Developing Schenkerian Hearing and Performing

Alexandra Pierce

For many musicians, envisioning structural levels is so stimulating, so startlingly satisfying to the mind, that their ears are turned sharply toward a distinctive hearing style—dim at first perhaps, yet strangely familiar and so compelling that it grows stronger and more influential with time and experience.

Numerous graphs published by Schenkerians have a nuanced elegance suggesting that they have been arrived at by a back-and-forth combination of score study with just such a hearing style. But there is little in the graphs and their commentary to connect them with the reality of playing and hearing music, which we know from experience to be a spontaneously freewheeling gambol of focus and of feelingful, imaginative response. Asked how she listens at a concert, a Schenkerian musician replied:

> In no special order, a melody may take my ear, and then perhaps a catchy rhythm; from time to time I may notice where we are in the deeper structure, or focus on some intricate voice leading in a sequence of fifths. And then I may bounce to a surprising texture, or notice a facet of the performer's technique, or a misplayed note, or a dramatic character shift. Or I may slip into reverie, or even a catnap, or speculate on a person nearby, and seem not to hear anything for awhile. Occasionally, at my best as a listener, I seem to hear everything at once, all with an intense clarity yet without focus, and with an emotion I might call elation.

Music theory students are shown techniques for making, reading, and following graphs, and they are taught Schenker's underpinning thought; but the repercussions of all this in their listening and playing are generally ignored or taken for granted. Along the way, they are led to believe there exists a graphing

canon—that a given piece will elicit a single ideal visual rendering which can be judged as correct or not. The very distillation so valuable in a graph at the same time suppresses ambiguity or alternate readings: it takes on the appearance of an awe-inspiring inflexible truism which must be imposed upon listening and playing, though one knows not quite how. The focus of the conversation among adepts tends to be on the symbolizing process rather than on how it translates into sound. Graphing becomes an enticement of its own, useful for begetting other graphs.

If I were asked what I hope for in performing or listening to a piece, I would answer, "As intense a moment-by-moment experience of the foreground as possible." And the purpose of theoretical study for me is the same: to build the capacity to connect vividly and fully with the piece.[1] The Schenkerian approach, fundamental in shaping this motive, has affected my performing, composing, hearing—and, in fact, many nonmusical realms of life as well.

However, I seldom graph passages, and even less often do I graph an entire piece; my work has led me to pose different questions from those that would be put to rest by making graphs. Furthermore, *not* writing graphs helps me keep afloat ambiguities that enrich a context; ironing them out in distilled choices often flattens the soundscape. The process of performing—its immediacy, its "aliveness" to figuration—is just about the opposite of graphing. For a performer, the most "alive" notes are represented on a graph sparsely, if at all, and the significant lower-level occurrences appear as intermittent and isolated, despite beamings and slurs.[2]

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[1]I agree with Charles Rosen that "criticism is not the reduction of a work to its individual interior symmetries, but the continuous movement from explicit to implicit and back again. And it must end where it started—with the surface." Charles Rosen, "Art Has its Reasons," *New York Review of Books* (17 June 1971):38, quoted in Joseph Kerman, *Contemplating Music: Challenges to Musicology* (Cambridge: Harvard University Press, 1985), 85.

[2]In this paper, I use the vertical metaphor of moving down into lower levels of pitch structure as well as the more familiar horizontal metaphor of

When I do occasionally write out a graph, it is notated roughhand to clarify an intricate passage or to make prominent a large-scale progression occurring over such a long time span that I would otherwise probably lose track of it. I sketch at the keyboard, playing—but not writing down—graph-like simplifications of some passages of a piece. But not all passages: I expect myself to catch deeper levels on the fly, without an intricate intervening intellectual process. The sketches are done by ear, quickly, and they tend to change as rehearsals go along and my contact with the piece develops. I imagine that many Schenkerian performers, perhaps most, do not make elaborate graphs of the music they are performing or even consult graphs by theorists.

The point of this sketchy graphing is not so much to denote the structural levels of a piece as to feel them and build feeling into the gesture and sound of performance. By "feeling" I do not mean heightened emotion, or not only that, but a response that engages the whole aesthetic (emotional/physical/intellectual) complex that music and other art forms can evoke. This response—the essential work of performers and the motivation of listeners—is not captured in a schematic paraphrase such as a graph.

In fact, written graphs can impede the development of Schenkerian hearing. It is quite possible to construct a plausible graph by formula—by knowing the probabilities of tonal action and by having seen other graphs—without a specialized hearing style as the basis and without intense inquiry into the specific piece. Such exercises lead musicians away from the piece in front of them, not into it. A recent graduate of a mainstream doctoral program in music theory described his Schenker studies to me this way:

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background and foreground. The vocabulary of inward and outward directions (deeper vs. surface structures) may be felt as either horizontal or vertical or as more purely psychological—as referring to layers of the nervous system (older vs. newer, or lower vs. higher). When speaking of structural levels primarily as abstractions of thought, higher makes good sense, as in Eugene Narmour, *Beyond Schenkerism: The Need for Alternatives in Music Analysis* (Chicago: University of Chicago Press, 1977), 209.

> You just find the right place to put the notes, and you get an A. Consistently I got B's because I was graphing by ear, and that led to certain awkwardnesses. I'd argue with the other students, but the assignments were basically an intellectual—not a listening—exercise. I had a hunch that graphing should affect my piano performance, but I couldn't discover how to connect it up.

One would expect the discipline to have become more helpful to performers by now. The technical language for and about graphing—initial ascents, octave couplings, arpeggiations, interruptions, and so forth—does not translate readily into intriguing performance values. The few really suggestive words that crop up—Furtwängler's *Fernhören* (a visual perspective turned auditory), or "deeper" structure, or "slower" harmonic rhythm—do not provide a sufficient bridge between the complexity of information in a well-crafted graph and the active processes of hearing and performing.

I. Leading Questions

If we are adept at listening for concurrent structural levels, we can hear them even if the performer is not noticing them. But how is the sound of music different when the foreground is consciously performed in the context of its middleground and background? Would we Schenkerians recognize this different sound? By what? What is missing in the sound when other performance values are central? What is this distinctive sound, this distinctive hearing style, anyway? A former music theory student at the University of Redlands, Armond Bagdasarian, dealt with the question this way:

> At times I have to listen actively in order to hear what is there. This is especially true in what I consider to be "unintelligent" performances, where the performer is unaware of the deeper levels or is unable

> to allow them out—even despite himself. (It seems to me that there are performances where the deeper levels are allowed expression though the performer is not aware of them!) However, as my Schenkerian hearing has evolved, I find that the structure and intelligence suggest themselves even in non-active listening. I find this to be especially true in "intelligent" performances and in my own exploration of a piece at the piano.
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> In the actual experience of hearing, I cannot separate flat hearing from Schenkerian hearing. Schenkerian hearing is just hearing: I hear everything on the surface, and I hear what is there on deeper levels.[3]

Is awareness on the part of a performer sufficient to alter the sound? Is "structural hearing" just an envisioned framework—a graph, really—to be kept in the back of the mind while playing? Murray Perahia suggested as much in an interview:

> I've always been interested in singing line, counterpoint, the mixing of lines, and I instinctively felt that theory should be the basis of music. ... Schenker's theory was the only one that I felt took account of line—the long lines that hold the pieces together so that the details can add up. But the key is that for Schenker it's the ear, not the mind, that's the guiding principle. ... Schenker is a framework that I keep in the back of my mind. ... I feel I become more free, not less, when I'm aware of these structures

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[3]Where both first and last names of students (or former students) appear, the quotations are cited (with permission) from responses to a questionnaire, circulated in the spring of 1994, about their individual progress toward Schenkerian hearing. Where only first names are used, the students are fictitious, often composites of many teaching encounters.

> because I get away from the pedantry of measure-by-measure and into something bigger.[4]

How does one keep the framework in mind? Wallace Berry suggests that studying the framework precedes rehearsal and forms the basis for "subtle decisions of articulation and, perhaps, modulations of tempo calculated to make the continuities clear to the listener" and that "the awareness of deep structures can guide a performer's conduct through a piece, affording a rational perspective that can ultimately become intuitive in the interpretive realization." In other words, a pianist who repeatedly thinks over and plays Berry's graphings of the Brahms Intermezzo Op. 76, no. 4[5] will at some point find these graphs convert from schema to insight—from "concept to percept."[6]

Is not this approach too forcibly intellectual, too distant from the musical and physical actions involved in performance to attract the interest of most singers and players? Is there some kind of Schenkerian work that is valuable in rehearsal itself? What playing technique is needed to render a Schenkerian performance? What does it feel like in hands, arms, and trunk? Can it be described and educed when coaching performers?

Graphing brings deeper levels out to the surface of one's attention, but playing and listening need to fold them back in. Concepts and analytic strategies themselves need to fall into the background. How, then, can a felt understanding of Schenkerian principles be developed—one that creates a fluid, inner-mind graphing that neither consumes nor forces the attention but becomes part of rehearsal, performance, and listening?

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[4]*New York Times,* 3 April 1994, "Arts and Leisure" section.

[5]Wallace Berry, *Musical Structure and Performance* (New Haven: Yale University Press, 1989), 65. The Intermezzo in B♭, Op. 76, no. 4 is discussed on pages 45-82.

[6]Arthur Berger, "New Linguistic Modes and the New Theory," *Perspectives of New Music* 3/1 (Fall/Winter 1964), 1-9.

II. Movement as a Schenkerian Discipline

What kind of understanding—or, more broadly, what kind of activity—can bring the background into more vivid expression in the foreground? Many approaches are possible.[7] Mine has been the development of a kinesthetic experience of structural levels: listening, playing, and singing, of course—but especially moving large muscles to step, sway, lean, or stretch to a musical passage. The kinetic work, which precedes conceptual work and continues to accompany its later stages, is itself "Schenkerian." It is the topic of this paper.

Our own physical and psychological structure, and its life in movement, is Schenkerian—we manifest structural levels in our daily activity. When we walk, legs swing to articulate the foreground into a series of steps; arms swing in sympathetic counterbalance; trunk and head move simultaneously a slower, continuous line through space—an undivided, more background, progression. Playing the piano, the deft actions of our flying fingers are connected to slower, more generalized swayings of the trunk and are grounded by the supportive contact of pelvis to chair and feet to floor.

An essential characteristic of structural levels in movement is weightedness, graduated from surface litheness to deeper layers of increasing ponderousness. The movement of the background is an anchoring that permits and supports the more articulate foreground action and at its best responds with elasticity and buoyancy to the calls on it from the surface—all the reaching, smiling, stirring of soup, shaping of embouchure.

Bringing to awareness the interplay of movement's structural levels is a kinesthetic education that can coincide with aural education. When one gropes for a more fully realized Schenkerian movement at the same time that one searches for Schenkerian hearing, a reciprocity of yield becomes evident. But

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[7]I would be interested in hearing about explorations of other approaches. I can be reached at (909) 792-8134 or the School of Music, University of Redlands, 1200 East Colton Avenue, Redlands, CA 92373-0999.

a wrinkle of complexity comes here. If we are, say, stepping along with the root progression of the slower-moving bass of a piece, not just *any* stepping will serve the purpose (not, for example, sluggish, embarrassed, stiff, distracted stepping) but a stepping that, by its own process of growing awareness, seeks to become "Schenkerian" and achieves at least an inkling of a vital, reverberant anchoring of foreground in background.

Here is a circle: movement refines listening, which in turn alters the *quality* of movement so that it becomes like music—having fluency, coherence, and shape. Thus, movement to music provides a spiral for transformation—for becoming more fluent, coherent, and shapely in expression. Just as Schenkerian hearing at its best is effortless, intuitive, and available to anyone who listens with acuity and response, Schenkerian movement, already within us, can be honed and focused. Its structural levels can be untangled and therefore made more gracefully interactive.

Improved full-bodied kinetic response to music away from one's instrument is a relatively small step from incorporating Schenkerian movement at the instrument, so that, for example, limpid finger action will arise from reverberant trunk sways rather than having to act against a rigidly held trunk, or one that is flopped and unmoving. I am not referring to an arsenal of crouchings, pumpings, twistings, and facial mannerisms pasted onto playing, but to musically appropriate and physically responsive movement that may scarcely be visible, or if seen is registered as agreeably fluent and committed playing gestures which draw forth the music.

It is possible for each student in a theory class to discover through movement the existence of music's structural levels. For instance, before graphing or describing in words the idea of layers, a movement process might be set up which in itself is informed with structural levels, and this movement process then becomes a research tool for hearing the music's levels.

Movement processes as research and teaching tools

Over the years, by trial and error, a handful of simple movements have sifted themselves out as research tools for

awakening awareness of specific musical aspects. I use the term "movement process" to indicate a stylized, simple, somewhat staged event that is a close equivalent in movement to a musical element. Movement processes can become reliable guides in aural analysis. One can, for example, find phrases by arcing with an arm, ascertain climaxes by a hand-stretch, and discover the middleground progression by stepping the bass. Each process is easy and satisfying to use and will serve an adept as well as a student. The movements invite self-confident and committed expressiveness. Each, though simple, is subject to endless improvement, and is interesting enough to encourage a continuing search for its perfection. Each feels quite new in different compositions. Most important for performers, each can be translated into equivalent movements of playing technique.

A process may take only a few minutes or may last up to an hour. Usually a process relates directly to the performance of a passage from a class member's own repertory and has a very specific point of focus (for example, harmonic rhythm). The payoff is not only theoretical understanding but an improved performance. For a single composition, a series of processes may lead up to the simultaneous experience and expression of several musical aspects.

The use of relatively few generic movements for musical study means that instructions for setting up a movement process for the particular piece at hand can be just a few descriptive sentences. And, since this is not dance or choreography but music theory, the focus is held tight on the piece being explored and on strengthening and refining the sensory, kinesthetic, and feelingful response to the piece. The guidelines for each process are deliberately narrow, yet give some room for spontaneity and imaginativeness of movement within the playing field. Because they often involve working with a partner or in a small group, passivity is gently overcome by the call for mutual peer support.

After setting up a process, I do almost no direct instructing. But I am participating, carrying on parallel research, and thereby am incidentally modeling with my own movement the guidelines of the process. I am also revealing the look of proprioceptive work, of study being carried on from inside the very things

studied—the music, its movement, and my own movement. This active, inner engagement has a quite different appearance from the look of someone who is thinking the matter over or who knows the answer and is biding time until you find it.

