METAPHORS AND MODELS: PATHS TO MEANING IN MUSIC

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DISSERTATION ABSTRACT

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Music has meaning. But what is the nature and source of meaning, what tools can we use to illuminate meaning in musical analysis, and how can we relate aspects of musical structure to our embodied experience? This dissertation provides some possible answers to these questions by examining the role that metaphors and models play in creating musical meaning. By applying Mark Johnson and Steve Larson's conceptual metaphors for musical motion, Larson's theory of musical forces, perspectives on musical gesture, and a wide variety of models in music analysis, I show how meaning is constructed in selected works by Bach and Schubert.

My approach focuses on our experience of musical motion as a source of expressive meaning. The analysis of two gigue subjects by Bach shows how we create expressive meaning by mapping musical gestures onto physical gestures, and five detailed case studies from Schubert's *Winterreise* show how the same basic underlying pulse leads to different expressive meanings based on how that pulse maps onto walking motion. One thread that runs through this dissertation is that models play a significant role in creating meaning; this idea is central to my analysis of the prelude from Bach's fourth cello suite.

Questions of meaning are not new to musical discourse; however, claims about meaning often lurk below the surface in many musical analyses. I aim to make the discussion of meaning explicit by laying bare the mechanisms by which meaning is enacted when we engage with music. The view of musical meaning adopted in this study is based on several complementary ideas about meaning in general: meaning is something our minds create, meaning is not fixed, meaning is synonymous with understanding, and meaning emerges from our embodied experience.

Other scholars who address musical meaning (for example, Hatten and Larson) typically adopt a singular approach. Although I do not create a new theory of meaning, I employ numerous converging viewpoints. By using a multi-faceted approach, we are able to choose the best available tools to discuss aspects of our musical experience and relate the expressive meaning of that experience to details of musical structure.

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In memory of Steve Larson

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CHAPTER I

INTRODUCTION

Virtually anyone who listens to, performs, or studies music would agree that music has meaning. But what is the source of musical meaning? Is meaning inherent in the music itself just waiting to be uncovered? Does meaning arise from the composer who structures his or her work to express a specific meaning or emotion? Does meaning arise in the listener's or performer's mind when he or she engages with the work? Does meaning arise from a close study of the work's structural properties, its musical style, and the cultural context surrounding its creation, performance, and reception? And furthermore, what do we "mean" by "meaning"?

Unfortunately (or perhaps fortunately) precise answers to these questions are difficult to formulate. As Kofi Agawu writes: "What music is, what and how it means, what meaning is, and why we are interested in musical meaning in the first place: these questions are not meant to be answered definitively…but posed periodically to keep us alert and honest" (2009, 4). This dissertation will provide some possible answers to these questions by examining the role that metaphors and models play in the construction of musical meaning through analysis.

In his seminal book on musical meaning in Beethoven, Robert Hatten begins by stating an often repeated position regarding the nature of musical meaning: "I am concerned with *how* music has expressive meaning not *what* that meaning might be"

(1994, 1).[1] Indeed, most authors agree that meaning in music is not fixed (just as meaning in language is not necessarily fixed). Like Hatten, most musicians also speak of meaning as being "expressive." But expressive of what? Steve Larson defines expressive meaning as follows:

> When we hear musical events as reflecting the patterns of our intellectual, emotional, imaginative, and kinesthetic lives, we may speak of that musical meaning as "expressive meaning"—that quality that allows music to suggest (for example) feelings, images, or actions (or even stillness, a special kind of action). That quality may not translate well into words nor relate clearly to the emotions of a composer. And different people may attribute different meanings to the same sounds (something that happens with language, too). (2012, 36)

If music does not contain fixed meanings, and if the meanings of music are generally regarded as expressive in some manner, then it stands to reason that "paths to understanding, not final state meanings" should be given priority in any discussion of musical meaning (Agawu 2009, 7). These "paths to understanding" will be the subject of this dissertation. I identify two primary tools that enable the construction of meaning in tonal music: *metaphors* and *models*. In the remainder of this chapter, I will introduce the various ways in which metaphors, models, and meaning can be approached, and highlight some of the particular approaches that form the foundation of this study.

Types of Metaphors

Metaphors play an important role in musical discourse. In fact, it is almost impossible to speak about music without using metaphors. Although music has often been compared to a language, music can only "speak" in sound. Therefore, musical

[1] Kofi Agawu states a similar position: "The recurring question for me…concerns *meaning* in Classical music—not 'what does this piece mean?' but, rather, '*how* does this piece mean?'" (1991, 5).

discourse often makes use of metaphors to describe and discuss the myriad facets of music. There are two dominant theories about the role metaphors play in language and conceptualization: the *classical* theory and the *conceptual* theory. The classical theory of metaphor holds that metaphors are merely figures of speech—a way of describing something in flowery language that could otherwise be described in more straightforward (or technical) terms. As such, metaphors play no role in concepts; they are simply a way of saying one thing and meaning something else.

The theory of conceptual metaphor developed by George Lakoff and Mark Johnson (1980, 1999) holds that metaphors *do* play a fundamental role in concepts. In fact, metaphors are essential for our abstract conceptualization and reasoning; they are not merely figures of speech. Metaphors involve cross-domain mappings; they allow us to map our understanding of a familiar domain onto an unfamiliar domain. For example, we often speak of arguments as if they were warfare: "He *shot down* all of my arguments," "Your claims are *indefensible*," or "I've never *won* an argument with him" (Lakoff and Johnson 1980, 4). These everyday expressions reveal an underlying conceptual metaphor—Argument Is War. The claim of conceptual metaphor theory is not just that we *talk* about arguments in this way, but that we actually *behave* as if arguments were warfare.

When we encounter metaphors in musical discourse, sometimes those metaphors are consciously applied for interpretive purposes. For example, the opening motive from Beethoven's Fifth Symphony <𝄾 ♪ ♪ ♪ ♩> has been described as the "knocking of fate at the door." In this way we are using metaphor in the classical sense. We do not literally mean that the pitches are knocking on the door; we are choosing to describe the musical

motive metaphorically by comparing the repeated pitches with a knock at the door (and further anthropomorphizing that knocking as "fate"). Many times, however, we use metaphors intuitively or unconsciously. For example, when we describe tones as "passing" or "leaping" we are using conceptual metaphors. Tones do not literally pass or leap (each tone is a distinct event in temporal succession; one tone is sounded, then the next tone is sounded).[2] But when we speak of the motion of tones as if it were physical motion we are using a conceptual metaphor—specifically, Musical Succession Is Physical Motion (Larson 2012). Because this is the way we intuitively talk about music the metaphors usually hide behind the surface. The claim here is not just that we *talk* about musical motion in terms of physical motion; the claim is that we *think* about music this way. The theory of musical forces detailed in Chapter II will support this claim.

The history of music theory is filled with examples of metaphor.[3] For example, rhetorical metaphors were common in music theory of the 17th and 18th centuries. The view of music as rhetoric was wide ranging and was applied to the compositional process as a whole, specific compositional devices (the Baroque *Figurenlehre* tradition), phrase structure, and large-scale form. In a different vein, Rameau, influenced by the latest scientific theories of his day, viewed tonal structure in terms of mechanical metaphors in his early writings (the fundamental bass and dominant-tonic causation) and gravitational metaphors in his later writings (the tonic as gravitational center, with subdominant and dominant pulled in from either side).

[2] Victor Zuckerkandl (1956) and Robert Gjerdingen (1994) discuss the paradox of musical motion.

[3] Michael Spitzer (2004) examines metaphor as both a cognitive construct and a rhetorical trope. Lawrence Zbikowski (2008) provides a succinct introduction to music and metaphor, focusing on approaches used in the last 50 years.

During the 19th century, organic metaphors gradually replaced rhetorical metaphors in music theory.[4] Two of the most prominent music theorists in the early 20th century (Heinrich Schenker and Arnold Schoenberg) made organic metaphors central to their conception of musical structure. Schenker's *Ursatz* and Schoenberg's *Grundgestalt* are both based on metaphors of organic growth: as successive elaborations from background to foreground (Schenker), or as a basic idea from which the composition grows (Schoenberg).

The contemporary music theorist Marion Guck (1981, 1991, 1994) was one of the first to recognize the importance of metaphors to modern analytic discourse as an alternative to structuralist or "scientific" descriptions of music. Although not explicitly applying the theory of conceptual metaphor, Guck's ideas about the role of metaphor in music-theoretical discourse largely agree with that theory. In other words, metaphors are not merely figures of speech; they tell us something important about the way we conceptualize music and thus play an essential role in music analysis.

The theory of conceptual metaphor has proved especially fruitful for music theorists and has typically been applied to music in one of three ways: 1) to reveal underlying conceptual models of the tonal system, 2) as a way into novel repertoires, and 3) as a way to discuss embodied musical meaning, which includes notions of musical motion and space (Zbikowski 2008, 511). Many of the historical metaphors mentioned

[4] Mark Evan Bonds (1991) details the shift from rhetorical metaphors to organic metaphors with regards to conceptions of musical form.

above have been reexamined from a cognitive perspective.[5] Studies of musical motion and space (see Cox 1999, Johnson and Larson 2003, and Larson 2012) have shown that the seemingly intuitive ways in which musicians talk about musical verticality ("I can't sing that *high* note"), musical time ("here *comes* the second theme" or "we're about to *arrive at* the recapitulation"), and musical motion ("the D *passes* between C and E") are, in fact, structured according to conceptual metaphors. We will examine these metaphors in Chapter II.

