TEACHING WITH WESTERGAARD'S COUNTERPOINT RULES

FRED EVERETT MAUS

Peter Westergaard's textbook *An Introduction to Tonal Theory* includes a comprehensive presentation of species counterpoint in two and three parts.[1] I got to know this material thoroughly by working as a teaching assistant for Westergaard's undergraduate music theory course, and I have continued to teach counterpoint using versions of his rules.

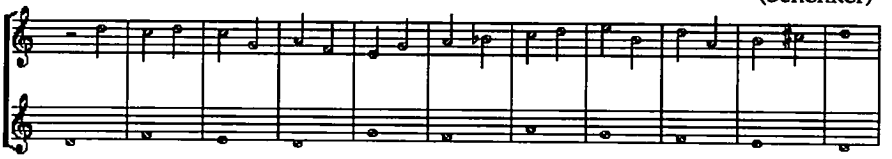
Though many aspects of Westergaard's treatment are traditional, innovations set his treatment apart from others. The most striking, and the most pervasive in its effects, is a set of rules for the structure of individual lines. This paper will describe Westergaard's approach to lines in species counterpoint, and indicate some of its pedagogical virtues.

Westergaard distinguishes three kinds of line, with different structures and different contributions to the complete species composition. The main melodic motion of species composition is concentrated in one upper line, which projects a purposeful motion toward closure on the tonic pitch. In three-part writing, the other upper line has a less constrained, less directed structure. The bottom line in a texture is a bass line, with different structural constraints from either upper line.

These distinctions of function depart from traditional species practice, in which the same cantus firmus can appear in any part of the texture, while other lines can be relatively uneventful in their basic structure. Figure 1 shows one of Schenker's solutions for Fux's d minor *cantus firmus*.[2] Schenker's line drops sharply from its starting point, rises back to a climax one step higher, and then returns to the starting point. Though the registral motion is striking, it is easy to hear the line as an elaboration of a simple neighboring structure, d - e - d. This makes sense of the opening descent from d down to e: though the seventh initially seems slightly awkward, the low e emerges as an octave doubling of the high neighbor note. In that way of hearing it, the upper line is static in its basic structure (though not in its elaboration of that structure) and is clearly subordinate to the cantus firmus, which elaborates a more purposeful motion up to the dominant and down, stepwise, to the tonic. Westergaard's rules do not permit this kind of subordination of the upper line to the lower in two-part writing.

Figure 1.

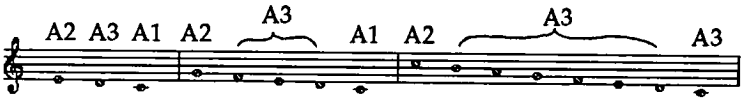
(Schenker)



Westergaard initially states the structural constraints for these lines as, in his words, "operational rules for constructing a line." There are two kinds of rules, which Westergaard calls "A rules" and "B rules." The "A rules" generate a "basic structure" for each line; the "B rules" generate "secondary structures." The "A rules" are different for each of the three kinds of line; the "B rules" are essentially the same for all three.

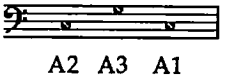
For an upper line with the main melodic motion or, as Westergaard calls it, an "upper line with a basic step motion," there are three "A rules." By using all three, in order, one completes a "basic step motion." Rule A.1 specifies that the last note of the basic step motion must be a tonic pitch; rule A.2 specifies that the first note of the basic step motion must be a tonic triad pitch a third, fifth, or octave above the final pitch; rule A.3 specifies that the two pitches must be connected by descending step motion. Figure 2 shows the three basic step motions in C major.

Figure 2.



For a bass line, there are also three "A rules." By using all three, one completes a "basic arpeggiation." Rule A.1 specifies that the last note of the basic arpeggiation is a tonic pitch; rule A.3 specifies that the middle note is a dominant pitch a fifth or fourth away from the last pitch. Figure 3 shows a basic arpeggiation in C major.

