The Barry Harris harmonic theory in Chopin's work

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The Barry Harris harmonic theory in Chopin's work

The purpose of this article is to review the harmonic theory of the pianist and jazz teacher Barry Harris. The key points of this theory are described and its relevance is verified through a harmonic analysis of passages from Chopin's works. The conclusions inferred by this analysis support convergences between jazz and classical music, as proposed by Harris.

Keywords: Barry Harris, Chopin, harmony, piano, jazz, classical music, comparison.

La teoría armónica de Barry Harris en la obra de Chopin

El propósito de este artículo es hacer una recensión sobre la teoría armónica del pianista y maestro de jazz Barry Harris. Se describen los puntos clave de esta teoría y se contrasta su pertinencia a través del análisis armónico de pasajes de obras de Chopin. La conclusión plantea convergencias entre el jazz y la música clásica, tal como propone Harris.

Palabras clave: Barry Harris, Chopin, armonía, piano, jazz, música clásica, comparación.

Barry Harrisen teoria harmonikoa Chopinen obran

Artikulu honen helburua Barry Harris jazz pianista eta irakaslearen teoria harmonikoaren iruzkina egitea da. Teoriaren funtsezko puntuak azaltzen dira eta Chopinen lanen pasarteen analisi harmonikoa eginez egoki direla egiaztatzen da. Analisi horren ondorioak bateratasunak azaltzen ditu jazz eta musika klasikoaren artean, Harrisek proposatu bezala.

Gako-hitzak: Barry Harris, Chopin, harmonia, pianoa, jazza, musika klasikoa, konparazioa.

1. Part of this text was presented as a final work on Musicology degree at the Royal Conservatory of Music in Madrid.

Jazz pianist Barry Harris grew up musically during the bebop era and has recorded with many jazz artists like Coleman Hawkins, Max Roach, Lee Morgan or Dexter Gordon among others. But his work as a teacher is also remarkable, having taught to important jazz figures like Paul Chambers, John Coltrane, Sonny Rollins or Charles Mcpherson (Wilbur Norton III, 2015). He is known for having developed a harmonic theory that gathers and teaches basic aspects of jazz within the context of bebop. In his teaching role, Harris has spread his theory through classes that he established in New York and through numerous workshops aimed at all kinds of instrumentalists and singers that he has taught around the world for decades. Despite his relentless teaching, his theoretical system has not become deeply ingrained in many areas of jazz teaching. Barry Harris has come to be considered a classical figure in the jazz world, but empty of content since his theory has neither been incorporated into jazz theory nor been contested within academic circles.

For this reason, in this article, I review the bases and key elements of Harris's extensive harmonic theory. Within the context and improvisation of jazz, I aim to show that these concepts are based on a broad heritage of the western classical music. In order to demonstrate its solidity and to assess its relevance, I apply Harris's theory in a harmonic analysis of selected Chopin passages.

1. Barry Harris biography and his influence of Chopin

Barry Doyle Harris was born on December 15th, 1929 in Detroit, Michigan. He began playing the piano at an early age, receiving his first lessons from his mother, a baptist church pianist. From his mother's lessons, he learned repertoire related with this sacred music (Harris, 2010). He remembers that the first song he learned to play, at age four, was a church song in the key of B♭ (Ricker, 2000).

Before focusing on jazz music, Harris combined his study of religious repertoire with that of classical music. He recalls once playing at a concert, in which his friend jazz pianist Tommy Flannagan also participated, Chopin's *Etude op. 10 nº 12 in C-*, also known as the *"Revolutionary Etude"* (Harris, 2010).

During his professional career as a jazz pianist, he has incorporated the practice of classical music, especially the works of Chopin. The documentary *Passing It On. A Musical Portrait of Barry Harris* (Chan and Freundlich, 1986) shows Harris playing Chopin's *Etude op 10 nº 1 in C major* and *Prelude op. 28 nº 1 in C major* with piano teacher Sophia Rosoff, a disciple of Abby Whiteside. Harris also played the beginning of Chopin's *Etude op. 25 nº 2 in C-* to demostrate to his students the proper way to use the arm in piano.

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2. Harmonic theory

Christianity occupies an important role in Harris's harmonic theory. He develops the beginning of his harmonic approach by analogizing it with the creation of the world, as told in Genesis, and interweaving it with musical concepts. Harris continues by stating his theoretical premises, matching each Genesis principle with a musical concept, and in doing so, he establishs the following harmonic music hierarchy:

— "God created the world and our world is the chromatic scale"[2] (Marijt, 2014, p. 5): The musical equivalent of the creation of the planets corresponds to the chromatic scale, a fundamental pillar of Western European music. Harris suggests that each of the twelve sounds that make up this scale is equivalent to one of the twelve disciples of Jesus Christ.

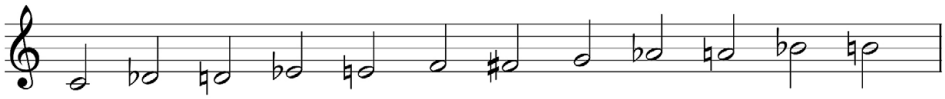

Fig. 1: Chromatic scale.

— "He made man and woman [...]. Man and woman are the 2 whole tone scales" (Marijt, 2014, p. 5): The whole tone scale that begins in C is associated with man (or woman), while the one in D♭ with woman (or man). Each whole tone scale is composed of six whole tones and the sum of notes from both scale groups represents all of the sounds of the chromatic scale or "the world" in Harris's view (see previous point).

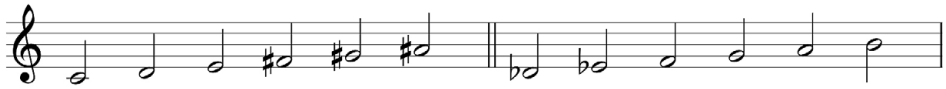

Fig. 2: Two Whole Tone Scales.

2. To illustrate typical statements by Harris on his theory, I have chosen to use quotations from the transcriptions in Vera Marjit's paper (2014).

— "Man and woman—they had babies—and the first thing they have is 3 diminishes"[3] (Marijt, 2014, p. 5): Just like children have genes that resemble their father and mother, the "genes" that make up a diminished 7th chord are two tritones, each belonging to one of the two whole tone scales.

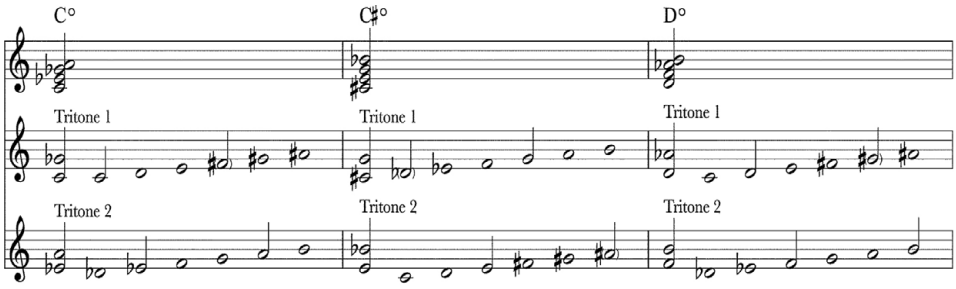

Fig. 3[4]: Diminished 7th chord and its tritones.

Up to this point, Harris's formulation shares many similarities with Olivier Messiaen's first two modes of limited transposition (Messiaen, 1956). Messiaen was also religious, however, he did not use religious allegories to present his modal theory. Harris continues his theoretical exposition by explaining the origin of the diminished scale. He disagrees with the common explanation that reduce this scale to an intervallic description of half step-whole step. Harris considers this as an empty description because it ignores the harmonic dimension that is, from his perspective, implicit in the scale. To find the origin of the diminished scale and to understand its harmonic dimension, Harris follows these steps:

3. The three diminished 7th chords refer to the ones formed from C, C# and D. Naturally, diminished chords can be constructed from any of the remaining notes of the chromatic scale; however, the constituent sounds of these chords will always be the same as those contained in one of the three original chords, although with different notation in one, two or three or even four sounds.

4. The notes in parentheses are enharmonic.

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— Take, as a starting point, a diminished chord; in this case, it is C°.