Types of Models

Models have been fundamental to music theorists throughout history. Any theory of music is based on some type of model. Some models are commonplace and transcend a variety of different specific theories, such as models of harmonic sequence, species counterpoint, voice leading, phrase structure, hypermeter, and formal design. Other models are more specialized and are associated with specific theories or repertories. These types of models include: Gjerdingen's (2007) pitch-based schemata for music in the galant style; Hepokoski and Darcy's (2006) Sonata Theory; Hatten's (1994) semiotic model of markedness, correlation, and interpretation; Krebs's (1999) model of metrical consonance and dissonance; Larson's (1997–98) pattern map; Lerdahl and Jackendoff's (1983) generative theory of tonal music; Narmour's (1990) implication-realization model; Renwick's (1995) fugue subject paradigms; Riemann's *Tonnetz* (and the myriad

[5] Golan Gur (2008) investigates Rameau's conception of tonal harmony in terms of force and path schemas; Janna Saslaw (1996) examines Riemann's modulation theories in terms of force, container, and path schemas; Saslaw (1997–98) also examines Schenker's *Free Composition* and Schoenberg's *The Musical Idea* in terms of force schemas; Michael Spitzer (2004, chap. 1) examines underlying metaphors in Schenker's and Leonard Meyer's theories; and Lawrence Zbikowski (2002, chap. 7) examines competing models of musical form (rhetorical vs. organic) and hierarchy (chain-of-being vs. atomistic).

mathematically-based models of neo-Riemannian theory); Schenker's *Ursatz*; Schoenberg's *Grundgestalt*; and many, many more.

In addition to the types of models that find their way onto the printed page in music theory, we can take a broader view of models and the role they play in our conceptualization of music. Drawing on a wide variety of research in cognitive science (especially cognitive linguistics and cognitive psychology), Lawrence Zbikowski (2002, chap. 2) discusses the role that "conceptual models" play in constructing theories. Conceptual models consist of concepts in specified relationships (which arise from the process of categorization) and lead to conceptual domains (such as the domain of pitch space). When a number of conceptual models are correlated, we have theory, which in turn guides understanding and reasoning. Thus from a cognitive perspective, models are central to our theories about music and manifest themselves in outward forms (charts, diagrams, schemas, etc.), and at a deeper level they form the very basis of our theories about music.

Many (if not all) of the commonplace models we use in music theory are also based on some kind of metaphor. For example, Schenker's model of tonal structure is based on the metaphor Music As Organism and Leonard Meyer's model of stylistically-defined expectations is based on the metaphor Music As Language (Spitzer 2004, 28–44).[6] One question we might ask is: Which came first—the metaphor or the model? Actually, we can view the relationship between metaphors and models in two ways. On

[6] Mark Johnson (2007, 235–36) notes that the Music As Language metaphor is one factor that has caused musical meaning to be a second-class citizen of meaning in general. Since the dominant assumption is that only language has meaning, music cannot be said to have meaning unless it can be shown to make use of the same resources as language (which is quite difficult to show). Johnson's work refutes this claim by showing that all meaning is embodied rather than the exclusive purview of language, and that music reflects the "embodied flow of life."

the one hand, a close reexamination of traditional theories of music often reveals underlying conceptual metaphors upon which those theories, and the models underlying those theories, are based (for example, Schenker's organic metaphor). On the other hand, we can also take a conceptual metaphor as an explicit starting point for constructing a theory, and then construct a model based upon that metaphor (for example, Larson's model for the combination of three-note pitch patterns that give in to musical forces is based on his metaphor Musical Succession Is Physical Motion).

So why then should metaphors and models be examined separately? In some sense they cannot be separated. When creating a model, there must necessarily be (consciously or unconsciously) an underlying metaphor upon which that model is built. However, thinking metaphorically does not necessarily lead to the creation of a model. My purpose in discussing them separately is merely to identify these two important tools through which we create meaning, recognizing that in many cases metaphors and models are intertwined. Furthermore, the same general type of model (for example, a model of musical form) can be built upon different metaphors (Music As Rhetoric *or* Music As Organism). Or, the same exact model (for example, Schenker's *Ursatz*) can be built upon two complementary metaphors (Music As Movement *and* Music As Organism).

What Do We "Mean" by "Meaning"?

What do we "mean" when we say that music (or any other aspect of our lives) has "meaning"? Is meaning "out there" in the world just waiting to be discovered? Is the meaning of any piece of music, poem, painting, or sculpture fixed? How do we create meaning in our everyday lives? Are there any aspects of our lives that are meaningless?

Is meaning just limited to what we can express through language, or can meaning transcend the realm of language?

In our everyday usage, when we say that something or someone has meaning we are often referring to an emotional connection or deeply held personal significance. It is easy to see how we use this sense of meaning when discussing music. We often have an emotional connection to a certain piece of music based on a variety of factors: we recall the circumstances under which we first encountered it, we've listened to it or performed it many times, we've studied it in great detail, the text conveys a powerful message, it was used for a memorable event in our lives, it makes us want to dance, it makes us smile, it makes us laugh, or it makes us cry. I'm sure that readers can imagine many pieces of music that fall into the above categories and are personally meaningful in some way. The above view of musical meaning could lead one to believe that the meaning of music must be consciously articulated through language in phrases like: "This piece of music is meaningful because…" or "The meaning of this piece is…" While this is certainly one aspect of meaning, as we will see, meaning also lurks below the surface of conscious reflection.

If we examine published accounts of musical meaning we might first ask: What kinds of music do scholars who study musical meaning analyze, and what kinds of questions do they ask? Any music with text (art songs, opera, madrigals, etc.) naturally lends itself to a discussion of meaning. This is the first and most intuitive sense in which people think of musical meaning. The question analysts usually ask is: How does the

music express the meaning of the text?[7] Another type of music that easily lends itself to discussions of meaning is programmatic music. The question analysts ask here is: How does the music express the program, title, text, or image? In both of these cases there is some existing text that the music is purported to express, and a discussion of meaning usually revolves around the musical details that help express the meaning of that text.

How, then, does one approach a discussion of meaning in "absolute" music? Certainly music without text has meaning too. But what gives rise to this meaning? Is meaning simply what we "feel" when we listen to it? This can be one aspect of meaning, but how do we approach musical meaning in a more critically accountable way?

Discussions of musical meaning are not new to musical discourse. However, since the 1990s there has been an explosion of interest in this topic, which has been explored from a number of disciplinary perspectives including philosophical aesthetics, semiotics, musicology, and music theory.[8] Philosophical aesthetics seeks broad-based inquiries into music's capacity (or any of the arts for that matter) to be meaningful, as well as questions of expression and representation (see Davies 1994, Kivy 1990, and Scruton 1997). The field of semiotics approaches music by looking for the specific mechanisms, or "signs," which can transmit meaning (see Nattiez 1990 and Tarasti 1994). Musicologists have focused on the cultural context surrounding the creation, performance, and reception of

[7] The precise relationship between music, text, and meaning is a bit more complex: Kofi Agawu (1992) gives a more detailed account of four different approaches to the relationship between music and text in the 19th-century Lied, and Lawrence Zbikowski (2002, chap. 6) examines this relationship by applying cognitive theories of conceptual blending.

[8] See Burkholder 2006 for an extensive bibliography of recent works that explore the topic of musical meaning. For a representative sampling of approaches see these three collections of essays: Almén and Pearsall 2006, Pople 1994, and Robinson 1997.

musical works as a source of meaning, as well as hermeneutic readings through a variety of lenses (see Kramer 1990, 2002, and McClary 1991, 2000).

While all of these approaches contribute important perspectives on musical meaning, this study will focus on music-theoretical approaches—and especially those music-theoretical approaches informed by cognitive science— because I believe that discussions of musical meaning are most rewarding when they are explicitly tied to musical structure. A structural reading of a given piece should not be regarded as an end-in-itself, but rather as a means-to-an-end; that end, in my view, is a discussion of meaning.[9] However, music theory has been somewhat late to the game in discussing meaning, historically favoring structuralist or objective descriptions of music and relegating any discussion of meaning to other disciplines. For many music theorists, any discussion of meaning remains implicit. As Kofi Agawu writes:

> But for a handful of exceptions, card-carrying music theorists have been generally reticent about confronting the subject of musical meaning. This does not mean that ideas of meaning do not surface in their work from time to time, nor that, in producing voice-leading graphs, metric reductions, paradigmatic charts, set-class taxonomies, and Tonnetz trajectories, they are unaware of questions of meaning. On the contrary, all analysts, including those who reduce musical phenomenon to numbers or abstract symbols, normally rely on a certain constellation of views about meaning in order to perform a close reading. (2009, 4–5)

Despite this general tendency to avoid explicit discussion of musical meaning, a growing number of music theorists have brought meaning to the forefront by adapting

[9] Nicholas Cook (2001) addresses larger disciplinary issues related to musical meaning and the seeming conflict between music theorists (who take structure as a point of departure for meaning) and musicologists (who claim to avoid structural descriptions but inevitably make use of them). Robert Hatten (2004, 9–11) discusses, and urges us to rethink, the problematic opposition between "structure" and "expression."

perspectives from other disciplines.[10] Drawing on principles of Gestalt psychology, Leonard Meyer (1956) focuses on the role of melodic expectation in the construction of meaning. For Meyer, musical meaning is the product of a listener's expectations, which are based on the listener's experience with a given style (consequently, music in a style with which the listener is unfamiliar is meaningless). The listener's role in creating meaning is also highlighted by Eric Clarke (2005), who adopts a theory of ecological perception to discuss musical meaning. According to Clarke, the listener's environment plays a central role in creating meaning. In contrast to many other approaches, meaning is not something that is created after careful study and reflection; meaning arises in the moment that we are listening to music.