A Schenkerian exploration of music through movement has led to a vocabulary somewhat different from that of graphing. It has been useful to identify attributes in the sound when one is listening attentively for structural levels. Four are fundamental:

coalescence
middleground rhythmic vitality
span with climax
tone of voice

To place the four basic attributes in the familiar context of a graph and its conventional vocabulary: *coalescence* is rendered by the fixed, intermittent, structurally important stemmed notes; *middleground rhythmic vitality* is pointed to by the spatial placement of such notes and by beams and slurs. The two of them together create a particular manner of noticing prolongation. *Span with climax* is suggested in a graph but is not singled out and purposefully made evident. *Tone of voice*, closely tied to span, is not dealt with at all in a graph. Each of the four attributes will be addressed in more detail later.

Why new terms? They have proven helpful both to describe and to evoke experience. Furthermore, they call attention to the need for a listener/performer actively to relate structural levels to a felt response—kinetic, aural, and emotional as well as intellectual. They are a vocabulary of perception, guiding explorations of music as well as teaching, and they serve as reference points for measuring what has been accomplished or is yet to be discovered through a movement process. They help me stay the course to animate students' access to Schenkerian hearing and performing.

Rarely do I use these terms out loud before we have done the processes—that is, before evoking the experiences on which they are based. We are finding individual connection with the music: not "it makes me think of..." or "it makes me feel

like...," but attention and response to the music itself—*its* melody, phrases, harmonic progressions, beat, and so forth. This aural/kinesthetic experience of connection is the heart of both performing that can stir an audience and intelligent musical understanding.[8]

After a movement process is completed, time is given for discussing what was noticed. The conversation sometimes is by the entire group, more often privately in pairs, which lessens the temptation to say what one thinks the teacher wants to hear. The reflection, questioning and conceptualizing tend to be aurally based, discerning, involved, curious, because discussion springs from experience. It has a way of being spontaneously expressed in words and short phrases that are imaginative and immediately meaningful. Since students have now found their own ways of verbalizing what they are hearing, there may be no need at this point for my terms.

Two other musical attributes, metric foundation and melodic contour, also lend themselves to movement exploration. They are, in my experience, essential preliminaries to the others. The aliveness of harmonic progression—its rhythmic vitality—depends on the supporting aliveness of its beat. And if contour is not shapely, harmonic rhythm has nothing to buttress; it becomes so many vertical supports without a building to hold, and the stepping of harmonic change will be chunky, the motion between chords unvaried or nonchalant rather than impelled. Developing the skill to recognize these attributes when listening, and to transmute them into second-nature performing, is the task at hand. The four fundamental attributes will be discussed first, then the two preliminaries.

My discussion follows this order: the attribute is considered first as a musical quality, then as a movement quality familiar in

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[8]"Like Hamlet's, our world has become sicklied with thought. We do not refer to our own experience but to our overwhelming legacy of the conceptualizations of others. ... If our actions derive ultimately from our beliefs—i.e., our *concepts*—we are forever manipulating a world we do not directly perceive and therefore cannot know." Charles V. W. Brooks, *Sensory Awareness: The Rediscovery of Experiencing* (Santa Barbara: Ross-Erickson, 1978), 6-7.

daily life, and finally as a stylized movement process useful for understanding and connecting with the attribute in a musical passage. (A single movement process, *stepping*, serves to elucidate both coalescence and middleground rhythmic vitality.)

III. Four Fundamental Attributes of Schenkerian Sound

Coalescence as a musical quality

Coalescence describes the urge of structural chords' member notes to fuse into vertical units, to stand in relation to one another—in a way, to stand still in consciousness. In the midst of enticing figuration, the chord-notes nonetheless cohere—but not as formless clumps. In their very binding to the vertical, the chord-notes are poised for action. With each further step along the progression, the surrounding musical situation jiggles into a new ordering.

Coalescence is as easy to see in a graph as it is difficult to grasp and keep vivid in listening and especially in performing. We see the standing still, we hear the activity. One's ear—one's performing attention—tracks along with the spinning out of notes and get ensnared by their demands.

> When Sylvia played for the theory class the slow opening of the second movement of Saint-Saëns' Sonata for Oboe and Piano, Op. 166 (Example 1), she was so caught up with intonation, breath control, embouchure, and the call for cadenza-like freedom that she actually had not *heard* the I chord coalesce through the first measure, or the III chord in the next. Nor had she noticed these chords verticalized below her—rolled, then sustained, by the pianist, Drew. These sounds had been merely generalized cues, saying, "Now *you* play."
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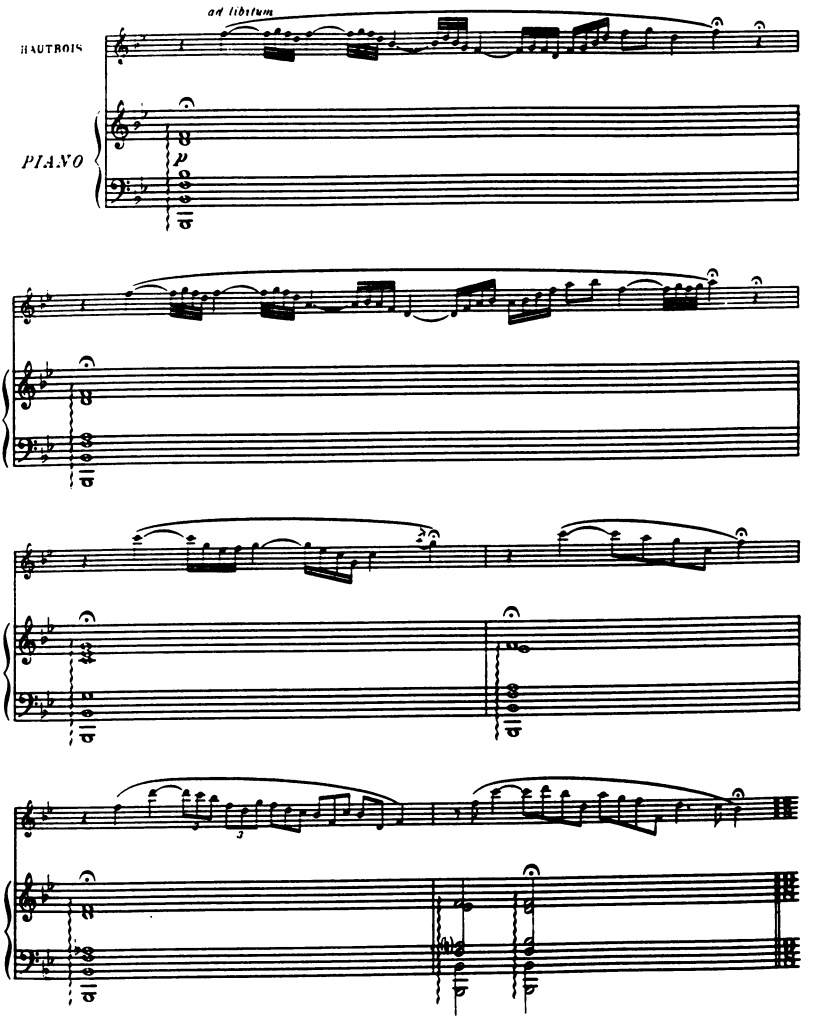
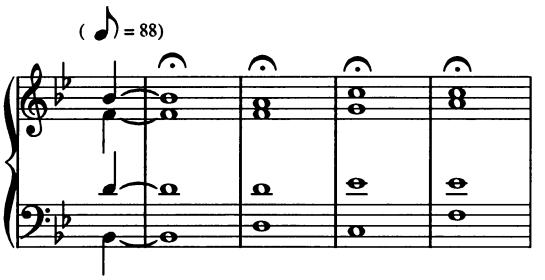
> To help the players sense coalescence in this passage, the class sang sustained chords while both

Example 1. Saint-Saëns, Sonata for Oboe and Piano, Op. 166, second movement, mm. 1-6



Sylvia and Drew played the grouping on I and then the grouping on III.[9] The class was accustomed to casting such "aid-chords" in four voices. Giving consideration to the composer's spacing and also to what would be readily singable, they decided on spacing that could maximally help both players become aware of the triadic notes tuning to each other and mingling. They agreed on an initial rhythmic placement and on a tempo for the eighth-note pulse, then chose a conductor who could encourage them to give the chords body and intention from their very onset and to maintain a roundness of tone until the pianist cued their shift to the next chord. (See Example 2.)

Example 2. Saint-Saëns, mm. 1-4, the sung "aid-chords"



Having decided that these four chords form a first harmonic grouping, Sylvia and Drew several times rehearsed the I, the III, the ensuing II, and the V^7 against their sung backbone. They were able to keep the stability of each chord in their ears as the oboe ornamented it and as the piano sound decayed. The

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[9]"Measures" 1 and 2, but notice that bar lines in the passage are not metric.

exercise simplified the passage and made it comprehensible for the listeners. It opened for Sylvia a more convincing abandon with the figuration and gave Drew a more engaged focus on the presence of each chord throughout its envelope, despite the piano's fade.

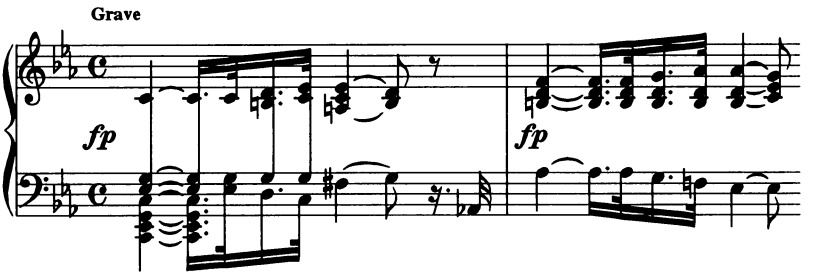
Middleground rhythmic vitality as a musical quality

While coalescence calls attention to the contrasts between scale-steps in a progression, middleground rhythmic vitality refers to their continuity. It depends on the specific energy of motion from step to step and on the specific durational pattern of the progression. The energetic quality of continuity is nuanced by the specific "pull toward" or "release from" middleground chord to chord, which creates a running commentary of shifting momentum shapes and imparts an individuated durational life to each bass step.

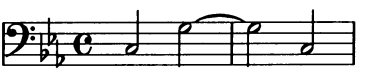
Rachel was working on the opening two measures of Beethoven's "Pathétique" Sonata, Op. 13 (see Example 3). The class had helped her realize that the fundamental bass progression could be simplified, both harmonically and temporally (Example 4). She was then asked to fill in the chords, keyboard style, and to play them. At first, she just flapped them out—four plain-faced verticalities, not much to be cared for until they had achieved a composer's setting. In being apprehended as raw material, the chords were also being consigned to blandness, orphaned from tonality, their potential for movement uncast (Example 5).

A classmate urged Rachel, "Why not play these three chords as if they *moved*, one to the next, and as if they *were* the composed piece? Really go for the syncopation, really let the V become dissonant as it carries over the bar line. Pick up the tempo, too, so it's easier to feel."

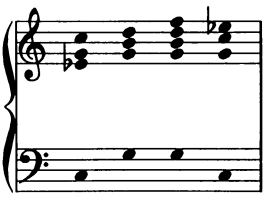
Example 3. Beethoven, Sonata in C Minor, Op. 13 ("Pathétique"), first movement, mm. 1-2



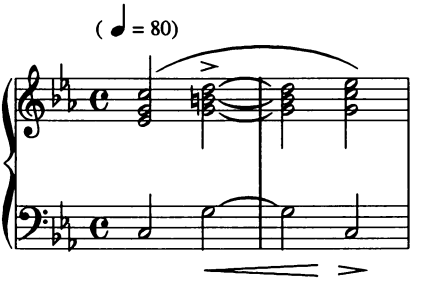
Example 4. The simplified bass



Example 5. The underlying progression as four "flapped-out" chords



Example 6. The underlying progression played musically (energetic intensities marked)

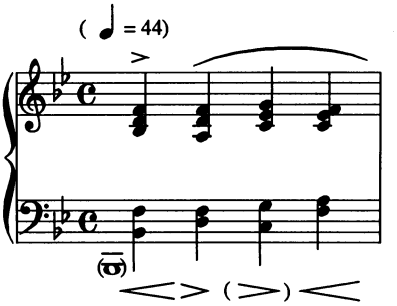


Rachel was instantly able to internalize the progression and play it as if she had the piano technique and playing gesture somehow already within her. It had taken just the spur, "be musical." Now as she played Beethoven's opening measures she could sense and hear the figuration tuck into the three-chord progression. She felt the continuity of the motion and also felt the shifts in energetic intensity. (See Example 6.)

Later she gave some serious thought to her habits of practicing. She was accustomed to working daily on scales, arpeggios, and simple cadential progressions to acquire agile hand placement, speed, accuracy and evenness of attack. She had always assumed that this technical work would give her neutral building blocks that could be transplanted from piece to piece. She decided she would no longer isolate technique and practice it without listening for and seeking to have audible its inherent musical life and especially its middleground rhythmic vitality. No more neutrality.

When Rachel had finished her work with the Beethoven sonata, the class wanted Sylvia and Drew to try something similar with the Saint-Saëns—to focus on the continuity of its chords, one to the next. Drew lifted out the I-III-II-V^7 progression and played it several times as if it were a series of quarter-note chords opening a Bach chorale (Example 7). He listened for its sense, its musicality. He and Sylvia were surprised to hear that the chords contained already-informed shifts of energy; they didn't need the foreground figuration for this distillation to sound satisfyingly musical, if spare.

Example 7. Saint-Saëns, underlying progression played in chorale style (energetic intensities marked)



Shifts in energetic intensity are roughly indicated on this and other examples by dynamic wedges which refer to felt directionality coupled with restraint. (They are offered as possibilities for hearing, but not the only ones.) I do not mean to suggest that middleground rhythmic vitality is rendered by decibels only or even particularly; there are many other dimensions of playing which can reflect dynamism and momentum—rubato, articulation, tone quality, intonation, among them—what could be generalized as the performer leaning forward into the phrase or relaxing back a bit. Good performers develop a personal fund of momentum-shaping gestures and apply them subtly and almost unconsciously once they are able to hear the need for them.

> Sylvia and Drew played again and developed their rendering of the shifting flow of energetic intensity: a slight drop just before the I folds into the III, a hovering on III, and a gradual build through the II to the V^7. What for Drew had been a pecking at—then idling on—a string of chords was now a game of linkages, of finding just the appropriate intensity-shifts along an unbroken path, while at the same time consciously hearing each chord's coalescence and, in a sense, its reluctance to give way to the next. A

classmate commented, "He's found the *wit* of the passage."

