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## BASICS

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# Out-of-tune strings

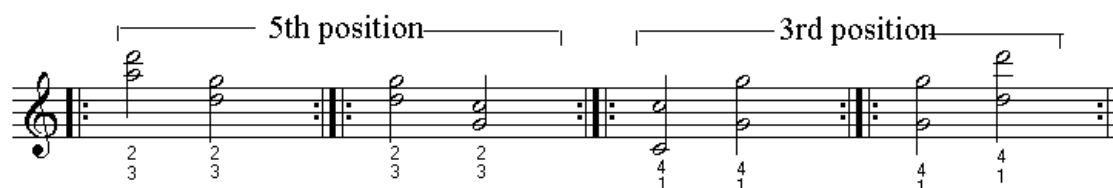
### False strings

When strings are false, the octave moves very slightly off-centre instead of falling exactly midway between the bridge and the nut. It takes only a simple build-up of rosin where the bow contacts the string, for that end of the string to become infinitesimally heavier than the other end of the string, causing the middle harmonic to move away from the centre. The bridge may upset the fifths if it is not positioned at exactly 90° to the strings, or if it is warped so that one string is slightly longer than another.

The strings can be cleaned or the bridge straightened, but the strings may be false because windings have become loose; or over time the string has unevenly stretched and thinned, perhaps because of having been pulled violently in *f* pizzicato; or there may be a build-up of rust or other corrosion caused by sweat. Then the strings need to be replaced.

False strings are often the direct cause of poor intonation, i.e. if the strings had not been false, exactly the same placement of the fingers would have been in tune. As a matter of routine, after tuning the violin check that the fifths are still true by playing the following intervals:

Example



Make sure the interval on one pair of strings is perfectly in tune, and then move the fingers exactly across to the next string, without moving up or down the string. The new interval should also be perfectly in tune. If it is not in tune, either you did not move straight across, or one or both of the strings are false.

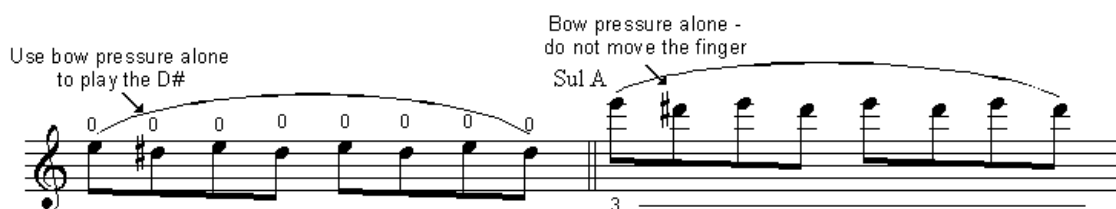
Strings often need to be replaced long before they break or begin to unravel. It is common for the strings to look perfectly all right, but for the fifths to be so uneven that the same finger spacing that plays an in-tune perfect fourth on one pair of strings plays an augmented fourth on the next pair.

### Bow pressure and pitch

The left hand fingers are also often blamed for out of tune notes that are actually the fault of the bow. Too much bow pressure, too far from the bridge, 'bends' the pitch of the note flat.

- 1 The further from the bridge the softer the string, and the less pressure it can take before the pitch wavers.
- 2 The higher the string the thinner it is, and the less pressure it can take.
- 3 The shorter the string the less pressure it can take.

Example



Alternate between an open E and a D# by using too much bow pressure. Bowing about a centimetre from the fingerboard, keep the bow speed the same while increasing the pressure until the note changes pitch. The pitch of the note is easiest to 'bend' when playing in higher positions because of the shorter string length.

# BASICS

Praeludium and Allegro, Pugnani-Kreisler

**Andante**

Example

The top B marked '+' can sound as an A# if played too heavily with the bow, even if the left finger is exactly in tune.

- Practise the B alone. Play whole bows close to the bridge. Play with the same intensity and attack as if you were in the middle of an exciting performance.
- First play without vibrato, experimenting with bow speed and pressure to find exactly the right combination to make the string vibrate the widest. Then add vibrato.

Whole bows near the bridge

Do not let the F# and D waver

Example

Take particular care at the top of a scale of thirds to play near enough to the bridge and to give the right amount of weight for each string. The A string is weaker than the steel E string with its greater tension; and as well as this both strings are short; the more-sensitive A string is even shorter than the E.

Do not make the F and D waver

Keep the Bb steady

Partita no. 2 in D minor, BWV 1004, J. S. Bach  
*Sarabanda*

Keep the Bb steady

Keep both notes steady

Keep the F steady while pivoting from the G-D to the D-A strings

Example

- Even in first position, constantly remain sensitive to over-pressing or playing too near the fingerboard.

When played too heavily, the open G string plays too sharp because excessive weight has the same effect of increasing the tension of the string as tightening the peg:

Do not 'bend' the G upwards

Zigeunerweisen, op. 20 no. 1, Sarasate

Example

Do not 'bend' the G upwards

Scherzo (FAE Sonata) Wo02, Brahms

Example