

Sequences

A sequence is a stretch of music in which some pattern is repeated, usually gradually ascending or descending, most often by step. The repeated element may be melodic, harmonic, or both.

The sequences we look at will be both melodic and harmonic; within the sequence, each voice is entirely sequential.

These sequences consist of two elements: a basic pattern of two chords, and a way in which one pattern relates to the one that follows it. The sequence is characterized by two relationships: how the chords within the pattern relate to one another, and how adjacent patterns relate to one another.

The image shows a musical score for a sequence of chords in C major. The notation is on a grand staff (treble and bass clefs). The sequence consists of eight chords: I, IV, vii°, iii, vi, ii, V, and I. The first two chords (I and IV) are grouped together by a bracket, and the next two (vii° and iii) are also bracketed. A curved arrow labeled "down by step" points from the first group to the second, indicating the relationship between the two patterns. The chords are written in root position, and the leading tone of the vii° chord is doubled. The sequence is characterized by a descending-fifth root motion between adjacent chords (I to IV, IV to vii°, vii° to iii, iii to vi, vi to ii, ii to V, and V to I).

In this sequence, the chords within the pattern are related by root motion down by fifth, and patterns relate to one another by descending step. As it happens, the chords that span the boundary between patterns also relate to one another by descending-fifth root motion.

When writing sequences, take special care with the voice leading within the first pattern and across the first join between patterns, because any errors will be repeated several times.

Note in the example, however, that in a sequence, a number of things that would normally be considered errors are acceptable: the vii° chord is in root position, the leading tone is doubled, it does not resolve in an outer voice, and the chord is approached via an augmented leap. These things are all permissible in the middle of a sequence -- but not at the beginning or end. And note that more fundamental errors, such as parallel fifths, are not permitted in sequences.

The unusual treatment of the leading tone is made possible by the fact that chords in the middle of sequences have no harmonic function. A sequence is simply a device to get from one place to another; within the sequence, chords and tones lose their normal function, functioning only as part of the sequence and not as individually meaningful harmonies at all. (For this same reason, in the minor mode the leading tone is never used in a sequence, but instead the subtonic.)

The beginning and ending points of sequences have harmonic function, but inside the sequence harmonic function is suspended. This is indicated by a dashed bracket; the start and end of the bracket both require separate labels because the harmonic function of the beginning and of the end may not be the same.

This is illustrated below. The examples that lay out sequences will usually continue them from tonic until a return to tonic, but in real music often only a portion of the full sequence will be used.

I₆
V₆
I
IV
vii°
iii
vi
ii
V ⁸/₆ ⁴/₃ 5 7
I

T
DP
D
T

Note in this example that although the cadential dominant comes where a V chord is expected in the sequence, the use of the cadential 6/4 and the departure from sequence melodically both indicate that the sequence has ended. Also, the PD function of vi and ii (and possibly also of iii) is a matter of a latent possibility being confirmed retrospectively, as only when the sequence breaks do we know that we have just been hearing harmonically functional chords. This kind of retrospective hearing is typical of harmonic function analysis.

The remainder of the notes lay out the basic sequence types. A chart at the end summarizes them.

Circle of fifths:

In circle of fifths sequences, each chord relates to the next (both within the pattern and across the seam) by root motion by fifth, either ascending or descending.

Descending circle of fifths:

The root motion is by descending fifth.

Each new pattern is a step below the one before.

Either each chord is in root position, or else root position alternates with first inversion.

The musical notation shows a descending circle of fifths sequence in C major. It consists of two patterns of chords, each containing eight chords. The first pattern starts with C major (I) and descends by fifths: C major (I), F major (IV), C minor 7 (vii°), E minor 3 (iii), A minor 6 (vi), D minor 7 (ii), G major (V), and C major (I). The second pattern starts with C major (I) and descends by fifths: C major (I), F major 6 (IV₆), C minor 7 (vii°), E minor 3 6 (iii₆), A minor 6 (vi), D minor 7 6 (ii₆), G major (V), and C major (I). The chords are written in a grand staff with treble and bass clefs. The bass line is simplified, often using whole notes or half notes to support the harmonic structure.