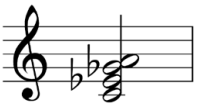

Fig. 4: C°.

— Then descend a note of that diminished 7th chord a half step, without moving the remaining three notes. The resulting chord is a dominant 7th chord.

— Apply a half-step descent to the three remaining notes, again without moving the other three notes of the chord. As in the previous step, the results are the other dominant 7th chords, which, depending on the situation, appear as different inversions.

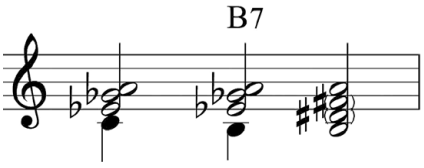

Fig. 5: B7 comes from C°.

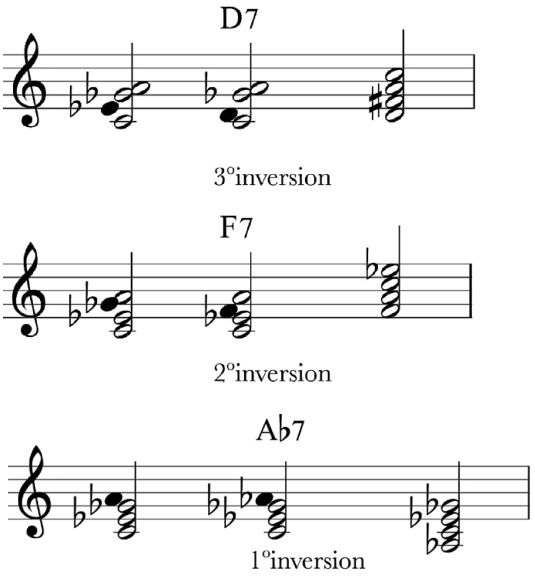

Fig. 6: Dominants 7th chords from C°.

— Finally, combining the roots of each dominant 7th chord results in the formation of another diminished 7th chord.

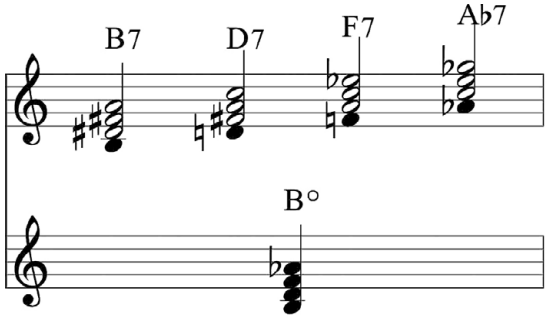

Fig. 7: Diminished 7th chord coming from roots of dominant 7th chords.

Hence, a diminished scale is, according to Harris, the union of the notes from one diminished 7th chord, for example, the one used at the start of this process, with

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the notes of the new diminished 7th chord, which itself originated from the union of the four roots of the four extracted dominant 7th chords.

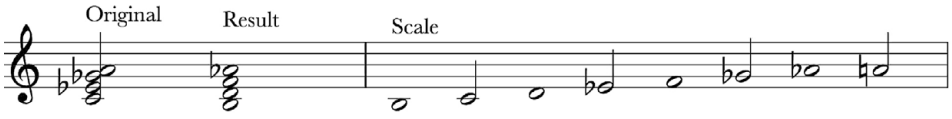

Fig. 8: Diminished scale and its two diminished 7th chords.

The process described above was exemplified using C°. However, if the same steps are applied on the other two diminished 7th chords, the results would be the same: the rest of the dominant 7th chords would be extracted.

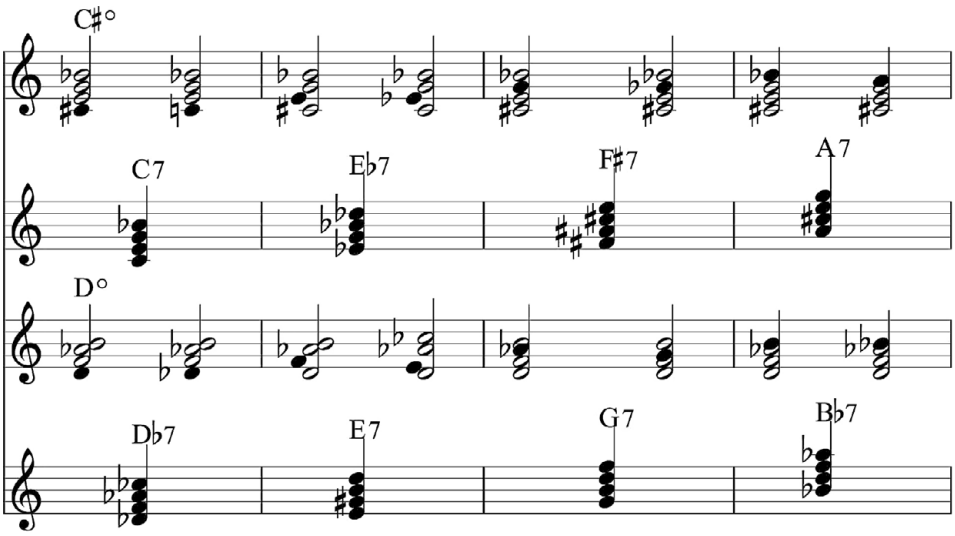

Fig. 9: Dominant 7th chords coming from diminished 7th chords.

Messiaen, explanaining how he applies his own music theory to his works, presents an excerpt from his *Quartet of the End of Time* in the example 359 in his book, that was built with a diminished scale and that used almost all of the

dominant 7th chords related to the main diminished chord of this scale (Messiaen, 1956, p. 64).

Harris's theoretical exposition continues by exploring the different chords that arise from the treatment of a diminished 7th chord. In the example above, we observed how lowering each note of the diminished 7th chord a half step, while keeping the remaining notes in place, results in four dominant 7th chords. Harris now considers which chords arise when each note is raised a half step. The result is a half diminished 7th chord. However, in this case, Harris incorporates the vision of pianist Thelonious Monk, with whom he lived during ten years (Harris, 2010, p. 29). Monk believed that a half diminished 7th chord is "a minor 6th chord, with the 6th on bass" (Rees, 2005, p. 100). Therefore, Harris considers the four chords formed by the half-step ascent of the notes of the diminished 7th chord as minor 6th chords.

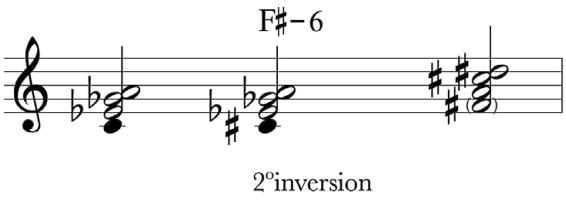

Fig. 10: F♯-6 coming from C°.

After determining that ascending each note a half step creates four minor 6th chords, Harris next considers how he can produce a major 6th chord[5] from the diminished 7th chord. The answer is by ascending two consecutive notes a half step.

5. This kind of chord is better known in classical harmony as the added 6th chord. Rameau mentions this as "the chord of the large sixth" (1722/1971, p. 75). In classical music analyses, the appearance of the major 6th chord in Chopin's music has been contemplated, but it is always seen as a triad chord with the added sixth (Piston, 1987). Messiaen considers Chopin as one of the composers who works the sixth as a note added to the major chord (Messiaen, 1956, p. 47).

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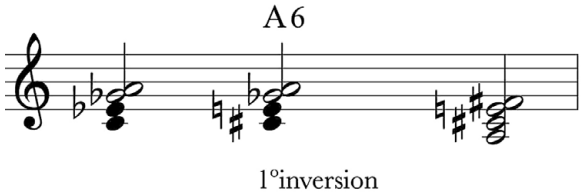

Fig. 11: A6 coming from C°.

Finally, if two non-consecutive notes of the diminished chord are raised a half tone, the result is a dominant 7th ♭5 chord.

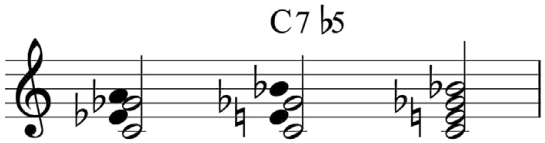

Fig. 12: C7♭5 coming from C°.

