

A Field Guide to Chromaticism

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In our first piano lessons we learn about the *chromatic scale* before anything else that uses the word "chromatic". As talented players we will learn probably in the second year how to finger the chromatic scale, with the third finger always and only on a black key. On other instruments we sooner or later learn the difference between an A-flat fingering and a G-sharp fingering, which may be slightly different on a woodwind instrument, and more different on a violin; by the time we reach our second decade, we may even learn what the differences may mean musically, even if we haven't yet studied theory and run up against the word "chromaticism," which sounds as though it were something possibly dangerous, like "communism."

Chromaticism implies a contrast with diatonicism: the chromatic degree is a variant of the diatonic scale degree. Our system of sharps and flats ratifies this concept, and the system of key signatures notates it, however imperfectly. So we need to define the signification of accidental signs and chromatic degrees — the field marks of visible chromaticism.

The term comes from Greek *chroma*, color, as though the presence of chromatic tones might be something one could see and distinguish one from another. We think of chromatic color in relation to triads that can change incidentally from major to minor or vice versa — as in mixed-mode harmony where a minor subdominant can appear in a major-mode context. The piano keyboard has two colors, too, but a piece in C major need involve no black keys whatever — Shostakovich's Fugue no. 1, for instance, that is all white keys, and I have a CD of a horrible piece called *Concerto blanco* that is similarly constructed. Next to pieces like these we have Prokofiev's story of his earliest childhood composition, the "Hindu Galop" in F major, always with B natural because of his early fear of touching a black key. This piece is presumably lost, but we might guess that it would use a modal scale, and we could notate it with a C major key signature without accidentals, or with a standard F major one-flat signature in which every B flat would be overridden by a natural sign.

And of course chromaticism is a visible phenomenon, something we can see in a score whenever we spot an accidental sign, but we need to know why those accidental signs are there, notationally speaking. The Shostakovich fugue suggests a piece in C major without modulation or chromatic nonharmonic tones but not excluding modal inflections analogous to, say, those in Chopin's op. 24 no. 2 Mazurka, where no accidental appears for the first two pages. If Shostakovich had composed his fugue in another key, then the key signature would take care of all the black keys, with no need for accidentals. Or if it modulated, the key signature could change. For an extreme example of that we can point to Beethoven's Two Preludes, op. 39, for piano (or, significantly, for organ), in which one can find twelve changes of key signature in twelve successive measures, each one of which has a single accidental corresponding to the leading-tone of the next key. The new key signature is placed at the beginning of the bar, by typographic convention; but in the passage in question, if one were to move the signature-change one beat to the left, then the accidentals would disappear.

The opposite of this extreme situation is much more familiar. In two successive eight-bar phrases of Schubert's *Waltz*, op. 18, no. 2, we find no accidental signs at all for the first six bars, and then four different tonicizations in the next eight bars, in the course of which all twelve pitch-classes appear in the changing harmony, without nonharmonic tones — five different accidental signs, like the black keys (although this waltz is in B major). This is "total chromaticism" of the tonal variety. We are still thinking in terms of one key, in which the tonicizations, as opposed to real modulations, are shorter than a single phrase. If we wanted to consider larger dimensions, with modulations, then we might choose something like the first movement of the *Eroica* Symphony, in which one can make a convincing argument for twenty-seven modulations before the Recapitulation begins, and I haven't counted how many more afterward — an entire movement of 691 measures sprinkled everywhere with accidentals, in which the key signature never changes.

The situation is different when we deal with minor keys. The key signature corresponds to the natural minor scale, which defines the mode, and we know that the minor mode depends first of all on the definition of the tonic triad as a minor triad. The seventh degree of the scale, and somewhat less often the sixth degree, is normally inflected upward as a major scale degree to accommodate the direction of the melody or the requirements of a tonicizing dominant; but these everyday accidentals are the result of the limitations of the key signature system. They are accidental signs, of course; but they are hardly chromatic signs, because the inflected degrees are diatonic degrees.

One can only wonder how the Renaissance composers survived the hexachordal system, which to our modern eyes (not to our ears, of course) can only seem like the most uncomfortably complex means of avoiding accidental signs — a means which naturally was not successful. (If it were successful, there would be no *musica ficta*.)