Along with these nuances of continuity emerges an awareness of a specific durational pattern in the middleground progression in a piece. Where—in time, against the existing beat, and within both measure and hypermeasure—do the steps of this progression occur?[10] Structural notes on a graph are notated arrhythmically even if they are, in some graphing styles, embedded in a context of measures and hypermeasures. Structural notes are, of course, abstractions which never actually happen in the real time of the foreground or do not happen so succinctly as a note with a specific duration might indicate, but the exact occurrence of structural notes within meter becomes an integral aspect of performing. We are surprisingly able to feel the length of a structural chord, to find precisely where we can resist no longer and must move on to the next root. As we feel the arrival of that root, we catch the part it plays in forming a particular harmonic rhythm which has a distinctive motoric quality.

When one delves into the structure of a composition by ear and by movement, one often starts by responding quite near the surface, simplifying only figuration or neighbor-chord elaborations. As contact with the piece is strengthened, one gradually drops deeper. One might, for example, pass through several stages of hearing harmonic rhythm in Chopin's Prelude No. 7 (see Examples 8 and 9).[11]

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[10]Middleground rhythmic vitality is shaded in this Saint-Saëns movement by the recurring tonic pedal point and by the fact that the eighth-note pulse is the only level of meter (that is, of symmetrically recurrent durations). Even this eighth-note pulse is attenuated by fermati (except in m. 5). Lengths of measures are irregular; there is no hypermetric grouping.

[11] I doubt that a theory student would arrive with conviction at level C by "eye-balling" the piece to make a graph. At the surface, the first eight-measure phrase is so strongly unified that it is difficult to conceive how it coheres with the next eight measures—how it can become a smaller part of the sixteen-measure whole. Coming to a piece's deeper structure through hearing and movement processes may mean starting with a more obvious level than would

To catch the durational pattern—the motor quality of the bass, what would loosely be called its rhythm—takes more than mere notice of its existence. The pattern has a kinetic inner life that can be realized through moving, singing, and playing. It is helpful to work with the bass harmonic progression in diminution so that it takes on the feel of a surface rhythm, which players already know how to practice (see Example 10).[12] However, ear-training colleagues will recognize the remaining need for capturing the kinetic pith when they recall how common it is for students, when asked to "ta" or clap the rhythmic pattern in a passage, to turn it arrhythmic, flatten and take the life out of it, and incorporate small but significant inaccuracies that shave off or bloat the value of various notes.[13] They are often not skilled at recognizing and fostering the rhythmic coherence of the passage as a musical grouping.

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be necessary when working visually. However, awakening to the structure by degrees, each of which has been felt kinetically, helps in maintaining a vital relationship with the piece throughout the analysis; and it prevents one from jumping to conclusions.

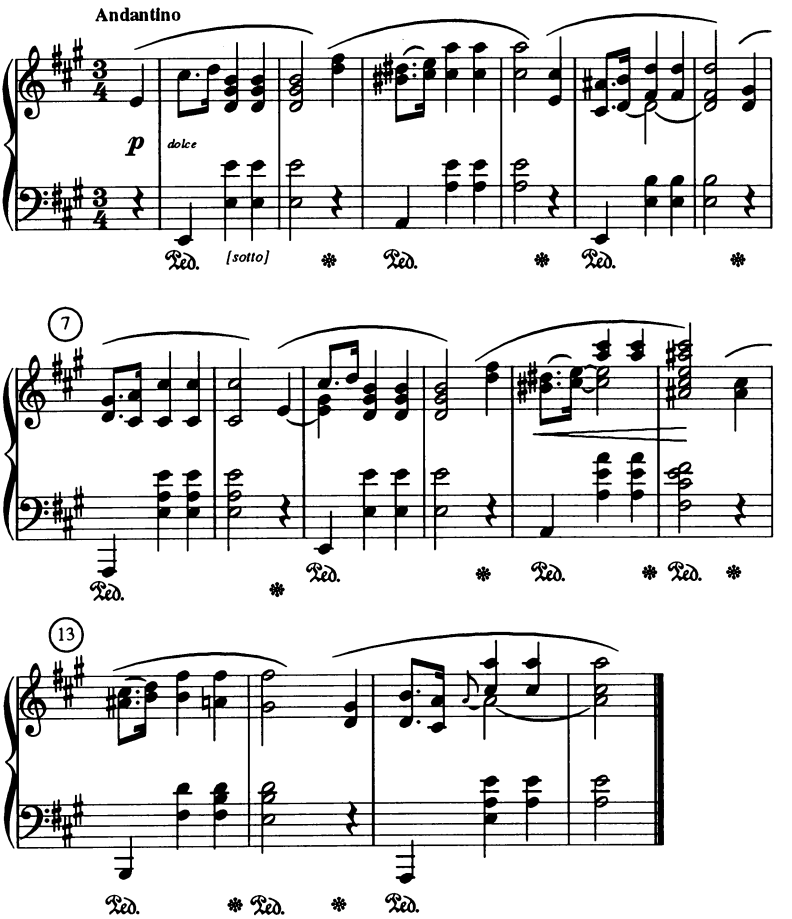
In this paper, the stages from surface to depth to denote increasing simplification of harmonic rhythm are termed "level A," "level B," and so forth, but I am not concerned about matching these levels with the stages of foreground and middleground shown in, for example, Schenker's *Five Graphic Analyses* (New York: Dover, 1969).

A written graph would probably further simplify the progression in mm. 9-16, at the least embedding the applied dominant of II. The A♮ (in m. 12) is, however, the first outpost of the piece's individuality and urges response which impels movement of the bass to F♮; this, in turn, impels a resolution to B, which then links into the deeper-level cadential progression, E to A (mm. 14-15).

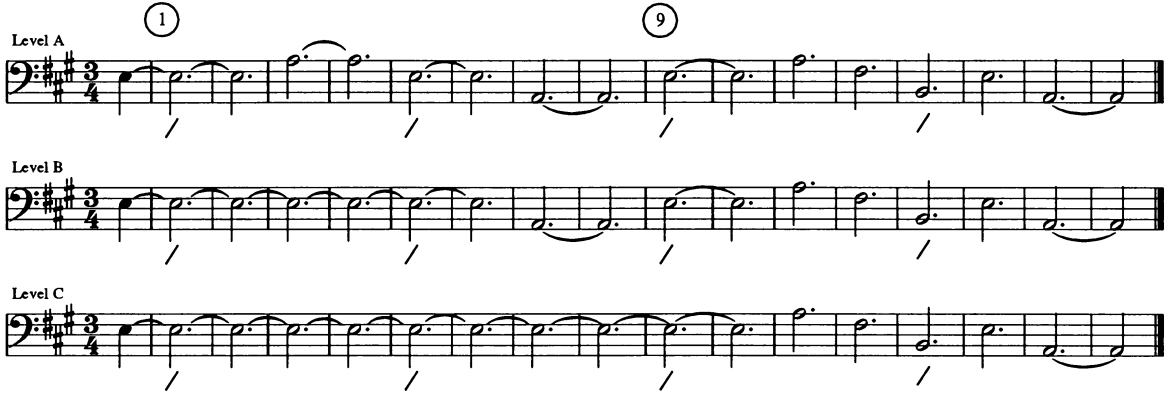
[12]Howard Cinnamon uses durational reduction to clarify rhythmic analysis in "New Observations on Voice Leading, Hemiola, and their Roles in Tonal and Rhythmic Structures in Chopin's Prelude in B Minor, Op. 28 No. 6," *Intégral* 6 (1992):66-106. See also Carl Schachter, "Rhythm and Linear Analysis: Durational Reduction," *The Music Forum* 5 (New York: Columbia University Press, 1980).

[13]*Arrhythmia* is a term Jaques-Dalcroze used for disconnectedness in durational patterns, as opposed to *eurhythmia*, where the temporal relationships between notes have bend and life. Cf. Stephen Moore, *The Writings of Émile Jaques-Dalcroze: Toward a Theory for the Performance of Musical Rhythm* (Ph.D. diss., Indiana University, 1992).

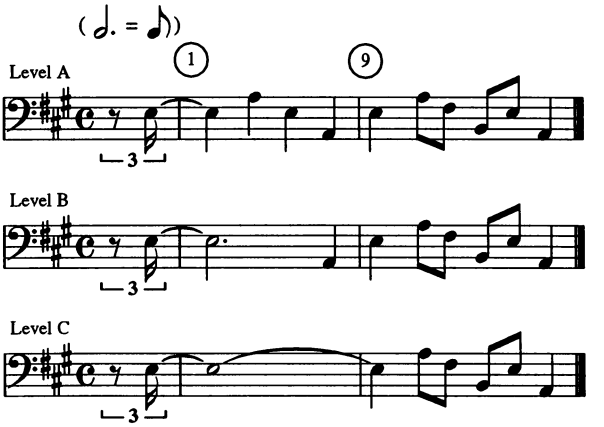
Example 8. Chopin, Prelude in A Major, Op. 28, no. 7



Example 9. Chopin, middleground bass (three levels, starting near the surface), four-measure hypermeter indicated



Example 10. Chopin, middleground bass in diminished note values (three levels, starting near the surface)



Coalescence and middleground rhythmic vitality as movement (stepping)

Coalescence and middleground rhythmic vitality are two sides of one coin. The attention-weighted, gesture-weighted *presence* of each chord takes place at the same time that one is responding to its onward motion through a progression. As a stage of learning, it is helpful to focus awareness on one side, then the other, though the goal is to develop hearing that is sensitive to both at once—the singularity of the chord and its contextual motion.

Coalescence in physical movement refers to the weight of the body as it *settles* into an integral stage of action or gesture. Middleground rhythmic vitality refers to the manner in which weight *passes* continuously throughout an action, its energy intensifying and diminishing, setting up a pattern in time. To elucidate middleground rhythmic vitality at a level appropriate for performance focus, *stepping* is simple and effective. In the process, coalescence is also clarified.

Steps directly forward and backward follow the root motion of the progression (except in cases like the cadential II^6, where $\hat{4}$ is stepped). While singing the bass, the feet place imagined noteheads on a broadly-spaced imagined bass staff on the ground. For the imagined intervals of the upward fourth or downward fifth, the forward and backward strides are longer than those of a normal walk, say two or three feet; they are somewhat shorter than a usual walking stride for the interval of a second (as between IV-V, or the occasional I-II). The spread of the steps varies with the context—approximating and playing responsively with the music. Tonic is sensed as a particular place on the ground (usually the starting place), but there is no attempt to keep the spot objectively exact with each return to tonic. There is no sideways motion.

With the help of stepping, one is searching for the best level of harmonic motion on which to center attention—the one that seems to suit the piece best—through which the piece can be most tellingly performed and heard. This is a search not just to identify the fundamental bass progression but to hear, move, and feel its step-by-step coalescence and its middleground rhythmic vitality—its occurrences within measure and hypermeasure, and its qualities of shift, melt, or pull from chord to chord.[14]

The question to ask is, "At what point *must* I move: where must I shift my voice to another pitch of the basic progression, where must I accomplish a weight-shift to the other foot?" Often, after a start close to the foreground, it becomes evident that certain progressions are best embedded within larger units. With growing experience of the context, a definitive bass progression settles in for a section or piece, frequently a fusion of various middleground levels into a single prevailing level. I call this the

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[14]In a complex passage, a development section for instance, the lower-level bass progression feasible for kinetic involvement—for placing and sustaining pitches with the voice and for stepping its durational pattern of change—may need to become more melodic and be formed as a combination of chord-roots and bass notes from inversions. Such a bass progression is arrived at by ear and by improvised experiments with stepping. Score-study, which of course may suggest some further improvements, would come after the aural/kinetic decisions have been made.

"salient harmonic rhythm."[15] In a given piece, it is sometimes closer to the surface, sometimes closer to the background, depending on the passage. The most satisfying level—like Goldilocks' preference of bowl, chair, and bed—emerges by trial and error because it has the best fit for the body and ear. It feels natural: the ear can awaken to the progression, can grasp it and follow it and not be bamboozled either by overlong stays on one chord or by hard-to-follow complexity. The movement of stepping can retain buoyancy yet at the same time have its capacity for balance challenged as a particular chord may coalesce, holding power for a relatively long time and yielding ever so gradually.

To achieve the improvements in sound that will encourage performers to continue Schenker studies on their own, various simplifications are useful. One is to focus on the bass and to work less with the structural line of the melody, especially in its deeper-level unitary downward motion to tonic. Both singers and instrumentalists, even pianists, can be surprisingly unaware of the bass at any structural level. Drawing them to its underpinning activity at the easier-to-hear, slower-moving middleground levels usually gains fruitful, unlabored changes in their shaping of melody. The simplification to the ear offered by slower-paced progression often rewards students quickly with a boost to morale, since they can actually hear harmonic motion and can respond to it. One student, Heather Hanson, wrote that "it was like walking into a rainbow instead of just watching it."

For specifically coming to hear and understand the deeper-level groupings of foreground melody, I suggest finding by ear a simplified version underlying it, one which moves pretty much step-by-step against the bass—the "folk song" behind the piece. It can be sung while stepping the bass, or it can be played by one student (with inner voices added freely in keyboard style) while the rest of the group is stepping the bass (see Example 11).

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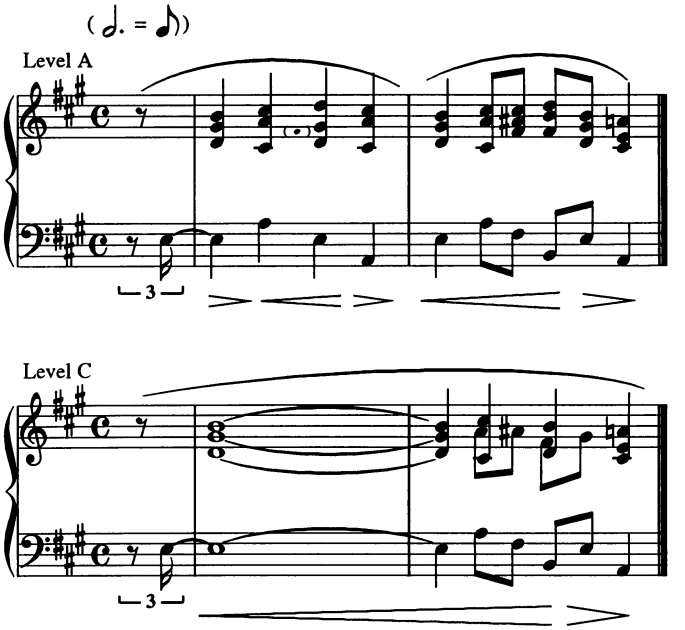
[15]It is important to keep in mind that one's sense of the salient harmonic rhythm may change as familiarity with a piece grows.

