

# Modulations

When a piece moves to a new key it is called a modulation. It is a major part of Classical composition - most pieces will modulate at least once, and we expect them to make their way back to the home key before the end of the piece.

Let's observe a modulation in our Haydn String Quartet Op. 64 No. 4, second movement. We looked at the first two phrases for homework, and the results were fairly straightforward:

Chord symbols for the first phrase:

G: I V<sup>7</sup> I IV<sup>6</sup> IV V HC

Chord symbols for the second phrase:

I<sup>6</sup> vii<sup>o6</sup>/<sub>ii</sub> ii<sup>6</sup> V<sup>7</sup> I PAC

So far everything is easily understandable in G major. After the repeat sign, though, things change. I'll put a little "note summary" above the music so we can read it quickly.

A  
F#  
D  
C

D  
B  
G

G  
E  
C#  
A

A  
F#  
D

G  
E (over D  
C# pedal)  
A

A  
F#  
D

G  
E (over D  
C# pedal)  
A

A  
F#  
D

What's with all the C#'s? And what's up with this progression? It has ceased to make sense in G major. Generally, here are some of the hallmarks of modulation.

- Introduction of new accidentals that are not in the home key.
- Progression ceases to make sense in the home key.
- If we were to stop the music, you would hear a new “do” that is not the original tonic.
- The music continues in the new key for at least a few measures or so. Often it will cadence in the new key.

Hopefully by now you've figured out that the new key in the Haydn quartet is D major.

## The Pivot Chord

It is traditional to analyze modulations by finding a “pivot chord,” a harmony that functions equally well in both keys. We’d begin our Haydn excerpt by continuing in G major, until our analysis ceases to make sense.

(G:)     $V_2^4$      $I^6$      $\overset{5}{3}$     ??     $f$      $I$      $f$      $I$

Then, scan ahead a little bit - where are we going? We’ve decided that the new key is D major. So we’d sketch in a few chords in D major, like so:

$V^7$      $I$

Does the last chord in G major make any sense in the new key? Sure, the I in G major is the same as the IV in D major, and the music continues from IV to  $V^7$  to I. So we’ll mark the G major with a kind of bracket that shows the end of the original key and the beginning of the new key, like so:

(G:)     $V_2^4$      $I^6$      $\overset{5}{3}$      $D: IV^6$      $\overset{5}{3}$      $V^7$      $I$

So, what does the pivot chord mean? Some students in the past have gotten excited about it and said “ooh, this must be the point where you hear that it is changing.” That’s not quite true - after all, you really have no reason to hear this chord in a key other than G. It’s really the *next* chord (the  $A^7$ ) that is the “turning point,” because it sticks out of the original key and suggests we are going somewhere else. The pivot chord is more like the “seam” that connects the two keys together smoothly. Not every modulation in classical music uses an elegant pivot chord, but a large percentage do.

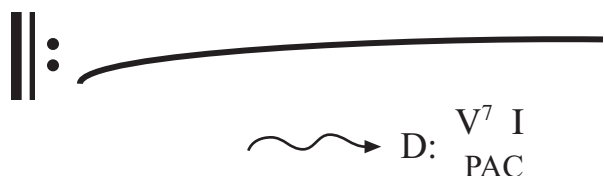
## Scanning Ahead

As we start looking at bigger spans of music, I'm going to encourage you to relax about every single roman numeral and "scan" the piece for phrases and cadences. If you listen to the piece and look for important points of arrival, you'll be able to detect modulations without much difficulty.

The very beginning of our Haydn quartet movement presented two phrases in a familiar "question-and-answer" pairing of HC and PAC.



The phrase structure of the second part is kind of complicated - we'll worry about that another day and just draw the beginning of an arc. However, I think you would hear that the V<sup>7</sup>-I in D major that we just analyzed is a PAC. We can put that in our map, with an indicator of the new key and a squiggly arrow to indicate the process of modulation.

