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THE CRAFT OF HARMONIZATION*

The Power of Harmony

To demonstrate how harmony can change the character of a melody, I have harmonized the descending line VIII–VII–VI–V in eleven different ways. The style gradually shifts from classical to popular music and jazz:

Example 9

Another illustration of stylistic diversity produced by means of harmony follows. In examples 10a and 10b, two different harmonizations of the popular melody *Lightly Row* are offered: a simple one in classic-romantic style, and a complex one that uses extended chords, pertinent to standard jazz progressions.

Example 10 a. *Lightly Row* (simple harmonization)

Notice how the concept of functional relationships is expanded in the following harmonization, where, along with chromatic harmony and modal mixture (borrowed chords), chord substitution is used. Probably the most striking example of this functional substitution occurs at the end of the piece, where a circle of fifths sequence brings about a dominant seventh chord located a tritone away from the tonic. This chord resolves into the tonic, creating the impression of a modified plagal cadence. The notation is one of convenience rather than one that reflects precisely the supposed function.

Example 10 b. *Lightly Row* (complex harmonization)

More Harmonizations

Chromatic Harmony: Really Altered Chords, Borrowed Chords, Ellipsis

The following harmonization makes use of really altered chords and modal interchange, or modal mixture

* The ending. See the beginning in *PMN* 2012, no. 2 (11).

(chords borrowed from the opposite mode or from the old modes). A simplified system of labeling has been adopted here that does not reflect such details as chords' inversions, Roman numerals, or altered tones within the chords. The abbreviation "alt." denotes really altered chords, that is – structures that reside outside of the purely diatonic system of the old modes.¹ The label "DD" means "a dominant of the dominant", and the labels "Ts" and "Ds" are used to indicate "tonic substitute" and "dominant substitute", respectively. This abbreviated system is appropriate when those who study harmony have mastered voice leading and chromaticism sufficiently to be able to think in more general functional terms. This way of thinking opens a wider perspective in the process of deciphering melodies, as details related to size, inversion, and spelling are temporarily removed.

The harmonized melody presented below is divided in four phrases, and its design may be defined it as a phrase group or as a compound period:

Example 11. Dimitar Ninov – compound period, altered chords, and modal mixture

This harmonization uses a number of interesting altered chords, and I strongly encourage the reader to investigate all of them thoroughly on the piano. Here I will focus on some more unusual formations. For example, the dominant in measure 1 may be explained in two different manners: 1) as a V7 chord with an omitted root, whose fifth is simultaneously altered in two different directions: V7b5#5; or 2) as a VII chord, with a simultaneously altered third: VIIb3#3.² Notice the presence of two augmented sixth intervals in the structure of this inverted dominant as well as its enharmonic equality with a dominant ninth chord with an omitted fifth (Db9). This coincidence is practically explored by jazz musicians in their concept of "tritone substitution": they will not think of this chord as an inverted altered dominant built on G, but will consider the tone Db as a root. Hence, Db9 will function as a *tritone substitute for*

the dominant of C (TTS for V of C). This logic extends to all dominant chords built on Db when they resolve into C major/minor. Theoretically viewed, these chords are inverted altered dominants in the key of C, but there is a great practical value in this manner of thinking, for it allows the performer to resolve dominant chords a half step downward without wasting time to analyze their specific structure during the performance!

The unique altered subdominant in measure 10 only exists in minor, where its root may be lowered and raised at the same time: IVb1#1. It contains one augmented fifth and one very special interval: a doubly augmented octave. Enharmonically equal to an augmented triad with an added major ninth (E+add9), this chord is rarely used, but it has an exceptional flavor as a linear subdominant.

The altered dominant in measure 13 is frequently employed in jazz, where it would be played in full sound and root position, revealing a V7#5b9 chord. At the level of the seventh chord it will be explained as a diminished seventh chord with a raised third: VIIb7#3. Presented in a typical inversion that reveals an augmented sixth, the chord's enharmonic equality with a half-diminished seventh chord (Fhalfdim7) is underscored. This feature may be explored in an enharmonic modulation: a half-diminished chord will be introduced as a diatonic subdominant in a certain key, and then re-interpreted as an altered dominant into another key, or vice-versa.

An interesting case of de-alteration (canceling of one or more alterations) is seen in the conversion of the altered subdominant in measure 14 into a diatonic one in measure 15: the supertonic in harmonic major, whose root and third are raised,³ resumes its half-diminished quality after the two alterations are cancelled. This illustration reveals the diatonic basis of the altered chord.