In a diatonic context, a chromatic alteration typically implies a melodic tendency: a chromatically raised scale degree means chromatic motion upward; chromatically lowered, downward. A chromatic passing tone or other nonharmonic tone is usually our first acquaintance with this. But the tendency can be contradicted, too, in such situations as the barber-shop progression, as G-Fsharp-F-E, the F sharp harmonized with V of V, the F with V; the root progression is normal but the chromatic succession violates the chromatic tendency. One would hardly know how to analyze or even notate the progression with G-Gflat-F-E! This isn't a matter of the inherent imperfections of notation; it's a matter of the nature of melody and counterpoint, which overrides the tendency of the secondary leading-tone (F sharp) to lead upward to G.

Melody decrees that chromaticism can also apply to the description of certain nonharmonic tones. We don't have to search very far to find chromatic nonharmonic tones filling in the cracks between diatonic tones. Except in folksongs, all we have to do is look in the melodic line. Obviously Irving Berlin wasn't thinking of the two colors of the piano keyboard when he wrote the words "I'm dreaming of a white Christmas." Chromatic passing tones and neighbor notes are rhythmically weak stepwise concomitants of scalar motion. In a chromatic scale at high speed, the chromatic degrees and the diatonic degrees are equally connective and equally nonharmonic, the melodic limits depending only on contrapuntal values — where the scalar portion of the melody begins and ends. Such a melody may guide a succession of

diminished seventh chords, as we know in many pieces from Bach to Liszt and Tchaikovsky and beyond.

In modal mixture, harmonic chromaticism as we would like to define it begins to emerge. The most usual modal mixture is signaled by minor IV in a major-mode context. And how often we encounter the major IV echoed in the next phrase by the minor IV. This is not only a chromatic change; it is a linear motion too, the major sixth degree changing to the minor sixth degree thus calling melodic attention to itself.

And it is likewise in modal mixture that the first harmonically inherent chromatic alteration is found: in the diminished seventh chord. One can't write one without using at least one accidental. The most familiar form is Vo_9 , or what some theorists, but not I, prefer to call VII⁷ — B D F Aflat in the key of C major or C minor. If in the major mode, the chord requires an accidental for the minor sixth degree; if in minor, it requires one for the major seventh degree.

What about diatonic modes outside the familiar major-minor system? The idea of "modal harmony" has always puzzled theorists of the harmonic period, as though, somehow, it were other than diatonic. Notation and analytical interpretation have frustrated theorists frequently, and composers not at all. All those church modes that you hear hinted at, whether for Russian Orthodox reasons or not, in Russian music of Tchaikovsky through Rachmaninoff, or in Grieg or Fauré or Debussy, are momentary inflections that take place primarily in the melody, the harmony following to accommodate. In Russian music, and we can all cite good examples from the Five, the chief original competitor to the normal functional major mode is the natural minor. Compare, sometime, the relationship between A minor and C major in the first movement of Borodin's Third Symphony and in Ravel's *Pavane de la Belle au bois dormant* and you will note that the tonicizations of bipolar major and minor are perfectly clear even without leading-tone accidentals.

But modal harmony, even with an accidental sign present, is still necessarily diatonic. If Beethoven had wanted to proclaim the Lydian mode of his "Heiliger Dankgesang" by means of a key signature, he could hardly have done better than to write a natural sign on the third line next to the treble clef on every staff.

The composers that we identify with modal harmony seldom went to the extremes that Beethoven did in the Lydian sections of his "Dankgesang," in which a single scale form, without accidentals, is exclusively used. But granting that possibility, then it might be notationally possible to use a single key signature, even if it were an unusual one, such as ethnomusicologists sometimes use, or as Bartók did occasionally in *Mikrokosmos*. Fauré followed conventional notation in his song "Lydia," when he used a G major signature and added a punning C sharp accidental in the second bar of the melody.

So we may further limit our definition of chromaticism to exclude accidental signs that are used to indicate a diatonic scale degree, even if the scale degree cannot be indicated in a normal key signature.

All this is really old stuff — those parts of the harmony books, Piston's included, that we read once and hope to forget. The harmony books nevertheless are morally compelled to segregate the family of so-

called chromatically altered chords which aren't in any of the categories we have identified so far, and which are marked by the inclusion of at least one factor which is in neither the major nor any minor scales of one key. They are defined, in part, by genuinely chromatic intervals: the augmented sixth is not a diatonic interval, even if its enharmonic equivalent is, the minor seventh. The Neapolitan sixth is most often a tonally stronger form of the supertonic in minor. The augmented sixth chords — more of them are being nationally characterized with each new edition — are typically of contrapuntal origin, with two or even three tendency tones. Some of the augmented sixth chords lead to whole-tone harmony, where chromatic notation is always uncomfortable because the tendency tones no longer have tendency, and nondiatonic enharmony is counter-intuitive to read.

