

## A Systematic Method of Common Chord Modulation

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The following method was developed by Nadia Boulanger as a system of modulation to nearby keys using common chords (also called pivot chords). Each cadence models the "science of root motion" by presenting each chord in root position in a simplified rhythmic context. One can view each cadence as a "subset" of a larger, organic progression composed of many cadences linked together. Nadia wrote all the cadences herself, and taught the method to Dr. David Conte, who is now Professor of Composition at the San Francisco Conservatory. Dr. Conte gave a lecture on the subject at the European American Musical Alliance in Paris in 2010, which is where I was introduced to it.

### Part I: The Table of Common Chords

		<b>TRIAD TYPE</b>			
		Major	Minor	Diminished	Augmented
<b>SCALE TYPE</b>	Major	I, IV, V	ii, iii, vi	vii <sup>o</sup>	none
	Harmonic Minor	V, VI	i, iv	ii <sup>o</sup> , vii <sup>o</sup>	III+
	Ascending Melodic Minor	IV, V	i, ii	vi <sup>o</sup> , vii <sup>o</sup>	III+
	Descending Melodic Minor (Natural)	III, VI, VII	i, iv, v	ii <sup>o</sup>	none

Across the top are the four basic triad types: major, minor, diminished, and augmented. On the left are the four scale types: major, harmonic minor, ascending melodic minor, and descending melodic minor (or natural minor). The system works best when the table is memorized according to the vertical columns (by triad). For instance, when you have a major triad, memorize that it can be I, IV, V in a major scale; V, VI in a harmonic minor scale, etc.

### Part II: Last Chord's Root is Constant; Initial Triad Changes

The next step is to learn all of the following cadences in all of the 12 keys - one cadence for each triad in the table above. Notice that all the chords are in four



## Major Triads in Ascending Melodic Minor Scale:

solidifies minor key

solidifies minor key

Dm: IV

Dm: V

## Major Triads in Descending Melodic Minor Scale:

Dm: VII

Dm: VI

Dm: III

## Minor Triads in Major Scale:

DM: ii

DM: iii

DM: vi

## Minor Triads in Harmonic Minor Scale:

Dm: i

Dm: iv

## Minor Triads in Ascending Melodic Minor Scale:

solidifies minor key

solidifies minor key


Dm: i

Dm: ii



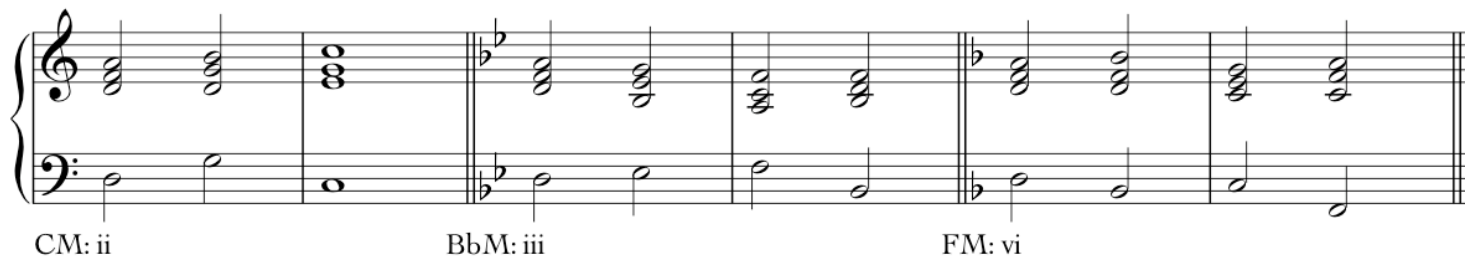


## Major Triads in Descending Melodic Minor Scale:



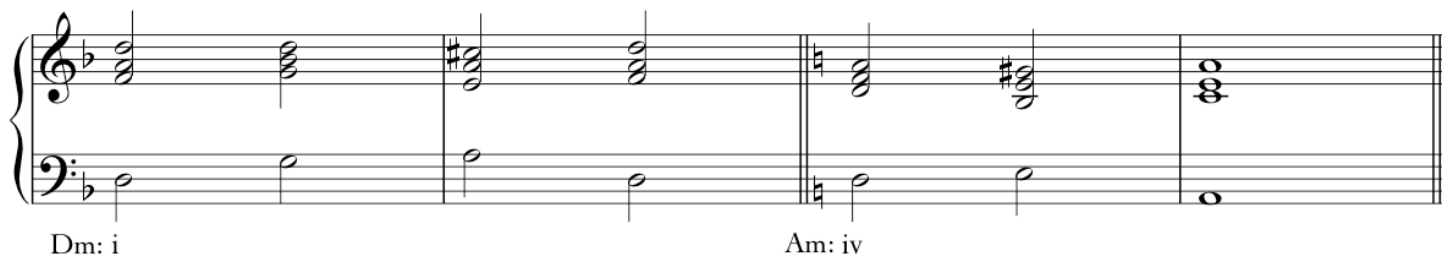
Em: VII                      F#m: VI                      Bm: III

