## Dynamics

Between 1900 and 1904 the Spanish painter Pablo Picasso went through a period of using only shades of blue and blue-green, and added other colours only rarely. Known as his Blue Period, he had trouble selling the paintings at the time, though they became very popular later. For the musician dynamics and colour are like two sides of the same coin, and one sure way to raise your performance on to a new level is to make the contrast of colours really telling.

There was a funny moment during a rehearsal of a student orchestra taken by the Russian cellist and conductor Mstislav Rostropovich, when he complained that every passage sounded *mezzo-forte* – but in each case he couldn't tell whether it was a bad *piano* or a bad *forte*!

## Dynamic range

What exactly does '*piano*' or '*forte*' mean? Dynamic markings are actually as meaningless as the tempo indications printed on metronomes, where a specific speed is given as '*allegro*' even though the range of *allegro* extends all the way from not so quick, to very quick indeed, depending on what you are playing and who wrote it. The great cellist Pablo Casals taught that the range of *piano* extends all the way from *pianissimo* up to near *forte*; and *forte* extends all the way from *fortissimo* down to near *piano*. Although these markings do indicate the volume of passages relative to each other, they cannot mean precise levels in terms of decibels. Often you have to create an impression of '*piano*' while actually playing out, or appear to play strongly in '*forte*' while actually holding back.

It is in orchestral playing that the greatest range of sound and dynamics is possible. Sometimes you have to play so quietly that you barely make any sound at all; or so powerfully, or so accented, that it is almost rough. Yet thirty-two violins playing that softly, or that forcefully, creates an overall tone that is tremendous.

It is in solo playing that the narrowest range exists: it is very rare that you play so quietly that if you gave any less you would not be playing at all; or so loudly that your instrument itself seems to be suffering.

Violin Concerto no. 2 in D minor, op. 22, Wieniawski



In the theatre, a 'stage whisper' has to be loud enough for the audience in the back row to hear. Similarly, while the opening of the Wieniawski D minor concerto is marked '*sotto voce*' – literally 'under the breath' – it needs to be played reasonably near to the bridge for it to be the leading voice above the orchestra, and aim more for the *espressivo* than the *sotto voce*.

The trick of giving an impression of *piano* lies in the degree of smoothness of the bow and lack of accent. Try it both ways: first play the phrase as if it were marked *forte* (as it is anyway later in the piece), the hair about a centimetre from the bridge and each stroke beginning with accents created by extra bow-speed and weight:



Then repeat at the same point of contact but play entirely smoothly, joining each stroke to the next seamlessly. Both will be more or less at the same volume, but the character will be markedly different.

## The sound under your ear

One reason why it can be difficult to get students to play nearer to the bridge (not necessarily very close to it, but nearer), is not that they forget to or are recalcitrant, but that they don't like the sound there.

If so it means that they do not realise that the sound under the ear is not the same sound that the audience hears. Of course it is louder to you and softer to them, but there is more to it than that. Each note is made up of the many notes of the harmonic series, called partials. When you set a string into vibration, not only does the whole string vibrate – this is the fundamental note you are playing – but the string also divides into two halves, each half vibrating on its own at the same time; and into thirds, quarters, fifths, and so on.

Taking the note C below the bass clef as the fundamental, here are the first twenty-four notes of the series. The crosses indicate notes that are not exactly in tune:



The closer to the bridge you play, the more upper partials are audible. Playing further from the bridge, or using a mute, reduces them. But the important point to know is that the higher the partials, the less well they travel and they are the first to drop off. With your ear close to the instrument you hear everything; but by the time that sound has reached the audience it has become sweeter or more mellow because the upper partials are absent. It really is a different sound they hear; but if the sound close to your ear is the sound you want the audience to hear, it may be small or weak by the time it gets to them.

Of course this is not to say that you should play roughly or harshly in the hope that nobody will notice. They certainly will. It is simply a matter of extending your dynamic range by having the near-the-bridge area available more often, but always secure in the knowledge that at a distance the tone sounds as sweet as it would to you, the player, if you played further from the bridge.

## Play it again differently

Itzhak Perlman often says to his students, after they have played a piece, or a passage or phrase from it: 'Very good, very good...now please play it again completely differently, but still making a success of it!' This is most liberating, not only for the student but for the teacher, and Pablo Casals would thoroughly approve. He would practise performing every phrase or passage of a piece in six or more different ways, and wouldn't know exactly which approach he was going to take until he came to it in the concert. So he would go from 'Approach no. 4' in one phrase to 'No. 6' in the next. In this way performing music becomes like a prepared improvisation, and remains entirely fresh and new every time.

I was once asked to play the Bach two-violin concerto with the British violinist Emanuel Hurwitz. I had performed it several times before, but for one reason or another it always ended up that there was only the briefest rehearsal with the other violinist beforehand. I decided that this time I wanted to do it 'properly', so I asked Mannie if we could rehearse it thoroughly for once. He was reluctant, but said, 'Well, all right, but so long as nothing gets fixed!'

How exactly should the opening *forte* of *Zigeunerweisen* be interpreted? There are probably as many different ways, all of them correct, as there are violinists to play it:





What are the things you can do differently? You can play it more smoothly or more accented, with more or less bow, nearer to or further from the bridge, at a faster or slower tempo (within the underlying pulse), and use different combinations of vibrato speed and width, of which there is an infinite number; and of course you can try different levels or qualities of dynamics, from *mezzo-forte* with more accented strokes, to *fortissimo* with smoother strokes, either of which would come out as '*forte*'.