

WHAT: A sequence in music is the immediate, transposed repetition of a harmonic and/or melodic pattern.

WHY: *Repetition* and *variation* are core elements in most musical compositions, irrespective of genre. **Sequences** involve both of these elements; **repetition** is by definition inherent, while **variation** is achieved through changing the starting pitch (transposition), which also frequently involves a mode change (e.g., a sequence starting on I would change to the minor mode if moved up a step to ii). **Further variation** is possible by introducing alterations to the sequential repetitions. Sequences are also compositionally useful because they are an easy way of expanding musical material, as the following example shows.

ANALYSIS: Analyze the example below (**Bach: Prelude** from *Prelude and Fugue #21* in Bb, W. T. C. 1). How many different musical ideas are there? Use square brackets to indicate each sequence and its repetitions, and label them as follows: **A1** for the first idea, or *model* (i.e. m. 1, beats 1-2), **A2**... for sequential repetitions of that idea, then **B1**, for the second idea, **B2**..., etc.

The image shows a musical score for a piano piece in B-flat major, 3/4 time. It consists of five systems of music, each with a treble and bass staff. The first system (measures 1-2) shows a sequence of eighth notes in the right hand and a simple bass line. The second system (measures 3-4) continues the sequence with some chromaticism in the right hand. The third system (measures 5-6) shows a variation with sixteenth-note patterns. The fourth system (measures 7-8) continues with more complex rhythmic patterns. The fifth system (measures 9-10) concludes the sequence with a final cadence.

Sequential repetitions can be *diatonic* or *chromatic*, *inexact* or *exact*. Reexamine the previous example, and classify each sequence according to these terms. The examples below are of sequence types that do not require accidentals (beyond those required by minor keys), i.e. *diatonic* sequences.

SEQUENCE TYPES IN BACH EXAMPLE (ABOVE): The first 1.5 bars above (A1, A2, A3) may be reduced to the following chords:

Roots: dn. 4th, up 2nd Linear reduction (smoother)

The diagram shows two columns of chords. The first column is labeled 'Roots: dn. 4th, up 2nd' and shows three chords: Bb (I), F (V), and D (iii). The second column is labeled 'Linear reduction (smoother)' and shows three chords: Bb (I), F (V6), and D (iii6). Below the chords are fingerings: 5 3 for Bb, 6 3 for F, and 5 3 for D in both columns.

Bb: I V vi iii IV I I (V6) vi (iii6) IV (i6)

There are different ways of labeling the above sequence:

- (i) Describe the root movement within the repeating pattern (**down a 4th, then up a 2nd**), or

(ii) Rewrite the sequence in its **most linear form** (see the second version above), then describe the resulting pattern. If we do this, we see a pattern of $\frac{5-6}{3-3}$ chords over a **descending**, stepwise bass line. The shorthand label for this is: **Descending 5-6** (or $\downarrow 5-6$).

• We will adopt this second terminology in labeling sequences.

☞ This label can be used regardless of the chord inversions *actually* used, because it refers to a sequence *type*.

☞ I.e., $\downarrow 5-6$ can refer to I-V⁶ vi-iii⁶ etc., or **any other positions of the same progression**, e.g., I-V vi-iii etc., or I⁶-V⁶ vi⁶-iii⁶ etc.

ADDING CHORD 7^{ths}, AND THE POTENTIAL FOR VOICE-LEADING PROBLEMS

1. The first example below is a SATB setting of the **Descending 5-6** sequence. Care must be taken to avoid voice-leading problems, such as all four voices moving in **similar motion**; at least one voice should move in either **oblique** or **contrary** motion.

2. The second example shows a problem that can occur when chord 7^{ths} are added; in this case, it results in (a) many **parallel 5^{ths}**, and (b) **similar motion** in all voices from the first chord to the second in each pair.

3. The third example solves problem (b) by staggering the 7^{ths}, but there are still many **parallel 5^{ths}**.

4. The fourth example solves the voice-leading problems by using root position triads, while

5. The fifth example does the same but with smoother voice-leading, avoiding problem (b) with 8th-note suspensions (i.e., the suspensions create **oblique motion** between the first and second chord in each pair).

