
Opera Minora

brief notes on selected musical topics

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In the notes of this series the focus will be on bridging the gap between musical theory and practice. The target audience is the jazz performer who reads music and has a good understanding of chord progressions and traditional harmony.

Using Diminished Scales in Improvisation, No. 1

Motivation

At some point in every jazz musician's development it becomes clear that learning theoretical concepts and applying them to performance are two separate problems. Not everyone is equally adept at both. In this note the focus is on applying diminished scales to real performance situations. It is assumed that the reader is already familiar with diminished scales and their properties.

Development Strategy

We begin by examining a phrase from a recorded improvisation which illustrates a remarkable application of the diminished scale to a conventional *ii-V-I* progression. The passage is taken from Hank Mobley's improvised solo on "Nica's Dream", Columbia Records CK65265, *ART BLAKEY, The Jazz Messengers*, 1956.

consisting of *whole step* \rightarrow *half step* pairs, or from the superposition of two diminished chords. Either way, because of the symmetry, the scale exhibits no clear tonal center such as is found in traditional scales. Like whole tone scales, diminished scales can be begun at any point in the sequence. In the representations above, each scale begins with a whole step but the other mode, beginning with a half step, is equally valid.

Analysis

The application of diminished scales to traditional diatonic scales begins by locating the region of ‘best match’ or ‘maximum alignment’ between the scales. The following figure shows the two possible tonal spans in a C major scale which are coincident with a portions of a diminished scale.



Figure 2: Diminished Scale Groups in Major Key

Since there are only two half-step intervals in a major scale, there can be only two of the possible three diminished scales which provide such a match. For the C scale, these correspond to diminished scales labeled ‘A’ and ‘C’ in Figure 1. We will reserve discussion of using scale ‘B’ for a later note in this series.

Examples

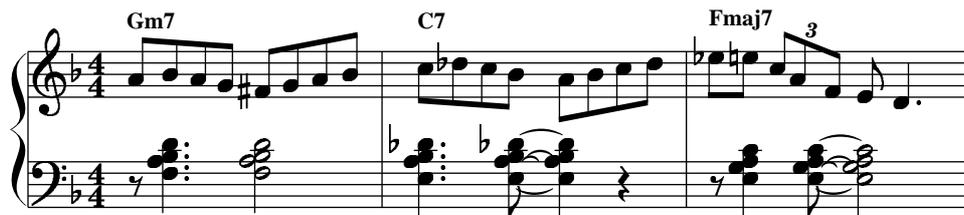
Here is a phrase which uses diminished scale ‘C’ from Figure 1 over a Dm7 and carries the motif along the diminished scale over the dominant 7th until it resolves to the tonic. The melodic line is consonant in the first bar, but is heavily altered in the second. This exhibits the type of coloration that is typically provided by diminished scales and involves the kind of ‘stretching’ that may take some *getting-used-to*.



Example 2: Use of Diminished Scale in key of C

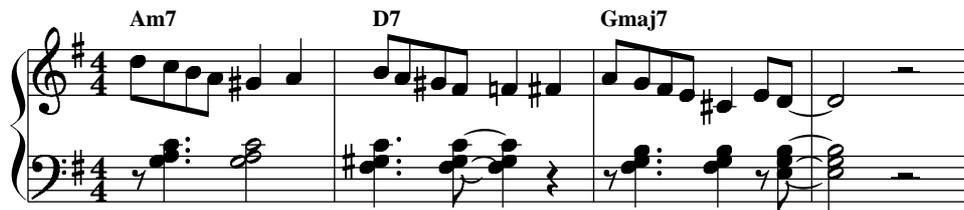
Note that the motif descends in minor thirds along the diminished chord, E, G, A#, C# using the diminished scale for passing tones. The Hank Mobley example uses a similar technique.

The next example follows a diminished scale upward. There is very little stretching required to accept the tone color provided in this case, as the ear can tolerate the offscale tones as simple alterations of the dominant. Nevertheless, the melodic line is clearly coupled to a diminished scale.



Example 3: Piano Passage Using Diminished Scale

Another example appears to shift from one diminished scale in the first two bars, to another one at the point of resolution in the third bar.



Example 4: Piano Passage Using Two Diminished Scales

Conclusion

Diminished scales can be employed in ordinary harmonic situations to introduce unusual, or even startling, color. Successful application of these scales involves starting the diminished scale phrase on tones of the current scale which are consonant with it. Progress of the line along the diminished scale will lead away from the current key, stretching the harmony considerably. The horizontal motion of the resulting line will allow some departure from the underlying vertical harmony as long as its resolution is logical.

In short,

- Begin the use of the diminished scale on consonant tones shared with the current key,
- Construct the phrase to target the tones of a contained diminished chord if the motif repeats (uses downward or upward displacements of a minor third),
- Tones of the phrase which are outside the current key work best over an underlying dominant chord, where they are perceived as altered tones,
- Resolution to the tonic closes the phrase.

Comments

As already mentioned, a common feature of diminished scales and whole tone scales is the absence of a strong tonal center. This is an advantage when the scales are used to provide horizontal structure only, leaving the vertical harmonization to the underlying chord progression. The most easily devised examples will start with harmonic consonance, move to dissonance, and return to consonance.