and then halve it again. Continually return to the pure sound of non-vibrato, and notice how there is always a difference between that and the very barest vibrato. In other words, you don't need much vibrato to be playing with vibrato! And then when you want to add more because the phrasing or the climax requires it, you don't need to add much to make a huge difference.