Thus far, we have observed how manipulating the notes of a diminished 7th chord can produce the main four chords that constitute, according to Harris, the basic pillars of harmony: a dominant 7th chord, a major 6th chord, a minor 6th chord and a dominant 7th ♭5 chord (Fig. 13).

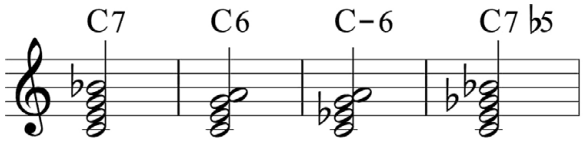

Fig. 13: Four different chords coming from diminished 7th chords.

2.1. The four scales of Barry Harris

Harris continues his exposition by, again, using a 'genetic' view of the diminished 7th chord to find its kinship with the two whole tone scales. To exemplify his genetic vision, the example presented below shows how to determine to which of the diminished 7th chords each note of a major 6th chord belongs.

Using the C6 chord as an example, it can be seen that notes C and A belong to C°, and E and G to C♯°.

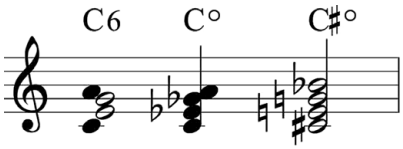

Fig. 14: Notes of C6 coming from two diminished 7th chords.

Harris observes that two of the three diminished 7th chords are involve in C6. He, therefore, decides to explore the diminished 7th chord that does not share any notes in C6, D° (first inversion of B°, the diminished chord of the C major key). In Harris's view, D° notes form part of the diatonic scale of C major, except for A♭. Therefore, to include the third diminished into the equation of the C6 chord, Harris incorporates the A♭, belonging to D° within the C major scale. Harris calls the resulting scale a "major 6th diminished scale", which is a major scale with a passing note between the 5th and 6th scale degrees[6].

6. This passing note has tonal implications in the key of C major. It can be seen as the leading note of A, the key of its relative key, such that two leading notes can be distinguished in the diminished 6th scale, one associated with C major and other with A minor. Within the dominant of the tonality, this note can also be seen as the 9♭ in G7 ♭9.

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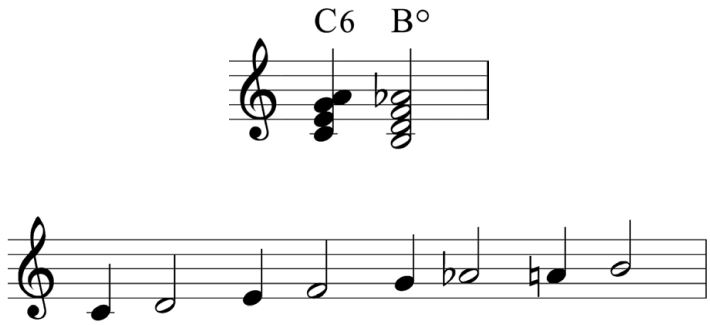

Fig. 15: C 6th diminished scale. Main chords and melodic development.

In this scale of chords, the harmonic alternation occurs between the C6, composed of notes from two diminished 7th chords, and the remaining diminished 7th chord. Both are presented along the scale in their different inversions.

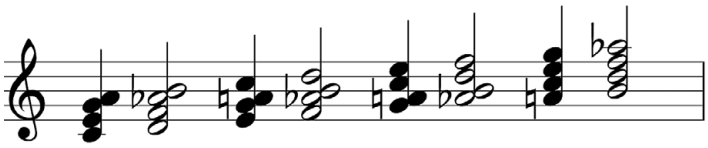

Fig. 16: C 6th diminished scale playes as chords.

As with the major 6th chord, a similar dissection can also be performed on a minor 6th chord, which would result in a "minor 6th diminished scale".

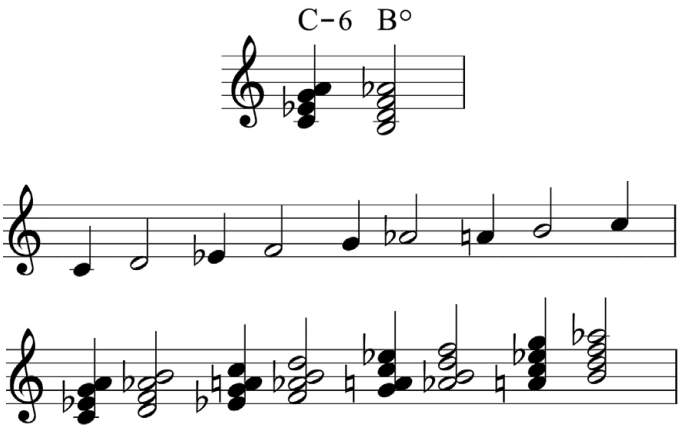

Fig. 17: C- 6th diminished scale.

This scale construction, which alternates between a central and a diminished chord, can also be applied to the two other chords considered by Harris. The scale that involves the dominant 7th chord is called the "7th diminished scale".

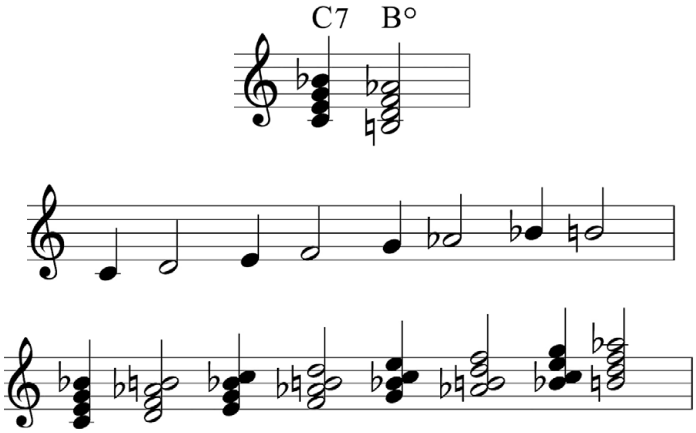

Fig. 18: C 7th diminished scale.

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While the dominant 7th ♭5 is called the "7th ♭5 diminished scale"[7].

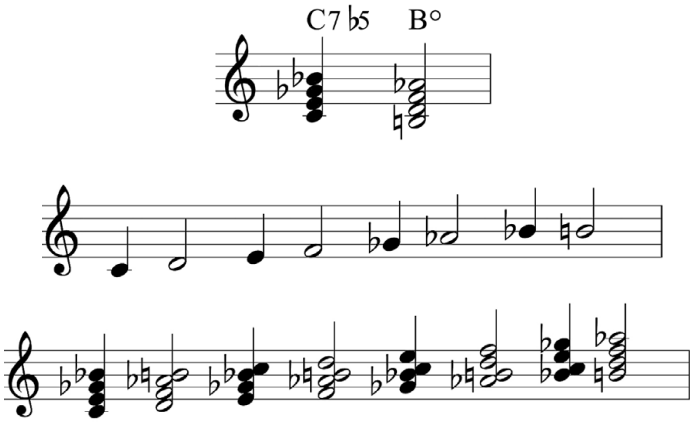

Fig. 19: C 7th ♭5 diminished scale.

2.2. Borrowed notes

In order to expand the use of 6th chords and diminished 7th chords and to enrich the fluctuation between them, Harris elaborates harmonies of 6th chords that incorporate notes whose harmonic origin are found in diminished 7th chords. He refers to these kinds of notes as "borrowed notes".

This example shows a C-6 that incorporates B[8], which comes from B°, the chord associated with the key of C.

7. This scale is similar to Mode 6 of the modes of limited transposition proposed by Messiaen (1956, p. 62); however, the harmonic construction differs from the sequential alternation between a dominant 7th ♭5 chord and a diminished 7th chord.

8. In classical harmony, this melodic movement is considered an *appoggiatura* because B, which is not a real note within the chord C-6, appears in the strong parts of rhythm and creates tension.

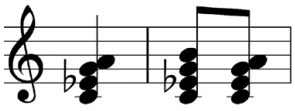

Fig. 20: B, coming from B°, included in C-6 (Rees, 1994, p. 71)[9].

