
BASICS

Vibrato

...the finger of the left hand should make a small slow movement which must not be sideways but forward and backwards. That is, the finger must move forward towards the bridge and backward again towards the scroll: in soft tone quite slowly, but in loud rather faster.

Leopold Mozart: *A Treatise On The Fundamental Principles Of Violin Playing* (Augsburg, 1756; Eng. Trans. Editha Knocker, Oxford, 1948), 98

String players have used vibrato since at least the 18th century, and probably earlier. It is such a natural thing to do, it is hard to imagine it being totally banned at any time or in any place where people have bowed string instruments (of whatever sort). Who would not want to allow certain notes to sing like the human voice? The only question is the type of vibrato used in different periods, geographical areas or styles of music, and whether it is used as an ornament on certain notes or used more continuously.

In 1756 Leopold Mozart mentions vibrato in his treatise on violin playing, and even some sort of continuous vibrato may have been used around that time. In Geminiani's instructions for vibrato in his 1751 *Art of Playing on the Violin* ('You must press the Finger strongly upon the String of the Instrument, and move the Wrist in and out slowly and equally'), he describes the various qualities that it may lend to long notes (Majesty, Dignity, Affliction, Fear). However, then he goes on to say:

'when it is made on short Notes, it only contributes to make their Sound more agreeable [*sic*] and for this Reason it should be made use of as often as possible'.

What should vibrato sound like?

How wide should it be? How fast should it be? Carl Flesch used to point out that if any two famous violinists stand behind a screen, and take it in turns to play the same phrase on the same violin – without vibrato – you would never be able to tell who was who.

But the moment they play the phrase with vibrato, you know immediately when it is one player and when it is the other. Vibrato is something unique and personal, like a fingerprint. It is one of the most distinctive elements of your playing.

Speed and width

The German violinist Louis Spohr (1784-1859), speaking about vibrato in his *Violin School* (1831), does not mention changing the width, which 'should only be slight, in order that the deviation from purity of tone [intonation] may scarcely be observed by the ear'.

But he lists four chief speeds of '*tremolo*': 'The quick *tremolo* is indicated tr^{qu} , the slow tr^{sl} , the gradually accelerating tr^{ac} , and the gradually slackening tr^{sl} .' He used vibrato only on selected long or important notes, and marked these symbols over the notes in the music.

It is often believed that vibrato rolls the finger both above and below the pitch of the principal note, but in fact if you do this it makes the note sound sharp. The listener's ear registers the upper pitch of the vibrato as the principle note. Dorothy DeLay said that one reason for the myth continuing to flourish is because of a test done in the early 1960's.

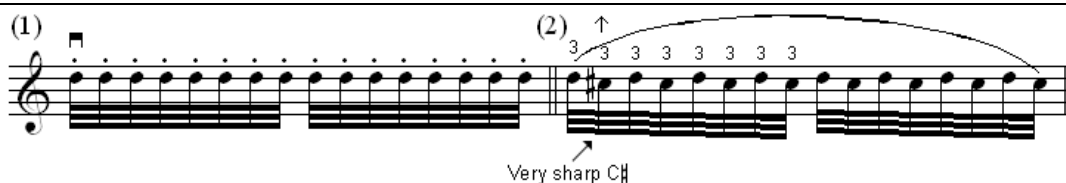
Apparently, an experiment was set up using an oscilloscope – a scientific device that looks a bit like a small television screen. When a sound is played into the oscilloscope, patterns and sequences of moving lines form on the screen representing that sound. This experiment satisfactorily proved that the pitch of the vibrato did indeed go above and below the principal note. The only trouble was that they used an operatic bass singer for the test – not a violinist or other string player – and this singer had a vibrato that was about a major second wide. The actual note was somewhere in the middle of it.

Yet there is no doubt that if you vibrate sharp of the exact note on a string instrument, it will sound as though you are playing sharp. You only have to stop and listen to an in-tune note played without vibrato, and then add vibrato, to know that the vibrato cannot go above the principal note.

This myth persists up to the present day. In a recent prominent book on violin technique (published in 1998) the author clearly states the incorrect perception by instructing: "The width of a vibrato movement should be the same below and above the basic notes".

Slow, wide vibratos are required rarely in the standard repertoire. A good model to keep as a basis for vibrato is the repeated notes of a *sautillé* rather than a 'wobbly' vibrato where the pitch goes up and down too widely and clearly:

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(1) Representing a ‘sautillé-like’ vibrato sounding like DDDDDDDDD.

(2) Representing a ‘wobbly’ vibrato sounding like D, then the note a quarter tone or so below, then D again.

Which part of the fingertip?

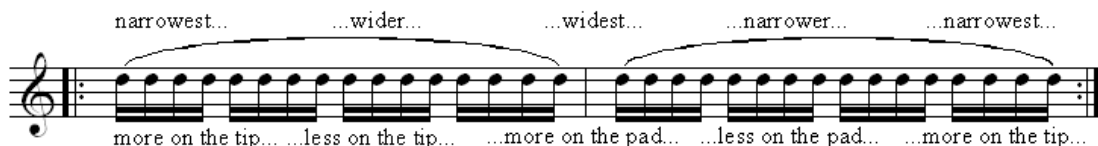
Vibrato is narrower when the finger is placed on the string very upright, so that the tip of the finger stops the string. Placing the finger flatter, so that more of the pad touches the string, produces a wider vibrato.

You can tell almost any student violinist – even before you have heard them play – that there is something they need to reconsider in their vibrato. You can say: ‘Although I have not heard you play, I can tell you that there is something you do not think about in your vibrato. It never occurs to you to consider it.’ When you then tell them what it is – that they do not constantly change the exact part of the fingertip that contacts the string in order to create a different vibrato colour – most will agree that yes, it is true, they never ever think of varying it.

You could not say the same about the width or speed of vibrato. At least half would protest and say no, they do often change the width or speed. But in nearly every case it will be true about changing the area of the fingertip. This is something that most players forget to do most of the time.

Exercise 1

In this exercise, change the vibrato from very narrow to very wide, and then back to very narrow again. Use only the different parts of the fingertip and pad to make the different vibratos - do not use extra hand or arm movements.



- 1 Play continuous whole bows, down and up, on one note.
- 2 Begin with a narrow vibrato, playing with the finger vertical on the fingertip.
- 3 Very gradually flatten the finger so that you use more and more of the pad. Do not let the pitch of the note waver - the only change should be that the vibrato gradually becomes wider.
- 4 Continue to widen the vibrato to the maximum; then gradually narrow it to the minimum by moving back on to the fingertip.

Play a few notes on each string with each finger, in low, middle and high positions.

Exercise 2

Play continuous whole bows, down and up, on one note. Play four beats on each bow.

- Play four vibratos to a beat (like vibrato ‘semiquavers’). Vibrate with the metronome at 60, then repeat at 66, 72, 80, etc., up to about 100.
- At each metronome speed begin with the narrowest possible vibrato. Very gradually widen it, little by little, to the widest possible vibrato. Then gradually narrow it down to the smallest again.
- Always play four vibratos on each beat, so that the vibrato speed does not change whatever the change of width.



Play a few notes on each string with each finger, in low, middle and high positions.

Next month’s BASICS looks at some quick ways to improve intonation.