1. SATB Texture 2, 3. Adding chord 7ths; note the voice-leading problems that can occur 4, 5. Adding chord 7ths with good voice leading (easier if root position used)

I (V⁶) vi (iii⁶) IV (I⁶) I (V⁶) vi (iii⁶) IV (I⁶) I (V) vi (iii) IV (I)

MORE SEQUENCE TYPES IN BACH EXAMPLE (ABOVE): Bars 3-5 above (B1, B2, B3) may be reduced to the following chords:

Roots: dn. 3rd, up 4th Linear reduction (smoother)

Bb: I (vi) II (vii) iii (I) OR: I 5-6 F: IV 5-6 V 5-6 vi 5-6

As previously, there are at least two ways of labeling the above sequence (root movement or linear reduction), but we will adopt the second method, the label for which would be: **Ascending 5-6**.

HOW DO I KNOW IF IT'S A HARMONIC SEQUENCE OR NOT? Look for transposed, repeating patterns in the **root movement**. ALL voices *usually* move in transposed, repeating patterns, but the roots *MUST* do so to constitute a harmonic sequence.

☞ Bars 5½ - 6½ therefore do NOT constitute a sequence because the roots are: Bb - G - F (- F), repeated, which is a repeating pattern, but not a *transposed* repetition.

WHAT HAPPENS AFTER BAR 6½? As the examples below illustrate, a third sequence begins at bar 6.5 (C1, C2, etc.). As in the previous sequence, the roots move down by third, up by fourth, and so the sequence **type** is an **ascending 5-6**:

JSB: bars 6.5 - 8; reduction 1 JSB: bars 6.5 - 8; reduction 2 (smoother bass) JSB: bars 6.5 - 8; reduction 3 (showing roots in the bass)

C1 C2 C3 C4 C5 C6 Roots: dn. 3rd, up 4th

☞ Sequence "C" has at least **four** features we have not seen in any previous examples from this Bach prelude:

i) Chord 7^{ths} are used on the second chord of each pair;
 ii) It begins as a chromatic sequence wherein the second chord in the first two pairs tonicizes the subsequent chord;
 iii) The bass pattern changes to introduce octave skips beginning with C3; this also coincides with the point where the sequence becomes diatonic;

iv) It appears to break the "**RULE OF THREE**." This is more of a "rule of thumb" than an actual rule, but the gist of it is that most sequences contain **three** statements, or **two plus the start of a third**; this sequence has six statements! Speculate as to what factors in sequence C might justify its six repetitions (HINT: What elements of the repeated pattern are varied?).

ARE THERE ANY OTHER SEQUENCES IN THE OUR BACH EXCERPT? The first half of bar 9 contains another sequence, of a type not seen before in this prelude: **Root movement by falling fifths:**

☞ Sequence **D** is shorter than all the others (only two statements), but note that the RH in bar 9 continues in sequence for the entire bar, whereas the LH (as well as root movement) is in sequence for only the first half of the bar.

SUMMARY. The three most common sequence types were found in the Bach prelude above. Do a harmonic analysis of each example:

1) ↓ **5-6.** As seen above, in its most linear (smoothest) reduction, harmony moves from $\frac{5}{3}$ to $\frac{6}{3}$ over *stepwise descending* bass, but **other chord positions are possible**, as in 2nd ex. below. 2nd 2-chord statement is a third lower than the 1st. **Root mov't: ↓ 4th - ↑ 2nd:**

2) ↑ **5-6.** In its most linear form, harmony moves from $\frac{5}{3}$ to $\frac{6}{3}$ over *stationary* bass, constituting a **two-chord model**, sequenced up by steps. As above, any repeating chord position pattern is possible (such as all in root pos., $\frac{4}{2}$ to $\frac{5}{3}$, etc.). **Root mov't: ↓ 3rd - ↑ 4th:**

• **Observations on the above examples:**

☞ Each chord is in root position in first three examples; the ↑ **5-6** label can be applied irrespective of actual positions used.

☞ In the first, **the leading note is doubled in the 4th chord (vii°)**. While it is normal to have all voices move in sequential patterns, if doing so results in doubling a tendency tone it is better to change the voicings of the chords in such a way that continuing the pattern does not result in forbidden doublings, if possible.

☞ The chord voicings in the second example have been changed so that the tendency in the 4th chord is no longer doubled, but there is still the problem of a diminished triad (vii°) in root position, and this should be corrected.

☞ A half- (or full-) diminished 7th chord in root position is fine, however, so the chord voicings are changed in the third example so that the 2nd chord of every pair has a chord 7th, which means that the 4th chord is now a vii[°]7, and it breaks no voice-leading rules! Woo hoo!

☞ In the 4th example, the 2nd chord in each pair is in 1st inversion, creating the $\frac{5}{3}$ - $\frac{6}{3}$ pattern that gives this sequence type its name (↑ **5-6**).