Harris considers that each note of C-6 (and consequently of C6) has notes from B° adjacent to it, such that the possibility of borrowing notes from the diminished 7th chord is extended to the different inversions of the 6th chord.

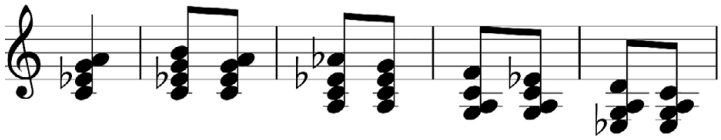

Fig. 21: Borrowed diminished note in all C6 inversions.

It is even possible to borrow two notes at the same time from the diminished 7th chord within the 6th chord.

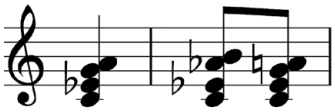

Fig. 22: Two borrowed notes from diminished 7th chord (Rees, 1994, p. 71).

Notes can also be borrowed within the 6th diminished scale played as chords. The 6th chord incorporates a note from the diminished 7th chord and vice versa.

9. All the images from Rees´s books are used under permission of Howard Rees.

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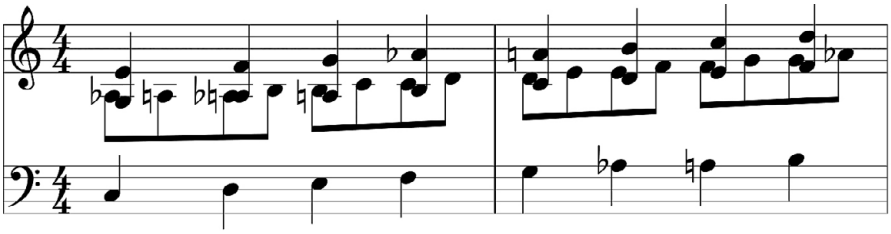

Fig. 23: Borrowed notes into 6th diminished scale (Rees, 1994, p. 71).

The diminished 7th chords themselves generate inbred borrowed notes. In the following example used by Harris in one of his workshops[10], each note of C° has beside it notes from B°. Recall from earlier that the union of two diminished 7th chords constitutes a diminished scale.

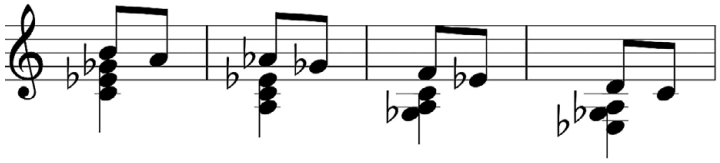

Fig. 24: Borrowed notes in diminished chords.

The theory of borrowed notes from a diminished 7th chord is implicit in four-note chords. For example, the Cmaj7 chord is composed of three notes (C, E, G) associated with the C6 and one note (B) belonging to B°.

10. This schematic represents a transcription that Harris played at the *Jazz Cultural Theatre of Bilbao* workshop that was held in Bilbao, Spain in 2016.

2.3. 6th chord equivalences

Although Harris contemplates the 6th chord as a harmonic typology within his theory, the harmonic equivalences of a 6th chord must also be taken into account. The chart below indicates the equivalences that extend the harmonic functionality of the 6th chord.

Chord	Equivalent Chord
Major 6th	Minor 7th in first inversion
Minor 6th	Half diminished 7th in first inversion

2.4. Application of Harris's theory to jazz standards

The next example shows Harris's use of the 6th diminished scale in *Body and Soul*.

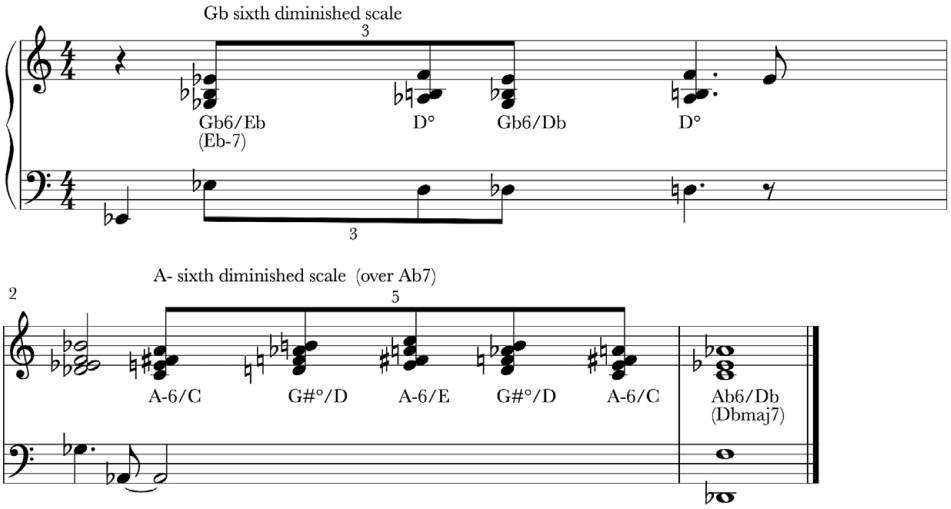

Fig. 25: *Body and Soul* (Rees, 2005, p. 119)[11].

11. Only score belong to Rees books, chord notation are added to this work.

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Harris analyzes E♭-7 in the first measure as G♭6 and applies its corresponding 6th diminished scale in the eighth note triplet. In the following measure, the basic chord is A♭7 and the A- 6th diminished scale is used in the right-hand quintuplet.

In this case Harris shows how he uses borrowed notes in the *Cherokee* bridge.

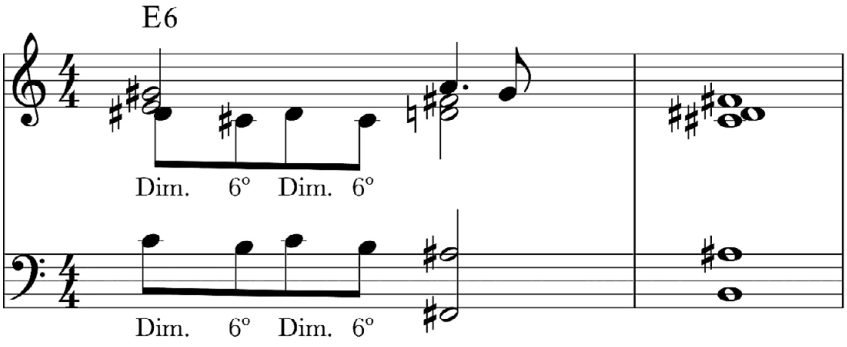

Fig. 26: *Cherokee* bridge (Rees, 2005, p. 133). (6° = 6th chord; Dim. = diminished 7th chord)[12].

The first chord is C♯-7, which is shown as the E6 chord. Within this chord, the eighth notes in both hands play borrowed notes from the diminished 7th chord within E6th diminished scale on the first beat of the two first parts of the measure. In the left hand, C is the note borrowed from the diminished 7th chord. It is also the note that is between the 5th and 6th degree of the E6th diminished scale that alternates with B, which comes from the E6 chord. In the right hand, within E6, the eighth notes alternate D♯, the leading note of E and the root of its diminished chord, with C♯.

3. Barry Harris-Chopin analogies

In his workshops, Harris usually uses two Chopin pieces to argue his harmonic theory: *Etude op. 10 nº 4 in C♯-* and *Nocturne op. 37 nº 2 in G*[13].

12. Ibid.

13. Both of these pieces were mentioned by Harris at the *Jazz Cultural Theatre of Bilbao* workshop that was held in Bilbao, Spain in 2016.

3.1. *Etude op. 10 nº 4 in C♯-*

Harris's analysis of this etude focuses on bars 41-44, where a harmonic progression leads to the dominant tone of the original key of C♯-[14].