Figure 3.



For a second upper line, Westergaard also gives three "A rules." Rule A.1 and A.2 specify that the last and first pitch must be tonic triad pitches no more than an octave apart. Rule A.3 allows the introduction of neighbor or passing motion between these two. In my experience, subsequent elaborations tend to blur the distinction between notes introduced by A.3 and notes belonging to other structures.[3] Accordingly, I use only two "A rules" for a second upper line. The line must end with a tonic triad pitch, and must begin with a tonic triad pitch no more than an octave away.

When I teach this material, I don't use the term "A rule"; I call the "A rules" *rules of background structure,* for an obvious reason: Westergaard's rules introduce something like the fundamental or background structures of Schenker's final theory into species counterpoint.

Using these background structures requires the formulation of rules for elaborating the background structures into complete lines. Westergaard's way of doing this is remarkably simple and effective. His "B rules" offer ways of adding notes to the background structures, in a determinate order. More specifically, they describe various contexts and specify what kind of new pitch material can be added in that context.

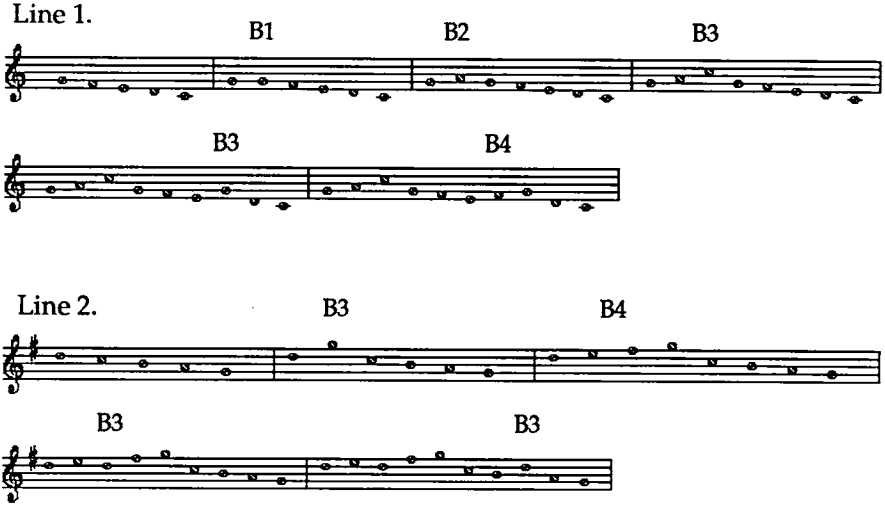
There are four "B rules." Rule B.1 permits the addition of a repetition after any tonic triad pitch. Rule B.2 permits the introduction of a neighbor between any two notes with the same pitch. Rule B.3 permits the insertion of a tonic triad pitch between any two pitches, provided no dissonant skip nor skip larger than an octave results; for upper lines, B.3 also permits introduction of a tonic triad pitch before the first note of the line. (This is Westergaard's formulation of Rule B.3. So stated, rule B.3 makes Rule B.1 redundant; but this is an undesirable consequence, as Westergaard realizes, since the effect of prolonging a single pitch by repetition is quite different from the effect of moving to a different pitch. A slightly cumbersome, but more precise, rule would specify that B.3 introduces a tonic triad pitch that differs from the pitches before and after it.[4] There is another problem: it is not clear why B.3 should permit the introduction of a tonic triad pitch *before* the first note of the basic structure of a second upper line. That is, it is not clear that one would ever have good reason to understand the first note of such a structurally unconstrained line as anything other than the first note of the basic structure. A better version of B.3 would permit the introduction of a pitch before the basic structure only for an upper line with a basic step motion.) Rule B.4 permits the filling of any skip with stepwise passing motion.

