

Schillinger to the Rescue!

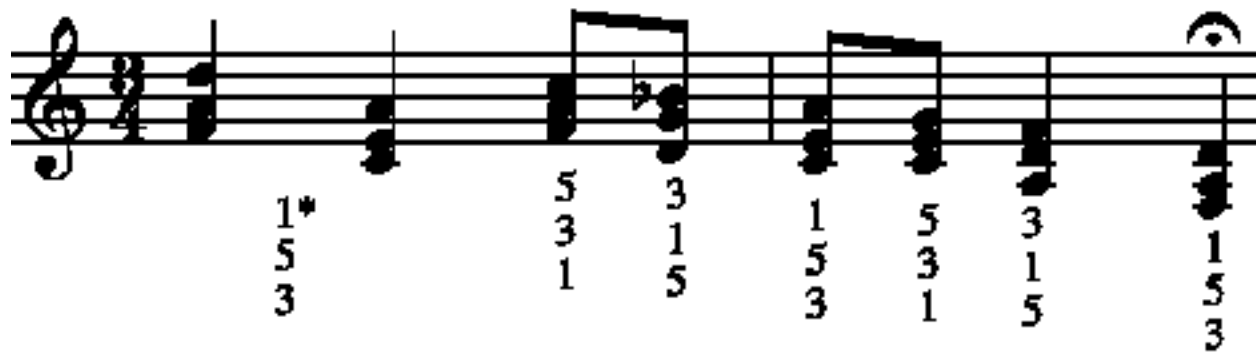
A Short Analysis Using Schillinger's Own Theories

Although its editors place great emphasis on writing *new* music by using techniques found in the *Schillinger System of Musical Composition*, Schillinger's ideas may also be used for the analysis of musical compositions which may (or may not) predate the "system." The composition to be analyzed here is the beginning of Bartók's *Bagatelle No. 4* from his Opus 6: *Fourteen Bagatelles*. Bartók's "tune" is, in actuality, a Hungarian folk song, and the translation is as follows: "When I was a cowhand I fell asleep near the cattle. I awoke about midnight. Not one cow was left."

Grave ♩ = 60



The short piece begins with the tune stated clearly in the uppermost voice of the right hand. The opening chord (in the right hand--we'll deal with the left hand in a moment) is a D minor triad in first inversion. The second chord is an A minor triad in first inversion as well. Students well-versed in tonal harmony know that parallel first-inversion chords are considered 'legal.' In this sense, Bartók has not broken any traditional rules thus far. Something fascinating, however, happens *after* these two introductory chords are sounded. The subsequent chords in the first phrase follow a serial pattern where one chord is in root position, the next is in second inversion, and the next is in first inversion. This cycle repeats until the phrase's end in the 2nd measure. Not only are these chords 'perfectly' voice-led (according to traditional theory), but their voice leading was achieved by a straightforward system of rotation:



1*
5
3

5
3
1

3
1
5

1
5
3

5
3
1

3
1
5

1
5
3

*Parallel first-inversion triads are "allowed" in traditional harmony.

(N.B. the second-inversion chords will soon be remedied by the introduction of a bass part which we will next examine.)

To achieve a ‘primitive’ sound to match the natural ‘folk’ quality of the song, Bartók does two things with the left hand. First of all, he chooses to make the lowest note in the left hand do nothing but play the roots of the chords found in the right hand. This onslaught of root-position chords gives the music an air of simplicity, but the impeccable voice-leading of the right hand is evidence of careful thought. Secondly, Bartók uses what Schillinger calls *coupling*--the introduction of a fixed interval (or several intervals which may be constant, or selected in rotational fashion) above (or below) any given note. Bartók ‘couples’ a perfect fifth above each of his bass notes in the first phrase. The coupled fifths, like the root-position chord progression, give the music an extremely primitive character. While traditionally parallel 5ths are considered ‘wrong’ in tonal harmony, new students must remember that Bartók is a ‘modern’ composer, and for modern composers the ‘floodgates have opened’ allowing the use of musical materials that formerly (for a time) were frowned upon. But still holding to ‘tradition’, Bartók’s use of coupled fifths guarantees the omission of a specific note doubling in each chord, that note being the 3rd of each chord (which is *rarely* doubled in tonal harmony). Thus Bartók’s right hand voice-leading and left hand coupling coincide to produce a two measure phrase that is simultaneously elegant and primal. A curious moment occurs on the second beat of measure 2, however, when suddenly the left hand plays only the bass note D and not the coupled fifth (which is A) above it. Since we’ve been hearing a sequence of parallel 5ths in the left hand, this sudden two-note to one-note change might be interpreted as an error. However, upon closer inspection we find that the same A the left hand *should* be playing is found in the exact registral position in the above right hand chord. In other words, Bartók, being a *practical* composer, has simply omitted printing the same A a second time in the left hand part since the same A is already taken by the right hand. This is a key element that beginning orchestration students often overlook when attempting to orchestrate this piece. The parallel 5ths *do* continue throughout the first phrase, and the A on the second beat in measure 2 is in fact doubled (although the doubling is omitted in Bartók’s notation simply because he wrote this piece for the *piano*, and such a reprinting of the A would be superfluous for this instrument)!