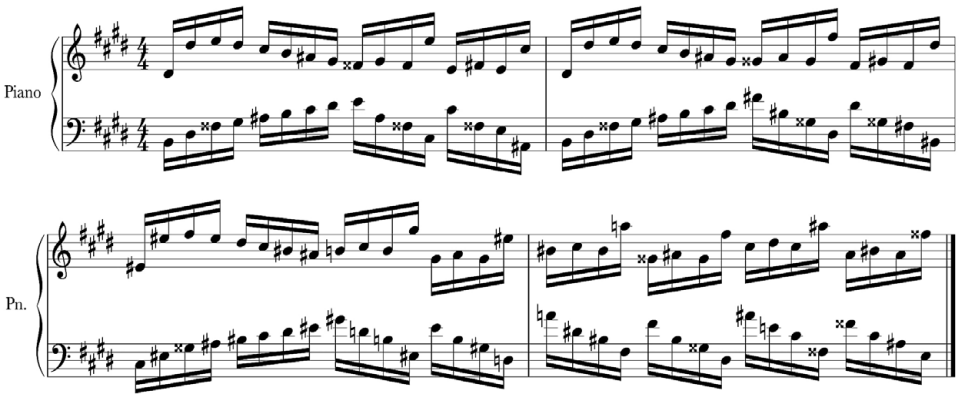

Fig. 27: Chopin, *Etude op. 10 nº 4*, bars 41-44.

Harris argues that, in these bars, Chopin uses the 6th diminished scale. Bars 41-43 establish a progression design that involves using the diminished 6th scale in different ways in every two parts in each bar. In the first two parts, the 6th diminished scale is presented in such a way that both hands coincidentally play notes belonging to the 6th and the diminished 7th chords. In the last two parts, the use of the diminished 6th scale results in the right hand alternating notes from the 6th and diminished 7th chords, while the left hand exclusively plays arpeggios from the diminished 7th chord. This produces dissonances among the notes belonging to the different chords.

This passage corresponds to the first two parts of bar 41.

---

14. The book *Thinking in Jazz* tells of how Harris explained his theory to a group of classical pianists as "performing an exquisite melody with a diminished quality from a Chopin composition" (Berliner, 1994, p. 168). The type of harmonic development presented in this passage allows us to deduce that Berliner is referring to the aforementionedpassage in this study. In terms of Chopin's musical style, these measures are mentioned as an example of harmonic sequences that Chopin uses to modulate other tones. Abraham describes it as "a dissolution into a shower of diminished sevenths before crystallization into the new key" (Abraham, 1939, p. 90).

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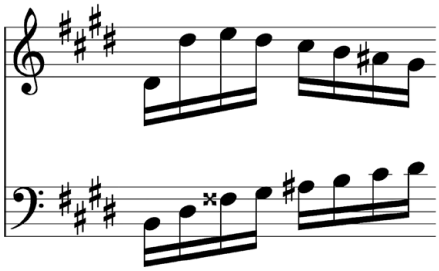

Fig. 28: Chopin, *Etude op. 10 n° 4*, beginning of bar 41.

According to Harris, Chopin is using the B 6th diminished scale. The scale schematic below shows the main 6th chord, the diminished 7th chord and the scale in chords.

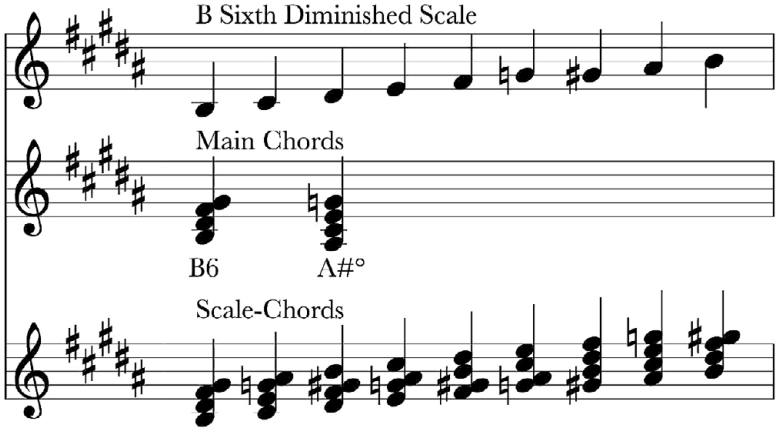

Fig. 29: B 6th diminished scale scheme.

By dissecting each sixteenth note, we can better visualize the scale in this passage and determine which notes correspond to the B6 chord or the A♯° chord.

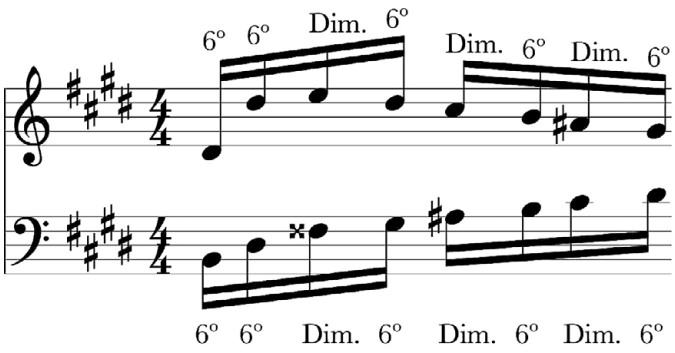

Fig. 30: Dissecting beginning of bar 41 (6° = 6th chord; Dim. = diminished 7th chord).

The F𝄪 in the third sixteenth in the left hand is enharmonic as G; therefore, this passage incorporates the note between the 5th and 6th degrees of the B6th diminished scale. This note does not appear as a passing note from the scale but rather a jump, making it a real and strong note belonging to the scale. The evidence presented above supports the hypothesis that, in this passage, Chopin works the B major scale in such a way that it resembles the 6th diminished scale.

In the third and fourth parts, Chopin includes a melodic development that, according to Harris, corresponds to another way of working the diminished 6th scale. Instead of alternating notes belonging to B6 and A♯° in both hands, as seen in the first two parts of the bar, the next sixteenth note group consists of arpeggios from the diminished 7th chord in the left hand and alternating notes from both chords in the right hand, which produce dissonances in the second and sixth sixteenth notes.

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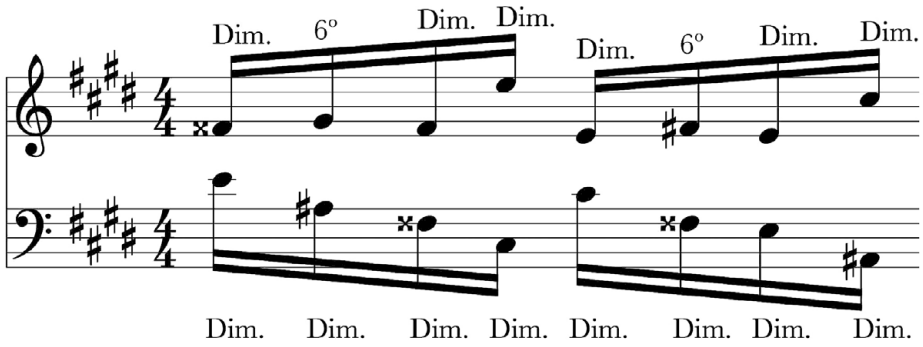

Fig. 31: Dissecting third and fouth part of bar 41.

In bar 42, Chopin uses the same beginning of the B6th diminished scale as in bar 41. The next group of eight sixteenth notes work the C♯6th diminished scale with the same design of alternating notes from the 6th and diminished 7th chords in the right hand over the diminished arpeggio in the left hand. This particular scale design anticipates the modulation to the tone of C♯ using the diminished belonging to the C♯ 6th diminished scale.

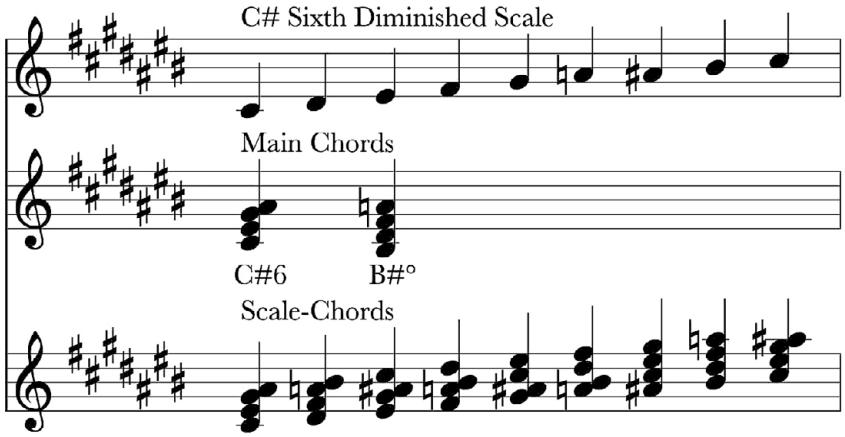

Fig. 32: C♯6th diminished scale.