Two of the most prominent music theorists to engage meaning, Kofi Agawu and Robert Hatten, adopt a semiotic approach. Agawu's work (1991; 2009, 51–61) draws attention to the beginnings, middles, and ends of tonal events. These are not merely locations within a phrase or an entire piece of music but complex functions that initiate, prolong, and close off a tonal structure, thus correlating nicely with Schenker's theories. Because music exists in time it carries inherent meaning based on the origin and destination of tonal events. More recently, Agawu (2009) takes a broader view of music as discourse, showing how we can create meaning by engaging with the language of music through a variety of analytic tools. One important tool is a generative approach whereby the analyst recreates an imagined path from simple tonal models to the compositional surface (the reverse process of a Schenkerian analysis).

[10] Music theorists have consistently discussed aspects of meaning in studies of music with text (Lieder, opera, programmatic music, etc.), which often seek to show how the meaning of the text is expressed in the music. However, in this case there is an "extramusical" element that guides the discussion of meaning. As I will show in Chapter IV with the analysis of Schubert's Lieder, the text is not the only source of meaning.

Hatten's (1994) study of musical meaning in Beethoven focuses on marked oppositions of musical elements (such as major vs. minor), which correlate to marked oppositions of expressive meaning (such as happy vs. sad). These correlations are dependent on musical style, and one source of meaning is a given work's interaction with that style. Hatten (2004) also examines the role of musical gesture in creating meaning. Gesture is a fundamental aspect of human communication, and Hatten's approach to musical gesture (which takes human gesture as its basis) seeks to bridge the gap between elements overlooked by theorists and those relegated to performers as expressive nuance. Hatten's theory of gesture addresses our embodied access to musical meaning by grounding it in what is known about the communicative power of human gesture.

Music theorists have applied numerous ideas from cognitive science to discussions of musical meaning. Nicholas Cook (1998, 2001), Lawrence Zbikowski (2002, chap. 6), and Gavin Chuck (2004) apply the theory of conceptual blending (developed in cognitive linguistics) to the process of meaning construction.[11] In a conceptual blend, elements from several correlated mental "spaces" combine to produce new meanings in the blended space. Cook applies conceptual blends in the analysis of musical multimedia (for example, television commercials and Disney's *Fantasia*). Chuck seeks to connect what is known about the structure of music with what is known about the structure of thought. Zbikowski applies conceptual blends in the analysis of text/music relations in 19th-century Lieder.

Candace Brower (2000) outlines a cognitive theory of musical meaning based on two ideas about the nature of thought: thinking is based on pattern matching (Margolis

[11] See Fauconnier and Turner 2002 for an introduction to conceptual blending.

1987), and thinking is based on metaphorical mapping from one domain of human experience to another (Johnson 1987). Meaning is created by mapping the patterns in a musical work onto different types of stored patterns and schemas, which may be specific to the work itself, abstracted from conventions, or abstracted from bodily experience (Brower 2000, 324).

The application of conceptual metaphor theory to issues of musical meaning has proved fruitful, especially with regard to our understanding of musical motion and space (see Cox 1999, Johnson and Larson 2003, and Larson 2012). The ways in which we talk about music as if it moves through space and time are so intuitive and commonplace that we don't realize these concepts are actually metaphoric in nature.[12] Steve Larson's (2012) theory of musical forces is based on the metaphor Musical Succession Is Physical Motion, and describes musical analogs of physical gravity, magnetism, and inertia. The theory accounts for some of the tendencies to move in certain ways that our minds attribute to music, and examines how we interpret musical motion, the forces acting upon that motion, and the expressive meaning we attribute to that motion in terms of our bodily experience of physical motion. Larson also emphasizes the active role that listeners play in creating meaning by recognizing patterns.

Three additional perspectives on meaning that engage conceptual metaphor theory come from Hallgjerd Aksnes, Arnie Cox, and Caitlin Snyder. Aksnes (2001) seeks alternatives to traditional score-oriented or "disembodied" music analysis. She focuses on "our musical body" as a source of meaning, which includes "auditory, visual, emotional,

[12] Marion Guck (1991) uses the term "music-literal" to refer to technical terms that are actually metaphoric in nature, such as any of the myriad ways that music theorists refer to musical space or movement within that space.

kinesthetic, linguistic, and other modes of cognition" (2001, 82). Cox (2001) presents evidence for his "mimetic hypothesis," which claims that part of the way in which we understand sounds we hear is by comparing them to sounds we have made ourselves. This process of comparison leads to cross-domain mappings, which are what enable our metaphoric conceptualizations of music. Cox (2006) also highlights the importance of gestural conceptions of music and argues that our use of the term "gesture"—as opposed to the more technical terms "motive" or "figure"—more viscerally describes a musical event and also foregrounds its embodied meaning. Snyder (2010) utilizes a synthetic methodology that unites Schenkerian theory, Larson's theory of musical forces, Gjerdingen's style-based pitch schemata, and Lakoff and Johnson's conceptual metaphor theory to illuminate meaning in Couperin's keyboard works. In applying these tools Snyder moves from the identification of patterns (meaningful units) to affect, from affect to metaphors, and from metaphors to interpretation, which in turn reinforms further analysis. Additionally, Snyder shows how the same pattern can have multiple meanings, thus highlighting the flexible nature of musical meaning.

The above survey demonstrates the wide variety of lenses through which scholars view the topic of musical meaning. All of these authors focus on a specific process or mechanism by which meaning is constructed.[13] Although I will not apply all of the approaches outlined above, in one way or another, these ideas have had an important impact on the way I approach the topic of musical meaning. This study will focus mainly on Larson's theory of musical forces, musical gesture, and various types of models (all of

[13] The above approaches to musical meaning share a common thread in that they are all dependent on our *experience* in one way or another. According to Mark Johnson, "The meaning of a thing is its consequences for experience—how it 'cashes out' by way of experience, either actual or possible" (2007, 10).

which will be covered in more detail in Chapter II). And although I will not consider cultural and historical context a source of meaning in this study, it should be emphasized that musical meaning is broadly contingent upon those creating the meaning: "To say that music has meaning is incomplete. Any statement that a piece or passage of music means something is actually a claim that it carries that meaning for someone in particular or to members of a certain group" (Burkholder 2006, 77).[14]

So what particular type of listener am I addressing? One who is well versed in the language of Western classical music from the common-practice era and the standard analytic methods of music theory, but for whom larger questions of meaning may never have surfaced or may have remained implicit. This study is also addressed to today's listener, which places emphasis on the immediacy and relevancy of musical meaning for those who listen to, perform, and study music today. Although some specialized knowledge of music theory is necessary to fully grasp some of the detailed claims I make about how meaning is constructed via metaphors and models, I think that many aspects of meaning are accessible to the everyday listener whether they know it or not (and whether or not they have the specialized vocabulary to articulate the source of that meaning). Furthermore, when we tie aspects of musical meaning to embodied experience via metaphor, this meaning becomes even more accessible because it relates music to other

[14] I do not deny the importance of musicological approaches that focus on cultural and historical context to our understanding of musical meaning; however, some of these approaches seem especially opaque. For example, consider Lawrence Kramer's view: "Musical meaning consists of a specific, mutual interplay between musical experience and its contexts; the form taken by this process is the production of modes of subjectivity carried by the music into the listener's sense of self; and the dynamics of this production consist of a renegotiation of the subject's position(s) between the historically contingent forms of experience and the experience of a transcendental perspective that claims to subsume (but is actually subsumed by) them" (2002, 8).

aspects of our lives. In short, *we* (the listeners) create musical meaning. But *how* do we create meaning?

One of the foundational perspectives on musical meaning used in this study comes from Steve Larson, who adapts the ideas of Rudolph Arnheim (1974) about art and visual perception, and the ideas of Howard Margolis (1987) about the importance of pattern recognition in human cognition. Larson describes the *process* of meaning construction as follows:

> Whenever our minds group musical sounds into patterned relations we create meaning…The process by which listeners create musical meaning is captured in the phrase "to hear as,"—that is, "to *hear x as y*" in which *x* is some sound and *y* is some meaning. For example, we may say that we *hear* a pattern of pitches *as* an ascending gesture or that we *hear* a pattern of durations *as* a syncopated rhythm…Aspects of specific passages of music constrain the meanings we give to them, but to find meaning in music is a creative act. (2012, 35)

Thus, on Larson's view, meaning is something that listeners consciously (or unconsciously) create when they *hear* specific passages of music *as* having some meaning. This view may well be a new one to those who study music and its meaning—it seems too simple, or even circular (the meaning of a passage of music is the meaning we give to it?). However, this process of "hearing as" is something we do all the time without even consciously thinking about it. (Recall the list of factors cited earlier that might make a piece of music meaningful; each of these factors is based on a conscious process of *hearing* the piece *as* having a specific meaning.) It is precisely the simplicity of this idea—that meaning is something we create—which gets at the fundamental nature of meaning in music, and more broadly in our everyday lives. Larson's description of the process of meaning construction captured in the phrase "to hear as" broadens our

perspective on meaning *in music*. It also correlates well with some broader notions of meaning *in general*.