Example 11. Chopin, middleground bass (levels A and C) with counterpointing melody (energetic intensities marked)



The stepping action, effervescent in passing the body through space while containing a series of focused contacts with the ground, is a simile in movement of melodic-harmonic progression, which makes "horizontal" passage across strong verticalizing moments that break it into lower-level chords. However simple this stepping dance may be, it makes the same demands on the body as the hearing of embedded melodic-harmonic progression does on the ear. From the moment the music begins, weight passes continuously through the entire body from step to step, centering itself (coalescing) on footfalls. The horizontal motion of weight is registered especially strongly when the body changes direction: pivoting from forward to backward and vice versa calls for a propulsion of weight and, at

the same time, a restraint of momentum so that the next footfall is timely.[16]

The beginnings of performance phrases,[17] where the harmonic motion is slow, call for highly focused muscular control: a lingering shift of weight from footfall to footfall, mimicking each prolongation and subsequent progression exactly. The movement looks and feels like slow motion. Toward the end of a performance phrase, where the harmonic motion is comparatively rapid, the stepping movement is the more familiar one of a spirited walk. This presents its own challenge: walking is often habitually hurried or dispirited, with weight stiffly withheld or drooped and without the free flexibility needed for a playful response to music. A happier walking style can be discovered in the search for harmonic rhythm in a musical context. The music makes its demand for quality of movement.

> Jonathan was helping Drew hear and perform more clearly the progression and the momentum of the middleground harmonic motion in the opening four-measure phrase of the slow movement from Haydn's Sonata in A♭ Major, H. XVI:46 (Example 12).[18] As Drew played, and within Drew's field of vision, Jonathan began with both feet planted on tonic and sang the fundamental bass progression while he

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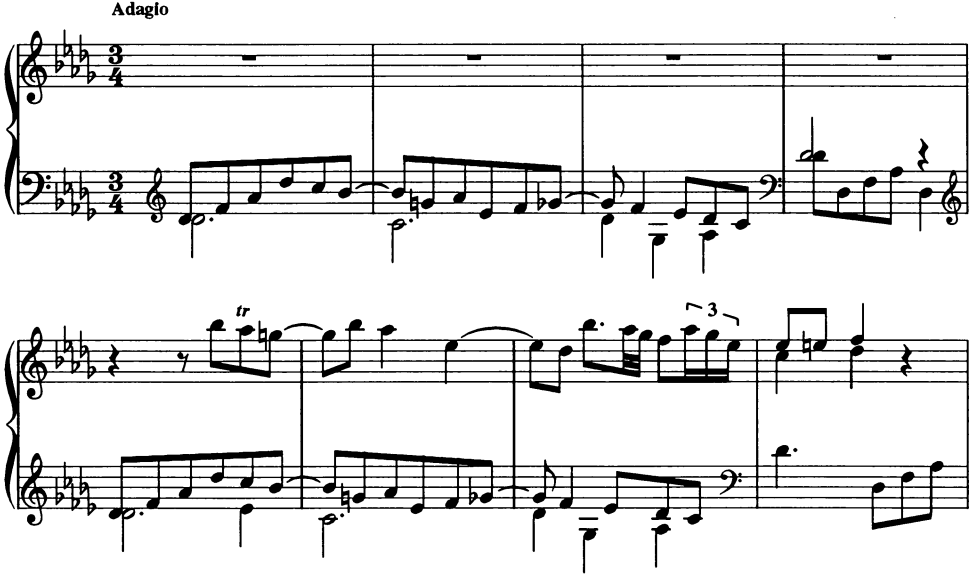
[16]A passage in Martha Graham's autobiography describes her watching for some hours as a lion paced its cage, four steps to one wall, four steps to the opposite wall. Her eye was caught by a particularly reverberant rippling of weight through the lion's body as it changed direction. She was trying to capture this "strange and powerful way in which he moved" as a resource for her modern dance technique, based as it is on a grounded fluidity of weight-shifts. Martha Graham, *Blood Memory: An Autobiography* (New York: Doubleday, 1991), 104.

[17]Performance phrases are the phrase-lengths that best speak the piece and are the most telling focus for the performer's attention. Finding the salient harmonic rhythm is preparation for the later stage of determining where the performance phrases are.

[18]They had not yet decided whether this constituted a performance phrase. They were first trying to understand its harmonic structure.

Example 12. Haydn, Sonata for Piano in A-flat Major, H. XVI:46, second movement, mm. 1-8



stepped its pattern, letting his feet and voice reveal the progression.

This stage took several repetitions before it was securely and gracefully executed. Jonathan's attention was deliberately diffuse. He was searching not only for the essential harmonic progression but for the direction of stepping, whether forward or backward.[19] Drew, meanwhile, was playing and keeping his ears and eyes fcocked toward Jonathan's voice and movement. At first, there was much hesitance. Where was that bass? Example 13 shows their first discovery.

Jonathan stepped the bass (see Figure 1). At first his stepping felt awkward—some footfalls abrupt, some flaccid—but with repetition the wake of each step found its way to spread across flexible knee and hip joints into a responsive trunk and neck. Along with this full-bodied fluency, the arrivals on each footfall acquired a stark, if momentary, focus—coalescence. It felt like a newly-learned dance step.

From the quality of movement, they could recognize that they were still close to the foreground. It didn't pull, especially at the beginning of the phrase; it felt too much like a regular walk, almost a saunter. Nonetheless, some clarification of hearing, moving, and playing had taken place. From a chain of eighth-notes, a few verticalities which were slightly hidden within the arpeggiated chordal figuration had coalesced and now formed a durational pattern with some intrinsic interest. They found that "ta-ing" this pattern a few times focused their awareness on it (see Example 14).

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[19]The direction is often suggested by the voice—by its range and by what it needs to do to simplify intervals so that the pitches can be caught. In later reflective analysis, it can be worthwhile to ponder how the notated registers and an "obligatory register" for the cadential tonic compare to the directional pattern of stepping that has evolved for the piece. Such reflection may result in an alteration of the stepping pattern and then the "learning" of this change.

Example 13. Haydn, Sonata for Piano in A-flat Major, H. XVI:46, second movement, mm. 1-4, simplified bass

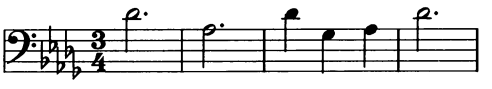
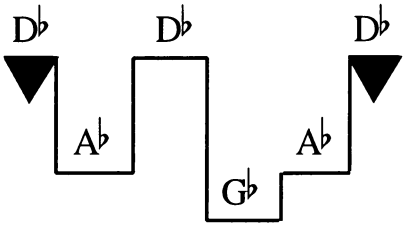
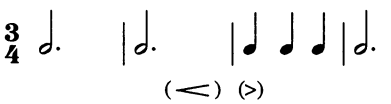


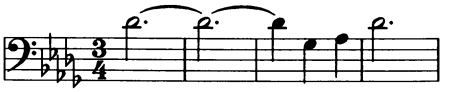
Figure 1. Jonathan's stepping pattern (directly forward and backward, not sideways)



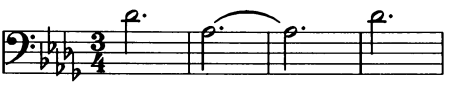
Example 14. Bass durational pattern (spoken on "ta")



Example 15. Jonathan's hearing



Example 16. Drew's idea



Drew and Jonathan were ready to search for a deeper level. As Drew played the phrase, Jonathan settled voice and stance onto the opening tonic and (feeling an immediate rightness) arrived at Example 15. Drew, eyeing the score, saw another possibility (Example 16): A♭ is a common tone for I and V and could be prolonged during the entire third measure. He wanted to test whether this felt better, and they gave it a try. The movement was clumsy, and the playing didn't gel: there was a weakness that felt wrong at the start of both measure two and measure three. They returned to their previous choice of middleground. Sylvia came in and, while stepping the bass with Jonathan, improvised a simplification of the melody (Example 17).

What to do with the second four-measure phrase, which appeared to repeat the first with an added contrapuntal voice? They had a hunch that the eight measures formed a single performance phrase, and planned to check this out later. Meanwhile, they were curious how the two almost identical four-measure components could be subsumed into a single harmonic progression. (Most graphs would leave out the repetition.)[20] Drew realized that he needed advice on performing this opening convincingly; he was bringing the first four measures to a complete halt and sounded as if he were starting the piece all over again with measure five.

When Drew, Jonathan, and Sylvia explored with singing and stepping, they found themselves easing the first cadential progression by leaving out the IV scale-step. And, by holding over the tonic from measure four to five, they gained an entirely different energetic intensity at the joining of end to beginning. This

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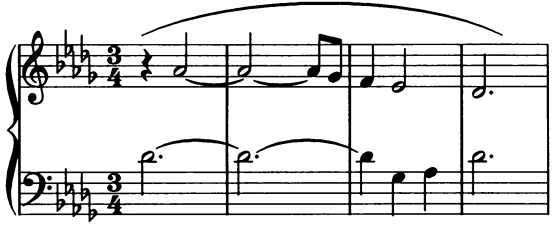
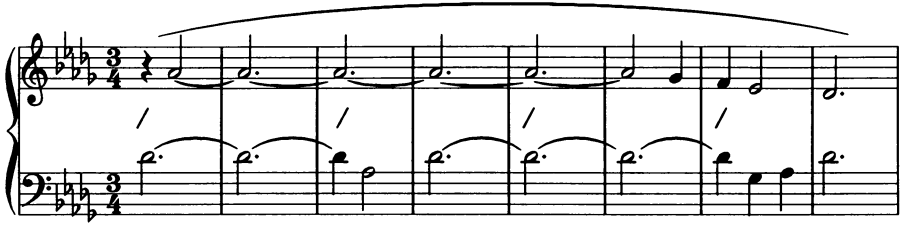
[20]In such a graph, the issue of how to deal in performance with the seeming equality and finality of the two phrases goes a-begging

Example 17. Haydn, Jonathan's version with Sylvia's counterpointing melody



Example 18. Haydn, mm. 1-8, salient harmonic rhythm, two-measure hypermeter indicated



created a syncopation at the two-measure hypermeter. Sylvia's middleground melody hovered on A♭ until measure 6. In Drew's playing, the passage made sense at last (see Example 18).

Coalescence and middleground rhythmic vitality in a non-musical context

For a somewhat different perspective on coalescence and middleground rhythmic vitality, we can take the sequence of discrete actions in the pole vault as analogous to the performance of a progression of structural chords, breaking the pole vault down into (1) a running approach, (2) the thrust of the pole against the earth, (3) the swing upward of the body, (4) the twist over the crossbar, and (5) the fall to a landing.

> Tom, the track coach, was picking up on the disorganized, lackluster look of Jonathan's pole vaulting. This want of full engagement was reflected in a specific tension problem: Jonathan drew up his shoulders just as he started to run. The unnecessary tension, withholding arm and shoulder weight rather than using it appropriately, inhibited his initial momentum and the power of his pole-thrust. The remainder of the action suffered in a string of consequences: the swing up, twist over, and even the landing appeared tight and forced. Jonathan frequently bumped the crossbar.
>
> Tom directed Jonathan's attention to the counter-productive shoulder tightening and showed him how to release shoulder weight at the start of the run—a matter mainly of sensory awareness. He offered some suggestions for gradually unseating the habit.
>
> Next, Tom directed Jonathan's attention to the successive stages of the action, differentiating them in order to have each effectively serve its particular function. At his suggestion, Jonathan gave short names to the main parts of the action: *run*, *push off*,

swing up, arc over, land. He had Jonathan sit quietly and visualize the whole action, dwelling on its successive parts while naming them aloud, and then, still visualizing, approximate their real-time occurrence and imagine the shifts of effort and energy they underwent. Jonathan pictured the run as it wound up out of stillness to gain full speed, then the run modified by the upper trunk motion as he leaned backward to thrust the pole forward against the earth, then the shift of intensity as his body pushed off against the pole's leverage, and so forth.

Finally, Jonathan practiced the action, naming the parts aloud as he moved and committing himself aggressively, one stage at a time. He was aware of giving his weight differently to the particular demands of each stage; he was better able to concentrate, thinking neither ahead nor behind. Tom worked with Jonathan to find how he could best control the passage of weight through his body to accomplish the shifts of effort required within and between stages while maintaining continuity. Jonathan discovered that with the release of shoulder tension he had more flexibility in making each stage serve its specific function. The final vaults of the workout showed marked improvement, with more power and definition.

Jonathan's friend Sylvia, the oboist, happened to be watching him practice. From her recent experience with the Saint-Saëns sonata, she realized that, though Tom was not using these terms, the movement qualities he seemed to have in mind during the coaching session resembled coalescence and middleground rhythmic vitality.

Span as a musical quality

A third attribute of Schenkerian sound is span, the elasticity of the foreground as it pulls away from the background.[21] Span exists at each nested level of phrase, but for performers is most usefully observed at the level of performance phrases, the phrase lengths that best speak the piece and are the most telling focus for a performer's attention. Span spreads across phrase through all its filaments, pulls itself out and around a climax, and accedes almost reluctantly to the process of cadential resolution.

Climax, the most intense area of a performance phrase, usually forms around a still more intense individual node, a peak for the phrase. Span depends on climax, where the integrity of a phrase becomes fully established and where its motivation, present all along, becomes fully articulate. One test for locating the performance phrases in a piece is to see whether a convincing climax can be felt in each. If not, the phrase level chosen may be too small to have developed compelling harmonic motivation, or too long to sustain the elasticity of a single harmonic-structural purpose.

Climax is more complex than is often assumed.

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[21] See Alexandra Pierce, *Spanning: Essays on Music Theory, Performance and Movement* (Redlands, CA: Center of Balance Press, 1983). The term "span" is borrowed from Dr. Ida P. Rolf, the founder of Rolfing, a discipline based on aligning and integrating physical structure in the gravitational field. She used the term to describe the resilience of fascia (the lining of muscle tissue) when the body is in effective organization around its vertical axis. Bodies are often "randomized"—out of balance within the gravitational field—from poor postural habits of sitting, standing, and moving, from an inactive life-style, or because of physical or emotional trauma held in postural and movement patterns. See Ida P Rolf, *Rolfing: The Integration of Human Structures* (New York: Harper and Row, 1977), 39.