## Minor Triads in Major Scales:



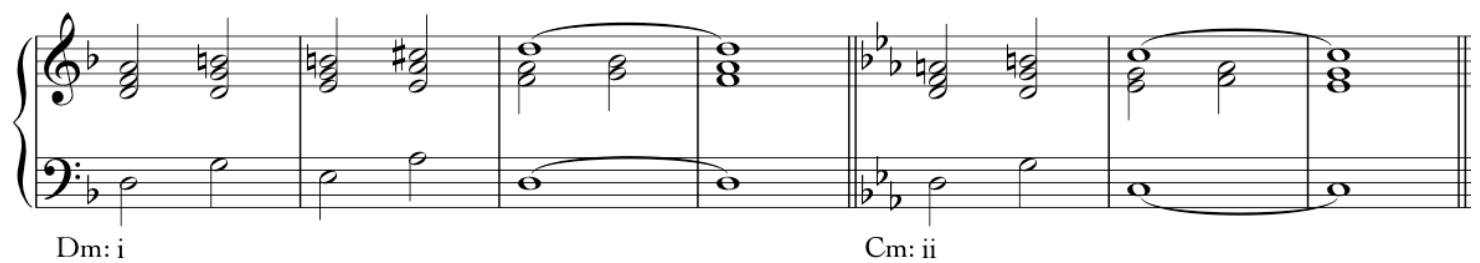
CM: ii                      BbM: iii                      FM: vi

## Minor Triads in Harmonic Minor Scales:



Dm: i                      Am: iv

## Minor Triads in Ascending Melodic Minor Scales:



Dm: i                      Cm: ii



### Part IV: Application

An important aspect of this method is that the "target key" has to have a tonic chord which is a common to the "original key's" major or parallel minor scale. This relationship is called "simple mixture." For example, in simple mixture, if the initial key is D Major, available target keys are E Minor, F# Minor, G Major, A Major, or B Minor (all related by one accidental), plus those keys related to D minor: F Major, G Minor, A Minor, Bb Major, and C Major.

Modulations to more distant keys can be achieved through connecting the cadences together like links of a chain. The following is a simple application. A Major becomes III in F# Minor, which cadences using a picardy third; F# Major becomes IV in C# Minor; and finally, F# Minor becomes III in D Major (the mode change from F# Minor to F# Major in measure 5 facilitates modulation to a more distantly related key).

#### Example Modulating Phrase:

m = minor key  
 M = major key

5

F#M: I  
 C#m: IV

C#m: iv  
 DM: iii

DM: V  
 F#m: III



The next example is a more artistic application using inversions, suspensions, and seventh chords. The G Minor triad changes from iv in D Minor to ii in F Major in measure 4. Notice the augmented triad on the third beat of m.6 that resolves down a fifth to B-flat Major (as it does in the above cadences). The D Minor triad in m.9 becomes iii in B-flat Major. Also notice how the augmented triad on the third beat of m.11 resolves down a fifth to a Neapolitan 6 in D Minor. The unusual progression ( $vi^{\circ 6} - vii^{\circ 6} - i$ ) from the above cadences occurs in G Minor beginning on the third beat of m.14. The F-augmented triad returns one last time as a hybrid dominant chord in the third beat of m.15, and resolves briefly down a fifth to B-flat Major before changing to D Major. This example stays in more closely related keys.

**Waltz** by Derek Remeš

**Moderato**

*mp*

m = minor key  
M = major key

5

Dm:  $iv^6$   
FM:  $ii^6$

V/vi?  
(Dm:  $III^+$ )

FM:  $V_4^6?$   
Dm:  $VII_4^6?$

10

15 *rit.*

*f* *p*

Dm:  $i$   
BbM:  $iii$

(Gm:  $III^+$ ) BbM:  $IV^6$   
Dm:  $N^6$

Dm:  $ii^{\circ 6}$

Gm:  $vi^{\circ 6}$  Dm:  $iv^6$  (V)

$vii^{\circ 6}$   $i^6$   $III^+$   $VI^6$

### Part V: Conclusion:

As Dr. Conte says, this system of cadences is "as complete as it is original." Every function of each triad type is accounted for in the table on the first page. Expanding the cadences to include seventh chords would be missing the point - triads are sufficient to demonstrate root motion. However, my experience as an organist has found that practicing the cadences in open position has uses for practicing improvisation. The outer voices should stay the same, though:

Gm: iv

The four-part texture could also be rhythmicized to create simple accompaniment patterns. I've even experimented with plagal, rather than perfect cadences. The only difference is that the final dominant chord of each cadence is omitted or rewritten to end with IV (or iv in a minor key). This is a significant deviation from Nadia's original method, however.

Dm: ii                      iv      i

Please contact me with any comments or suggestions you may have about the material. There are more essays about various music theory topics available on my website, shown below. I appreciate your feedback, both positive and constructive. Whatever your interests, I hope that you have found this method of common chord modulation to be interesting and of value.

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