The element of pathos suggested by the descending chromatic scale in classical *Affektenlehre* is more a matter of chromatic melody than harmony; even Purcell's "When I am laid in earth" and Bach's Crucifixus harmonize the chromatic bass with a conventional vocabulary of chords and chord progressions that are entirely familiar in non-chromatic-scale contexts. So in every real sense this is melodic chromaticism. Expressive chromaticism in Gesualdo and his typically far-out madrigalist contemporaries has to do with chords with distantly-related root successions, chords whose factors (one or more, but at least one) are connected by chromatic half-step. Both the pathetic bass and the extravagant (if I may coin a new pronunciation) madrigalism lead, theoretically if not always historically, to the kind of chromaticism exemplified by Chopin's E minor Prelude, with stepwise chromatic connections of consecutive harmonies that are distantly related.

Everyone knows the *Tristan* Prelude as a watershed in the history of tonal chromaticism, despite the abundance of earlier examples in which diatonic tonality modulates continuously beyond the limits of the phrase. Even in Chopin's earliest works, with numerous examples from Bach and Mozart as their harmonic inspiration, one can find examples of extended chains of modulation via repeated sequences, and in the later Chopin, as indeed in Schubert, there are many examples of abrupt nonsequential modulation to remote keys. What is distinctive about *Tristan* is that all these processes are so protracted, as though all of Act II, for instance, were a succession of diatonic and chromatic deceptive cadences. But as a rule Wagner's deceptive cadences, no less than Chopin's, are between triads, whether closely related or remotely related; the context is diatonic, and the chromatic details are incidental.

In post-Wagnerian harmony all these typical relationships also obtain, but the tonality-weakening progressions increasingly deemphasize the major-minor triadic system; a chromatic progression may be from an augmented triad to a nondominant-seventh chord, or from a diminished-seventh chord to a half-diminished chord, or from one appoggiatura chord to another appoggiatura chord. Long before the twentieth century, you find this in such slow-moving harmony as the third movement of Bruckner's Ninth Symphony, for example, and some of the late piano music of Liszt.

By the first decade of the twentieth century chromatic harmony achieves its crisis stage. Debussy, by this point, is still a diatonic composer. He enjoys complete freedom to construct a harmonic progression connecting the most remote tonal relationships — in many ways no different from Gesualdo's freedom — but always within a diatonic context. The harmony of the muted-trumpets section of *Fêtes* involves a succession of distantly-related seventh chords connected by common tones, or, more precisely, by a pedal-point A flat that is a proper consonant factor of every one of those chords

for thirty-two measures. That was in 1899, just six years before Schoenberg's First String Quartet, which is nominally in D minor but which stretches tonal chromaticism to its limit. From there on, there is a headlong rush to the atonal abyss in Schoenberg's works, in the last movement of the Second Quartet in 1908, and the great works of 1909, including the Three Piano Pieces, *Erwartung*, and the Five Pieces for orchestra. There are significant traces of triadic harmony in all of these major milestones, but free chromaticism, like "free" atonality, is the rule.

With the invention of collectivist chromaticism, whether Schoenberg's or Hauer's or the non-twelve-tone pitch-class subsets of Roslavetz, chromaticism no longer has any relation to diatonicism, because diatonicism has disappeared. (Berg's Violin Concerto and *Lyric Suite* are special exceptions.) Twelve-tone music represents total chromaticism in the sense that all structural relationships depend on, and are referable to, the twelve pitch-classes in whatever special ordering — "related only to each other," as Schoenberg made clear from the start. Milton Babbitt's twelve-tone matrix is a unified abstraction of whatever we might call "total chromaticism" in a twelve-tone work. But Babbitt also remembers the time when twelve-tone music was championed by the young leftists of New York when Schoenberg taught briefly at Juilliard in 1934, on the premise that the twelve-tone series was "democratic," because "all the tones are created free and equal." It may be many years before such democracy becomes instinctive for the average listener or even for the average trained composer, overriding our natural tendency to hear diatonically. But there is no turning back from chromatic democracy on either front, and chromaticism as an expressive resource has long since been joined by chromaticism as an ingredient of structure; we have known at least since the seventeenth century that music will not survive without it.