The term "span" is also informed for me by the climactic image of Eichendorff's poem "Mondnacht" as set by Schumann in No. 5 of *Liederkreis*, Op. 39:

Und meine Seele spannte
Weit ihre Flügel aus,
Flog durch die stillen Lande,
Als flöge sie nach Haus.

In *position*: it is not necessarily a pitch apex, and can occur anywhere in the phrase, even at its very beginning or very ending.[22]

In *size*: it may be distilled as a single note or continue over several notes, and may include the vertical dimension (simultaneity) or just the horizontal (melody). It often occurs between notes.

In *structural level*: climax is found in the intricacy of the foreground as an ornamenting dissonance. Often its notes do not appear in a graph.

How is span different from the continuity identified earlier as an aspect of middleground rhythmic vitality? Span is indivisible. It depends on the melodic-harmonic progression whose chords coalesce, extend, and then give way to the next in a succession of energetic intensities peculiar to the context. Its focus, however, is on the wholeness of performance phrase—the shapely narrative curve that begins, pursues a full commitment, and finds resolution.[23]

Performance phrase resolutions ride on an unbroken span which encompasses the entire piece. There is a degree of continuity between performance phrases. A kinesthetic contact with this deeper and more pervasive span can be gained through a movement process I call "Slow-Motion Sculptures": from the

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[22]Ernst Toch (among others) uses the term "climax" more narrowly to refer to the pitch apex of melody, by which he means the top of "the last partial wave" of a wave-line. In his view, a melody makes a gradual ascent to its pitch apex, delayed and interrupted by temporary changes in direction and by deflection, iterance, and other rhetorical means. See Toch, *The Shaping Forces of Music* (New York: Criterion Music Corp., 1948), chap. 5, "The Wave Line."

[23]For a more detailed discussion of musical span, see Alexandra Pierce, "Structure and Phrase, Part I," *In Theory Only* 4/5 (1978); "Performance Phrase: Structure and Phrase, Part II," *In Theory Only* 5/3 (1979); and "Climax in Music: Structure and Phrase, Part III," *In Theory Only* 7/1 (1983). For discussion of span in physical movement, see Alexandra Pierce and Roger Pierce, *Expressive Movement: Posture and Action in Daily Life, Sports, and the Performing Arts* (New York: Plenum Press, 1989), 129-194: chap. 9, "Core Support: Mobilizing Strength," chap. 10, "Reverberation: Letting Action Through," and chap. 11, "Phrase: Clarifying Action."

start of a piece to its end, one responds with a single, controlled, very slow motion—a continuously counterbalanced, gradual melt through the entire body, like a sculpture come to life, movement oozing through it, permeating every part at once. The movement responds to—and therefore focuses attention on—this elusive continuity.

Span as movement (hand-stretch)

Span as movement is familiar in the cat-like morning stretch-and-yawn of the full body. Once the stretch begins, it seems to have intentions of its own. The event is an entirety; it continues persistently outward from trunk to limbs, reaches a peak of fulfillment—a furthest extension—and, releasing, recedes inward. The sensation throughout is one of moving against restraint. As in the spanned performance phrase of music, the buoyancy of a stretch depends on reaching its full extent at some point. There is likely to be an uncomfortable sensation of incompletion if a stretch in process is interrupted.

Stretching the hand gradually open to its full extent, replicating on a small scale the morning stretch, offers an easy experience of span. The palm behaves as the trunk of the body, the fingers as the limbs. You can notice the stretch begin in the palm and seem to ooze outward through the fingers as the hand opens wide and flat, then even a little convex to reach its fullest extent. At the peak of the climax the hand seems to be able to stretch a bit further yet, then begins an equally engaged gradual flexion (closing) into the resting position. The spanned stretch is a distinct kinesthetic experience of the narrative curve, with an intensifying of motivation toward climax and then a denouement.

The quality of the movement determines its usefulness in evoking the musical quality of span in a phrase. Stretch routines familiar as part of a daily workout are often done rapidly, without careful sensory monitoring, and with a contraction of both

extensors and flexors. People tend to bump against the stretch, especially at its extreme range, rather than easing into it.[24]

Span offers perspective to immature performers who mistake climax for exaggerated effort—showing how hard they are working or how emotionally transported they are. Rather than an engaged, controlled distribution of weight toward and away from climax, they may hunch up shoulders, tighten necks and wrists, and then apply force to produce a brittle, harsh, or simply unshaped sound.

> Sylvia and Drew, with their French horn-playing, athletic friend Jonathan, were watching a video of his pole vault practice. Sylvia and Drew had just come from a music theory class where they had explored span and climax. They at once pounced on the idea of applying that musical work to the pole vault.
>
> The three friends pondered a bit where the climax of a pole vault would be. Jonathan offhandedly decided it was most likely at the top, just as he cleared the crossbar. Sylvia and Drew were not convinced, and taught Jonathan a hand-stretching movement they had used in class to ferret out the climax of Chopin's Prelude No. 7, with Drew performing. "I hadn't thought about climaxes particularly," said Drew. "I'd been concentrating on other things—tone quality, voicing the top melody, and just plain old notes. At the beginning of the movement process, it seemed likely to me that the $F^{\sharp 7}$ chord was a climax. I thought there would probably be a climax for the first eight measures, too, but wasn't sure where. I played the prelude three or four times while the others used a hand-stretch to follow the climactic shapes as they

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[24]See Alexandra Pierce and Roger Pierce, *Generous Movement: A Practical Guide to Balance in Action* (Redlands, CA: Center of Balance Press, 1991), 80-97, chap. 6, "Stretching: Six Spinal Movements." Many yoga practitioners use a style of stretching close to the spanned movement described here.

heard and responded to them, eyes closed so they would not be distracted by seeing someone else's movement. When they finally watched each others' movement, we were amazed to see that almost everyone in the group was making a single hand-stretching motion over the entire sixteen measures. Look what we discovered: a single performance phrase forming around one climax that lasted almost two measures. It seemed to begin not *on*, but just *after* the F♯7 chord was initiated." (See Example 19.)

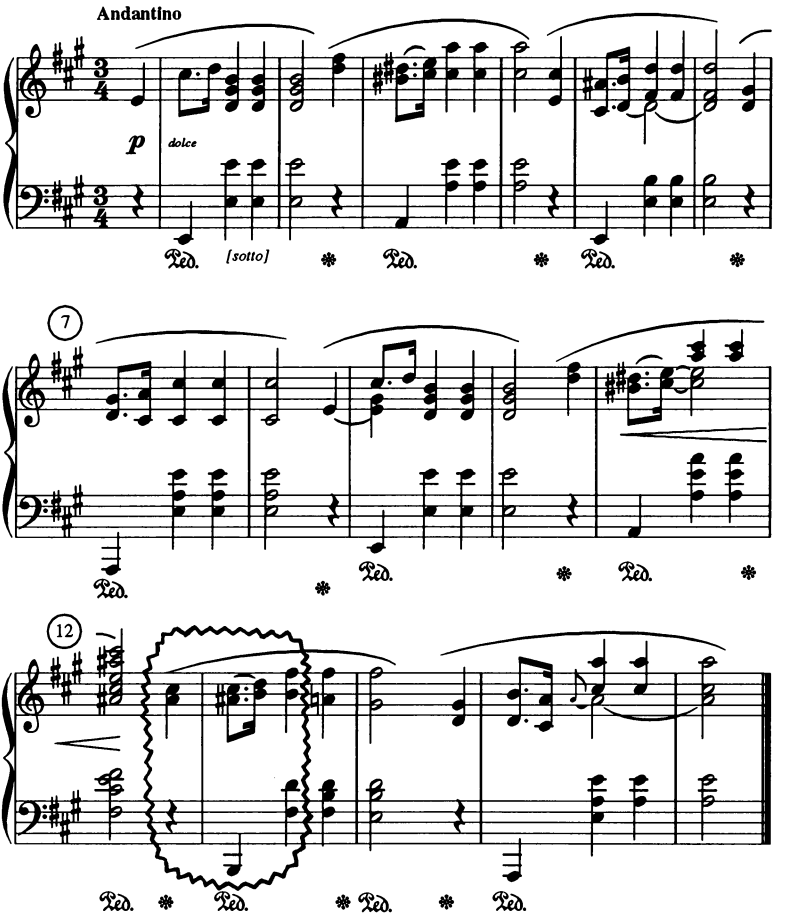
Drew went to the piano and played the prelude while Sylvia and Jonathan guided him, their stretching hands within his field of vision. It was oddly riveting to watch and feel the extremely slow extending open of the hand toward climax, paced as it was to the music's own narrative curve—the hand's reaching, seemingly *beyond* its furthest stretch, to bend "around" the climax—and then the active, grappling look of the hand's flexion as it returned to rest. It attracted Drew to a heightened concentration. The phrase's shape around climax was vividly sounded. Never had he played the piece with as much depth.

They turned to a video of the pole vault, not by Jonathan this time but by a succession of three Olympic athletes. Practicing the hand-stretch during each vault, they were astonished to feel empathetically and to observe that the climax occurred not at the top of the jump (above the crossbar), but during the swing upward—at the simultaneous straightening out of the pole and of the athlete's body (legs thrusting upward). The twisting of the body to pass over the hurdle took coordination, but was part of the denouement:

run, push off, swing up, arc over, land

Sure enough, when they went back to Jonathan's pole vault and followed its course with the hand-stretch, they saw and felt that his action did not form

Example 19. Chopin, climax indicated for the piece as a single performance phrase



around a distinct climax, not anywhere in its progression. There was a discernibly awkward moment, though, where climax should have been: Jonathan had acquired a habit of straightening himself a little too early, before he had diminished stress on the pole—that is, before the pole itself was straightened. This weakened the energy of the swing up and seemed to contribute to the hurried clumsiness of the twist and the off-kilter landing.

At his earlier workout, Jonathan had been intrigued to sense the vault as a progression of stages, each with its own momentum-shape and duration, and to focus his attention on each in turn. Now the unitary organization of the whole action around a single climax presented another way of sensing it, one he found useful at his next practice: he was able to get a greater return on energy expended.[25]

The use of arcing to find span, performance phrase, and climax

Finding the middleground harmonic rhythm by stepping is a preparatory stage to discerning where the performance phrases are. But a single performance phrase may contain more or less than one middleground progression. If there is any confusion, the hand-stretching movement can find the performance phrases by finding the climaxes around which they are organized. Or, taking foreground groupings (especially of melody) into account, one can find performance phrases by arcing with an arm, and at the same time uncover qualities of beginning, spanning, and ending. The results are often surprising as compared to decisions obtained by sight and reason.

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[25]For advice on the complexities of the pole vault, I am indebted to Clayton Brooks, Track and Field Coach, University of Redlands, Redlands, California. According to him, the climax best occurs about two-thirds of the way through the swing up (third) stage.

Standing with feet planted about twenty inches apart, let either arm draw broad rainbow-shaped arcs before the body from right to left for the first phrase, then left to right for the next, and so on, retracing the path like a windshield wiper. At the beginning there is a slight wind-up and a gentle flexion of the knees in order to connect the weight responsively through the feet to the floor; the spine is flexibly involved in the entire movement. Arm weight is released (especially at the shoulder) into the trajectory of the arc. Just enough momentum is spun forth to match the kinetic energy heard from the musical phrase as it continues, intensifies, subsides, and finally releases into completion. Effort washes out into stillness, without there necessarily being any lapse of time before the next phrase begins.[26] Phrase arcing is a firm, steady, connected legato movement (in Laban's effort terms, somewhere between sustained and restrained).[27] The look of a person arcing phrases is one of toned, full-bodied focus on the music and the activity.

Students generally have few trustworthy bases for finding phrases. They may be accustomed to making decisions haphazardly, with resulting chunks that are far too large—whole sections, really—or too small and choppy. They may confuse phrase with hypermeasure, so that mid-measure beginnings and endings are unperceived. When asked to make phrasing decisions in a theory class, they frequently behave as if this were privileged territory not to be intruded upon except, perhaps, by the private teacher or an admired performer.

Theorists know that the topic of musical groupings is complex, and a multiplicity of joinings in a given passage is fun to hear and ponder, but only when one is able and willing to take on the complexity. So from our theoretical side, too, there may

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[26]Juncture (the stillness between phrases) is discussed in "Music and Movement: Beat; Juncture," chap. in *The Semiotic Web*, ed. Thomas A. Sebeok and Jean Umiker Sebeok (Berlin: Mouton de Gruyter, 1987), 514-35. See also *Expressive Movement*, 141-194, chaps. 10 and 11.

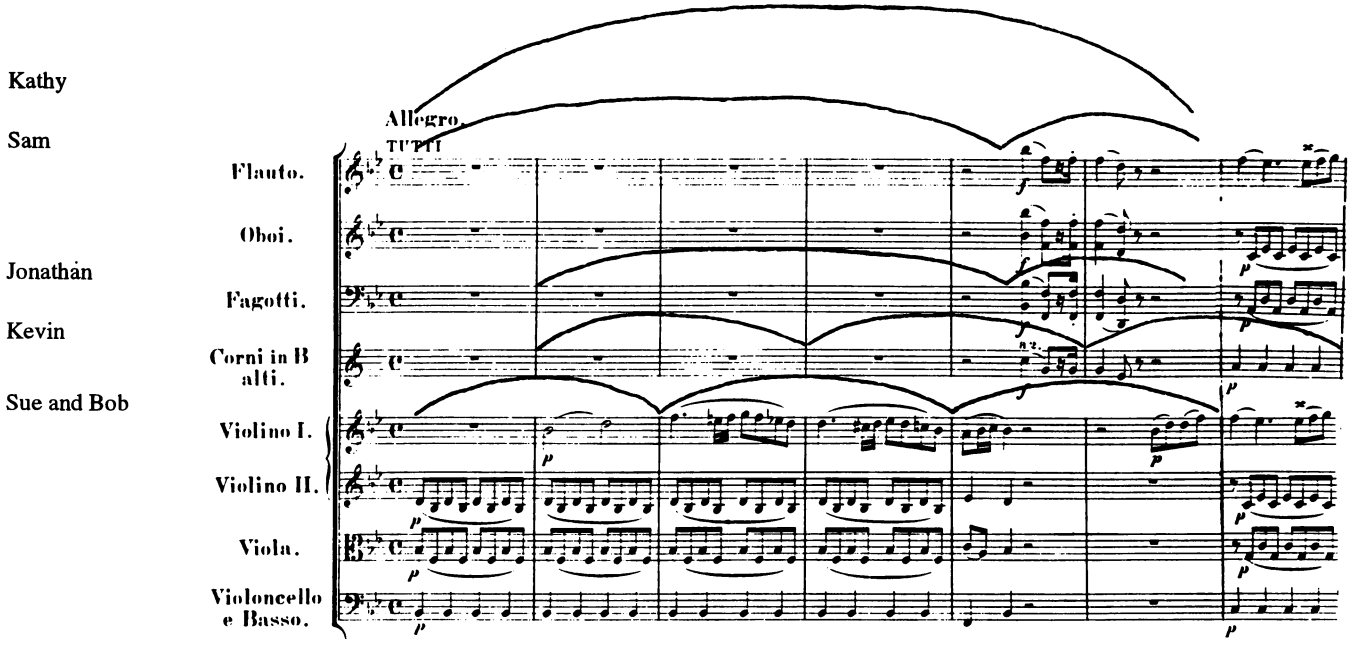
[27]Effort-shapes are discussed in Rudolf Laban, *The Mastery of Movement*, ed., rev., and enl. by Lisa Ullmann (London: Macdonald & Evans, 1971).

be reluctance to confront phrase directly in class. But phrasing is, of course, inevitable for performers, and choices are made, whether well or ill. The possibility of finding a reliable tool can come as a relief. Initially, arcing calls on a subjective musical sense, but the movement also provides something against which to measure intuitive judgments, and to develop and refine them.