☞ As the 5th example shows, every chord in this sequence type can have a chord 7th; note also that the 1st chord in each pair is in $\frac{4}{2}$ position.

3) **Root movement by ↓ 5ths.** Roots fall in steps for the first chord of every pair. What inversion patterns are possible?

☞ Note that in the chain of secondary dominants in the last example above, each temporary leading tone has a frustrated resolution to the 7th of the next chord, which is fine. Alternatively, the temporary leading tones could each resolve up by semitone to their target notes (temporary tonics), and then move in 8th notes to passing 7^{ths}, which would also solve the "all voices moving in similar motion" problem.

Here are examples of **less-common types**; Note that #5 is related to #2; #6 and #7 are related to #1. Analyse:

4) **Root movement by \uparrow 5ths**. Roots ascend in **steps** for the first chord of every pair:

$\hat{7}$ doubled in vii° triad, and vii° triad is in root position again (undesirable) $\hat{7}$ no longer doubled in vii° triad, but the triad is still in root pos. By using 1st inversion for the 2nd chord in each pair, the vii° chord is no longer in root pos.

vii° vii° $vii^\circ 6$

☞ This sequence is less commonly encountered than the previous three, presumably because it results in so many uncommon chord progressions, such as V to ii, ii to vi, vi to iii, iii to vii° , and vii° to IV.

☞ 7^{ths} are not possible on any chords. Can you explain why?

☞ The fact that 7^{ths} are not possible means that continuing the sequence until reaching a vii° chord will produce a diminished triad in root position, which is undesirable (see 2nd & 3rd example above), but if you use a 1st inversion for the 2nd chord in each pair you get a $vii^\circ 6$, which is its most typical position.

5) **Roots: \uparrow 4th, \downarrow 3rd (i.e. \uparrow_{3-4}^{5-6}):**

6) \downarrow_{3-4}^{5-6} (see Schumann: *Ich grolle...*) 7) **Roots: \uparrow 3rd, \downarrow 5th (i.e. \downarrow_{6-5}):**

Doubling and voice-leading.

☞ **All voices are sequential.**

☞ Try to voice the chords so that there are no doubled tendency tones (see discussion of examples above for how to do this).

☞ Avoid **Parallel 5^{ths} and 8^{ves} , 5^{ths} and 8^{ves}** by contrary motion (a.k.a. “consecutive **5^{ths} and 8^{ves}** ”), and **direct 5^{ths} and 8^{ves}** .

☞ Avoid **similar motion in all parts**, although occasional exceptions are found (see above discussion for more on this).

☞ In the $\downarrow 5^{\text{ths}}$ sequence with a 7^{th} on each chord, one chord in every pair must be incomplete (i.e., missing the 5^{th}). Why?

Sequences in minor. Due to the characteristics of the minor scale (i.e. diminished triad on ii $^\circ$, possible augmented 2nd in approaching the leading tone), descending sequences are easier to use. Ascending sequences from III, however, are relatively common, as they can avoid both problems cited above. Why is this so?

The “rule of three”. Most sequences contain **three** statements, or **two plus the start of a third** (or, occasionally, just **two**).

What else? Any chord pattern, in transposed repetitions, may be used in sequence. The **number of chords** in the pattern is **usually two**, or it can be reduced to two (as in the case of the first sequence in the Bach B \flat Prelude we studied), but the pattern may have three or more chords as well.

• One example is the opening of Beethoven’s **Waldstein** piano sonata: C: I V_2^4/V V^6 ; B \flat : I V_2^4/V V^6 .

☞ If you reduce the Waldstein sequence to two chords by eliminating the middle chord (it can be thought of as a passing chord), which two-chord sequence does this most resemble?

• Another example is the excerpt from Rimsky-Korsakov’s **Scheherazade** that appears in chapter 27 of the Koska & Payne text. It is a three-chord sequence whose roots are: C# E B \flat , E \flat G \flat C, etc. If you reduce this to a two-chord sequence by eliminating the middle chord, which sequence type does this most resemble?

EXERCISES.

(i) Analyse sequences found in selected examples.

(ii) Write examples of each the above sequence types in **different keys, different inversion combinations**, and with **different starting notes in the soprano**. Determine which sequence types allow you to add chord 7^{ths} .

☞ **Extend them** to form full- or half-cadences.

☞ Play all your examples at the piano.

☞ Try chromatic sequences by using **secondary dominants**. Do secondary diminished chords also work?