

4 - Chromaticism

To this point we have not addressed the issue of non-diatonic notes in counterpoint. Even a casual look at a score by Bach will reveal a surprising number of accidentals. Some of these accidentals are essentially ornamental and are chromatically altered neighbor tones or passing tones. But the majority are not mere non-chord tones, but are chord tones that reflect a modulation or perhaps a secondary dominant or borrowed chord. This chapter will focus on these structural chromatic tones.

Some of the problems you will be assigned will contain chromatically altered notes in the cantus firmus. Ex. 4-1 is typical of this sort of problem. As suggested earlier it is always best to scan the cantus firmus and develop a basic harmonic setting before starting to compose a counterpoint to it. In the case of altered notes in the cantus firmus chromatically raised notes imply a secondary dominant chord, the raised note being the third of the secondary dominant. Chromatically lowered notes are usually found to be 7ths of secondary dominant chords.

Ex. 4-1

C Ma: I V⁶⁵/ii ii V⁶⁵/V V V⁶ I V⁴³/IV IV⁶ iv⁶ V V⁷ I

The C# and F# in the key of C imply a V/ii chord and a V/V chord, and accordingly resolve to ii and V. When choosing which notes to use in the counterpoint to these altered tones a cardinal rule is don't double any altered tone. Since the chromatically raised notes are thirds of these secondary chords a good option is to use the root and/or the seventh of the chord in the counterpoint, which is seen in the example. It is also important to remember to resolve the diminished 5th intervals created between the 3rd and 7th of these chords down by step when these chords resolve. On beat two 'g' creates a diminished 5th which resolves down to 'f' on beat 3. Had it moved to the 'f' before beat 3 it would have spoiled the harmonic rhythm by resolving too early.

Similarly the Bb in bar 2 suggests a V⁷/IV chord. Since the bass note is the 7th of the chord, one should avoid using the 7th in the counterpoint. This leaves the root, 3rd and 5th to use in the counterpoint. With regard to chromatically lowered notes the only two scale degrees that will commonly be lowered are 7 and 6. Lowered 7 usually implies V⁷/IV, but lowered 6th does not imply a secondary dominant chord. The lowered 6th scale degree usually implies a borrowed chord, usually iv, or ii^o.

The Bb in the bass is the 7th of the V⁷/IV chord and creates the interval of an augmented 4th relative to E which is the third. This interval needs to expand out to a 6th when the chord resolves on the following beat. Similarly, the F, which is the last note of bar 2, is the seventh of the V⁷ chord implied at this point. It is important that sevenths of chords resolve down when the chord resolves to the third of the following chord.

Another way of determining which secondary function chord is implied by a chromatically altered note in the cantus firmus is the following chart. It simply correlates each possible altered scale degree to the secondary dominant chord containing that note.

<u>Scale Degree</u>	<u>Implies this chord</u>	<u>Example in key of C</u>
Raised 1	V ⁷ /ii (in Major only)	C# in C major
Raised 2	V ⁷ /iii (in Major only)	D# in C major
Raised 3	V ⁷ /iv (in minor only)	E in c minor
Raised 4	V ⁷ /V	F# in C Major or c minor
Raised 5	V ⁷ /vi (in Major only)	G# in C Major
Lowered 6	Borrowed iv or ii ^o	A ^b in C Major
Natural 6	Borrowed IV (in Major only)	A natural in C minor
Lowered 7	V ⁷ /IV or V ⁷ /iv	B ^b in C Major or c minor

Notice that raised 1 is not viable in a minor key. This is because the supertonic chord (ii) in minor is a diminished triad and cannot be tonicized. The same logic explains why raised 6 is not viable in either major or minor as the leading tone triad is also diminished.

It should also be mentioned that these chromatically altered notes can also imply a secondary leading tone chord in addition to a secondary dominant chord. As an example a C# in C major can also be heard as the root of a diminished 7th chord (C#, E, G, B^b) which is vii^{o7}/ii. This is most often the case when the tonicized chord (i.e., the Roman numeral on the right side of the slash) is a minor chord. So in major keys #2 and #5 can also imply vii^{o7}/ii and vii^{o7}/vi respectively.