A movement session to explore phrase in theory class goes something like this. A musical section is performed several times while each listener lets ear and arm arc groupings that conjure span—that is, groupings where there is a sufficiently strong harmonic action for the ornamenting figuration to pull against it and create elasticity. The performer can also initially participate in the arcing if a tape of the passage or an alternate performer is available, at least until the performance phrases have been found. Then, with a live performance and with the rest of the class arcing in easy view of the performer, both performer and listeners focus ear and gesture attentively on the exact quality of beginning and ending for each phrase and on the span of its narrative curve.

> The class was helping Kathy find the first performance phrase of Mozart's Concerto No. 27 in B♭ Major, K. 595. She would be presenting the orchestral exposition to her conducting class a few weeks hence. She played the piano version of the opening with an eye on various class members as they arced. At first, Sue and Bob were enacting the two-measure hypermeter. So was Kevin, but he started in measure two, seeming not to notice the introductory measure. Was *this* what she was playing? (See Example 20.)
>
> Jonathan caught her eye on the next run-through. He also started in measure two, then arced three and a half measures, and made a second arc for the final measure of fanfare. Sam, she noticed next, also used a second arc for the fanfare measure, but included measure one in his first arc. By this time, it was clear to Kathy that she was not projecting any particular phrase shape.

Example 20. Mozart, Concerto No. 27 for Piano and Orchestra in B-flat Major, K. 595, first movement, mm. 1-7, Kathy's final decision on the first performance phrase, with some trial suggestions by class members



Kathy asked Drew to do the playing so that she could try arcing the passage. Eyes closed, she let the music move her arm and was surprised to find that she included both the opening measure and the concluding fanfare in the first performance phrase. Other students were coming around to the same result.[28]

She coached Drew's playing by arcing this single phrase so that he could be entrained by its path. The phrase began with the entrance of the steady murmur of accompaniment in the first measure. This measure, before unnoticed, now took stage, though softly. The melody entered in measure two on an already begun narrative; it was less annunciatory, more in contrast with its concluding fanfare, which now seemed a shift in tone of voice within the one sentence, not a detached and separate thought. She noticed that there was an interplay—a conflict—between the melody's groupings and the two-measure hypermeter, which she still felt as beginning with measure one. When Kathy played again, she projected this chosen shape with clarity and verve.

The sensation of spanned movement is unmistakable, and once recognized can be called forth voluntarily to assume its role in musical performance. It is the kinetic expression of the music's elastic play of foreground against deeper levels—perhaps the most purely "Schenkerian" of the movement processes. The more imbued with span the arcing movement becomes, the more trustworthy it is for sensing phrase.

Full-bodied arm-arcing, focused around climax, mimics the hand action: the sensation of span is less compacted than in the hand-stretch, but it too intensifies and expands to a furthest

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[28]The unspoken unanimity of a class finding the same performance phrases, as this story implies, is a regular occurrence, especially when there is plenty of time for movement exploration. Realistically, though, reflection and discussion usually follow each movement process and provide the opportunity for persuasive guidance and teaching.

extent. As the arc rounds the top of its curve, the stretch reaches its peak from fingertips through trunk to feet, and so does the counterbalancing sensation of weight as it releases to rest down through feet to floor (see Figures 2 and 3).

Tone of voice as a musical quality

Tone of voice is the wash of affect in a piece of music, brought to life through the rhetorical skill of the performer. When inwardly heard by the performer and allowed full existence, tone of voice suffuses the sound with hue and the player with expressiveness visible through the entire body: it can be seen in the face, in every part of the stance, and in the physical contact of the playing technique with the instrument.

Sometimes tone of voice is identified by the composer, as in Chopin's *dolce* (Prelude No. 7) or Mahler's *Mit grosser Wildheit* (Symphony No. 1, fourth movement, rehearsal no. 12), but it is rare for a composer to urge attention to each of the affects that may tumble by in quick succession. Most often tone of voice lies, somewhat mysteriously, within a notation that does not directly call it to attention. Articulation markings and dynamic inflections, along with tempo indications such as *lebhaft*, *schleppend*, or *allegretto grazioso*, form most of its cage. When these are followed with wit, the performer will be in the ballpark of the affect, but it may still remain a caged bird.

Tone of voice makes an even more obvious contribution to the aliveness of a performance than does the clear sense of performance phrases, but it depends on that clarity for genuineness. Tone of voice depends on the music's making sense, the notes not a jumble of successive happenings but in groupings which belong together: forming spans whose melodic and harmonic motivation is articulated, spans that are also supported by a pliant yet stable foundation of meter. Tone of voice is very much a Schenkerian concern.

Remarks by a theater colleague suggest work with structural levels as preliminary to effective work with tone of voice:

Figure 2. Arcing trajectory, climaxes indicated

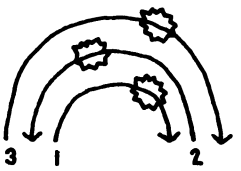
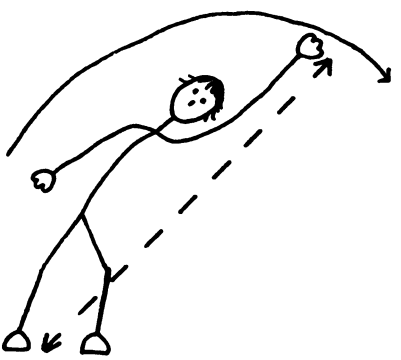


Figure 3. Little person showing climax of stretch in the arcing movement



> In rehearsals for Pinter's *The Birthday Party*, I had the actors spend an inordinate amount of our scarce time finding the structure of the play—Stanislavski's *units*[29]—the root action of each scene and act and of the whole play. The idea was that if they always knew exactly where they were—how their story had so far progressed, and where it was going—they would be more confident in characterization, more free to play each moment with full commitment. The intelligence of the acting came out as vivid speech inflection, natural gesture, and dramatic, effortless shifts of mood. When inflection arises—genuine, unfaked inflection—I know an actor has crossed an important threshold.

Since the emotional life in a piece is already, without the help of music theory classes, a central concern for performer-students, the rehearsal progression also works well the other way around, finding deeper structure by way of inflection. Actively imagining and evoking tone of voice can give access to (and interest in) phrase articulation and the deeper melodic and harmonic structure. Gustavo Tolosa, a former graduate theory student, wrote that he first dropped into Schenkerian hearing as an unexpected byproduct of some "characterizing movement" we were doing in class to explore the exposition of Beethoven's "Coriolanus" Overture.[30]

> I remember being in theory class and listening to the opening of Beethoven's overture and making a gesture as if throwing vigorously away from myself something held tightly in my hands. Then when we listened

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[29]Constantin Stanislavski, *An Actor Prepares*, trans. Elizabeth Hapgood (New York: Theatre Arts Books, 1936), chap. on "Units and Objectives."

[30]For characterizing movement processes, see Alexandra Pierce, "Character and Characterization in Musical Performance: Effects of Sensory Experience on Meaning," in *Musical Signification: Proceedings of the Second International Congress on Musical Signification*, ed. Eero Tarasti (Berlin: Mouton de Gruyter, 1995).

> without this gesture, I realized I was hearing with "different ears." I could *feel* the harmonic movement implied (or clearly stated) by the bass! It was surprising and exciting, and from then on I practiced differently, listening more carefully without the sometimes endless repetitions that make certain passages stale.

Tone of voice as movement (spontaneous speech gesture)

Tone of voice refers to the vocal timbres and inflections of expressive speaking. This complex characterizing web, with its concomitant facial expressions and gestures, arises almost without willed control, radiating throughout the organism to overtake voice and body at once. It is a highly personalized response to "getting the point" of what you are saying, while you are saying it. It is evident—dramatically and effortlessly so—when you are truly bent on communicating.

Although almost all of us have had the experience of speaking with unconstrained eloquence and colorful broad gestures, we are likely to be clumsy, unsure, timid, flat-voiced, stiff in gesture, self-conscious in stance if asked to recite a poem. The poem—its meaning—is outside of us; to have the poem become as freely spoken as spontaneous speech, we have to climb completely inside of it and then speak it as if it were our just-happening experience—what Stanislavski called "the illusion of the first time." Something of the same dilemma can occur when musicians set out to perform. Their abundance of expressive range in daily life suddenly narrows to a thin band. We may need to reinvent the wheel of our verbal and gestural expressiveness—that is, pay attention to it, learn to let it out to frisk, and then practice playing music as if we were speaking meaning vocally.

> Susan's violin teacher stopped her abruptly in the midst of her playing the *Presto* of Bach's Sonata for Solo Violin in G Minor, exclaiming "*Talk* to me!"

> (patting his chest emphatically). "Talk to *me*!" She looked puzzled and paused. "I don't know how!"

But no one ever knows how. It takes *release* of control for this resonating to occur, yet so much practice time is dedicated to acquiring control over fingering, tonguing, embouchure, breath, and so forth that one is at a loss both for musical experience that can help evoke feeling and for developed trust in the wisdom of the body to express it with just the brought-to-life notation of a particular piece.[31]

It is helpful to students to be reminded how immediately accessible is their own rich experience of tone of voice and to be shown how to mobilize it in finding and dramatically projecting affect in their playing.

> The class had seven good pianists, and there would be no trouble sight-reading Chopin's Op. 28 Preludes. The game of "Quick Starts" began: Jack took the first prelude, looked it through (noticing tempo and all else possible in a nutshell), heard it inwardly, and chose an adverb—*boldly*—that seemed to capture its tone of voice. Then he said, "If I were speaking, it would sound like this—," but, instead of saying "boldly," he made a bold gesture and then froze it into a momentary stance. He paid attention to his stance briefly, sat down at the piano, and said again, "If I were speaking, it would sound like this—." Just

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[31]Somewhere in Timothy Gallwey's *Inner Tennis* books is a story about a man whose tennis serve often went into the net or out of the court. Gallwey taught him to keep his eye fixed on the spot where the ball was to land. Time after time, the man placed it perfectly. Next week when he came for his lesson, he was missing wildly again, serving his old way. "Why?" "I didn't feel in control of it."

as he began playing, he let the gesture and the stance take over.[32]

The class paused a bit to talk about what had been noticed and then went on to Cynthia and the second prelude. She said, "If I were speaking, it would sound like this—." She made a gesture for *groping*, then sat down to the piano, re-invoked the gesture, and played as if feeling her way through darkness.

These are not students accustomed to movement or acting, but they have the willingness of committed performers. The heightening of affect is a well-appreciated reward for sallying forth into the uncertainties of the game.

IV. Preliminary Processes: Meter and Melody

Until meter and melody have come alive in the performance of a piece, its deeper harmonic structure will hide behind a veil of imprecision or dance as if in a field of sludge. The chief problem is inattention, which translates (mistranslates, usually) as a lack of care for the music. The recurrent nature of meter seems to invite its being taken for granted, as if it were only a scaffolding from which the music itself emerges. The problem is not just with metronomic accuracy, but especially with the internal dynamics—the "aliveness"—of individual beats.

Why melody so often goes unperceived is more puzzling. Despite the fact that it generally is the focus of listeners' attention, many performers do not, in fact, intently *hear* the melodies they are playing or singing. These problems of focus are appropriate theoretical concerns, not because there are necessarily great webs of conceptualizing to be spun around them, but because they are common essentials for musicians at all stages, encompassing more than the specific domains of

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[32]There is in this game, when it works well, a shift toward internalizing the affect and then expressing it. See Eugene Gendlin, *Focusing* (New York: Bantam Books, 1979).

instrumental and voice teachers. Intriguing questions like "What is melody?" need to be approached first of all as matters of perception: "What exactly is the melody here? Are we really hearing it?"

The metric foundation (arm swings)

Musically, the task is to find lissome punctuality in the context of the piece: to hear and connect better with beat, measure, and hypermeasure, the temporal undergirding of pitch structure. That means the ictus of the beat will be heard with sheerest possible definition, and its aftermath of momentum—the follow-through and the regathering of energy for the next ictus—will have their full duration, neither tumbled too soon nor dragged.[33]

An effective movement tool is swinging arm weight. There are many ways to swing the arms that can achieve a beat that is alive and symmetrically recurrent, yet pliant in response to rubato. Free-form swings can be good: first with one arm, then the other, swing along any pathway that suggests itself. More effective, though, for getting results quickly is this: standing with feet planted about twenty inches apart, swing both arms at once in an arced path downward, across, and upward in front of the body—first to the left, then to the right—in such a way that the toss of weight downward on the ictus feels generated from the feet through a small ankle-knee-hip spring, and so that the spine and trunk responsively rotate slightly as the momentum plays out (arms arcing upward), regathers, and tosses again. Physically, the task is to discover how to release arm weight with

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[33]Wallace Berry speaks of the "functional impulses" within a metric unit as "reactive or anticipative currents" and indicates these with a downward-pointed straight arrow for the ictus followed by three differently-curved, forward-directed arrows. See "Metric and Rhythmic Articulation in Music," *Music Theory Spectrum: Time and Rhythm in Music* 7 (1985):10.

a deft toss-swing, at the same time bracing against this release by the counterbalance of actively toned large muscles of legs, pelvis, and trunk so that there is buoyant support to allow the momentum to shape the duration fully, neither hurrying nor slowing it.