Another fundamental perspective on meaning used in this study comes from the philosopher Mark Johnson (1987, 2007) who argues that meaning is *embodied*; that is, the structure of our body and its interaction with the environment fundamentally shapes the way we think. Two of the mechanisms that give rise to our embodied understanding of the world, and in turn meaning, are image schemata (recurring patterns of our interaction with the world that give structure to our experience) and metaphors (mapping our understanding of a familiar domain onto an unfamiliar domain). Johnson's view of embodied meaning challenges long-held notions about mind-body dualism (the mind and the body are two separate entities), the objective nature of reality (reality is "out there" in the world and can be described with objective accuracy for all peoples by using reason alone), and the claims of contemporary analytic philosophy (meaning rests in language alone as evidenced by the meaning of words and the truth-content of propositions). More broadly, he argues: "A theory of meaning is a theory of how we understand things, whatever those things might be" (1987, 176). And Johnson's work also emphasizes the fact that meaning emerges from our experience: "Things, qualities, events, and symbols have meaning *for us* because of how they connect with other aspects of our actual or possible experience" (2007, 268). One of the important consequences of Johnson's view of embodied meaning is that art, rather than being a second-class citizen when it comes to

discussions of meaning, takes a fundamental place as the *culmination* of human meaning-making.[15]

To illustrate the basic idea that meaning is understanding, consider two examples that illustrate this broader sense of meaning. First, if I see a wooden object across the room that has a large, flat, smooth surface sitting atop four legs, I call it a table. By understanding that object as a table I have just given meaning to it. This type of meaning-making happens all the time as we go about our daily lives and often remains below the level of conscious awareness. Without this type of meaning-making, however, we could not function in the world. Second, if I am listening to Bach's C-major Prelude from the *Well Tempered Clavier* and hear any (or all) of the following elements I am creating meaning: a recurring pattern of figuration; a recurring rhythmic pulse which defines the meter; a beginning, a middle, and an end to tonal events; long-range voice-leading connections; or conventional patterns of tonal harmony. Notice that most of the elements I describe as being meaningful are not what normally comes to mind when we think of musical meaning. If these types of meaning were the only kind of meaning we could draw from music, music might be less relevant to our lives. My point here is that our sense of meaning can be broadened to include elements of our understanding that typically fall outside discussions of musical meaning.

We can deepen our sense of meaning in a variety of ways, most notably by relating the patterns we hear in musical works to other aspects of our lives (as Larson suggests we do when we speak of "expressive meaning"). One of the most fruitful ways

[15] Johnson draws heavily on the ideas of the American pragmatist philosopher John Dewey, and summarizes Dewey's claims from his book *Art as Experience* ([1934] 2005) as follows: "Meaning-making in art is the exemplary or even paradigmatic case of all human meaning-making. Since much of art makes meaning without words or linguistic symbols, art reminds us that meaning is not the exclusive purview of language" (Johnson 2007, 218).

we can do this is by relating aspects of musical motion to aspects of physical motion. In doing so we can arrive, via metaphor, at an embodied understanding of music and its meaning. I will have more to say about the specific ways in which we create embodied meaning through metaphor in Chapter II.

Overview of Dissertation

My basic claim is that by using metaphors and models in analysis we can create paths to meaning in music. The meaning we create is not fixed, but is contingent upon the person constructing the meaning and the tools used to do so. This is not to say that meaning is arbitrary—certain aspects of certain passages of music constrain the meanings we give to them—but rather that a variety of meanings are possible based on the lens we look through. I view this dissertation as a kind of handbook to meaning construction. By carefully surveying the bases for and *processes* by which meaning can be constructed, and by illustrating musical meaning through analysis in a selection of diverse repertoire, I will show *how* meaning can be constructed by using metaphors and models.[16]

I also claim that music analysis is at its best when it explicitly highlights meaning. Many music theorists make implicit claims about meaning, but my goal is to make these claims about meaning explicit. In doing so, we are able to move beyond specific analytic methodologies and focus on the broader process of meaning construction in music (and touch on the ways in which this process is similar to the ways in which we make meaning in our everyday lives).

[16] Although I often talk about musical meaning in this dissertation as something that is created or constructed by us, this is not the only sense in which meaning arises. Meaning is also simply experienced, and emerges from our interaction with the environment.

I further claim that musical meaning is most immediate when we understand that meaning as *embodied*. "Music moves. And something in the way it moves moves us" (Johnson and Larson 2003, 63). In a variety of ways, we can relate music and its meaning to our bodily experience of motion and the constraints and forces acting upon our bodies. In doing so, we come to an immediate and visceral understanding of music and its meaning.

By way of introduction, it will also be useful to detail what I am *not* claiming. I am not claiming to create a new theory of meaning. Rather, I am applying existing theories of meaning in analysis (the application of these theories are still in their infancy). I am not claiming that metaphors and models are the only tools that create paths to meaning as the above introduction to approaches has shown. I am not claiming that any of the meanings I discuss are the only ones possible; meanings are contingent in the broadest sense and are part of an ongoing process of understanding. I am not making any claims about emotions and their role in meaning. And finally, I am not making any claims about the historical relevancy of such meanings; in other words, "today's listener rules" (Agawu 2009, 4).

Chapter II will provide more detail on the specific metaphors and models I will use in my analyses. This chapter constitutes my methodology (in addition to the perspectives on meaning outlined above), and shows how we can explicitly create meaning by using metaphors and models with some preliminary analytic examples. Steve Larson's (2012) theory of musical forces is based on the metaphor Musical Succession Is Physical Motion, and describes tendencies of motion that we hear in, and attribute to, passages of music. Three of these forces are "melodic gravity" (the tendency of notes to

descend to a stable platform), "melodic magnetism" (the tendency of notes to move to the closet stable pitch), and "musical inertia" (the tendency of patterns of pitches or durations, or both, to continue in the same fashion). In addition to conceiving of music in terms of motion (generally), we can also conceive of music in terms of gesture (a more specific act of motion). A variety of perspectives on musical gesture (and its grounding in human gesture) will be explored that further contribute to embodied musical meaning. I will also discuss Johnson's (1987) image schemas and their subsequent applications in music theory. With regard to models, I will focus on Larson's pattern map for the combination of three-note pitch patterns derived from the theory of musical forces, models of tonal structure, and I will also treat the topic of models more generally.

Chapter III will demonstrate how models and metaphors can be applied in analysis to create paths to meaning in several instrumental works by Bach: the Prelude from Cello Suite no. 4, and two gigue subjects (from the English Suite in G minor and the Partita in A minor). The analysis of the prelude will make extensive use of models (voice leading, musical patterns, and piece-specific models) and critique an analysis of the same piece by Schachter (1994) to show what can be gained by an explicit orientation toward meaning. The analysis of the gigue subjects is based on Larson's pattern map, and focuses on the ways in which musical patterns are combined on multiple levels of structure. In addition, various metaphors (Musical Succession Is Physical Motion, Musical Gesture Is Physical Gesture, and Music As Dance) allow us to tell stories about our experience of musical motion in terms of physical motion, and the expressive meaning we attribute to those motions.

Chapter IV contains five detailed case studies that examine aspects of walking motion in Schubert's song cycle, *Winterreise*. This song cycle recounts the story of a man who leaves town to wander through the winter landscape after being rejected by his beloved. The inclusion of sung text gives us an additional source from which to create paths to meaning. The meaning we create comes not only from our experience of musical motion, but is also guided by the types of motion described in the text (which Schubert aptly translates into music). The main point of this chapter is that while all of the songs in which we experience walking motion make use of similar musical resources (a constant eighth-note pulse in 2/4 meter with a moderate to slow tempo), the *manner* of motion (that is, the quality of motion we experience) changes to reflect the changing emotional state of the wanderer and the changing *manner* of motion described in the text. This chapter will also broaden our perspective on the role that rhythm and meter play in creating meaning by engaging these topics in light of the theory of musical forces, and makes use of additional models such as metrical consonance/dissonance and hypermeter.

Chapter V will summarize the main points of this study, highlighting the role that specific metaphors and models play in creating expressive meaning, and reminding us that meaning is something *we create* when we engage with music as listeners, performers, or analysts. I will also address several questions regarding the methods used, and reflect on the impact that the perspectives on meaning used in this study have on the practice of music theory and analysis.

CHAPTER II

CREATING MEANING THROUGH METAPHORS AND MODELS

This chapter will examine specific methodological tools that make use of metaphors and/or models, and show how these methods can be applied in music analysis to create meaning. Three tools form the foundation of this study: metaphors of musical motion (Johnson and Larson 2003), the theory of musical forces (Larson 2012), and approaches to musical gesture (Cox 2006; Larson 2006, 2012; and Hatten 2004). Mark Johnson and Steve Larson examine conceptual metaphors for musical motion and show that we not only talk about music as if it moved, we actually experience musical motion in terms of our experience of physical motion. When we understand musical motion in this way—as a metaphorical mapping between the physical and musical domains—the specific *manner* (or quality) of that motion allows us to discuss embodied meaning.

Building on the metaphorical nature of musical motion, Steve Larson takes the metaphor Musical Succession Is Physical Motion as the basis for his theory of musical forces, which describes musical analogues of physical gravity, magnetism, and inertia. The theory claims that musical forces operate on all levels of structure, and that the specific and quantifiable ways in which these forces interact with pitches and durations helps to explain our experience of musical motion and the expressive meaning we attribute to it.

The various approaches to musical gesture used in this study are each grounded in human gesture and thus lead to embodied musical meaning. Gestures (whether human or musical) convey information that is greater than the sum of their parts. It is these synthetic or emergent aspects of gesture that make this approach so appealing for the construction of meaning in music analysis. Gestures can be viewed as more specific acts of motion, thus complementing a metaphorical perspective on musical motion.