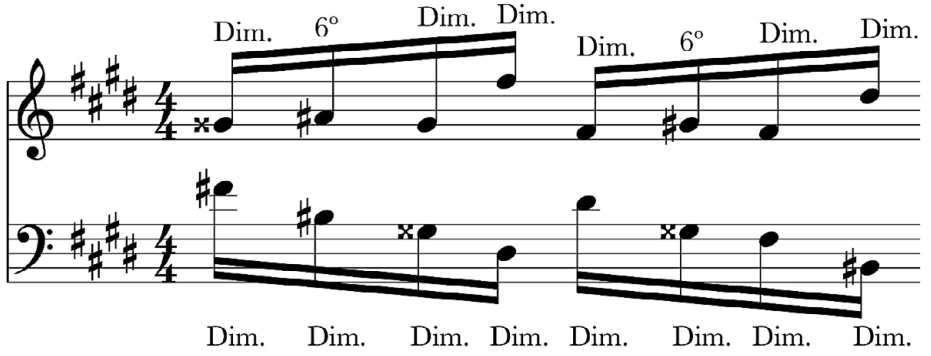

Fig. 33: Dissecting third and fourth part of bar 42.

In bar 43, Chopin, again, starts with the same design of the 6th diminished scale as in bar 41 but, this time, in C♯.

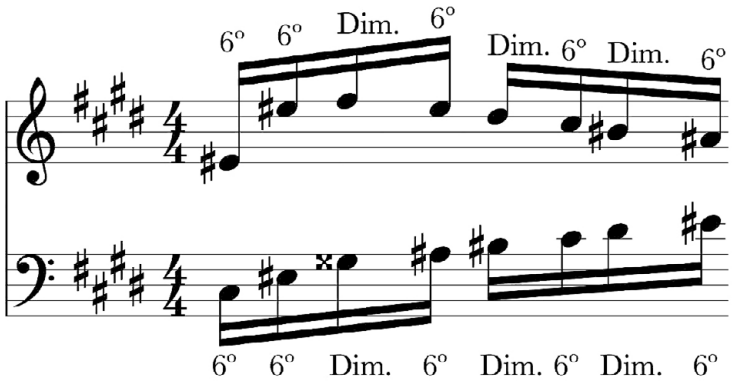

Fig. 34: Dissecting beginning of bar 43.

As shown above, the alternation of notes of the 6th and the diminished 7th chords in both hands is respected in the first two parts of the measure, as it was in the preceding measures.

The second group of eight sixteenth notes of bar 43 produces a section break that extends to bar 44. Here, there is a point of ambiguity in which each group of

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eight sixteenth notes passes chromatically through each of the three diminished 7th chords that Harris defends in his theory.

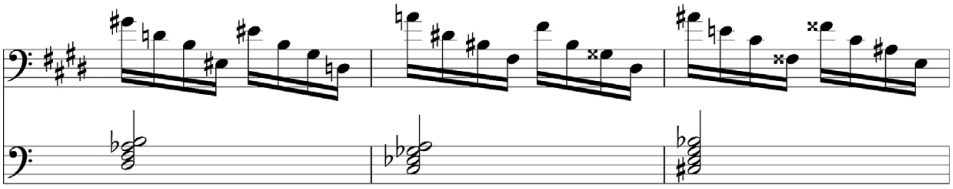

Fig. 35: Diminished arpeggios from bars 43-44 and the diminished 7th chord represents.

3.2. *Nocturne op. 37 nº 2 in G major*

Using this piece, Harris explains his theory about the dominant 7th chord, which is produced by lowering the notes of the diminished 7th chord a half step[15]. Specifically, Harris analyzes the modulation that occurs from G to B♭ between bars 7 and 8.

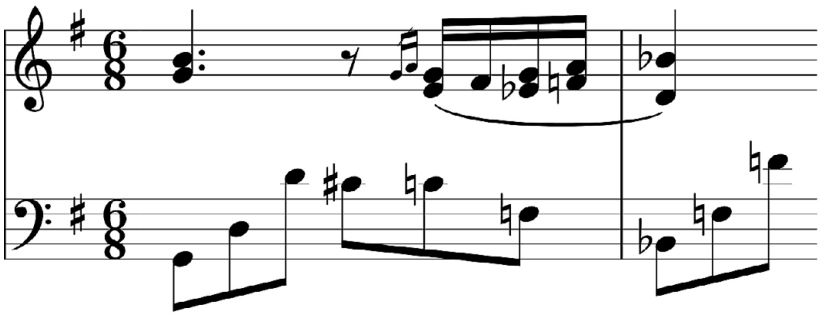

Fig. 36: Chopin, *Nocturne op. 37 nº 2*, Bars 7-8.

15. Abraham defines the modulation in this piece as "rapid series of modulations" (Abraham, 1939, p. 95).

In classical analysis, the key relationship between G major and B♭ major is considered distant, due to the large number of key signatures changes separating them. However, a closer relationship can be observed when we consider that their respective dominant 7th chords originate from the same diminished 7th chord. To illustrate this relationship, the G6th diminished scale is used as a reference.

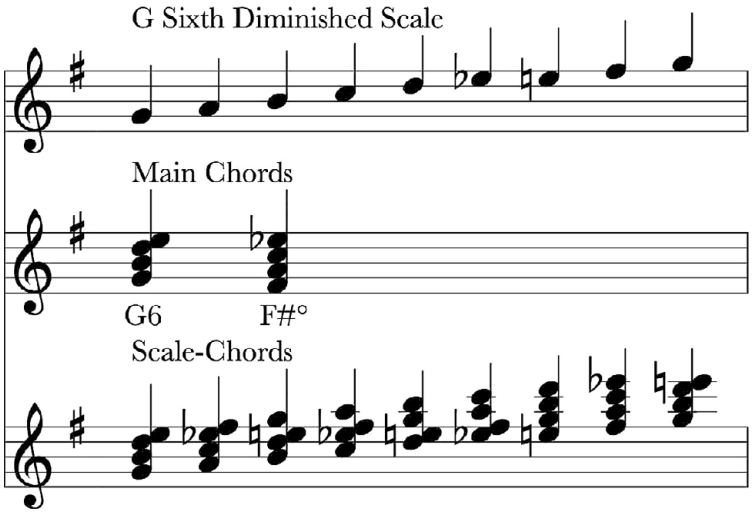

Fig. 37: G 6th diminished scale scheme.

The diminished 7th chord in this scale contributes the following four dominant 7th chords when each one of its notes is lowered a half step, while the remaining notes are maintained.

The first dominant 7th chord extracted from this diminished 7th chord is F7, the dominant of B♭, which appears in the last two sixteenth notes of bar 7. Thus, the modulation to B♭ major that Harris mentions is closer to G because both keys share the same diminished 7th chord.

In addition to this modulation, others can be seen throughout the piece, particularly modulations to D♭ (bars 8-9) and E- (bars 27-28), corresponding to A♭7 and B7 chords, respectively, which are the other two dominant 7th chords related to F♯°, the diminished 7th chord from G major. The modulation to E- leads to the typical passage associated with the relative minor of G major.

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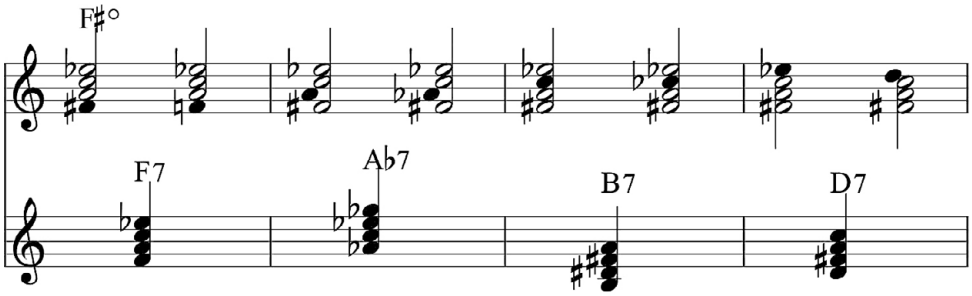

Fig. 38: Dominant 7th chords coming from F♯°.