I IV vii° iii vi ii V I I IV₆ vii° iii₆ vi ii₆ V I

Another typical soprano voice

In minor

The musical notation shows a descending circle of fifths sequence in C minor. It consists of two patterns of chords, each containing eight chords. The first pattern starts with C minor (I) and descends by fifths: C minor (I), F major (IV), C minor 7 (vii°), E minor 3 (iii), A minor 6 (vi), D minor 7 (ii), G major (V), and C minor (I). The second pattern starts with C minor (i) and descends by fifths: C minor (i), F major 6 (IV₆), C minor 7 (vii°), E minor 3 6 (iii₆), A minor 6 (vi), D minor 7 6 (ii₆), G major (V), and C minor (i). The chords are written in a grand staff with treble and bass clefs. The bass line is simplified, often using whole notes or half notes to support the harmonic structure.

I IV vii° iii vi ii V I i iv VII III VI ii° V i

Ascending circle of fifths:

The root motion is by ascending fifth.

Each new pattern is a step above the one before.

Each chord is generally in root position.

Used only in major because second chord is V -- too early to omit leading tone without sounding strange, but with the leading tone it doesn't sound like a sequence and the ii° sounds doubly wrong -- a retrogression and a diminished triad in root position.

Note: because of the harshness of the root-position vii° chord, it is very rarely used. Either the sequence breaks at the iii chord or else it skips the third pattern and concludes with the fourth.

Complete sequence:

Musical notation for the complete ascending circle of fifths sequence in C major. The sequence consists of eight chords in root position, connected by ascending fifths in the bass and descending fourths in the treble. The chords are: I (C major), V (G major), ii (D minor), vi (F major), iii (E minor), vii° (B diminished), IV (F# major), and I (C major). The notation is presented in a grand staff with treble and bass clefs.

I V ii vi iii vii° IV I

Sequence skips iii and vii°

Sequence breaks after iii

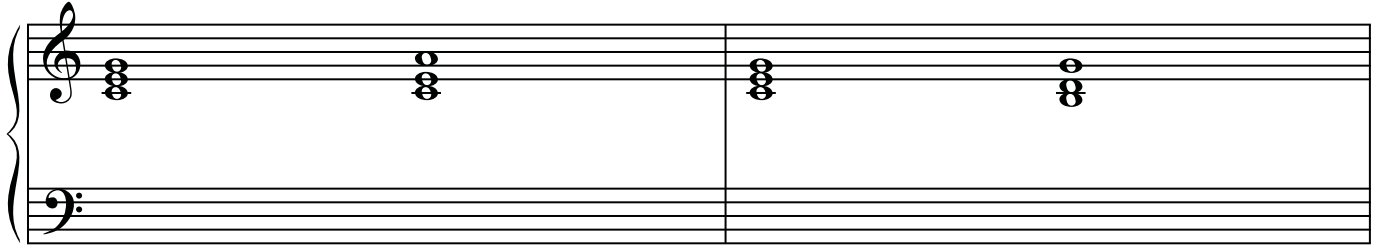
Musical notation for two variations of the ascending circle of fifths sequence. The first variation, labeled 'Sequence skips iii and vii° ', shows a sequence of chords: I, V, ii , vi , IV, I, ii_6 , V_7 , I. The second variation, labeled 'Sequence breaks after iii ', shows a sequence: I, V, ii , vi , iii , ii_6 , V (with figured bass $\begin{smallmatrix} 8-7 \\ 6-5 \\ 4-3 \end{smallmatrix}$), and I. The notation is presented in a grand staff with treble and bass clefs.

I V ii vi IV I ii_6 V_7 I I V ii vi iii ii_6 V $\begin{smallmatrix} 8-7 \\ 6-5 \\ 4-3 \end{smallmatrix}$ I

5-6 Sequences:

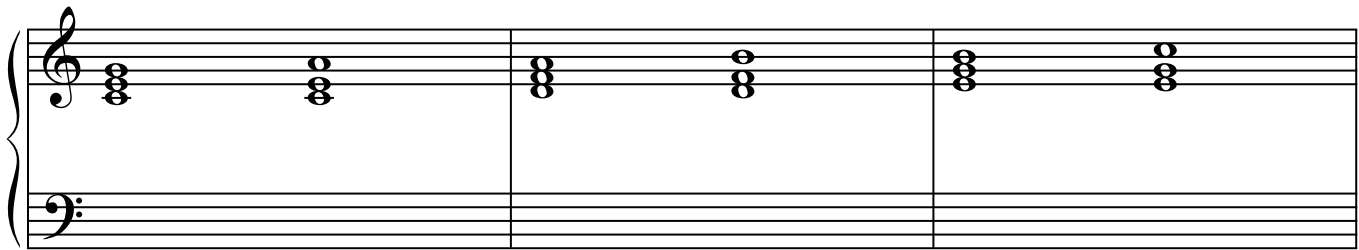
5-6 sequences are based fundamentally not on harmony but on voice-leading: a fifth between root and fifth expands, with one voice remaining stationary and the other moving outward to form a sixth.