In addition to these three primary tools a number of additional perspectives will also be applied in this study (some of which are extensions of the primary tools). Image schemas are recurring patterns found in our interaction with the world (such as CONTAINER, CYCLE, and VERTICALITY) and play a fundamental role in shaping the conceptual metaphors we use. These image schemas have appealed to music theorists because they correlate well with many established musical concepts. For instance, musicians often speak of musical phrases (or even larger sections of music) as having a source, a path, and a goal. This is an example of the SOURCE-PATH-GOAL schema and reflects our embodied experience of traveling from one point to another.

A central component of Larson's theory of musical forces is what he calls "the pattern map." The pattern map lists all possible three-note stepwise pitch patterns that give in to musical forces, and shows how these patterns can be combined in ways that reflect our understanding of smoothly connected physical motions. These patterns (and their combinations) represent some of the most frequently encountered patterns in tonal music and (as the theory claims) are governed by musical forces on all levels of structure.

As mentioned in Chapter I, metaphors and models are often intimately intertwined and most of the approaches discussed in this chapter are based on metaphors. I will

highlight a few specific models that will be used in my analyses, but the concept of models will also be treated more generally. Some of these more specific models include a reductive model of tonal structure (Schenker [1935] 1979) and a generative model of tonal structure based on prototypes and their elaborations (Agawu 2009).

This chapter concludes with three preliminary analyses: a prelude from one of Bach's cello suites (which uses models to create paths to meaning) and a pair of Lieder by Schubert (which uses a metaphorical approach to musical motion and gesture to create paths to meaning). These analyses apply many of the methodological tools in order to show the specific ways in which meaning can be constructed by using metaphors and models, and will be examined in more detail in Chapters III and IV.

Three Primary Tools

Metaphors of musical motion

In their article "'Something In the Way She Moves'—Metaphors of Musical Motion," Mark Johnson and Steve Larson (2003) establish that the commonplace ways in which we talk about musical motion are structured according to conceptual metaphors.[1] They focus on three specific metaphors that help to explain our experience of musical motion: the Moving Music metaphor, the Musical Landscape metaphor, and the Music As A Moving Force metaphor. The first two of these draw on larger metaphorical concepts of time. From the observer's perspective, time can be understood in one of two ways: either time is moving past a stationary observer (the Moving Time metaphor), or the observer is moving through the stationary landscape of time (the Moving Observer

[1] The article also appears as a chapter in Johnson 2007 (chap. 11) and Larson 2012 (chap. 3).

metaphor, also called the Time's Landscape metaphor).[2] In both of these metaphors the spatial orientation is the same: the observer's current location is "the present," the space in front of the observer is "the future," and the space behind the observer is "the past."

In the Moving Time metaphor, time moves past the stationary observer (for example: "The deadline is *approaching*," "That's all *behind* us now," and "Time is *flying by*"). The Moving Observer metaphor reverses this perspective; the observer now moves through the stationary landscape of time (for example: "We're *halfway through* September," "We *passed* the deadline," and "There's going to be trouble *down the road*"). Despite this change in perspective the relative spatial locations are the same as in the Moving Time metaphor (the current location is the present, the future is in front, and the past is behind). In the Moving Observer metaphor we can also conceptualize the passage of time as motion along a path. As such, we can measure the time traversed over the landscape as a long or short distance (for example: "He was only there for a *short* time" and "It's been a *long* time since I've seen her around here").

Johnson and Larson show that these two basic metaphors for time also structure our metaphors for musical motion, resulting in the Moving Music metaphor (the music is moving past a stationary observer) and the Musical Landscape metaphor (the observer is moving through a stationary musical landscape). Examples of the Moving Music metaphor are revealed in phrases such as "Here *comes* the recapitulation," "That solo *went by* in a flash," and "The strings slow down *here*." Evidence of the Moving Observer metaphor can be seen in phrases like "We're *coming to* the coda," "When we *get to*

[2] See Lakoff and Johnson 1999 (chap. 10) for a more detailed account of our metaphors for time. See Cox 1999 for a more detailed account of the metaphoric logic of musical motion and space.

measure 52 the dynamic level suddenly drops," and "I can't figure out *where* we are in this sonata form."

Given that our experience of musical motion involves metaphorical mapping from our experience of physical motion, the logic of the way in which objects move in physical space carries over into musical space. Three of the most important inferences we draw from physical motion, which in turn are applied to musical motion, are as follows: 1) motion requires an *object* that moves, 2) motion occurs along a *path*, and 3) motion has a *manner* (Johnson and Larson 2003, 70). Determining the object that is moving in music is no easier than determining the object that moves when we speak of time. However, in both cases, the important point is that we *experience* music or time as if it moved, not that we can identify the actual object of motion (which in some sense is impossible). We often envision objects in motion tracing imaginary paths, and in music, segments of these paths are called passages. The manner of motion in music is the felt quality of motion or tempo, and virtually any descriptive word used to refer to physical motion can be applied to musical motion (for example: "plodding," "hurriedly," "confidently," and "laboriously").

So what are the consequences and rewards of adopting an embodied metaphorical perspective on musical meaning? Johnson and Larson conclude their foundational article with an answer to this question, which emphasizes the point that the human capacity for meaning extends far beyond the ability to express that meaning through language:

> We would like to end by highlighting one important insight that comes from an examination of the role of metaphor in our understanding and experience of music, namely that the mechanisms of human meaning extend far beyond the capacity for language. Philosophical reflection on music has often assumed that music is some kind of "language." There is a strong tendency among philosophers and music theorists to think that our "primary" experience of meaning is in language, so that whatever meaning music has must be measured against linguistic meaning. Moreover, these same theorists often adopt false views of

> linguistic meaning as tied solely to reference and to truth conditions. When music seems not to measure up to such mistaken referential criteria of linguistic meaning, it is then erroneously concluded that music is a second-class citizen of the intellectual world.
>
> The problem here lies not so much in the idea of music as language, but rather in overly narrow and restricted views of linguistic meaning as involving objective reference that is alleged to be completely independent of the nature of our bodies. What is left out are the embodied and affective dimensions of linguistic and musical meaning alike. Music is meaningful in specific ways that some language cannot be, but it shares in the general embodiment of meaning that underlies all forms of symbolic expression, including gesture, body language, ritual, spoken words, visual communication, and so on. Thinking about how music moves us is not going to explain everything we need to know about language, but it is an excellent place to begin to understand how all meaning emerges in the flesh, blood, and bone of our embodied experience. (2003, 80–81)

It should be pointed out that the metaphors for musical motion Johnson and Larson discuss are not the only possible metaphors that can be applied to music: other metaphors are certainly possible (for example, Music As Dance or Music As Drama/Narrative). Additionally, some of the metaphors for musical motion are inconsistent. In the Moving Music metaphor the observer is stationary, but in the Musical Landscape metaphor the observer is moving. These types of contradictions have led some to argue against the validity of conceptual metaphors. But these multiple metaphors combine to create the rich diversity of meanings we draw from music (and the same thing also happens in language). Furthermore, we cannot separate our experience of music from our understanding and conceptualization of it:

> We do not merely experience a musical work and then understand it. There is not experience first, followed by our grasp of the meaning of that experience. Rather, our understanding is woven into the fabric of our experience… For example, we don't just listen to a musical passage that moves and then say "Hey, that piece really moves, and, by the way, I can see a similarity between the way the music moves and what happens when a person or object moves." If there were no physical motion, it is difficult to imagine how there could even be musical motion. It appears that you can experience musical motion only because of your embodied experience and your embodied understanding of physical motion. (2003, 78)

And finally, we should remember that metaphors of musical motion are not the only way we create meaning in music. But if metaphors are pervasive in our thinking and reasoning about our everyday lives, then metaphors should be just as pervasive in our thinking and reasoning about music. Metaphors of musical motion serve as one of the most important tools that enable a discussion of musical meaning.

Larson's theory of musical forces

If we experience musical motion in terms of physical motion, then it follows that musical motion should be shaped by forces analogous to the ones that shape physical motion. In his forthcoming book, *Musical Forces: Motion, Metaphor, and Meaning in Music* (2012), Steve Larson argues that we experience musical motion in just this way according to the metaphor Musical Succession Is Physical Motion. The central claim of the theory of musical forces is that

> our experience of physical motion shapes our experience of musical motion in specific and quantifiable ways—so that we not only *speak* about music as if it were shaped by musical analogs of physical gravity, magnetism, and inertia, but we also actually *experience* it in terms of "musical forces." (2012, 1–2)

Larson (2012, 22) defines three of these musical forces as follows:

- "melodic gravity" is the tendency of a note heard as above a stable reference platform to *descend*
- "melodic magnetism" is the tendency of an unstable note to move to the *nearest* stable pitch (a tendency that grows stronger the closer we get to that goal) [3]

[3] In previous publications, Larson uses the terms "musical gravity" (instead of "melodic gravity") and "musical magnetism" (instead of "melodic magnetism") to describe these same melodic tendencies. In addition to the three melodic forces defined above, Larson also defines two rhythmic forces: "metric magnetism" (the pull of a note on an unstable attack point to a subsequent and more stable attack point, a pull that grows stronger as the attracting attack point grows closer) and "rhythmic gravity" (that quality we attribute to a rhythm, when we map its flow onto a physical gesture, that reflects the impact physical gravity has on that physical gesture).

- "musical inertia" is the tendency of a pattern of pitches or durations, or both, to continue in the same fashion (where what is meant by "same" depends upon what that musical pattern is "heard as")

The theory of musical forces does not claim that gravity, magnetism, and inertia are the only forces that have a bearing on our experience of musical motion, or that musical forces account for every aspect of the expressive meaning of a musical passage.[4] But if listeners understand musical motion by mapping from their experience of physical motion, then the claim is that musical forces will play a role in the types of meanings listeners ascribe to specific passages of music. And we should also remember that these forces are *metaphorical*, and that "our immediate experience of musical motion is shaped by our *embodied intuitive* understanding of physical motion—not by our *intellectual* understanding of physics" (Larson 2012, 22).

