The four basic sequence types can be pleasantly chromaticized with secondary chords. In most cases, you will see that the underlying sequence type remains easily recognizable.

**The descending circle-of-fifths sequence**

Because chord roots consistently move down by fifth, it is possible to add a secondary dominant before any major or minor chord in the descending circle-of-fifths sequence. We can tonicize each chord in the sequence (examples a and b), or we can tonicize alternating chords (example e). We might even decide to use elided resolutions, creating a long chain of dominant seventh chords (examples c, d, and f). Inversions work well as long as the voice leading is good (examples b and d).

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**Example a:**

\[\text{g: } i \ V^7/\text{iv} \ iv \ V^7/\text{VII} \ \text{VII} \ V^7/\text{III} \ \text{III} \ V^7/\text{VI} \ \text{VI} \]

**Example b:**

\[\text{g: } i \ V^6_2/\text{iv} \ iv^6 \ V^6_3/\text{VII} \ \text{VII} \ V^4_2/\text{III} \ \text{III}^6 \ V^6_3/\text{VI} \ \text{VI} \]

**Example c:**

\[\text{g: } V^7/\text{iv} \ V^7/\text{VII} \ V^7/\text{III} \ V^7/\text{VI} \ ... \]

**Example d:**

\[\text{g: } V^6_3/\text{iv} \ V^4_2/\text{VII} \ V^6_3/\text{III} \ V^4_2/\text{VI} \ ... \]
Observe that when this sequence occurs in a minor key, it makes sense to start on the tonic because we won't immediately encounter a diminished chord (ii°). In a major key, however, it makes sense to start on iii — after the diminished chord (vii°) occurs. Diminished chords can be used in sequences, but they cannot be tonicized, so our options are necessarily restricted in this particular sequence variant. Also notice that because this version of the sequence relies on perfect fifths and cannot accommodate a diminished fifth, it cannot be continued indefinitely without leaving the original key.

The descending thirds sequence

The descending thirds sequence works very well when alternating chords are tonicized. The tonicizations help emphasize the underlying functional progression (I-vi-IV-ii). Although the bass is normally smooth (example g) or uses only small leaps (example h), occasionally this sequence will include a string of large leaps in the bass (example i). Secondary dominants are most typical, but secondary leading-tone chords can also work well (example h). It is common to include secondary chords when the descending thirds sequence is in a major key, but in minor keys the sequence is almost always diatonic.
The ascending step sequence

This sequence type is especially likely to involve secondary chords. In fact, the ascending step sequence may be more common in a chromatic form than it is in a strictly diatonic form. Soprano lines tend to have a zig-zagging motion, almost as though they leaped too high and need to sink back down again (examples j, k, and m); direct upward chromatic motion is also common (example l). Bass lines often have direct upward chromatic motion (examples j, k, and m), but zig-zagging leaps are also common (example l). Notice that example k could be interpreted either as entirely triadic with passing tones in the soprano (this analysis is shown) or as alternating between root-position triads and second-inversion seventh chords (with the seventh arriving on the weak part of the beat). Also notice that the penultimate chord of example l could be identified as a tonic triad, but the established pattern will make it sound more like V/IV.

\[ \text{Example k:} \quad \text{D: I V/ii ii V/iii iii V/IV IV} \]

\[ \text{Example l:} \quad \text{D: I V/ii ii V/iii iii V/IV IV} \]

\[ \text{Example m:} \quad \text{D: I vii⁰⁷/ii ii vii⁰⁷/iii iii vii⁰⁷/IV IV} \]
The ascending circle-of-fifths sequence

Because the ascending circle of fifths doesn’t contain functional progressions, adding secondary chords is more complicated. The most typical pattern involves adding extra chords to the sequence. The added chords form a functional IV-V-I progression in a series of keys. The key areas (which are really just extended tonicizations) move in a pattern of ascending fifths. The underlying sequence becomes more clear if we compare the chords that appear on the downbeats.

An ascending circle-of-fifths sequence with tonicizations can be very difficult to detect because the more obvious surface-level motion is functional. Indeed, the descending fifth motion across each barline in example n might distract you from noticing the underlying pattern: each three-chord pattern goes up a perfect fifth.

Are other chromatic sequences possible?

You will occasionally find sequences that move chromatically but don’t seem to be using secondary chords (at least not in the usual way). They will probably still include some underlying patterns that link them to the four basic sequence types, but unique sequences are certainly possible.