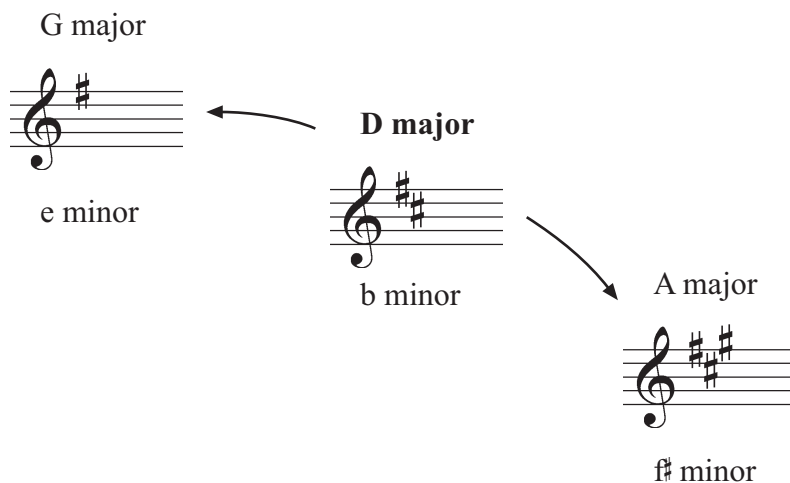


Like I said, in looking at large amounts of music it is important to learn how to scan ahead like this. But even in doing your chord-by-chord analyses, it is very valuable to know where the piece is going *before* you tinker around with pivot chords and such.

## Closely Related Keys

Classical-period composers like Haydn and Mozart preferred to move only to "closely related" keys which would furnish a nice pivot chord and be easy to track. These tend to be nearby on the circle of fifths. Specifically, the closely-related keys include the relative minor (or relative major if you are in minor) plus the keys that are next-door on the circle of fifths and their relative keys.

The closely-related keys of D major, then, would be G major, A major, and all the relative minors.



It also makes sense to think of these keys as if they are chords in the home key. If D major is the I, G major is like the IV, and A major is like the V. The relative minors are vi, ii and iii.

Beyond the general concept of “close” keys, classical music has definite preferences as to where it wants to go first. In a major-key piece, it is fairly standard to go to the V key (or “key of the dominant.”) In minor keys it is common to go to III.

## Back to Haydn

Let’s look at everything we know about the Haydn quartet so far. I’ll quote all the music and fill in all the analysis we know. We have yet to mark the return to G major, so let’s find that!

The musical score is in G major (one sharp) and 3/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The music begins with a forte (*f*) dynamic and ends with a piano (*p*) dynamic. The harmonic analysis below the score identifies the chords in each measure:

- Measure 1: G: (G major)
- Measure 2: I (G major)
- Measure 3: V<sup>7</sup> (D7)
- Measure 4: I (G major)
- Measure 5: IV<sup>6</sup> (C major, 6th inversion)
- Measure 6: IV (C major)
- Measure 7: V (D major)
- Measure 8: HC (Home key, G major)

Musical notation for measures 5-8. The key signature is one sharp (F#). Measure 5 starts with a fermata over the first two notes. The melody consists of eighth and quarter notes. The bass line has quarter notes and rests.

I<sup>6</sup>      vii<sup>o6</sup>/<sub>ii</sub>    ii<sup>6</sup>                      V<sup>7</sup>                      I  
PAC

Musical notation for measures 9-12. Measure 9 has a repeat sign. Measure 10 has a fermata. Measure 11 has a fermata. Measure 12 has a fermata and a forte (*f*) dynamic marking.

V<sub>2</sub><sup>4</sup>                      I<sup>6</sup>                      *f*  
D: IV<sup>6</sup>                      V<sup>7</sup>                      I  
PAC

Musical notation for measures 13-16. Measure 13 starts with a fermata. Measure 14 has a fermata. Measure 15 has a piano (*p*) dynamic marking. Measure 16 has a fermata.

Musical notation for measures 17-20. Measure 17 has a fermata. Measure 18 has a fermata. Measure 19 has a fermata. Measure 20 has a fermata and a forte (*f*) dynamic marking.

23

*f*

I V<sup>7</sup> I IV<sup>6</sup> IV

28

*p*

V HC I<sup>6</sup> vii<sup>o6</sup><sub>5</sub> / ii ii<sup>6</sup> V<sup>7</sup> I PAC