

Some thoughts on the nomenclature of enharmonics

If you're playing a piano, or other keyboard, and you're using equal temperament, then there's only one black key between D and E: there's only one place to get to. If you're in the key of Eb, it will be written on the first line of the staff (with 3 flats in the key signature) and we'll call it Eb (no other markings). If you're in the key of E with 4 sharps, the next lower note will be called D#, and it will be written just below the first line of the treble staff (as a D with no other markings at the note). Let's say you're in a key like F that has D-nat and E-nat. When ascending the scale, it is efficient to write D, D#, E rather than D, Eb, E-nat (to cancel the effect of the printed accidental); when descending the scale, under these circumstances, it is efficient to write E, Eb, D rather than E, D#, D-nat (to cancel the effect of the printed accidental). On the piano, you have one black key to press; on the flute, you have one key-spatula to press (unless your name is Quantz).

Just Diatonic Scales use simple fractional ratios, and the harmony is sweeter. Let's say that middle C is your point of departure, approx 261.6 Hz. You will use simple ratios to get Just Ratios for the keys of F, Bb and then Eb (where Eb is the tonic, "Ut" at 310.0 Hz). Now if we go back to the key of C, but instead work our way to the key of E, then the frequency of D# (as "Ti") will differ from our Eb above. This would make Mr. Quantz happy. If there is only one key-lever, you would lip the pitch in.

In Just Diatonic scales, please note that many notes along the way will also be modified: If our starting scale is C at 261.1 Hz, then D (as "Re") will be 294.3 Hz. If we use simple ratios and work our way to the key of Eb at 310.0 Hz, that D (as "Ti") will be 290.7 Hz. Note that the printed music does not use different names for D; a violinist or a skilled singer would alter the frequency in accordance with the chosen key. So therefore, if we want the correct frequency for our D, and we know there's a difference according to the chosen key, and we don't want (or need) extra symbols to tell us so, it is my opinion that the ascending sequence named D, D#, E is just as good as the descending sequence E, Eb, D; the key signature (and our musical aesthetics) tell us what frequency to use when playing the note in the middle.

We interrupt this Regularly-Scheduled Pontification for a Special Report on Sweet's Integral Scale:

.Ut...Re...Mi...Fa..Sol...La...Ti...Do
 240 270 300 320 360 400 450 480.....Twenty-Four is the LCD of the Pythagorean Ratios (Just Diatonic).

The 4::5::6 ratios are preserved for the I- IV- and V-chords. 240 Hz is near B3 on the piano, in the audible range.