

The Many Benefits of Discovering the Root Progressions in the Music of Classical and Contemporary Composers

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This paper discusses the advantages to the performer, composer and improvising musician, of understanding the topic of Root Progressions in various genres of composition. For the keyboard performer playing from the written music, combining this understanding with learning strategies such as blocking and finding hand shapes along the keyboard topography, enables quicker and more thorough reading and learning of pieces. This understanding is also of great benefit to the improvising musician, when improvising over a chord progression.

Introduction

For the pianist/composer or improvising musician, understanding the topic of Root Progressions can give insights into the music of many composers in a variety of genres, thereby simplifying the learning process.

Several aspects of music study and performance can be conveyed simply and clearly if one takes the point of view of the Root Progression of the piece.

The *performer* will be able to:

- Ⓟ Gain an overview of the piece which helps to work out the form (Macro)
- Ⓟ Figure out the modulations especially to distant keys
- Ⓟ Speed learn the musical passages through the comprehension of the harmony, (Micro) using blocking techniques, hand shapes on the instrument and keyboard topography
- Ⓟ Memorise pieces more successfully for security in performance
- Ⓟ Understand advanced harmony and jazz progressions
- Ⓟ More successfully interpret the composer's intentions by realising the aural effect of the various progressions; adding to performer's enjoyment of learning and performing the piece and the audience's listening pleasure.

The *improvising musician* will have clear structures on which to build an improvised piece. The *composer* will be provided with more tools for composition.

The *complete musician* who wishes to write and understand four-part harmony will have a better understanding of the effect of certain chord progressions. This in turn will assist the understanding of such concepts as voice leading and how to complete the part movements in a chord progression.

Refer to *Harmony Comes Together*, for a summary of the root progressions.

Root Progressions

This term applies to the intervallic distance between the root notes of two chords and can also be applied to changes in tonal levels. The Root Progression of a piece is taken from the chord name, whether the chord is in root position or in an inversion. Examples of each of these progressions will be performed, as they are introduced.

In *Contemporary Piano Method* Books 3 and 4, the progressions are listed as follows:

Step One Progressions moving in falling 5ths (rising 4ths), known as *Cycle Progressions*. These progressions may employ a sequence of Dominant 7th chords, each one leading to the next. Alternatively, they may consist of a mixture of Dominant 7th and chords of varying qualities including minor 7th chords and major 6th chords.

Effect a strong progression with pleasing resolution;-a continuous resolving succession of chords.

Step Two Progressions which substitute the chord on the Flattened Second degree of the scale (basic triad or various types of 7th) for the Dominant 7th chord. This is one example of Tritone substitution.

Effect a strong progression with pleasing resolution adding spice to the sound.

Step Three Progressions which substitute the vii chord triad, half-diminished, or full diminished seventh, for the V⁷ chord.

Effect – a strong progression with pleasing resolution – adding drama to the sound.

Step Four Root Progressions moving in ascending or descending 2nds and 7ths.

Effect – as there are no common notes, this is a strong sound which creates forward movement in a section. The progression is often found in the beginning phrase of a piece, and/or in the body of a piece as a linking progression between cadential progressions.

Step Five Root Progressions moving in ascending or descending 3rds or 6ths.

Effect – a weaker progression, as each of the two chords contain **two** notes in common. The rising 3rd progression is often used for a change of colour within a bar (measure). Falling third progressions are a little stronger as the bass note of the second chord, is not one of the notes of the first chord. This progression is often used in ballads or to spin out the basic harmony for a longer period.

Step Six Root Progressions moving in rising 5ths (falling 4ths)

Effect – a continuous progression of rising 5ths (falling 4ths) sounds as if it is continuously climbing, therefore building tension in cases where this effect is desired.

Step Seven Altered Cycle Progressions. These progressions raise or lower the root notes by a semitone.

Effect – an interesting variety of chord colours, often used in jazz compositions. See pages 22 and 23 of CPM Bk 4, for detailed information.

Step Eight *Equal Divisions of the Octave* A treatise on this concept was published by American theorist and composer Joseph Schillinger in a manual entitled ‘Kaleidophone’. The Schillinger System owes its origin to his training as a mathematician. According to the system there are as many tonics as there are equal splits of the octave.