Westergaard calls the result of the application of these rules "secondary structures." In my classes I call them *elaborations,* with the idea that an "elaboration," more than a "secondary structure," sounds like something one might really want to have; and I call the "B-rules" *rules of elaboration.*

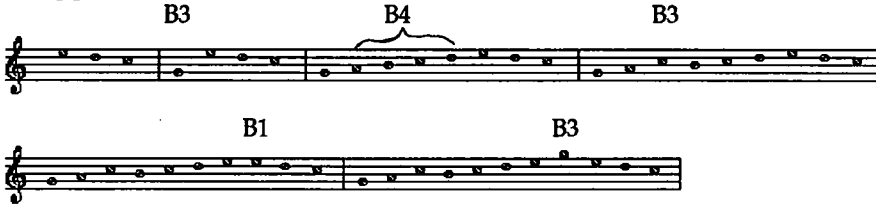
One effect of the rules of elaboration is to orient the line solidly around tonic triad pitches. Every note introduced in elaboration of the basic structure is either a tonic triad pitch, a neighbor note prolonging a tonic triad pitch, or passing motion to or from tonic triad pitches. Only tonic triad pitches can be prolonged by repetition. By the end of a line, every non-tonic-triad pitch has been displaced stepwise by a tonic triad pitch; no non-tonic-triad pitches are left hanging.

Figure 4 shows the construction of several lines using these rules. Notice that the interest of a line often comes from the interruption of a passing or neighboring motion. It is useful to distinguish two kinds of interruption. If the interruption takes place where the interrupted structure has reached a non-tonic-triad pitch, that pitch will be left hanging, creating a perceptible need for the line to return and complete the structure. If the interruption takes place where the interrupted structure is about to move from a tonic triad pitch to a non-tonic-triad pitch, the fact that an interruption has occurred will become evident only when the interrupted structure resumes, forcing an intriguing reconstrual of the structure of the passage.

Figure 4.



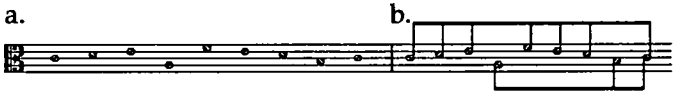
Line 3.



David Lewin's paper *An Interesting Global Rule for Species Counterpoint* also addresses pitches left hanging in lines.[5] Lewin's aims are different from Westergaard's; Lewin is concerned with modal counterpoint, not with counterpoint that will serve as a basis for understanding tonal music. Still, it is interesting to compare Lewin's global rule with Westergaard's rules.

According to Lewin's global rule, any pitch more than a second away from the tonic creates a gap that must be filled in before the end by stepwise motion to the tonic. Lewin formulates the rule as follows: for every note X lying above the cadence tone, some note lying one step lower than X must appear in the line at some point subsequent to X; and for every note X lying below the cadence tone, some note lying one step higher than X must appear in the line at some point subsequent to X. Figure 5a shows one of Lewin's lines.

Figure 5.



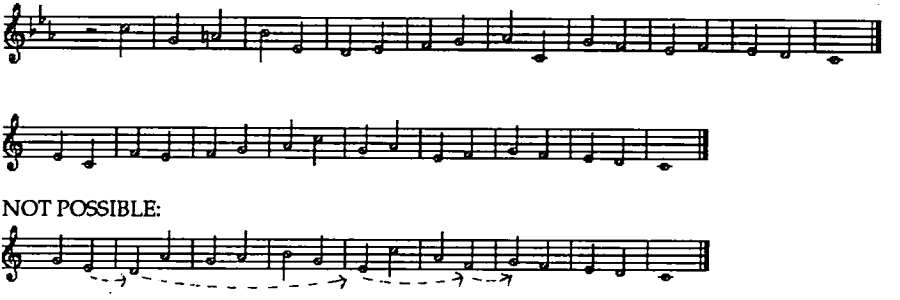
There are several important differences between Lewin's rule and Westergaard's "B rules." First, Lewin requires all non-tonic pitches to be led stepwise to the tonic, while Westergaard only requires that non-tonic-triad pitches be led stepwise to tonic triad pitches. Thus, Westergaard's rules will permit some gaps that Lewin's constraint would fill. This difference may not be very important. In fact, Lewin mentions a looser constraint that allows gaps between the tonic and certain non-tonic pitches "that can idiomatically be left hanging"; perhaps, in tonal counterpoint, the tonic triad pitches are precisely the ones that can be left hanging in this way.