Note that this is idealized voice leading; the actual soprano voice may not participate in the 5-6 motion, and the actual bass line may only partially coincide with the lower voice in the 5-6 motion.



Ascending 5-6 Sequences:

In the ascending 5-6 sequence, the fifth of the triad moves up by step, and this upper voice becomes the root of the new chord. This upper voice then stays in place while the lower voice moves up to restore the fifth for the start of the new pattern; the sequence moves like an inchworm.



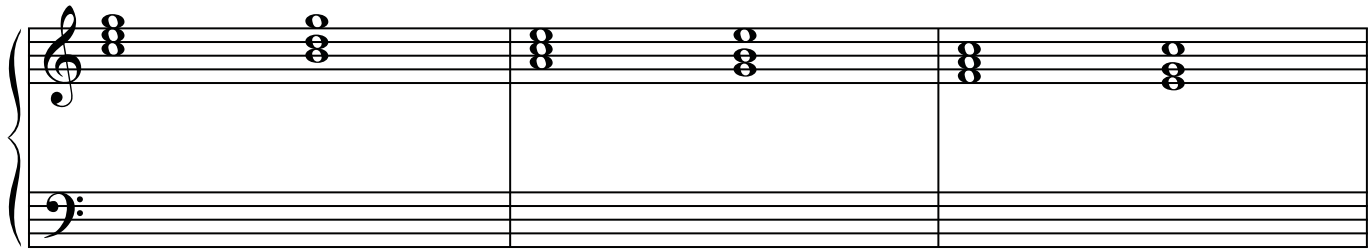
This sequence also works in major only because the root-position ii° chord would come too soon (the third chord, the start of the second pattern) to be glossed over as part of the middle of a sequence.

The ascending 5-6 sequence can either have a real bass line that follows the lower voice of the basic voice-leading model, so that chords alternate between root position and first inversion, or else it can use all root-position chords.

I vi₆ ii vii₆ iii I₆ IV ii₆ I vi ii vii[°] iii I IV ii

Descending 5-6 Sequences:

In descending 5-6 sequences the lower voice moves down by step, so that the root of the first chord becomes the third of the second. As one pattern moves to the next, instead of staying in place the lower voice continues down by step, resulting in a continuous scale.



As with ascending circle of fifths sequences, the real bass line may follow the bass of the idealized voice leading, resulting in alternation between root-position and first-inversion chords, or else it may use only root-position chords.

I V₆ vi iii₆ IV I₆ I V₆ vi iii₆ IV I₆

In minor

With all root-position chords

i v₆ VI III₆ iv i₆ I V vi iii IV I

Other possibilities for sequences:

Parallel 6/3 chords:

This is based on a three-voice texture; in four voices, alternate between doubled fifth and doubled root.

I₆ vii[°]₆ vi₆ V₆ IV₆ iii₆ ii₆ I₆

Seventh chords in sequence:

Seventh chords may be used in descending circle-of-fifth progressions.

The sevenths are always prepared, and they always resolve.

The chords alternate between complete seventh chords with no doublings and incomplete chords with doubled root and no fifth.

I IV₇ vii[°]₇ iii₇ vi₇ ii₇ V₇ I i iv₇ VII₇ III₇ VI₇ ii[°]₇ V₇ i

Circle-of-fifths progressions using seventh chords (incomplete sequences) are also common.

I iii₇ vi₇ ii₇ V₇ I I vi₇ ii₇ V₇ I

Summary of main kinds of sequence:

General type:		Circle of fifths		5-6	
Direction		Descending	Ascending	Descending	Ascending
Mode		both	major only	both	major only
Pattern-to-pattern relationship		down 2 nd	up 2 nd	down 3 rd	up 2 nd
Inversions	$\begin{smallmatrix} 5 & 6 \\ 3 & 3 \end{smallmatrix}$	$\begin{smallmatrix} 5 & 6 \\ 3 & 3 \end{smallmatrix}$	$\begin{smallmatrix} 5 & 6 \\ 3 & 3 \end{smallmatrix}$	$\begin{smallmatrix} 5 & 6 \\ 3 & 3 \end{smallmatrix}$	$\begin{smallmatrix} 5 & 6 \\ 3 & 3 \end{smallmatrix}$
Bass patterns		down 5 th , up 4 th	up 5 th , down 4 th	down 2 nd , down 2 nd	common tone, up 2 nd
				down 4 th , up 2 nd	down 3 rd , up 4 th