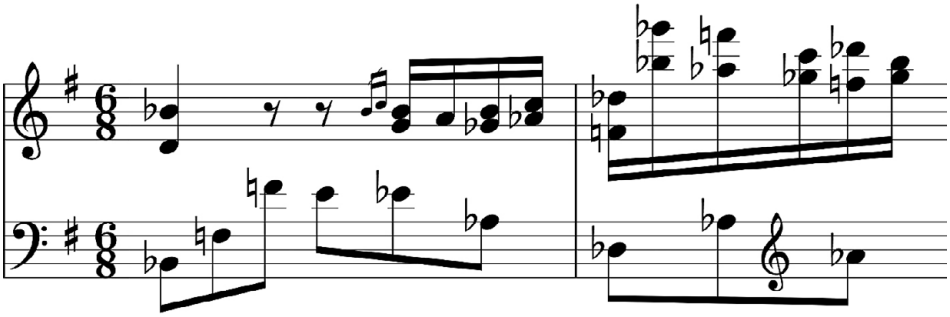

Fig. 39: Chopin, *Nocturne op. 37 nº 2*, bars 8-9, Modulation to D♭.

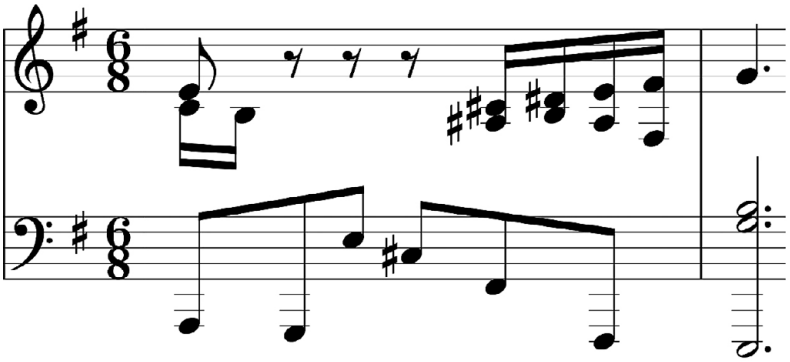

Fig. 40: Chopin, *Nocturne op. 37 nº 2*, bars 27-28, modulation to E-.

A detail not mentioned by Harris but rather by a student from one of his workshops[16] involves the motive in bar 4. The motive, designed mainly under a succession of ascending intervals, is in A- in that bar and its interval can be harmonized with the A- 6th diminished scale.

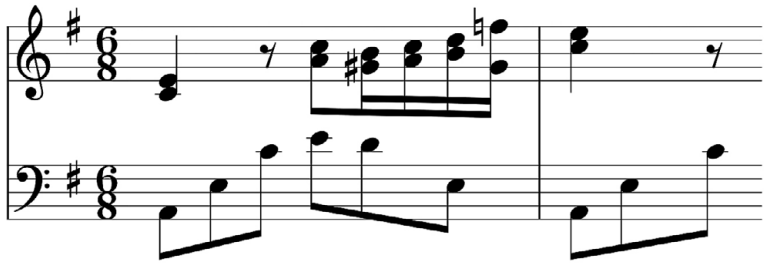

Fig. 41: Chopin, *Nocturne op. 37 nº 2*, bar 4.

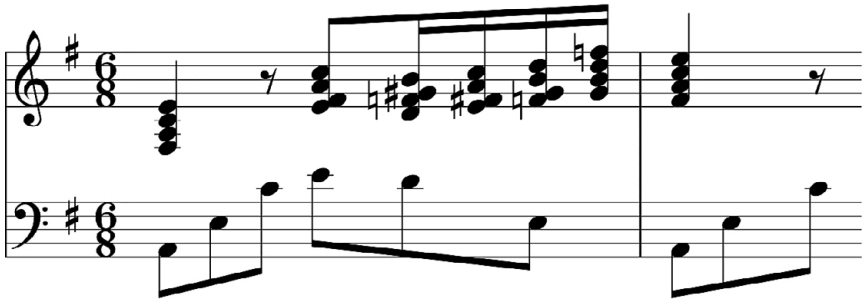

Fig. 42: Chopin, *Nocturne op. 37 nº 2*, bar 4 harmonized with A- 6th diminished scale.

16. *Jazz Cultural Theatre of Bilbao* workshop that was held in Bilbao, Spain in 2016.

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4. Application of Harris's theory to other Chopin pieces

The application of Harris's harmonic theory to the analysis of Chopin's music is validated in selected passages of the following three pieces: *Mazurka op. 17 nº 4 in A-*, *Etude op. 10 nº 3 in E major* and *Nocturne op. 48 nº 1 in C-*.

4.1. *Mazurka op. 17 nº 4 in A-*

In this piece, direct application of Harris's harmonic theory is performed on the passage between bars 73 and 77, where the work has modulated to A major.

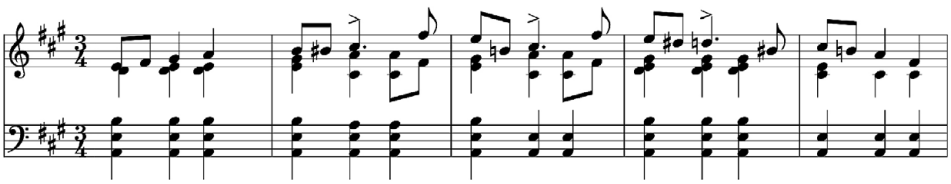

Fig. 43: Chopin, *Mazurka op. 17 nº 4,* bars 73-77.

In bars 73-74, Chopin uses a melody consisting of an ascending scale, which, when isolated, can be adjusted to the E6th diminished scale. Also, if the B♯ in bar 74 is considered enharmonic with C, the passing note between the 5th and 6th degrees of the E6th diminished scale can be distinguished.

The melody is also supported by the harmonization of E7 over A, the tonic, as a pedal note. This static harmony in bar 73 and the melody in bar 76 can both be associated with the E7th diminished scale.

In bar 77, the phrase resolves in A. In the last part of the measure, F♯ appears in the A chord. The fact that, in mazurkas, the last part of the measure is accentuated reforces the idea that the A chord appears as A6.

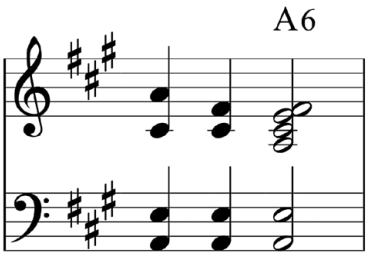

Fig. 44: A6 using in bar 77.

4.2. *Etude op. 10 nº 3 in E major*

Harris's theory can be applied to bars 16 and 17 in this piece.

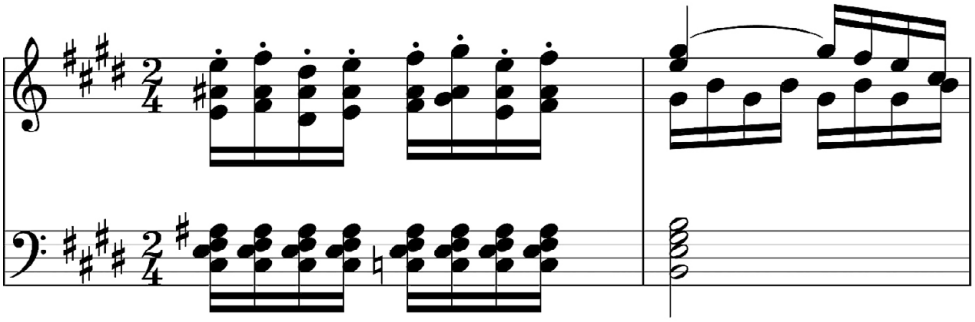

Fig. 45: Chopin, *Etude op. 10 nº 3,* bars 16-17.