The second phrase of this short piece is similar to the first phrase in that the same ‘tune’ is repeated in the uppermost voice of the right hand. The left hand (in relation to itself, not the new chords above it) plays the same root progression found in the original phrase, only this time 5ths are not the only intervals coupled to the bass line; 3rds and 7ths are constantly coupled as well creating a series of root-position seventh chords. This left-hand, root-position progression thus retains the original *parallel* flavor of the previous parallel 5ths but is much richer.

The right hand chords above the left hand progression of seventh chords, when taken by themselves, are a bit enigmatic, but they too, however, are all 7th chords, albeit when played independently (i.e. without the left hand progression) some tend to have the quality of root-position triads with added 6ths. But how did Bartók select these chords? The simple application of a constant rotational voice leading procedure is futile in attempts to answer the question, but the procedure of coupling *can* adequately answer it. Below is the original folk tune:



If we couple a perfect fourth underneath each note, we get the following:



Bartók must have chuckled while composing this double pun; the original perfect fifth sound found in the left hand is now transferred in its inversion (the perfect fourth) to the right hand. Not only has the interval been symmetrically inverted, but *physically* the inversion is represented as well by the symmetric transference of material from the left hand to the right! Knowing that parallel first-inversion chords are fully ‘legal’ in the traditional sense, all one has to do at this point is couple a 3rd underneath the newly-coupled perfect 4th to create a series of first-inversion triads! The parallel first-inversion triad idea, we must remember, was already hinted at during the first measure when Bartók used two parallel first-inversion triads.



This explains the appearance of *most* of the notes in the right hand’s second phrase, but not all of them. Where do the remaining notes come from? To find out, examine the accompanying left hand part. Whichever note is found in the left hand part but is *not* found in the first inversion chord in the right hand part above it is then *added* to the first-inversion chord, keeping it within the bounds of an octave.



On the third beat of measure three, Bartók then has a *choice* which note to add to the right hand chord, since both F and A are foreign to the first-inversion C major above it. A seems to be the logical choice since using F would introduce a minor second (above the E) into right hand sonority, an interval not found in the right hand at all during the entire second phrase. The “and” of beat one in the fourth measure is another place where a C or E could be added to the right hand. Bartók chooses E to avoid a doubly-dense cluster.

Once the chords in both hands begin to move closer to one another in measure 4, the principle of ‘piano writing practicality’ comes into play. The same principles of the construction of chords in the right hand still apply, however some of the right hand notes are

already being taken by the left hand. Therefore, Bartók simply omits reprinting the right hand ‘duplicate’ notes not only for ease on the eyes, but also for ease of performance. Student orchestrators need to take this ‘unseen note doubling’ into account when making orchestral versions of this bagatelle.



The final chord of the second phrase lacks an F in the left hand where one would expect to find one, considering the omission of the F seems to undermine the parallel 7th chord progression. However, the appearance of this left-hand chord is, in fact, another symmetrical pun by Bartók. The original chord found at the beginning of the first phrase in the right hand was constructed, from the top down, a 4th and then a 3rd from the 4th (in the *coupled* manner the chords in the second phrase were constructed.) Here, at the last measure in the second phrase, the opening chord makes its appearance again albeit in the *left* hand and therefore, (like the 5th-to-4th pun discussed before), it is constructed from the bottom *up* instead of from the top down. This means a fourth up from D is A, and a 3rd up from A is C. (N.B. This is not a *symmetric* inversion but a diatonic one.) The omission of the F also contains another meaning; Bartók’s choice on the second beat of measure 3 to add an A to the right hand instead of F is now given greater significance since Bartók omits the F in the final chord, making the chord on the second beat of measure 3 foreshadow the conclusion of the second phrase.

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