To illustrate the role that musical forces play in creating expressive meaning Larson uses two contrasting examples: "Twinkle, Twinkle, Little Star" and "Dido's Lament" from Purcell's opera *Dido and Aeneas* (**Examples 2.1** and **2.2**). Upon first hearing each excerpt we could characterize "Twinkle, Twinkle, Little Star" as sounding "happy" and "Dido's Lament" as sounding "sad." But why? Is it because of the lyrics? "Twinkle, Twinkle, Little Star" reflects the wonder and amazement of a child looking up at the stars while "Dido's Lament" speaks of being laid in the grave. The text certainly plays an important role in communicating the overall affect and meaning of each piece, but the text is not the only source from which we draw meaning (we will return to this idea in Chapter IV with the analysis of Schubert's Lieder). The specific melodic motions, when interpreted in light of the musical forces acting upon them, also contribute to

[4] For example, Rothstein (2005) discusses the idea of "musical friction" with regards to rubato.

expressive meaning. (The following discussion will only consider the force of melodic gravity, but melodic magnetism and musical inertia also contribute to the expressive meaning of each excerpt; see Chapter 4 of *Musical Forces* for a more extensive discussion.)

In "Twinkle, Twinkle, Little Star" we begin on the stable platform of C (**Example 2.1**). The first melodic motion is a leap up to G. After arriving on G we move to an upper neighbor A, which is then followed by a stepwise descent back to C. Thus, the initial leap overcomes gravity by leaping from the tonic to the dominant pitch. After the energy expended to execute this leap we have a brief rebound (the G–A–G upper neighbor) and then pause for a moment as if to catch our breath on the word "star." The subsequent steps give in to gravity by descending back to the stable tonic platform.

Example 2.1. "Twinkle, Twinkle, Little Star"

The opening of "Twinkle, Twinkle, Little Star" begins with a pattern that could be generalized as $\hat{1}$–$\hat{5}$–$\hat{6}$–$\hat{5}$ in a major key. Larson calls this pattern the "hallelujah figure" because the same melodic pattern occurs in Handel's "Hallelujah Chorus" (we might also associate this pattern with the tune "Happy Birthday," which also begins with a $\hat{5}$–$\hat{6}$–$\hat{5}$ pattern in a major key). But does the meaning of "Twinkle, Twinkle, Little Star" arise from associating this melodic pattern with other tunes we interpret as sounding "happy"? This type of association could be one source of meaning, but the specific qualities of

melodic motion, and the ways in which this motion is shaped by musical forces, also contribute to the expressive meaning we draw from this passage. "Twinkle, Twinkle, Little Star" can thus be interpreted as confidently beginning with a purposeful leap, and then dissipating that energy evenly and smoothly by returning via a stepwise descent to the stable platform of departure. The even durational pacing (each pitch lasts for two beats) lends a sure-footed and confident quality to the motion that contributes to the overall expressive meaning.

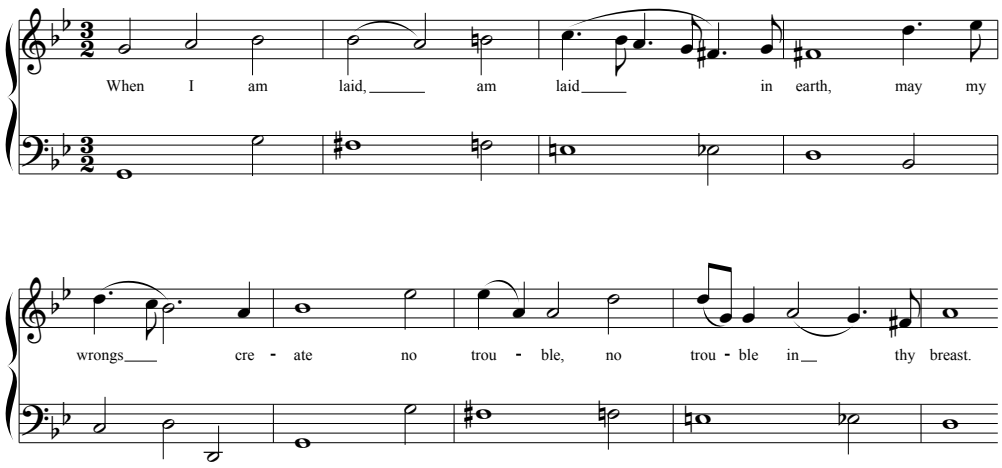
"Dido's Lament" is built on a ground bass pattern, the opening of which is often referred to as the "lamento bass" because of its chromatic descent from tonic to dominant (**Example 2.2**). Conventional melodic and harmonic formulas such as this often carry particular meanings (another example is the two-note descending "sigh" figure). The lamento bass is so named because it is often used in contexts where the text speaks of sadness, lament, or death, and even without sung text it still carries these associations. But is this meaning arbitrary or does it have something to do with the particular characteristics of melodic motion?[5] The theory of musical forces provides an answer to this question. In summarizing the expressive meaning of "Dido's Lament," Larson writes:

> The downward motion of the bass reflects the sadness of death by giving in to gravity; people feeling the weight of sadness are pulled down by it (this is why we speak of feeling *low*, being *depressed*, *down* in the dumps, or *weighed down* by concerns). The slow tempo and the gradual but constant bass descent by half step

[5] Larson (2012, 6–17) elegantly argues against the ideas that the association between meaning and material is completely arbitrary, and that meaning relies solely on the "rote learning of conventions." Deryck Cooke (1959) catalogs a wide range of melodic patterns and attempts to fix particular meanings to them by associating these patterns with the meaning of their texts. In short, patterns in major express joy while patterns in minor express tragic anguish. These affects arise from the "tensions" between pitches in the tonal system (40 ff.). While Cooke's attempt to fix particular meanings to particular melodic patterns has been criticized, Larson (2012, chap. 1) demonstrates that the theory of musical forces largely supports Cooke's claims.

map easily onto an experience of being pulled slowly and inevitably downward. Although beginning each new repetition of this bass pattern [the lamento bass] requires an ascent (to get back up to its first note), the primary motion of each gesture is a drooping or sighing one that gives in to gravity. (2012, 84)

Example 2.2. Purcell, "Dido's Lament"



According to the theory of musical forces, meaning is not completely arbitrary but rather is grounded in our embodied experience of musical motion, which is understood metaphorically in terms of our embodied experience of physical motion. The decidedly different expressive meanings we attribute to "Dido's Lament" and "Twinkle, Twinkle, Little Star" are not merely a matter of their different texts. The particular ways in which the notes move in each excerpt, the ways in which we map those musical motions onto physical motions, and the ways in which those motions interact with musical forces tell us a lot about *why* these pieces have the particular meanings they do. The theory of musical forces is one of the foundational methods used in this study and will be applied throughout.

Musical gesture

Much like the topic of musical meaning, the topic of musical gesture (or music and gesture) has flourished recently.[6] And much like the ways in which we intuitively talk about musical motion, we also intuitively talk about musical gesture (for example: "The soprano has an ascending *gesture*," "This *gesture* is difficult to perform," and "The piano accompaniment contains a repetitive *gesture* in the right hand"). Motion and gesture are closely related; we can think of a gesture as a more specific act of motion. Or, put another way, we often conceive of musical passages in terms of motion generally, and in terms of gesture more specifically (Cox 2006).

Although numerous specific approaches to musical gesture exist, it can also be profitable to view musical gesture as a general stance or perspective from which we can interpret music and its meaning. Nearly all views of musical gesture take human gesture as a point of departure, and thus lead to an embodied perspective on musical meaning regardless of whether or not particular authors adhere to the tenets of conceptual metaphor theory (but as we will see, most of these approaches do just that). Although the term "gesture" (whether human or musical) often resists precise definition, this remains one of its appeals. But what is a musical gesture, and how can we define it? We will survey three author's perspectives on musical gesture below: Cox (a metaphorical approach to embodied meaning and knowledge), Larson (a metaphorical approach that accounts for hierarchies of motion), and Hatten (a wide-ranging approach grounded in interdisciplinary research into human gesture).

[6] See Gritten and King 2006, 2011, for a wide variety of approaches to music and gesture.

Arnie Cox's "Hearing, Feeling, Grasping Gestures" (2006) is framed around a simple question: What motivates our use of the term "gesture" as opposed to the more technical terms "motive" or "figure"? Cox argues that the difference between using the terms "motive" and "figure" as opposed to "gesture" goes beyond the mere choice of words, and has important ramifications for embodied meaning. These two different approaches engage two different metaphors. One of these metaphors, Knowing Is Seeing, is dominated by visual terms (for example: "I *see* what you mean" and "Can you *clarify* that last point?"). This metaphor arises from our experience of getting information through vision. In this context we might use the term "figure" to *show* the importance of a particular thematic unit. On the other hand, when we use the term "gesture" to describe that same passage we engage the other common metaphor for knowledge—Understanding Is Grasping (for example: "I *comprehend* your argument" and "I can't quite *grasp* that idea yet"). In this metaphor we have a more visceral connection to knowledge by mapping from our experience of grasping and manipulating objects. Cox summarizes the importance of a gestural perspective and its consequences for embodied meaning as follows:

> "Gesture" seems to best match the level at which we grasp (comprehend) music most viscerally and intimately, and in this way it highlights a kind of musical knowing that is distinct from our more visual and quasi-objective conceptualizations. By focusing on musical gestures we draw attention to a crucial area of musical meaning, and by understanding how musical gestures are grasped and conceived we strengthen our understanding of how musical meaning is constructed. (2006, 57)

Thus, a gestural perspective complements our other metaphorical approaches to meaning, further grounding that meaning in embodied experience.