Bar 16 consists of two chords in the left hand. The first one, F♯7, is the dominant 7th chord of the main key's dominant. It appears in second inversion, which is very useful for the next chord. The chord that follows descends the C♯ chromatically to C while maintaining the other notes of the chord. In classical music, this chord is considered an augmented 6th (specifically, a French sixth) (Piston, 1987). If A♯ is enharmonic with B♭ and F♯ with G♭, the resulting chord would be a C7♭5, which is one of the fundamental chords in Harris's theory. In addition, within the tonal context of E major, the C of this chord is the passing note between the 5th and 6th grades of the E6th diminished scale.

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In bar 17, the chord in the left hand is E in second inversion, as a cadence. The right hand, meanwhile, makes sixteenth notes on the bottom line within the E chord. Then, in the second part of the bar, there is a melodic descent sixteenth note in the upper line. In the last two sixteenth notes of the measure, the E6 chord is produced in a fractional way, and if these notes are unified, the result is an E6 chord in first inversion.

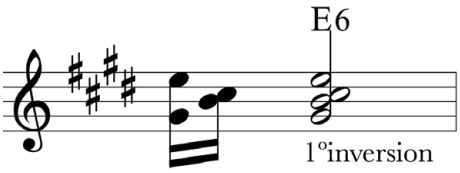

Fig. 46: E6 included at the end of bar 17.

4.3. *Nocturne op. 48 nº 1 in C-*

The first part of this piece displays harmonic elements that can be associated with Harris's harmonic theory, such as the use of 6th chords.

In the next case, bar 3 starts with a cadence that uses F-6 as a subdominant chord, with F reinforced octaves on the bass and the chord in root position with its third on the melody.

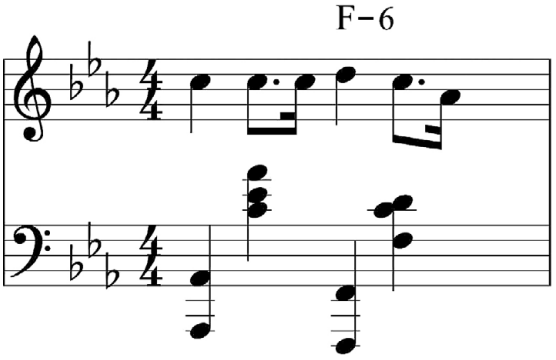

Fig. 47: Chopin, *Nocturne op. 48 nº 1*, bar 3.

Bar 5, which is in the relative key of E♭, uses A♭6. This subdominant chord, which is usually used in triad form, incorporates its diatonic sixth into the chord.

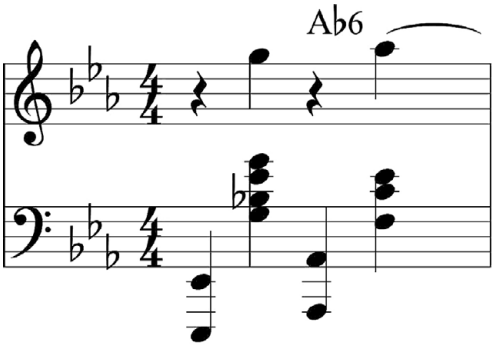

Fig. 48: Chopin, *Nocturne op. 48 nº 1,* bar 5.

In bar 6, in order to return to C- from E♭, the passing note of B is used in left hand, in a surpressive way, as a leading note of C. Coming from E♭, B becomes included in the 6th diminished scale as the note between the 5th and 6th grades. As a result, E♭ and C- share the same diminished 7th chord, which also includes B. Also appears C-6.

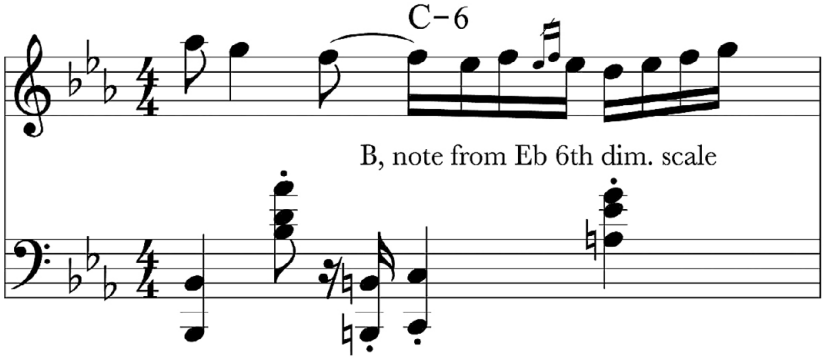

Fig. 49: Chopin, *Nocturne op. 48 nº 1,* bar 6.

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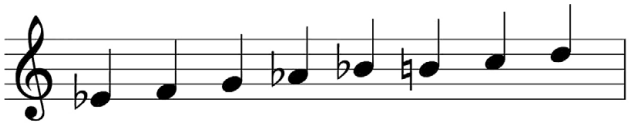

Fig. 50: E♭ 6th diminished scale.

Continuing along the piece, a modulation of G- appears in bar 8. At this point, the piece not only changes its key but also its related diminished 7th chord. This detail is important to understand what happens next. Bar 9 starts with the A♭7 chord in third inversion, which resolves properly in D♭. It can be argued that the use of this inversion in A♭7 is a means for exploring F♯°, the diminished 7th chord of G minor. Through the process of descending notes from a diminished chord, a half-step descent of A from the F♯° results in A♭7 in third inversion, which is exactly what Chopin does in bar 9 of this piece.

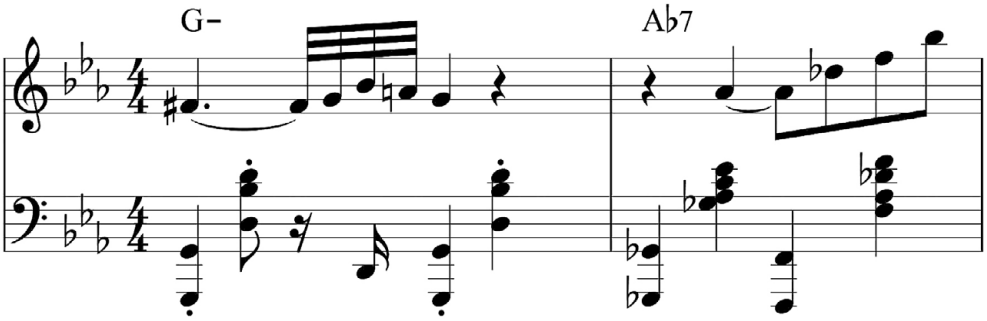

Fig. 51: Chopin, *Nocturne op. 48 nº 1*, bars 8-9.

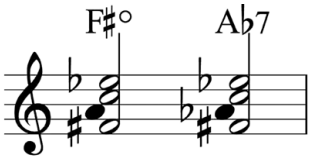

Fig. 52: A♭7 coming from F♯°.

Conclusions

In this review, I have revised the foundations of Barry Harris's harmonic theory and have shown that it may be applied to branches of western classical music, such as the school of Romanticism and some that followed. The analyses presented here of the Chopin pieces used by Harris to promote his jazz harmonic theory and of several other complementary pieces strongly support a convergence between Harris's theory and the harmonic development in Chopin's music.

The following arguments support this proposal: i) The detailed analysis of recurring aspects in the works of Chopin and other authors such as Brahms or Liszt that densify music chromatically within the tonality. Clear examples are the appoggiaturas, which, in Harris's theory, are associated with diminished chords. ii) Dominant 7^{th} chords arising from the manipulation of a diminished 7^{th} chord are a means of explaining the broadening of modulation to remote keys that are used, or at least explored, in the music of the Romantic period. iii) The dominant 7^{th} $\flat 5$ chord, worked as harmony and scale in Harris's theory, is a common resource of this period; however, in classical theory, it is presented in second inversion as an augmented sixth chord. iv) As I have shown in the examples presented here, major and minor chords with sixths are used in an increasingly explicit way as opposed to simple triads.

Applied to musical practice, Harris's theory can be a way to introduce jazz improvisation to musicians with knowledge of the classical music tradition, especially that of the Romantic and following eras. Harris himself maintains the conviction that there are links between jazz and academic music. Through its formulation, his theory defends jazz as "the continuation of classical theory" (Harris, 2010, p. 24).

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