- a) In two halves- tonics a tritone apart
- b) In thirds tonics a Major 3rd apart
- c) In quarters tonics a minor 3rd apart
- d) In sixths tonics a Major 2nd apart
- e) In twelfths tonics a minor 2nd apart (Chromatic progressions)

Composers often place a series of major chords on these tonics to achieve unusual effects which would suit music describing outer space or perhaps a haunted house.

Chromatic Progressions

Some effective chromatic progressions are detailed on pages 45-47 of CPM 4

Examples

Step One A series of falling 5ths (rising 4ths) creates the Cycle of Fifths
The progression travels in this sequence: I - IV- vii - iii - vi - ii - V- I

Figure one - an example from the Baroque period.

Excerpt from J.S Bach *Prelude in F minor* from the Well Tempered Clavier Book 2 The cycle progression appears in bars 20-24.

Figure 1.

Prelude XII

from Well Tempered Clavier Book 2

J.S. Bach
Cycle Progression
bars 20-24 A^{b7}

Allegretto

7 D^bmaj⁹ G[♭] Cm^{7(b9)} Fm⁷ B^bm⁹ E^{b7} A^bmaj⁹ A^{b7}

11 D^b A^{b7}/G^b B^bm^{7b5} A^bm B^{b7b5} E^{b7} A^b

II V I

Contemporary examples include:

Figure 2 - Brandman *Cycles of Life* from *It's Easy to Improvise*

Figure 2

Cycles of Life -excerpt

Margaret Brandman

Moderate

E^bmaj⁷ A^bmaj⁷ D[♭] Gm⁷ Cm⁷ Fm⁷ B^{b7} E^bmaj⁷

Sum-mer has gone, see the sea - sons chang-ing come with me change your. life ___ with me,
Fly with me share your_ life___ with me, Happ - i-ness is___ a___ house by the sea,

Figure 3 . Brandman - *Spiderswing*

This is an example of a piece that modulates to the five closely related keys

to the tonic key. It also demonstrates the Cycle of Fifths progression in several keys.

Modulations to keys a fifth apart became a standard device from the time tempered tuning and the major/minor system became established. (c1700's). The first modulation in *Spiderswing* is to a key a fifth lower than the tonic key.

Figure 3

Spiderswing

Moderate Margaret Brandman

Cycle of 5ths in B \flat

Cycle of 5ths in E \flat

Figure 4. Bailey.K *Al's Caf *

In *Al's Caf * Kerin Bailey uses the short segment of the cycle progression **I vi ii V I**

(for example in bars 13-15 & 29-31) as well as the longer segment **iii VI II V I**

in the coda.

Figure 4

Al's Cafe (coda)

bar 50 to 53 - Cycle Kerin Bailey

bar 54-55 Root Movt descending in 2nds

Step Two- Flattened 2nd substitute chord

The origins of this modern progression are in the Neapolitan 6th chord **♭II**⁶. In these progressions the chord on the Flattened 2nd degree of the scale is substituted for the Dominant 7th.

This chord has become a very popular sound in contemporary music. Some examples:

- 1) Jobim - *Girl from Ipanema*
(This will be demonstrated)
- 2) Brandman *Evanesence* CPM 3 (This will be demonstrated)
- 3) Brandman *There's No Substitute for Love*

See the second last chord in Figure 5.

Figure 5

This melody is harmonised with several chords which can substitute for the *dominant 7th*, for instance the *diminished 7th* and the *chromatic 7th* chord used on the flattened 3rd of the key (bar 9).

Use Style 1m

Begin on I₃⁵

There's No Substitute for Love

Desiree Van Loan

Margaret Brandman

The musical score is written in 4/4 time with a key signature of three flats (B-flat major). The melody is shown on a single staff with lyrics underneath. Chord substitutions are indicated above the staff. Fingerings are indicated by numbers 1-5. Bar lines are numbered 2, 4, 7, 9, and 13.

Lyrics:
 Yes there is no sub - sti - tute for love When I
 Yes there is no sub - sti - tute for love When I
 look in - to your eyes they al - ways shine so bright
 hold your in my arms I'm
 no hid - ing or dis -
 guise cap - tur'd by your charms
 and I know there is no sub - sti - tute for love.