Several points must be mentioned in regard to the harmonic syntax, voice leading and cadence in this harmonization:

1. In measure 5 a subdominant function follows the dominant from the previous measure. This happens at the beginning of a new phrase, after the first phrase has concluded with a half cadence;
2. The six-four chord in measure 6 does not function as a cadential one but as a passing tonic six-four falling on a down beat;
3. The sign *N.B.* (nota bene = a good remark) in measure 7 shows that some liberty has been taken in the spatial arrangement of the Neapolitan chord, namely – a stretch of a tenth between the soprano and the alto has been allowed. Occasional tenths between a pair of upper voices (primarily alto and soprano) may occur if they create some melodic interest by trading of tones or by facilitating the voice-leading otherwise;
4. The harmonization ends with an imperfect cadence involving an inverted dominant. The cadence is imperfect both melodically and harmonically (in

soprano and bass) but it is stylistically idiomatic and closes the musical idea in a convincing manner.

Let us review the following harmonization in *F major*:

Example 12. Dimitar Ninov – three-phrase period, altered chords, modal mixture and *ellipsis* (deceptive resolutions)

The altered subdominant in the first measure converts into a diatonic one through de-alteration. Then the altered dominant resolves deceptively into a secondary dominant (*ellipsis*). At the first *N. B.* sign in measure 3 there is an overlapping within the same harmonic function – the alto descends lower than the level previously occupied by the tenor – that is acceptable when a single chord is rearranged. In measure 4 the prolonged dominant function incorporates an implied tonic. This by-functional complex is followed by a diminished seventh chord that is enharmonically re-interpreted: introduced as a dominant of the dominant (VIIb7 of V) but resolved as a dominant of the *E-flat major* triad. The latter, marked as a borrowed chord (bVII), comes in the form of an arpeggiated six-four that does not function as cadential. This enharmonic tonicization creates surprise, and in this sense its effect is similar to the phenomenon of deceptive resolution, or *ellipsis*.

The *E-flat* chord turns into a secondary dominant and resolves into an *A-flat major* triad, also labeled as a borrowed chord (bIII). In measure 5 one can observe two “violations”: an overlapping between the alto and the soprano, and a *direct fifth or hidden fifths*⁵ on the second beat, marked with the sign *N. B.* Both of these “violations” occur in the re-arrangement (arpeggiation) of a single chord – not in the connection between two different chords. Therefore the overlapping will be performed with no difficulties, and the “direct fifth” will go unnoticed, because there are no *hidden fifths* within a single chord, and because the dissonant chord and its conversion to an augmented dominant seventh chord (V7#5 of *A-flat*) dissolve any possible spoiled effect in this regard. Of course, this secondary dominant might have been presented in first inversion, thus eliminating the overlapping and the quasi direct fifth, but I chose in favor of the root to root resolution, which creates a more convincing tonicization of the remote *A-flat* area.

Modulation

The following harmonizations incorporate chromatic harmony and modulation. The passage in example 13 represents a modulating period. The modulation is executed through the *C minor* triad which serves as a common chord between *C minor* and *B-flat major*:

Example 13. Dimitar Ninov – modulating period

So far we have reviewed harmonizations in the form of a period or a phrase group. The passage in example 14 illustrates conventional modulations in a simple binary form of contrasting type. The form combines one parallel period and one sentence, each one exploring different melodic material. The *N. B.* sign in measure 8 shows the anti-parallel octaves between the dominant and the tonic in *D minor*, as perfect cadences of this type occasionally happen:

Example 14. Bentzion Eliezer – simple binary form, chromatic harmony, and common modulation. (Harmonization by Dimitar Ninov)

The next harmonization illustrates common modulations as well as enharmonic modulations executed through a dominant seventh chord and a diminished seventh chord. This melody is composed in the genre of march, and it is organized in a simple binary form that combines one parallel period and one sentence.

Example 15. Bentzion Eliezer – simple binary form, chromatic harmony, common modulation and enharmonic modulation. (Harmonization by Dimitar Ninov)

Harmonic analysis for Example 15:

Measures 1-5: T S S alt. T D → SH D T D → S alt. K[♯] D

Measures 6-9: T D VI=II D T VI S D T D/IV S alt. (E): C:

Measures 10-12: K[♯] D T D/IV=S alt. K[♯] D T=III D Ab: f:

Measures 13-15: T S D T D T S alt.=S alt. (K[♯]) T S D T Ab:

All the parts begin in unison/octave, and at the end of measure 4 they resume that motion again; the overlapping at such moments is something natural. At the asterisks at mm. 10–12 there are parallel fifths of unequal size between the alto and the soprano that occasionally occur in the K6/4 – D7 connection. In measure 11 there is another overlapping within a single chord as it is arpeggiated to accommodate the leaping melody. In measure 14 a leap at an augmented fourth is applied in the tenor to complete the dominant chord, and in the next measure the tenth between the alto and the soprano facilitates the voice leading within the altered chord. In the next-to-last measure the cadential six-four could have been connected directly to the dominant chord as usual, but, instead, it is followed by a tonic sixth chord to allow the re-introduction of a subdominant function. This is a rare, but an elegant procedure. It sounds as if there is a fusion between a cadential six-four and an arpeggiated six-four on a down beat; the chord is introduced as a typical cadential six-four anticipating a dominant function, but is connected to a tonic sixth chord, thus also evoking the aural effect of a two-beat arpeggiated tonic.

