The third tone

Tuning major thirds and sixths

When two notes are played together they produce a ‘third tone’, a low, distant droning note in the background which is like a bass note to the two notes of the double stop. It is clearest in high-position thirds and sixths.

When the third tone is exactly in tune with the two notes of the double stop, the double stop is perfectly in tune. The notes blend and harmonize with each other, and the interval has a smoothness and chord-like quality.

However, in many cases the third tone should not be in tune with the notes of the double stop, which is another way of saying that the double stop should deliberately be played out of tune. This is because the listener’s ear catches one or both of the lines as an individual melody in its own right, not as part of a double stop with the notes standing in relationship and harmony with each other. Very often the double-stop sounds more in tune when the third tone is out of tune, as shown later in the examples. In any case, the third tone is never audible to the listener, only to the player.

1. First tune the double-stop so that the third tone is in tune.
2. Using that tuning as a reference-point, sharpen or flatten the upper or lower note very slightly.

How to get the third tone in tune

The notes of the double stop are either ‘fixed’ or ‘moveable’. G’s, D’s, A’s and E’s should be in tune with the open strings, and are therefore fixed notes. All other notes are moveable, but may also be fixed depending on their place in the melody or harmony.

To get the third tone in tune in a third or sixth:

If the fixed note is the lower of the two notes, the upper note has to be flattened.

If the fixed note is the higher of the two notes, the lower note has to be sharpened.

In the first bar of Example 1 the D³, which should be in tune with the open string, is fixed and the upper note must be brought down towards it for the third tone to be in tune.

In the second bar the D³ is now the upper note. The F³ should be brought up towards it for the third tone to be in tune.

(1) The E♯ must be in tune with the open E. For the third tone to be in tune, the G♯ has to be played too flat. To maintain the brightness and character of the passage, the G♯ should be played slightly higher, out of tune with the E♯.

(2) The D♯ must be in tune with the open D. For the third tone to be in tune, the B♯ has to be too flat. It should be played higher, out of tune with the D♯.

(3) The E–G♯ is the same as (1), but here the G♯ is played on its own one note earlier. This note must be played ‘high’, being the major third in the scale of E major; and since this pitch and the G♯ in the following double stop must be the same, you are again forced to play the double stop ‘out of tune’.
In the first bar the Donium must be in tune with the open D. For the third tone to be in tune, the Bb has to be played too sharp. To maintain the dark, minor character of the passage, the Bb should be played lower, out of tune with the Donium.

In the second bar the Gonium must be in tune with the open G. For the third tone to be in tune, the Bb again has to be played too sharp. It should be played slightly lower, closer to the open string and out of tune with the Gonium.

Third beat: the Eonium should be in tune with the open E, with the Bonium a perfect fifth above. The Gonium sounds too flat if it is in tune with the Bonium and must be played sharper, closer to an Aonium. It is also then the same pitch as the Fonium at the beginning of bar 3, which as the upper note of a minor third is naturally played ‘low’.

(1) The Eonium must be in tune with the open E. For the third tone to be in tune, the Conium has to be played too sharp. Play it slightly lower, out of tune with the Eonium.

(2) The Aonium must be in tune with the open A. For the third tone to be in tune, the Fonium has to be too sharp, losing the note its relationship with the Eonium. It should be played lower, out of tune with the Aonium. It is also then the same pitch as the Fonium at the beginning of bar 3, which as the upper note of a minor third is naturally played ‘low’.

(3) The Donium must be in tune with the open D. For the third tone to be in tune, the Bonium has to be too flat, which robs the phrase of its warmth and brightness. It should be played higher, out of tune with the Donium.

(4) The Donium must be in tune with the open D. For the third tone to be in tune, the Fonium has to be too sharp, again losing the note its relationship with the Eonium. Play the Fonium lower, closer to an Eonium and out of tune with the Donium.

The held Gonium on the lower line must be in tune with the open G string, and each Eonium must be in tune with the open E, making it impossible for the third tone in the major sixth to be in tune.

The same principles apply to single notes. In Example 7 the Fonium needs to be played as a ‘leading note’ to an imaginary Gonium. If it is tuned as a double-stop with the open A string it will sound very flat and dull the bright, positive character of the major triad.

Next month’s BASICS looks at soundpoints: the ‘master method’ which gives anyone an opulent tone in minutes.