Chord substitutions shown:
 Bar 2: E^b, Cm⁷
 Bar 4: Fm⁷, F^{#o7}, E^b/G, 1. Fmi⁷, B^{b7}, D^{o7}
 Bar 7: E^bmaj⁷, Cm⁷, A^b, Fm⁷, B^{b7}
 Bar 9: E^b, Gm⁷, G^{b7}, Fm⁷, B^{b7}, 2. A^b, F^{o7}, Gm⁷
 Bar 13: Cm⁷, Fm⁷, F^bmaj⁷, E^bmaj⁹

Step Three Diminished 7th substitute chord

Refer to Figure 5, *There's No Substitute for Love* Bar 6

Step Four ascending and descending 2nds (Stepping progressions)

There are many examples of these progressions in the classical repertoire.

For instance in Figure 6, the first four bars of Kabalevsky's *A Short Story*, demonstrate the use of descending scale-tone triads.

Figure 6.

A Short Story
Dmitri Kabalevsky

Andantino cantabile

E^b D[°] Cm B^b A^b Gm Fm E^b

I vii vi V IV iii ii I

Here is a short list of some popular and jazz examples of tunes which use stepping progressions.

- 1) Lennon, J and McCartney, P *Here, There and Everywhere*
– climbing seconds progression
- 2) Mayfield, P *Hit the Road Jack* (recorded by Ray Charles)
– descending seconds progression in a minor key
- 3) Bailey, K. *Al's Café* bars 54-55 See (Figure 4)
– descending progression in 2nds in a major key.
- 4) Brandman, M. *Go for Baroque* (see Figure 7)
This uses a descending progression in 2nds in a minor key.

Figure 7

Go For Baroque
Margaret Brandman

Moderate Swing Feel

Cm B^b A^b G Cm B^b A^b G⁷

i VII VI V i Cm VII VI V i VII VI V i

9

Step Five 3rds and 6ths

CHORD PROGRESSION

Figure 8 - Bach chorale 259

The first three chords in this chorale (I VI iv) form a Root Progression in descending 3rds. As this progression is fairly weak, it is strengthened by passing notes in the bass part, which produce a stronger stepping line.

Figure 8

Chorale 259 J.S.Bach

The image shows a musical score for Chorale 259 by J.S. Bach. The score is in G major (one sharp) and common time (C). It consists of two staves: a treble clef staff and a bass clef staff. The bass line features a descending 3rd progression: i (G2), VI (B1), iv' (E1), V (D1), i (G1), V (D1), i (G1). The treble line contains chords and melodic lines corresponding to the bass line. The chord progression is labeled with Roman numerals: i, VI, iv', V, i, V, i.

Another example can be found in Bach Chorale 143. (*In dulci jubilo*)

Figure 9

In Satie's *Gnossienne No.3* (excerpt from page 3) an eerie effect is created by the chord progression in descending thirds, with a minor chord placed on each

root note: **Am -Fm - Dm**. See Figure 9.

Figure 9

Grossièrre No3 (excerpt) Erik Satie

N.B. The original version of the piece is written without bar lines.

Modulations to keys a third apart

Romantic Composers from Beethoven onward experimented with modulating to keys which were a third apart. Each note of the tonic chord of the key could become the tonic of the next section.

Examples of modulations by thirds

- 1) Beethoven uses this device in the *Slow Movement from Sonata No. 8 op. 13 (Pathétique)*

The tonic key of the slow movement is A \flat .

The piece changes keys from A \flat Major to the tonic minor (parallel minor)

of A \flat minor and then modulates down by the Root Progression of a major third to E Major. The transition can be made easily, as the 1st and 3rd degrees of A \flat minor chord, (A \flat and C \flat), enharmonically become G \sharp and B, functioning as the 3rd and 5th degrees of E Major.

2) Beethoven, *Sonatine no.25 op.79*

This **exposition** of this piece is in G major. The first 15 bars of the **development** are in the key of E Major (a minor third lower). At the 16th bar of the development the music modulates to C major, a major third lower.

Thus the three segments move in tonal levels, each of which is one of the notes of a C major chord. The modulations then move on to the keys of C minor, moving up a minor third to E \flat major, and then up a third again to G minor, thereby using the notes of C minor chord for each tonal level.

3) Chopin uses this device in *Trois Etudes no.2*

This work begins in A \flat Major (bars 1-16), then modulates to E Major -down a major third, (bars 17-20) and then down another Major 3rd to C Major, (bars 21-24). There is also a good example of a rising chromatic progression bars 25-29. (Refer to Root Progressions Step 8)

Chopin also uses this device in his *op.27 no.1 (Deux Nocturnes) in C# minor*. This piece modulates from C# minor to E major (bars 46-48)

and then uses the 3rd degree of E major G#, to make the transition to the key of A \flat in bar 49.