Second, Lewin's rule does not constrain the *beginning* of motion in a registral area of a line, but only requires that all motion, wherever it begins, eventually lead back to the tonic. Westergaard's rules ensure that all non-tonic-triad pitches are ultimately contained within structures that begin and

end with tonic triad pitches. Lewin's lines have a certain potential for dramatic effect that Westergaard's do not: in Lewin's lines, a pitch that does not tend to confirm the tonic can appear without preparation, provided it is eventually led to the tonic. Figure 5a is an instance: the fourth note tends to disturb the clear tonic role of c, but its effect is minimized by the stepwise motion that links it to the final tonic. In Westergaard's lines, much of the interest derives, instead, from interruption and delay of structures that begin and end by confirming the tonic triad.

A third difference is crucial. Lines that satisfy Lewin's rule can imply a polyphonic effect. Motion toward the tonic from above and below can overlap rhythmically in ways that suggest two distinct lines converging on the tonic. In Figure 5, the upper register is involved in neighboring of e and descent to c *during the same time* that the lower register is involved in leading from a up to c; the overlapping structures are marked in Figure 5b. Westergaard's rules preclude any temporal overlapping of incomplete structures. A passing or neighboring motion may be *interrupted* by some other construction, but the latter must be completed before the original motion resumes. Figure 6 contrasts some elaborations that Westergaard's rules permit with others that are not possible. As Figure 6 shows, Westergaard's rules define the distinction between monophonic and polyphonic lines in large part by temporal, rather than registral, constraint. The effect of a single line results, in part, because elaborations always delay the continuation of the configurations they elaborate.

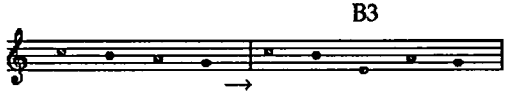
Figure 6



Another consequence of Westergaard's rules also contributes to his conception of a monophonic line. His rules do not provide any way to construct a skip between two notes when neither is a tonic triad pitch. The only skips that can occur in his background structures are between tonic triad pitches, and the only rule of elaboration that can create a skip is B.3,

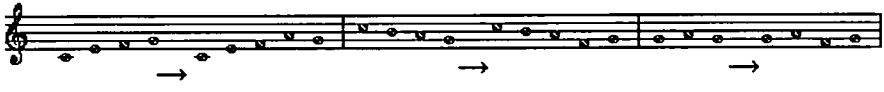
which allows the introduction of tonic triad pitches. As Figure 7 shows, B.3 allows the creation of skips to and away from non-tonic-triad pitches, but at least one pitch in any skip must be a tonic triad pitch. Given such a constraint, it becomes possible to think of a skip between non-tonic-triad pitches as a clear index of a polyphonic line.

Figure 7.



I believe Westergaard's rules are too stringent here, though only slightly. In my classes I permit a skip between non-tonic-triad pitches in one situation: when a line approaches a tonic triad pitch stepwise, a new pitch may be inserted before the tonic triad pitch, a step away from the tonic triad pitch in the opposite direction from the previous stepwise motion. Figure 8 illustrates this elaboration. To my ear, the resulting configuration does not contradict the sense of a monophonic line. To preserve the clarity of the convergence on a tonic triad pitch, I stipulate that the three-note structure cannot be broken up by further elaborations; that is, the three notes must remain as immediately successive notes in the completed line.

Figure 8.