The following two examples demonstrate how harmony can subordinate a fully chromatic scale to a single key. By controlling the texture with the three main functions T, S, and D, this procedure is easy to achieve. Notice that the second chord in the first measure is not necessarily a secondary dominant of II which resolves

deceptively into the dominant; in this context it functions as a secondary altered subdominant of the dominant (a common tone diminished seventh chord of V). In other words, in the key of G, this is simply the II7 chord whose root and third have been raised.⁶

Example 16 a. Chromatic scale in C major

Harmonic analysis for Example 16 a:

Measures 1-4: T S alt. → D alt. T D S alt. T D alt. → S ♭VII D

Measures 5-8: T D D → S D T DD D T ♭VI S D alt. T

Example 16 b. Chromatic scale in C minor

Harmonic analysis for Example 16 b:

Measures 1-4: T S alt. → D T D → S alt. T S D → ♭VII D

Measures 5-8: T D D → S D T DD D D → S alt. S D alt. T

Conclusion

A careful review of the examples presented in this paper would reveal a certain logic inherent in the process of harmonization: *the richer the harmonic means, the greater the freedom in the voice leading*. Such elements as overlapping, leaping at an augmented interval, parallel fifths of unequal size, or parallel fifths sliding downward at a minor second (Mozart fifths), incomplete chords, non-normative doublings of chord tones, and others – when masterfully employed – become a part of one’s vocabulary and bring creativity in the work. Naturally, the more chromaticism we apply in our melodic and harmonic writing, the more we deviate from the style of classical composers and move through the world of Romanticism to the tonal idioms of our present time. Some musicians tend to think of the so-called “common practice period” as a historical period whose parameters are somewhat fixed between the music of Bach and Schubert. Consequently, they keep restricting the part writing of their students in terms of style and technique, imposing rules that only seem to exist in their own minds. In fact, instead of rules, a sensitive theorist must talk about principles of epoch and style, and instead of violating *a rule* they should talk about *expanding a principle*.

Many other musicians, including the author of this paper, are convinced that the common practice period has not ended; it is still alive today, and its features may be identified in a variety of genres, including some popular music and film music styles. Much of the beautiful music that is being created nowadays is rooted in the classic-romantic tradition, and this fact obliges a creative theorist and pedagogue to break the mold of restrictions and to cover more ground in their teaching of tonal harmony. For example, one cannot study comprehensively modal interchange and expanded tonality without exploring some music pieces from the 20th century; or the study of modulation will be incomplete without first exploring the world of really altered chords.

As already mentioned in the beginning, the manner most undergraduate theory curricula are organized in American colleges does not give students the opportunity

to study harmony in depth. Jazz Departments are better off in this regard, for they manage to teach harmony in a more practical manner.

A true music theorist must possess both theoretical and practical knowledge in the fundamental discipline of their choice. Practical knowledge can be gained through dealing with the subject in a creative manner, for example through composing, harmonizing, or arranging. Genuine insights arise from solving problems in the field – they develop one’s proficiency and analytical skills, and make one’s teaching and research authentic and enjoyable.

I hope that some of the revelations shared in this essay will stimulate a number of colleagues to think of the creative side of teaching harmony, and to contemplate and solve problems related to music theory curricula and professionalism in teaching.

NOTES

¹ The diminished seventh chord is also a really altered chord, but it has been domesticated so much as a leading-tone dominant, that I generally label it as D. On the other hand, when it functions as an altered subdominant (a common tone diminished seventh chord) I label it as S alt.

² The Roman numerals I use throughout this paper are capital letters only. The quality of the chords is implied by the key signature, and the alterations are marked additionally.

³ English speaking musicians will recognize the so-called *German augmented sixth chord* in root position.

⁴ Ellipsis is a term applied to various deceptive resolutions, especially when two dominants connect each other.

⁵ “Hidden fifths” is an expression used in plural, for it comes to suggest a pair of quasi parallel fifths – the first one being hidden (implied), and the second one present. In the United States, the term “direct fifth” (in singular) is used more frequently than “hidden fifths”.

⁶ Some musicians mark this chord as #viii, but I think such a function does not exist – this is simply a secondary altered supertonic of V.

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