Steve Larson's (2012) theory of musical forces also addresses aspects of musical gesture. If we conceptualize musical motion in terms of physical motion generally (as the theory of musical forces claims), then it follows that we conceptualize musical gesture in terms of physical gesture more specifically. But what is the difference between a "motion" and a "gesture"? To answer this question we must examine the way that both physical motions and musical motions are hierarchically structured. Larson writes:

> If we hear musical motions as analogous to physical motions, and if we experience physical motions as hierarchical, then durational patterns will also tend to be heard as hierarchical. And because this knowledge comes from our experience of physical motions, we expect those musical motions to be combined in hierarchies that are constrained by the same tendencies that constrain the combinations of physical motions…One of those constraints is that physical motions tend to have beginnings, middles, and ends that move from stability through instability then back again to stability. Like many musicians, I often refer to such a motion (one with a beginning, middle, and end) as a "gesture." (2012, 145)

In other words, a gesture is a more specific act of motion (the term "motion" does not specify discrete units in the way that the term "gesture" does). Furthermore, when we describe a bit of melody as a "gesture" (as is quite common among musicians) this provides further evidence that we conceptualize music in terms of physical motion (Larson 2006).

We can use our understanding of smoothly connected physical gestures to inform our understanding of smoothly connected musical gestures, and this understanding forms the basis of Larson's pattern map for the combination of three-note pitch patterns (to be discussed below). We can also modify Larson's general metaphor Musical Succession Is Physical Motion to create a complementary metaphor—Musical Gesture Is Physical Gesture—that allows us to tell additional stories about passages of music by mapping

specific musical gestures (those with beginnings, middles, and ends) onto specific physical gestures.

Robert Hatten's *Interpreting Musical Gestures, Topics, and Tropes* (2004) outlines a comprehensive theory of musical gesture that ranges from "the biological and cultural to the music-stylistic and strategic, and from the thematic and dialogical to the rhetorical and tropological" (7). While the full details of that theory are beyond the scope of the present discussion, I will highlight a few of Hatten's main ideas. Hatten takes scientific research into human gesture as a starting point—which reveals the *prelinguistic* status of gesture—and he defines gesture as a "synthetic gestalt" with "emergent expressivity" (2004, 112).[7] Gestures are synthetic in that they move beyond mere pitch and rhythmic content to encompass other parameters such as accentuation, articulation, and dynamics. Additionally, "gestural character and quality *emerge* for the listener from an interaction with tonality and meter as environmental fields with implied forces and orientations" (2004, 117). These "forces and orientations" correlate closely to the theory of musical forces, as Hatten acknowledges, although he suggests that the theory of musical forces may be complemented by the addition of an implied musical agent.

One of Hatten's motivations in developing a theory of musical gesture is to bridge the gap between elements that are often overlooked by theorists or relegated to expressive nuance by performers. Additionally, Hatten argues that "Gestural syntheses can complement and provide a corrective for the overly analytical approaches to structure, helping bridge the gap in the unnecessary opposition 'musical structure *or* expression,'

[7] In a separately conceived essay, Hatten defines gesture simply as "any energetic shaping through time that may be interpreted as significant" (2006, 1). This essay serves as a succinct introduction to his theory of musical gesture.

and easing us past the conceptual logjam of their simplistic opposition" (2004, 10). In other words, by adopting a perspective on musical meaning that is grounded in human gesture we are able to move beyond descriptions of "mere structure" and move toward an embodied understanding of music and its meaning.

But in what sense is gesture embodied if it is not understood through conceptual metaphor theory? And what is the relationship between musical gestures conceived through score study or listening and those actually performed?[8] Hatten argues that gestures are embodied in the broadest sense of the term:

> Embodiment…is understood as broader than that which is literally manifested through a body. We do not have to perform to understand and experience the embodiment of a gesture—we embody gesture imaginatively as participating listeners, or even more imaginatively in silent audiation of a score…The intermodality of gesture leads ultimately and naturally to its categorization as a form of thought. (2004, 131)

This sense of embodiment resonates with conceptual metaphor theory. However, Hatten eschews conceptual metaphor theory and refers instead to the "intermodality of gesture," which is "the capacity for analogous representation across all the senses and motor systems" (2004, 97).

Secondary Tools

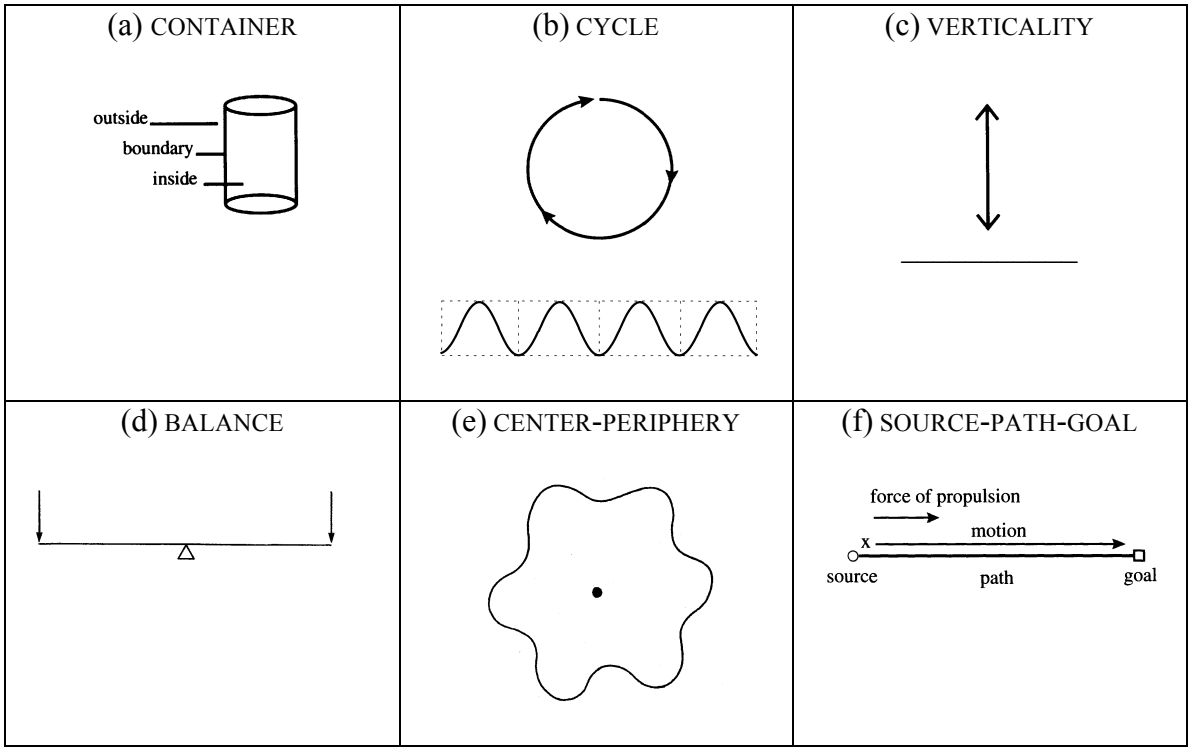
Image schemas

One of the central components of the work on conceptual metaphors and embodied meaning by Lakoff and Johnson is the notion of image schemas. Johnson defines an image schema as "a recurring, dynamic pattern of our perceptual interactions

[8] See Pierce 1994, 2007, for a pedagogical approach to gesture and embodied interpretation for performers in light of Schenker's theories. See Hatten 2004 (126–31) for a summary of Pierce's approach.

and motor programs that gives coherence and structure to our experience" (1987, xiv).[9] These recurring patterns result from our interaction with the world and are fundamental to our understanding of abstract concepts. While image schemas can be represented via images, it is important to note that they are not actual images or mental pictures but rather "structures that organize our mental representations at a level more general and abstract than that at which we form particular mental images (1987, 23–24). Some common image schemas are shown in **Figure 2.1**.

Figure 2.1. Image schemas



[9] See Johnson 1987 (chap. 3–5) for a more detailed account of image schemas.

To illustrate the role that image schemas play in our thinking, and their relationship to metaphor, Johnson (1987, xiv–xv) begins with an illustration of the VERTICALITY schema**.** Many aspects of our everyday experience involve up-down orientation: the way we hold our body upright, the way we perceive a tree or a flagpole, and the way we fill up a glass or the bathtub with water. The VERTICALITY schema is an abstract representation of these recurring patterns in our experience and structures our pervasive metaphors for quantity—More Is Up and Less Is Down (for example: "His notoriety keeps *rising* year after year," "Turn *down* the heat," and "Home prices are *falling*"). In a very consistent manner, more is oriented upwards and less is oriented downwards. Similarly, when we consider these metaphors in light of the CONTAINER schema, adding more of substance (say, a liquid) to the container causes the overall level to rise, and pouring some of the substance out of the container causes the overall level to fall. Thus, the fact that more is oriented up and less is oriented down is not an arbitrary convention of language; rather, this orientation is fundamentally grounded in our embodied experience of the world.