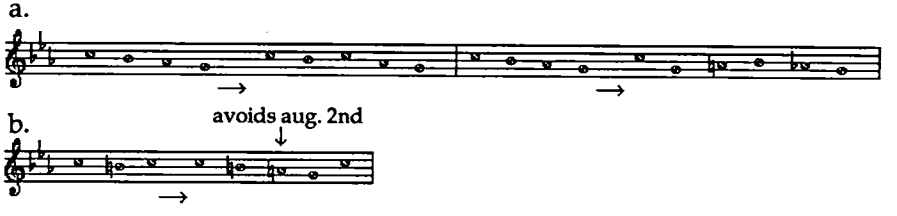
Having created precise criteria for a monophonic line, Westergaard is able to include some excellent exercises in the construction of polyphonic or, in his term, compound lines. These involve taking a three-part species composition and combining two of the lines into a single compound line. The compound line, if carefully constructed, will allow a listener to follow the structures of both of the underlying lines. Two phenomena emerge as clear indices of compound lines: skips between non-tonic-triad pitches, as I mentioned, and dissonant skips. Westergaard's rules for compound lines specify that dissonant skips must always result from arpeggiation of a dissonant simultaneity in the three-part counterpoint.

Incidentally, I find compound lines constructed in this way most satisfactory, musically, when the three-part source contains two first-species lines and a third line in first, second, or fourth species; to my taste,

three-part sources involving third species or combined species often yield compound lines that seem awkward or busy. I prefer to explain the latter possibilities outside the context of complete species compositions.

Westergaard gives specific instructions for handling of the sixth and seventh degrees in minor. Whenever the sixth or seventh degree is originally constructed in a line, it will be followed by stepwise motion, though subsequent elaboration may break this up. If the sixth or seventh degree is followed immediately by stepwise ascent when it is first constructed, the altered form should be used; if it is followed immediately by stepwise descent when it is first constructed, the unaltered form should be used. Exceptions are permitted to avoid forming an augmented second when the sixth or seventh degree is first added to a line. Once a note is added to the line it cannot subsequently change. Figure 9 shows some possible constructions.

Figure 9.



There are two main advantages to Westergaard's handling of the sixth and seventh degrees. First, the criteria of choice are exclusively linear. This provides an excellent model for comparison with harmonically influenced treatment of the sixth and seventh degrees in 18th- and 19th-century music. Second, since the stepwise motion that determines alterations may be broken up by elaboration, one can sometimes hear the occurrence of an altered or unaltered note as pointing ahead to a continuation that has been delayed. In Figure 9a, the use of b-flat indicates that the following c does not close a neighboring motion; since the b-flat points toward a note a step lower, the c is introduced by rule B.3 and delays the descent. In 9b, the use of b-natural points toward c, and the a arises from a subsequent elaboration.

Obviously Westergaard's rules introduce pitch hierarchy into species counterpoint across timespans larger than a single measure. Some theorists may want to resist this innovation.[6] John Rothgeb has addressed a related

issue. He cites the two measures in Figure 10a, and specifies that "the progression . . . is not to be construed as a single, prolonged c harmony, but rather, simply as a succession—perfectly coherent in terms of voice-leading—in which the two consecutive bars happen to define the same harmony.[7]

Figure 10.

a. b.

He continues by arguing that if harmonic prolongation is introduced into species counterpoint, there is no reason to exclude a configuration like Figure 10b. But this would destroy the distinction between first and second species. Rothgeb concludes that "strict counterpoint rightly makes no assumptions about harmonic relations over relatively long spans, because to do so would be to subvert the real purpose of the exercise, which is the study of voice leading apart from the influence of other musical forces."

Rothgeb's argument can be restated as a dilemma for someone who wants to think of species counterpoint in terms of extended harmonic prolongation. *Either* the dissonant passing and neighboring motion associated with harmonic prolongation must be incorporated across significant spans of species counterpoint, in which case the distinction of different species will disappear; *or*, if dissonant passing and neighboring motion are not admitted at spans larger than a measure, then harmonic prolongation has been given a new, restrictive definition that does not adequately reflect its explanatory power in relation to 18th- and 19th-century music.