It is also possible to utilize chromatically altered notes in the faster moving voice counterpoints you will be composing, even though the c.f. may be purely diatonic. This can lend a great deal of harmonic interest to an exercise that might otherwise be rather bland. Ex. 4-2 demonstrates this using a c.f. which has no altered tones.

Ex. 4-2

C Ma: V⁷/IV IV⁶ V⁶⁵/V V⁶⁵/vi vi V⁷/ii ii V⁷ I⁶ I

One strategy to determine what potential secondary chords can be incorporated into a diatonic c.f. involves a trial and error approach. It consists of taking each note of the c.f. and thinking of all of the dominant 7th chords that contain that note, and then determining if the following note is a chord tone in the hypothetical tonicized chord. A few examples may make the preceding sentence clearer. For example, the B on beat 4 of bar 1 in ex. 4-2 would usually be harmonized by a V chord. However, B is also the 5th of an E⁷ chord, which is V⁷ in A minor, and since the following note, C, could be harmonized by an A minor chord (which is vi in the key of

C) it is possible to use the V^7 of vi chord on beat 4. *A primary consideration in choosing whether or not to use a secondary chord is whether or not the following chord is the chord to which the secondary chord normally resolves.*

In certain circumstances exceptions to the preceding statement can be satisfactory. The key question is how does the root of the secondary dominant resolve? Normally the root of a secondary dominant chord resolves down a perfect 5th, but the root of a secondary dominant chord can alternatively resolve up a second. This can be seen in the first bar of ex. 4-2. The $D7$ chord (V^7/V) on the third beat would normally resolve down a 5th to a G chord. Here however it resolves up a step to an $E7$ chord which is V^7/vi , which then resolves normally down a 5th to an vi chord. Any other root resolution than a 5th down or step up should be carefully avoided. In particular a V^7/IV chord must never resolve to V .

One other consideration in selecting these optional secondary chords has to do with tendency tones. In example 4-3 the treble G could potentially be harmonized by an $A7$ chord, which is a V^7/ii chord in C . However, since the note G , which is the 7th of an $A7$ chord, would not be able to resolve down a step this is not a usable option here. The next note in the c.f. would have to be an F , not an A . In this situation the only secondary chord that would work would be a V^7/IV chord, which also has a G in it, but in this chord the G isn't required to resolve down to F .

Ex. 4-3

a) Poor b) Fine

C: V^7/ii ii V^7/IV IV

Example 4-4 is included here to warn against using “consecutive” chromaticism. This refers to having two different versions of the same note name back to back. When this occurs in the slower moving voice, as it does in bar 2 of ex. 4-4 it is not a problem, and is in fact quite common in 18th century music. On the other hand it is quite unusual to find this in the faster moving voice, as it does in bar 1. Since in your exercises you will always be writing the faster moving voice you should avoid following a note with an altered version of the same note, regardless if it is raised or lowered.



Ex. 4-4

poor

fine

Emi: i^6 i iv i V^6 V^{42}/iv iv^6 V i

When composing a counterpoint using secondary dominant chords you must be sure to employ the actual chromatically altered notes in your counterpoint, except in those cases where the c.f. states the altered tone. Ex. 4-5 shows two versions of a counterpoint in which a V^7/IV chord is intended, but only 4-5b achieves this. It is vital to use the note A^b in this instance as it is the only note in the chord which isn't in the key signature. Every secondary dominant chord contains at least one altered note relative to the key signature. Unless you make it a point to use that note in your counterpoint the listener won't perceive the intended harmony. But, as stated earlier, never double an altered note if it is already present in the other voice.

Ex. 4-5a - ineffective	4-5b - effective
	
Bb: I V^{65}/IV IV: ?	I V^{65}/IV IV

One final word of caution concerns the possibility of *cross relationships* in counterpoint that uses chromaticism. A cross relationship is an undesirable effect which occurs when two different versions of the same note occur in different voices in two successive chords.

Ex. 4-6a is an example of an undesirable cross relationship. When the chromaticism occurs in only one voice, as in 4-6b and 4-6c, it is not a problem. *Cross relations* only occur between two voices, not within a single voice.

Ex. 4-6a: cross relation	4-6b: fine	4-6c: also fine
		