Once the arm swings have been developed so they work well to catch beat, other processes of weight-swinging can be developed for measure—and for hypermeasure, when relevant. I find it useful to clap these longer metric groupings in such a way that the clap itself is light and is deftly on the ictus, and that the hands then spring oppositely outward to inscribe a largish circle. This circle-inscribing movement conveys a sensed (and outwardly visible) focus on the grouping's length and on its momentum shape (nimble on the ictus, from there dissipating and then regathering).

Since the temporal placement of pitch-structural underpinnings is crucial to performance, it is useless to work aurally and kinetically with structural levels of a piece before a punctual, lithe beat has been brought to life in the foreground. Unfortunately, many good musicians—performers as well as composers and thinkers—have lost immediacy of access to the beat, and they struggle with this musical aspect. It is worthwhile to include in each theory class period at least one short movement process physically responding to the beat (weight-swings of some sort), even in those periods when we are otherwise sitting down to discuss and work in other ways.

Melodic contour (sustained arm motion)

Contouring with sustained arm weight is an effective way to awaken the surface detail of melody. Standing with feet comfortably apart and remaining planted, with one hand draw in space the ups, downs, and plateaus of the melody precisely as they are occurring in a performance. This vertical movement rides on a continuous, unbroken simultaneous horizontal movement, freely reversing direction as necessary, back and forth in front of the body.

The vertical directional tendencies within each note propel the hand and arm movement. On long notes or notes that repeat a pitch, the hand/arm moves horizontally until the ensuing bend of line upward or downward is first sensed. This contouring is done spontaneously, playfully approximating in space the stepwise and leaping relationships between pitches; one is feeling these out, often with surprising results compared to the confined response of notating on a staff, as in a customary ear training drill.

> When Sylvia drew the first phrase of "Es ist genug" (Example 21), her hand started near the bottom of its reach and went up with an intense, weighted move, persisting steadily on, through the dotted-half-note $D\sharp_5$, to well above forehead-level; then it sloped down to $C\sharp_5$ at about eye-level, then up (but less forcefully), almost to the top of arm's reach, for the ending on E_5. Its spatial ambitus was about five vertical feet and its shape looked something like Figure 4.
>
> Beethoven's "Freude meine Götterfunken" theme (Example 22), also with an ambitus of a fifth, came forth in her movement using roughly two vertical feet just in front of her upper torso (see Figure 5). It wrote itself in space with an easy, sustained gentleness quite different from the restrained, dogged upward motion at the beginning of "Es ist genug."[34]

Musically, the task in contouring is to fasten attention on melody and come to know its particulars. It is to sense melodic continuity and the shifting inflections of melodic energy—to hear the melodic contour as dynamic, not pointillized into steps of a scale. A problem confronting many musicians is an already-established emphasis on attack points (finger, tongue, and lip

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[34]The shapes in melodic contouring call to mind Rudolf Steiner's expressive gestures in speech eurythmy. Some of these are shown in Lisa D. Monges, *Eurythmy Exercises* (New York: Anthroposophic Press, 1975).

Example 21. Bach, "Es ist genug," mm. 1-6, melody from chorale setting

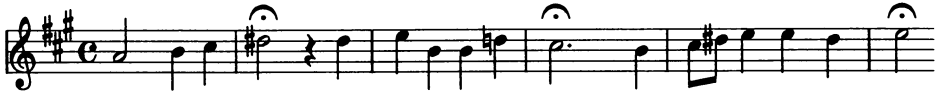
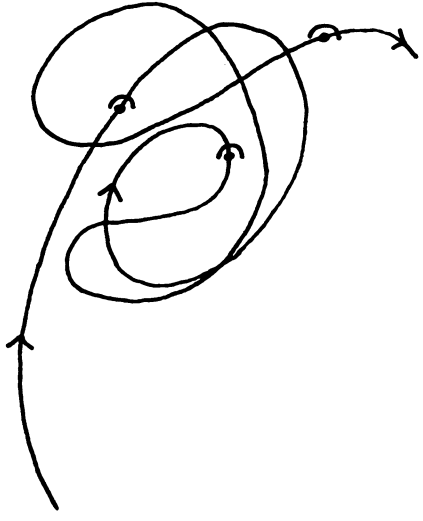


Figure 4. Sylvia's melodic contour of "Es ist genug," mm. 1-6



Example 22. Beethoven, Symphony No. 9 in D Minor, Op. 125, fourth movement, "Freude meine Götterfunken" theme, mm. 1-8

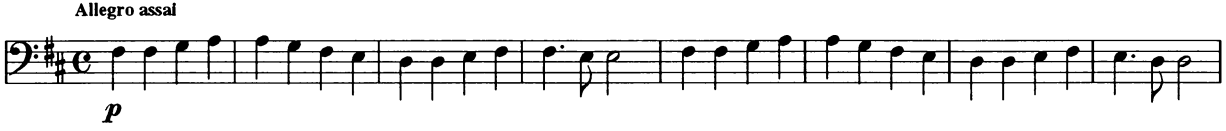
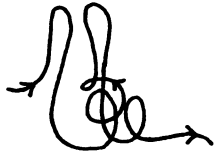


Figure 5. Sylvia's melodic contour of the "Freude meine Götterfunken" theme, mm. 1-8



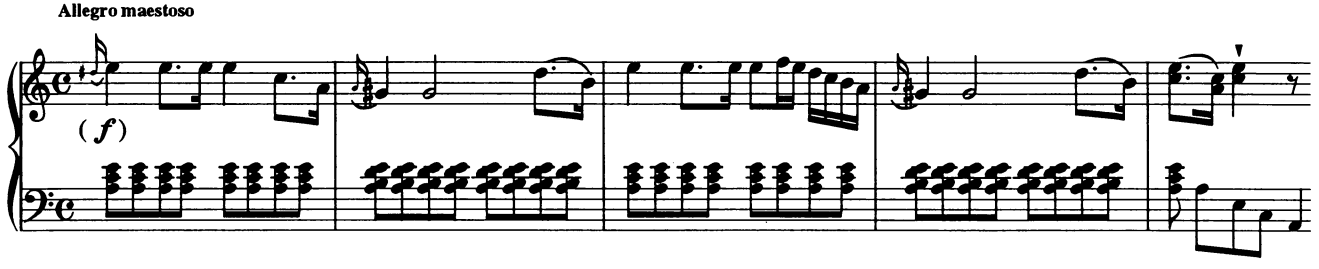
articulations), an unconscious conjoining of pulse and melody so that the two are heard as one, as they are in spontaneous listening. These performers have not developed attentiveness to the envelope of a melodic note and do not notice its complex process of transformation into the next note. This is evident in their contouring movement as disconnected bumps of pitch into space rather than as a fluent line, and also evident in the hesitant, often inaccurate direction (going down when the melody goes up, and so forth). To follow the detail of contour exactly presents a surprising degree of challenge even to a performer who may have rehearsed a section hundreds of times. To separate the curvilinear individuality of a melody from its pattern around pulsing struts is like winning two new friends. This will especially be noticed in contexts where the melody is linked to an attention-grabbing durational pattern, as in Example 23.

Physically, the task is to learn to support weight and control the effort of its passage so that the motion of hand and arm is *sustained*—in contrast with the *restrained* motion of hand-stretching climaxes. In part, the sustained quality of contouring depends on its being full-bodied, connected to—both instigated by and reflected in—the deeper levels of responsive spinal movement and the flexible joints and supportively-toned large muscles of the legs and lower trunk, and grounded by a firmly planted stance of the feet. The look of such arm movement is one of fine delineation of space; as the melodic line spins forth, it is imbued with energy and feeling. The entire person has an absorbed engagement, the moving arm and sympathetically swaying trunk firmly grounded through legs and feet to the earth. Grounding reflects contact with harmonic structure.

The movement of contouring melody is akin to the smooth, weighted quality of arcing performance phrases. But where contouring proceeds in delicate rises, bursts, and downward ebbs, the shapes always fresh phrase by phrase, arcing repeats its curved shape, each time intensifying through an upward and outward stretch, and releasing downward and inward with control.

After working on the next two stages in a particular piece—middleground harmonic progressions (with coalescence) and

Example 23. Mozart, Piano Sonata in A Minor, K. 300, first movement, mm. 1-5



spanned performance phrases—I frequently return to melodic contour to observe what may have happened to the hearing and the movement. Three things are often apparent:

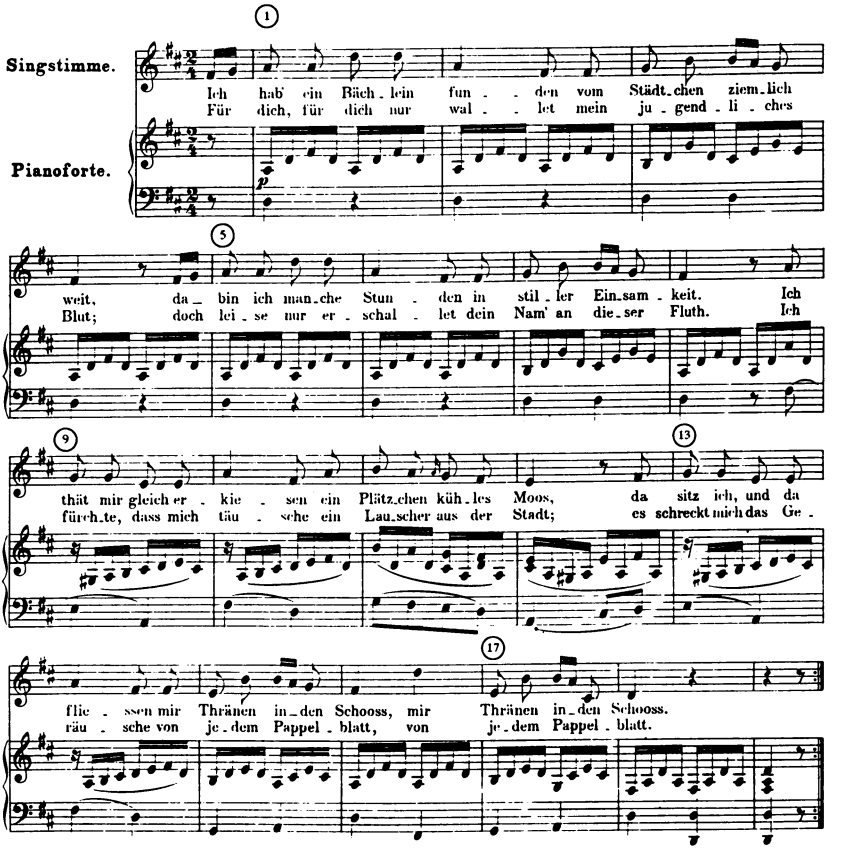
1. The melody, at first sensed as a single-leveled succession, now pulls into elaborating figuration felt against more direct underlying paths.
2. Articulation of performance phrases becomes subtly present within the continuous curved line of contour. Waves of effort outward from the body's central axis alternate with ebbings of effort inward (arm weight approaching the vertical axis and coming somewhat to rest).
3. The contouring gives the impression of spontaneous speech gesture, hinting at tone of voice (in the easy gentleness of the contour for Beethoven's "Freude" theme, for example).

V. A Chain of Processes: "Daphne am Bach"

The evening's task for a graduate music theory class was to demonstrate practical theory in action. The class would work with structural levels to improve Gretchen and Joel's performance of Schubert's "Daphne am Bach" (Example 24)—a deceptively easy piece. Though their performance had a professional veneer, Gretchen and Joel seemed out of touch with the music—even somewhat bored with it. The piece had little shape; the four obvious phrases were delivered piecemeal, with an awkward codetta tacked on the repeated text ending each strophe. The students listening were inattentive, and blood sugar was low at 7:00 p.m.

The students had not yet done much movement together, and none of the research tools for Schenkerian hearing had yet been introduced. The purpose of this evening's class was to find

Example 24. Schubert, “Daphne am Bach”



middleground harmonic rhythm and performance phrases. Since the performers had been phlegmatic rhythmically, the professor saw that they would need to find the life of the beat before they could step the harmonic rhythm against it.

Meter

She suggested as a comfortable opener that the class walk around the room to the beat as they listened again to the song. (There wouldn't be time that evening to go into arm swings and the experience of tossing weight to the beat.) Most people, choosing the quarter-note, shuffled about with some embarrassment but with a little more listening attention. Though walking was reasonably comfortable for a theory class not yet accustomed to moving, it did not, for many of the students, encourage a lithe beat.[35] The walk itself needed to be educated: its icti were too sluggish or too pounding. The professor began (and invited others) to do a soft-hop, a bouncy land-and-lift-off from foot to foot, with occasional slow twirls and changes of direction, keeping time with the quarter-note. The room came alive with all of them doing these dance-like soft-hops. Gretchen joined in the movement as she sang the first verse, then stopped moving and internalized the feeling and the look of the soft-hops as she brought succinctness and lilt of the beat into her voice.

Hearing the song in this way, its performance coming to life just through beat, was so engaging that a

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[35]For most people, walking—itself a complex activity—is not at first a very refined research tool for awakening to the beat. Replicating the lilt of musical beat depends upon the body being well-aligned, leaning slightly forward to release its weight into core-supported steps. At an advanced stage of movement/music work, walking to the beat can magically enliven both beat and walking.

repeat of the process was in order. (The professor did not take up hypermeter since the goal—a synthesized swatch of Schenkerian hearing for newcomers in sixty minutes—imposed thrift.)

Tone of voice

There was another immediate yield: tone of voice. As the performers gave the beat its integrity and the individual listeners began to play responsively with their own soft-hopping, they became available and susceptible to the affect of the song. Faces lit expressively, entire bearings shaped: tender wonderment, heads cocked expectantly, arms a little outstretched, palms softly forward.

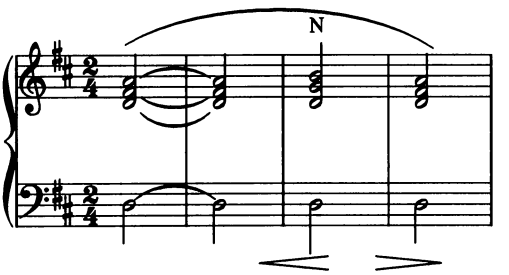
Middleground rhythmic vitality

With beat clarified, it was now possible to explore harmonic rhythm. The class stepped the root progression of the bass, forward and backward, and simultaneously sang it. There was frequent opportunity to conceptualize; when they discovered that they could remain standing on the tonic for the first two phrases, they understood why: the neighboring $\frac{6}{4}$ was prolonged over the common-tone $\hat{1}$. Joel simplified this progression on the keyboard, plopping out the three chords one after the other. The professor and the class encouraged him to play these so as to reveal the particular energy of the progression (see Example 25).