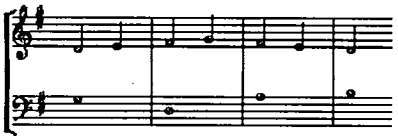
So formulated, Rothgeb's argument is attractive. I don't think it provides a reason to reject Westergaard's approach, but it does clarify what Westergaard has done. In effect, Westergaard accepts the second option of the dilemma. Though Westergaard doesn't put it this way, his rules for constructing lines treat a line as a prolongation of the tonic triad, but the conception of prolongation is highly simplified in relation to the conception that is appropriate for analysis of 18th- and 19th-century music.

The simplification emerges most clearly in Westergaard's treatment of neighboring and passing motion. Westergaard construes neighboring and passing motion in two nonequivalent ways. In his rules for combining lines in second and third species, he treats neighbor notes and passing notes as types of dissonance: a dissonant pitch in a second or third species line is a neighbor note or passing note depending on whether the line changes direction immediately after the note. In his rules for constructing individual

lines, all non-tonic-triad pitches are neighbor notes or passing notes, depending on how they are initially introduced into the line.

These nonequivalent senses of neighboring and passing motion can come into direct conflict. In Figure 11, d in the bass in m. 2 establishes the g in the upper line as a dissonant neighbor to f#; but in relation to the structure of the upper line, f# must be a passing note that leads to the g. Consonant support and linear structure, coordinated in the prolongations of 18th- and 19th-century music, come apart in Westergaard's counterpoint.

Figure 11.



As I see it, the justification for this strange split is pedagogical. That is, it is only possible to combine a prolongational account of linear structure with the traditional treatment of dissonance in species counterpoint by adopting a special, restricted conception of the criteria for pitch hierarchy in linear structure, and the pedagogical benefits of having such an account outweigh the risks.

Two different kinds of pedagogical advantage can be distinguished. First, the rules for linear structure are obviously designed to prepare students for study of Schenkerian theories of tonality. Theorists might argue about whether Westergaard's treatment of neighbor and passing motion distorts Schenker's thought to an extent that might permanently confuse students; I don't think it does.

A second kind of pedagogical consideration bears on beginning students' experience of species counterpoint as simple composition—the experience of listening to complete species compositions, and also students' experience of their own activity of composing—rather than on eventual Schenkerian studies. I shall close by mentioning some pedagogical virtues of Westergaard's approach that fall into this second category:

1. Most counterpoint textbooks contain instructions about how to write a line, but the instructions are almost exclusively in the form of prohibitions. Westergaard's treatment contrasts sharply with this rather discouraging approach. Westergaard's rules give a student ways of doing something. They present a student with basic structures that are coherent, purposeful, and complete, although boring, and they offer the student tools

for elaborating these boring structures into something with much more content and individuality. The goal of elaboration is to add content and individuality *without losing* the coherent, purposeful, complete qualities derived from the background structure. Students are often apprehensive about starting anything that resembles composition; by offering students a definite goal for their work, Westergaard's rules do much to alleviate this nervousness.[8]

2. Westergaard's rules allow a student to construct a model of a listener. That is, the student can imagine that the species counterpoint composition is addressed to a listener who will interpret its structure in accord with Westergaard's rules. This makes it possible to consider issues of clarity or ambiguity of structure quite precisely, and allows the student to think about composing in light of the goal of clear communication.[9]

3. The precision of Westergaard's rules makes it easy to do without a *cantus firmus*. Actually Westergaard's textbook does not take advantage of this possibility, but I find that students are able to work within his rules to compose *all* the lines of a two- or three-part species composition. Almost all my students learn to do this adequately, some of them elegantly. This is much more exciting and instructive than working with a *cantus firmus*.

4. The definiteness of the rules for structures of lines, in combination with the definiteness of Westergaard's voice leading rules, allows students to recognize in a very direct way the distinct demands of the horizontal and vertical dimensions; that is, the tension between horizontal and vertical, traditionally associated with species counterpoint, becomes a particularly obvious aspect of the experience of composing.