4) Schumann. *Aria from Sonata in F# minor. op11*

The aria is ternary form. The A section and C sections are in the tonic key

- A Major. The key of the B section is F Major (down a major third)

5) Jobim, Antonio Carlos. *Desafinado* - (Figure 10)

This piece is an example of a piece which modulates by thirds, taking each

of the notes of F major triad, as the tonic of a section. F major, A major

and C major. This analysis presents the sections and bars so you can

clearly see the tonal levels moving by thirds. The jarring effect of the sudden changes of key by thirds, is true to the meaning of name of the tune *Desafinado* Slightly out of Tune.

| | | | | |
|---|------------------|----------------|-----------------------|---------------|
| Desafinado | <i>Figure 10</i> | | | |
| Desafinado | | | | |
| Key F | Intro | | | |
| Feature | F | | G7 b 5 | |
| 3 keys—a third apart—each tonic being a note of the F triad | Gm7 ii | Gm7 C7 Ii V | D7 b 9 VI#3 | |
| | Gm7 | A7 b 9 | D7 | D7 b 9 |
| | G7 b 9 | | G b maj7 | |
| Bar 21 | F | | G7 b 5 | |
| | Gm7 | Gm7 C7 | D7 b 9 | |

| | | | | |
|--------|-----|----------|-------------------|--------------|
| | Gm7 | Bbm | Fmaj9 | Fmaj9 Ehd |
| BRIDGE | A6 | A#o7 | Bm7 (11) | E7 |
| 37 | A6 | A#o7 | Bm7 (11) | E7 |
| 41 | A6 | F#m | Bm7 | E7 |
| | C6 | C#dim7 | Dm7(11) / / G7 | G7 |
| | Gm7 | F#o7 | G7 | C7 / C7b5/Gb |
| | F | | G7b5 | |
| | Gm7 | C7 | Ahd | D7b13 |
| | G7 | Bbm | Fmaj7 | Dm7(11) |
| | G7 | | Eb9 | |
| | G7 | Gm7 / C7 | F% F | F% |

In addition here is one example of a work which uses a mixture of Root Movements.

Chopin, *Second Impromptu op.36*

Chopin uses this device in the *second Impromptu op.36*. The *A section* is in F# major, the *B section* is in D Major, a major third lower. Then the music travels up a minor 3rd to F Major, and finally up a minor second to the home key of F# major.

Step Six rising 4ths

Contemporary examples

1) *Let's Do the Time Warp Again* from the Rocky Horror Show composed by Richard O'Brien. In this tune the rising 4th progression, each root note topped with a major chord, builds tension and adds a creepy feeling to the music.

2) In Figure 11, an excerpt from *Here Comes the Sun*, the rising feeling of this progression is used to good effect by composer George Harrison in the section that depicts the rising of the sun.

Figure 11

Here Comes the Sun - segment

George Harrison

Lively

Sun, sun, sun, here it comes.

Bar 26

Step Seven altered cycle progressions

Jazz pieces As there won't be time to discuss this in this session, please refer to page 22 of CPM Book 4 for more details.

Step Eight Equal Divisions of the Octave

Part One In Figure 12, *Toccatina* by Kabalevsky, there is an example of a progression which is based on tonics a tritone apart, dividing the octave in half.

Figure 12

Toccatina

Dmitri Kabalevsky

Allegretto ♩ = 100

bar 30

Eq -tri

Part Two - In thirds tonics a Major 3rd apart (each of the notes of the Augmented triad). (No example provided)

Part Three - In quarters tonics a minor 3rd apart (each of the notes of a dim 7th chord)

Figure13

In bars 20 and 29 of Gershwin's *Prelude 2*, there are two examples of a progression, moving in equal divisions of the octave, along roots a minor third apart. (diminished 7th chord)

Figure 13

Prelude No 1

Bar 20 George Gershwin

Even though we tend to think these devices are in the contemporary composer's tool kit, there are often surprising examples in the music of composers of past eras.

In Chopin's *Etude op10.no.9* (Figure 14) we find a use of the equal divisions of the octave, by minor thirds in bar 27-28. It is emphasized by the fact that it occurs on a cross rhythm, created by accents. The other striking feature is that

melody in bars 25-28 has been constructed using the *Whole Step - Half Step diminished scale*.