Next, Gretchen and Joel performed as the class stepped the progression for the rest of the strophe; this process was repeated, everyone working independently, until the "stepping-dance" had settled—that is, until everyone had found the chord-roots with feet and voice. The students were surprised to discover that they were unanimous in their

understanding of the middleground harmonic rhythm (see Example 26). The professor knew that if she had simply "taught" this progression, she would have met both silent and spoken objections that other interpretations would do as well.

Example 25. Schubert, "Daphne am Bach," mm. 1-4, simplified progression (energetic intensities marked)

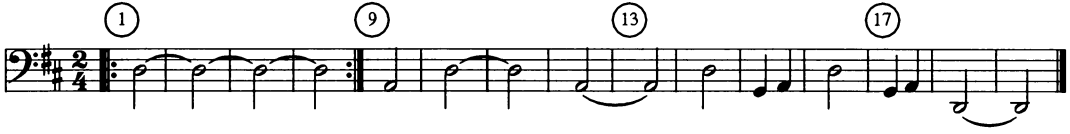


The students noticed that there were two structural cadential progressions at the end of the strophe. Were they equally important, or were the last three and a half measures an echoing codetta (as Gretchen and Joel had, at the outset, presented the piece)? Or, most intriguing to the performers, was the first cadence (mm. 15-16) a nested progression?

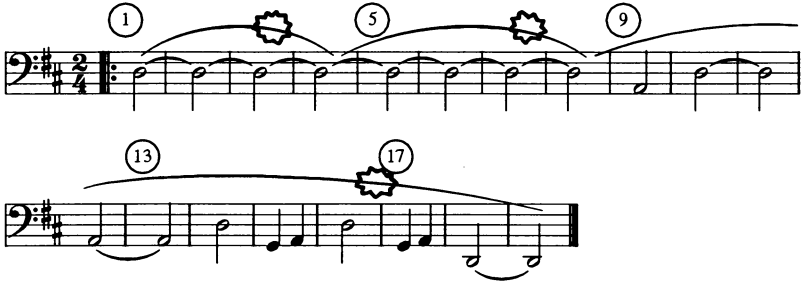
Span

The professor asked them to put that issue aside for the moment; finding the performance phrases of the piece might provide an answer. The group was shown the arm-arcing movement to focus them on phrase-span, and, while Gretchen sang, everyone (including Gretchen) let an arm draw broad arcs in the air. At first, most students arced the simplest response to

Example 26. Schubert, "Daphne am Bach," salient harmonic progression



Example 27. Schubert, "Daphne am Bach," salient harmonic progression, performance phrases and climaxes marked



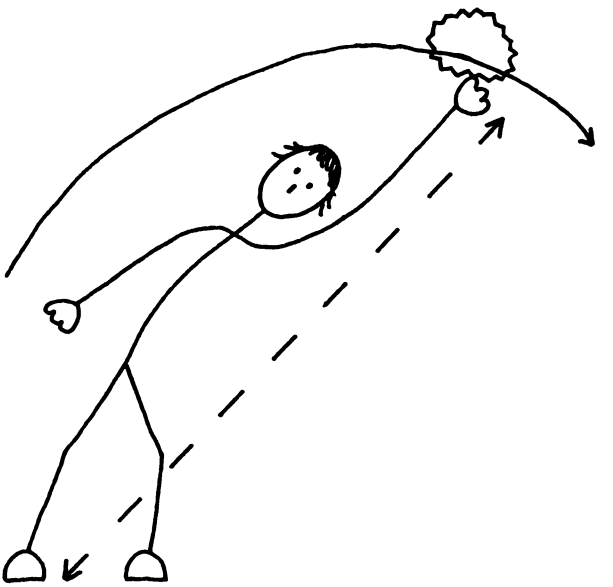
phrase, letting the eighth-rests be closures—four phrases plus the shorter codetta-phrase. A few, confusing phrase with four-measure hypermeter, started each arc at the bar line. Little by little, the arcing became accurate in its phrase beginnings and smoothly weighted along its span. The performers and the class settled on three performance phrases—two short and one quite long. Gretchen decided that she could take a breath on the eighth-rest of the third phrase (m. 12) in such a way as not to break apart the single span of this large phrase (see Example 27).

The professor suggested that everyone fully extend an arm along its arc, and mark the phrase climax with their movement at the point where the body is stretched out to its fullest length, letting the movement itself explore responsively rather than imposing a foregone conclusion (see Figure 6). The class realized that the first cadential progression (mm. 15-16) was subordinate to the second (mm. 17-18). They tried staying on I during measure 15, but that felt forced. They decided that they could sing and step the subordinate progression so that it was embedded within the stronger final progression, and that it would feel distinct partly because the first tonic would be reached by a forward step (up to D_3) and the final tonic would be reached by a backward step (down to D_2).

Synthesis

It was time to float these attributes of Schenkerian hearing all at once during one or two final performances. The professor grouped the students into threes and spread these clusters around the room so that they could be seen easily by the performers. In each group, one student soft-hopped the beat (incidentally catching "tone of voice" in the manner of hopping), one student sang and stepped the middleground harmonic rhythm, and one arced

Figure 6. Little person showing climax of arc at furthest stretch



performance phrases, making visible span and climax. The students were simultaneously to express their particular musical focus, take in the others, and feed this kinesthetically-realized Schenkerian hearing to the performers.

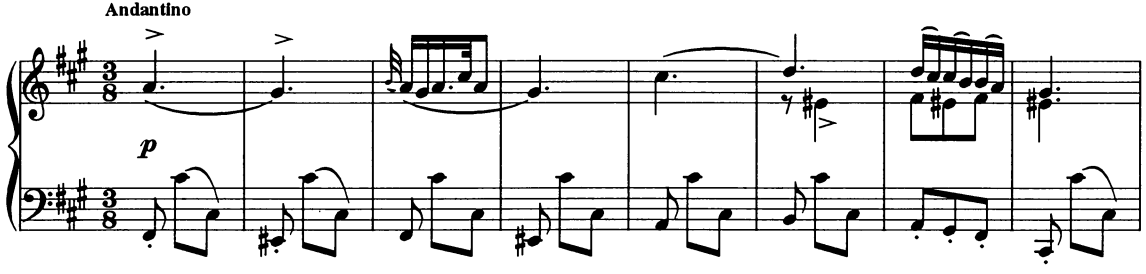
VI. Resistance

The stories from theory class have, of course, a tinge of unreality in playing up the affirmative results and suggesting that there has been good-willed, fully attentive participation by all the students. Nay-saying, usually unvoiced and often unconscious, can be a surprisingly stubborn undertow, slowing the shift toward Schenkerian hearing. Often the objection is one that is also directed at other theoretical approaches to the arts: that an interpretation is being substituted for the work itself. A graph seems to support this reaction; the piece has disappeared in all its rich complexity, and in its place stands a bland generality of tonal patterns. Resistance to Schenker by thoughtful musicians can be taken into account as in its way valid.

Students can keep "forgetting" indefinitely that the graph's structural notes do not exist in the same sense as the notes on a score, and that what matters is not the graph but how it relates to the piece it is illuminating. The notes on the graph have been singled out as important. Performers, specialists in the foreground, show important notes by technically effortful, yet finessed, nuances of dynamics, rhythm, or articulation. Should they then apply special effort to the structural notes, making them louder or giving them agogic accents? When a graph is put before them, their special, beloved, often climactic moments are almost invariably depicted as unimportant—or not deemed significant enough even to appear in the graph.

Kim, a skillful, sophisticated pianist, experimented over a period of weeks with gesture and tone to find just the right sound for the opening right-hand two-note melody of the *Andantino* from

Example 28. Schubert, Piano Sonata in A Major, D. 959, second movement, mm. 1-8



> Schubert's "Great" A-Major Sonata, D. 959 (Example 28). Was it desolate? Lonely? What exactly was that sound? And how, technically, could he achieve it, time after time?
>
> When he tried to get behind the notes by faithful obedience to their surface inflections, the details did not effectually pique his aural and pianistic imagination. Time after time, the sound came out flat and unconvincing, more and more so as he repeated the passage. He tried working himself up into an excited emotional state but was honest enough to recognize the hollowness of this overwrought pretense. Disappointed, he was eager to know how to practice for better results.

If you show Kim a graph of the passage indicating that the first "real" G♯ to contend with occurs in measure eight (at the end of what he has been considering the second phrase), you may get a curt dismissal. To him, such a conception looks beside the point of what has so stimulated and thwarted him in rehearsal. Kim does not care whether or not this is a good illustration of deeper-level melodic action having motivic parallels at more foreground levels, or whether the actual structural line of the melody begins only with the C♯ and descends from there to G♯. On the contrary, those initial two dotted-quarter-notes of the piece seem to him of capital importance. They also seem equal to each other and inseparable. He points to the complex notated inflections (*piano*, bound together by a slur, each note with an accent) by which Schubert links them and gives them prominence, and to the fastidious detail of their accompaniment.

> One day in class, Kim explored unlocking the deeper structure of this performance phrase. His classmates helped him by stepping and singing the harmonic motion of the bass as he discovered one level after another. The story changed. The previous obtuseness of the opening notes melted away in the very process of playing them in the context of ever-

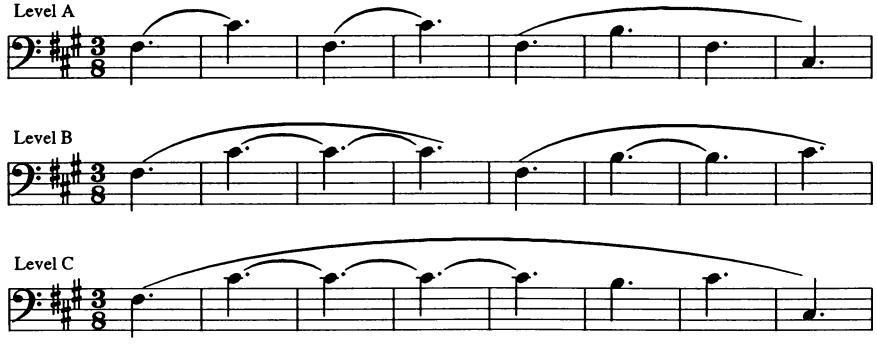
larger groupings of harmonic structure—not easy to determine in this phrase. His path is shown in Example 29.

He was not certain that level C would remain the final way for him to hear the deeper harmonic rhythm in the passage, but even without settling this, he experienced the containment of detail within the larger purpose of the eight measures (became aware of the coin as well as its two sides). In doing this, a distinctive tone of voice emerged for the A-G♯ motif without any special effort on his part. It was as if his very understanding and his coming to *hear* the harmonic motion actively drew in its wake the capacity to speak it tellingly, just in the right way. This characterized tone of voice seemed there on an instant, not to need prodding.

The class noticed this change in his playing, too. Someone asked him what the tone of voice was—if he could put his finger on it or put words to it. Without a pause, Kim lifted his hands a little in a quick, soft gesture, as if to stop our going on, improvising with hushed voice tone and the words, "Wait a minute; let's not go in just yet." He did this a few times—gesture and words—and then played the phrase rather than speaking the words. The tone of voice—*awed hearkening*—took over his sitting stance, his hands, and the piano's sound.

Musicians and students need to be convinced that achieving a vivid connection with the foreground depends on anchoring the piece, molding its surface into groupings of elaboration—"sticking to the channel" (as Stanislavski put it)—while at the same time following the lure of the shoreline's intricacy. They need to discover for themselves that without this sense of weightedness the surface ornamentation is likely to lose itself in its own meanderings. As Jarl Hulbert described at the end of second-year theory, "by following 'the big harmonic picture,' I

Example 29. Schubert, Piano Sonata in A Major, D. 959, second movement, mm. 1-8, simplified bass motion (three levels) in Kim's voice range



find that the climaxes and resolutions of the piece become very intense."

When asked later to describe his experience of "Schenkerian hearing," Kim wrote:

> It has been a slow, hard process. I still find myself wanting to cling to the belief that the ear only hears what is presented to it directly over time. I now see the possibility that deeper harmonic structure is often hidden in music. There has been a gradual shift, as my mind slowly (very slowly) opened to receive the notion of big-picture harmonic structure.

Kim's choice of words suggests how powerful a block to an altered listening experience his mostly unspoken mind-set had been. It had undermined and conflicted with his capacity for making a hearing-shift even provisionally. His words are a humbling reminder that educational advance, even through kinesis, can come in small parcels.

Given this and other forms of resistance, there is considerable value in broadening the context through which Schenkerian pedagogy takes place. For example, it is helpful to demonstrate the application of Schenkerian analysis to other art forms—painting, dance, poetry, and drama.[36] The intelligence of the approach and its enhancement of contact with the art work are, for some musicians, easier to appreciate in another genre than in their own. It is also helpful to observe structural levels in ordinary activities like conversation and (as with Jonathan) sports. I sometimes point to the structural levels of the class in which we are immersed. A friend, asked to recall an experience when he was aware of background and foreground, said:

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[36]See, for instance, Edward Levy, "Teaching: Structural Analysis in Interdisciplinary Arts Courses," *College Music Symposium* 14 (Fall 1974):102-21, and Roger Pierce, *Three Play Analyses* (Ph.D. diss., University of Iowa, 1968).

> What motivated me to volunteer in the Children's Center was the highfalutin [background] goal of contributing to the downtrodden. This specialized to the [middleground] task of tutoring the children there; further in the foreground is to teach Irene to be more alert, appreciative, and effective in learning. Further yet, to teach Irene to add 8 + 5.

Perennial and well-founded resistance to Schenker studies can best be handled not by argument, but by calling attention to the underlying structure *without stripping away its foreground elaboration* where musicians feel at home. There are no doubt countless ways to manage this simultaneity. Kinetic experience has for me been an effective one: while the underlying structure is being clarified, the foreground—which is expressing it, moving against it, interacting with it—is itself being vitalized. The reward in hearing and performance is immediate, and the lesson focuses where it belongs: not on the background itself, but on its interaction with the foreground. That alive interaction is the essence of Schenkerian hearing and performing.