5. Very importantly, Westergaard's rules allow students in their first year of music theory study to have the experience of hearing species compositions with an explicit understanding of the structural contribution of every note. This gives them a model of informed musical experience that remains valuable as they move to more complex kinds of music. And the fact that their hearing of species counterpoint is influenced by verbal formulations gives a valuable example, early in their experience of music theory study, of the contributions of explicitly formulated theory and analysis to musical experience.[10]

NOTES

[1]Westergaard, *An Introduction to Tonal Theory* (W.W. Norton, 1975). The book contains much more than the counterpoint material that I discuss in this paper: in particular, it moves from species counterpoint to a fine theory of rhythm in tonal music.

The present paper originated as a contribution to a panel, "The Tonal-Theoretical Work of Peter Westergaard," presented at the Society for Music Theory Meeting, Cincinnati, 1991. Each paper on the panel dealt with a particular aspect of the book. My focus on rules for constructing lines derives from the structure of the panel, and does not imply any judgment that other material in the book is less deserving of attention. On the contrary: sustained discussion of the book's many theoretical and pedagogical strengths is long overdue.

[2]Schenker, *Counterpoint*, Vol. 1 trans. by Rothgeb and Thym (Schirmer, 1987), pp. 224-225.

[3]To put the point more expansively: one virtue of Westergaard's A and B rules, apart from the present case, is that the structures created by A rules can be *heard* as the basic motion of the line, even when the line has been elaborated by the B rules (provided the elaboration is sensitive in this respect). But neighboring and passing motions introduced to a second upper line by rule A.3 cannot typically be heard as part of a vivid underlying structure, once the line is elaborated. Thus, in terms of its contribution to a listener's experience, rule A.3 for a second upper line is not analogous to the A rules for other lines.

[4]Westergaard mentioned in Cincinnati that he permits this redundancy for the sake of a subsequent argument about the criteria for choosing between different structural explanations of a line. (The relevant argument is on pp. 64-65). Since I do not use this argument in my teaching, I do not have Westergaard's reason for retaining the redundancy.

[5]David Lewin, "An Interesting Global Rule for Species Counterpoint," *In Theory Only* 6/8 (1983): 19-44.

[6]The same theorists might object to my analytical comments on Figure 1. I would certainly say that those comments represent a *choice* of a way of regarding the pitch structure, but I don't find the results arbitrary or unhelpful.

[7]John Rothgeb, "Strict Counterpoint and Tonal Theory," *Journal of Music Theory* 19/2 (1975): 260-284.

[8]This is also a significant virtue of Schoenberg's treatment of motive, sentence, and period in *Fundamentals of Musical Composition* (London: Faber and Faber, 1967).

Incidentally, when I teach beginning theory, I find it effective to move from Westergaard-style counterpoint to the Schoenberg material. I combine Schoenberg's ideas on the patterning of repetition and contrast with a model of the harmonic structure of a phrase (based on Marion A. Guck, "The Functional Relations of Chords," in *In Theory Only*, 4/6) and Westergaard-derived notions about the linear structure of outer parts. Unlike Westergaard, I leave many aspects of rhythmic structure to the students' intuitions.

[9]Westergaard's textbook includes a provocative discussion of interest and ambiguity in lines (pp. 63-69; 82-87). The material is brilliantly worked out, but I do not use it in teaching. I am less tolerant than Westergaard of structurally ambiguous lines; instead, I place heavy emphasis on the vivid projection of background structure, which usually involves avoidance of ambiguity.

[10]For information on the availability of Westergaard's textbook, one should contact W.W. Norton, or Peter Westergaard (Department of Music, Princeton University, Princeton, N.J. 08544). A teacher who wants to use some of these rules without adopting Westergaard's textbook should credit Westergaard's textbook as the source of the rules—they really are a very distinctive invention—and should inform students of how to contact Westergaard.