Figure 14

Chopin Etude Op10.No.9
Bars 25-28

Whole step/half step diminished scale

2

4

Equal divisions of the Octave in Minor thirds

Figure 15, Brandman *Dreaming* from the collection *Dreamweaving* (1986). The structure of this piece is based upon the use of the inversions of A diminished 7th chord to modulate to four distant keys. Each inversion of A diminished 7th becomes a diminished 7th in its own right (Cdim7, F#dim7 and D# dim7) as the spelling changes. Tonic Key is Bb major. The piece modulates to Db major, then to E major, and G minor before returning to Bb.

Figure 15

Moderato **Dreaming** Margaret Brandman

4 Bar 7 Cdim⁷ written enharmonically

Part Four In Brandman's *Rare New-Holland Mouse* (from Contemporary Modal Pieces) you can see an example of a progression moving in tonics a Major 2nd apart along the whole tone scale, dividing the octave into sixths.

Figure 16

The Rare New-Holland Mouse

Margaret Brandman

Allegretto

3

Part Five In Figure 17 there is an example of equal divisions of the octave into twelfths. The tonics are a minor 2nd apart forming a chromatic progression.

There are a myriad of examples throughout the classical repertoire including this example voiced in 10ths, from *Prelude 23* from Kabalevsky's Twenty Four Preludes.

Figure 17

Prelude 23 from Twenty Four Preludes Op 38

Dmitri Kabalevsky

Andante sostenuto

p

F F E E^b DE^b E F

3

3

7

In conclusion, I hope that I have demonstrated that an awareness of **Root Progressions** in the context of *chord progressions* and *modulations* is helpful to performers, composers and improvisers alike and will help the

listener
the effect of unusual key changes and chord progressions.

appreciate

Music typesetting for all examples by Margaret Brandman

About the Author

Dr Margaret Brandman is a composer, pianist, music educator and published author. She has devised over 50 music education resources, ranging from materials for piano, theory and ear-training to the high school text, *Accent on Music* and her latest educational publication *Harmony Comes Together*. She is contributing author to the first five grades of Music Craft. Many of her compositions are included in AMEB and ANZCA syllabuses. She frequently performs her compositions at concerts and this year completed and published her *Firestorm Symphony*.

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Addendum

Summary of Music Excerpts

- Figure 1 Bach, J.S. *Prelude Twelve: Well Tempered Clavier Book 2*.
- Figure 2 Brandman, M. *Cycles of Life: It's Easy to Improvise*, p. 32
- Figure 3 Brandman, M. *Spiderswing: Contemporary Piano Method Book 2B*, p.170-172.
- Figure 4 Bailey, K. *Al's Café: Jazzin' Around Book 4*, p. 5-7.

- Figure 5 Brandman, M. *There's No Substitute for Love It's Easy to Improvise*, p.34
- Figure 6 Kabalevsky, D. *A Short Story: Fifteen Children's Pieces* p23
- Figure 7 Brandman, M. *Go for Baroque: Contemporary Piano Method Book 2A*, p. 85
- Figure 8 Bach.J.S. *Chorale 259* from *371 Harmonised Chorales*
- Figure 9 Satie.E. *Gnossienne No. 3* from *Three Gnossiennes*
- Figure 10 Jobim. A. *Desafinado*
- Figure 11 Harrison. G. *Here Comes the Sun*
- Figure 12 Kabalevsky, D. *Toccatina* from *Fifteen Children's Pieces*, p.10
- Figure 13 Gershwin, G. *Prelude No.1* from *Three Preludes*
- Figure 14 Chopin, F. *Etude* Op.10 no. 9
- Figure 15 Brandman, M. *Dreaming* from *Dreamweaving*.
- Figure 16 Brandman, M. The *Rare New-Holland Mouse* from *Contemporary Modal Pieces*.
- Figure 17 Kabalevsky, D. *Prelude 23* from *Twenty Four Preludes*, Op. 38

Examples of music referred to, but not included in the text of the paper.

- 1) Beethoven: *Slow Movt. from Sonata No.8, Op.13 (Pathétique)*
- 2) Beethoven: *Sonatine No.25, Op.79*
- 3) Chopin: *Trois Etudes No.2*
- 4) Schumann: *Aria from Sonata in F# minor, Op.11*
- 5) Jobim: *Desafinado*
- 6) Chopin: *Second Impromptu Op. 36*
- 7) O'Brien: *Let's Do the Time Warp Again*