Candace Brower (2000) has shown that many tonal conventions are in fact grounded in bodily experience. One way in which we can understand this grounding is by mapping conventional patterns of tonal music onto image schemas derived from bodily experience. The image schemas that are most important for our understanding of tonal music were shown in **Figure 2.1**: CONTAINER, CYCLE, VERTICALITY, BALANCE, CENTER-PERIPHERY, and SOURCE-PATH-GOAL. The mapping of conventional patterns of melody, harmony, phrase structure, and form onto these image schemas results in what Brower calls "music-metaphorical schemas." For example, the overtone series can be mapped

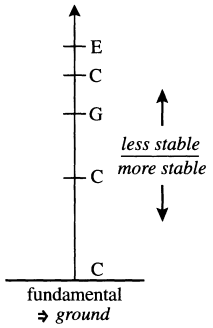
onto the VERTICALITY schema (**Figure 2.2a**). With the fundamental as "ground," the pitches above that fundamental can be interpreted as decreasing in stability. **Figure 2.2b** combines aspects of the CENTER-PERIPHERY, VERTICALITY, and BALANCE schemas, and entails a consistent relationship between stability and tension: working against gravity raises tension and being off balance raises tension.

The CYCLE schema can be represented in one of two ways: as a circular path or as a periodic oscillation: **Figure 2.2c** shows a chromatic scale mapped onto a circular path, and **Figure 2.2d** shows tonic and dominant mapped onto a periodic oscillation. The SOURCE-PATH-GOAL schema can be applied to a number of different musical elements such as harmony and phrase structure. **Figure 2.2e** shows Schenker's fundamental structure (*Ursatz*) mapped onto the SOURCE-PATH-GOAL schema. The upper line (*Urlinie*) contains a single goal-directed motion from $\hat{3}$ to $\hat{1}$ and the lower line contains two goals: V and I. A wide variety of additional musical parameters can be mapped onto a wide variety of different schemas. For example, key areas and the concept of modulation may be mapped onto the CONTAINER and PATH schemas, phrase structure may be mapped onto the CYCLE and SOURCE-PATH-GOAL schemas, and musical plot structure may be represented in various instantiations of the CONTAINER and PATH schemas.

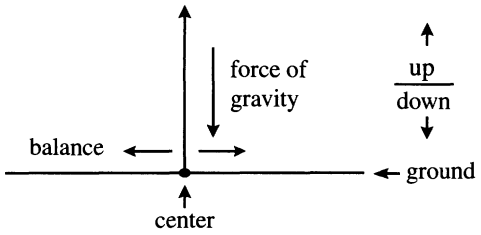
According to Brower, meaning arises from mapping patterns heard in a particular musical work onto patterns stored in memory. The patterns can take a variety of forms, such as patterns specific to the work itself, patterns abstracted from musical convention, and patterns abstracted from bodily experience. Thus, image schemas, music-metaphorical schemas, and conceptual metaphors all play a role in creating embodied meaning. Image schemas have proved particularly attractive to music theorists because

Figure 2.2. Brower's music-metaphorical schemas

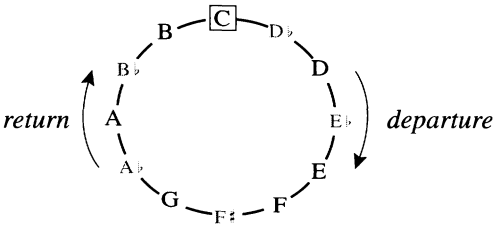
(a) OVERTONE-VERTICALITY



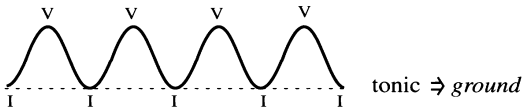
(b) CENTER-VERTICALITY-BALANCE



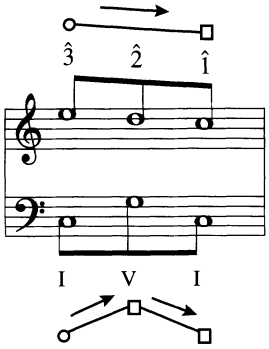
(c) CIRCULAR MELODIC PATH



(d) TONIC-DOMINANT CYCLE



(e) SOURCE-PATH-GOAL

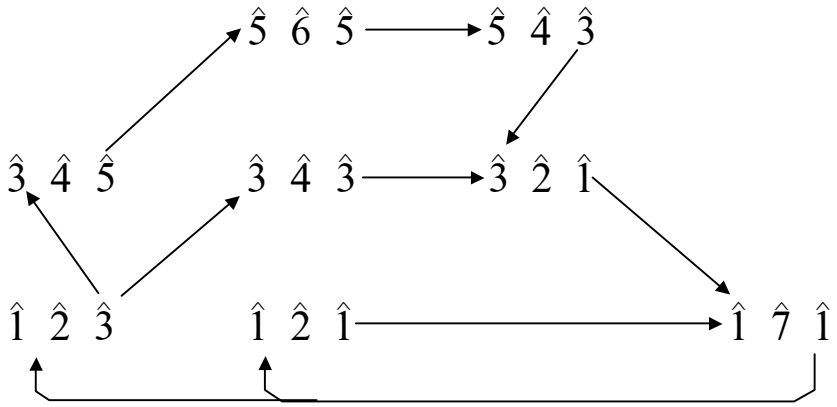


they seem to so naturally adapt to conventions of tonal harmony and various conceptual constructs in music theory.[10]

Larson's pattern map

Based on our metaphorical understanding of musical motion and the theory of musical forces, we can construct a model for the combination of pitch patterns. Larson's pattern map lists all possible three-note stepwise pitch patterns that begin on a stable note, move through an unstable note, and end on a stable note by giving in to at least one of the musical forces (**Figure 2.3)**.[11]

Figure 2.3. Larson's pattern map



[10] For additional applications of image schemas in music theory see Brower 1997–98, Brower 2008, Gur 2008, Saslaw 1996, and Saslaw 1997–98.

[11] A discussion of the pattern map (with various emphases) can be found in the following sources: see Larson 1997–98 for the original presentation and a connection to Schenkerian studies of hidden repetition; see Larson and VanHandel 2005 for a correlation to Schenker's *Five Graphic Music Analyses*; see Larson 2006 for a more explicit orientation toward musical gesture; and see Larson 2012 (chap. 6) for a discussion embedded within the larger context of rhythm, meter, gesture, and hierarchical physical motions.

In this model the stable notes are defined as members of a major key tonic triad ($\hat{1}$, $\hat{3}$, and $\hat{5}$). For example, the $\hat{5}$–$\hat{6}$–$\hat{5}$ pattern begins on a stable $\hat{5}$, moves to an unstable $\hat{6}$, and gives in to the force of melodic gravity (by descending) and melodic magnetism (by moving to the closet stable pitch) by moving to a stable $\hat{5}$. The $\hat{5}$–$\hat{4}$–$\hat{3}$ pattern begins on a stable $\hat{5}$, moves to an unstable $\hat{4}$, and gives in to the forces of melodic gravity (by descending), melodic magnetism (by moving to the closet stable pitch), and musical inertia (by continuing the pattern of pitches in the same direction) arriving at a stable $\hat{3}$.[12] It should be pointed out that the magnetic pull can be strong or weak: strong if the closest stable pitch is a half step away, and weak if the closest stable pitch is a whole step away. This reflects the way that magnets work in the physical world, and provides the basis for the qualification in the definition of melodic magnetism that the tendency of a note to resolve to the closest stable pitch is one that "grows stronger the closer we get to that goal."

The patterns on the map are also gestures according to Larson's definition: they have "beginnings, middles, and ends that move from stability to instability then back again to stability" (2012, 145). When we conceptualize the three-note patterns from the map as gestures, then we can hypothesize ways in which those gestures can be gracefully combined according to our understanding of the ways in which physical gestures are gracefully combined. The combination of gestures is considered graceful when at least one of the following characteristics is present: 1) there is a circling motion around a stable point of arrival that eases the arrival to that goal, 2) two gestures are combined in one continuous motion so that inertia carries through a relatively stable point of elision

[12] See Larson 1993 for a more extensive list of three- and four-note patterns that give in to musical forces, and a more detailed account of the specific forces that predict the final note in each pattern.

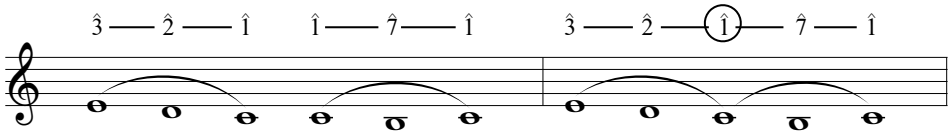
(thus changing direction at relatively unstable points), or 3) a pause occurs at a relatively stable point before changing direction (Larson 2006, 46). Thus, the pacing of gestures affects the ways in which they are combined and whether changes of direction will occur at stable or unstable points. When gestures flow from one to another without pause we change direction at unstable points; when two gestures are relatively separate we change direction with a pause at a stable point. The following discussion is restricted to gestures that are elided and flow directly from one to another without pause.

The first characteristic above holds that the combination of two gestures is graceful when one of the gestures circles around a stable point of arrival, easing the arrival to that goal. For example, imagine jumping down from a ledge. You would not land rigidly—if you did it would hurt! In order to execute a graceful landing you would bend your knees to absorb the impact before returning to an upright stance. This bending of the knees is a circling motion around a stable point of arrival. The second characteristic above holds that gestures may be gracefully combined when the first gesture flows smoothly into the second gesture. In this case, inertia continues through a stable point of elision in the same direction and changes direction at an unstable point. For example, imagine catching a ball and throwing it back in one smooth motion. This motion is actually comprised of two distinct physical gestures: catching the ball as it is coming towards you, and then throwing the ball away from you. When the ball is caught, inertia caries through a stable point (as you make contact with the ball) then changes direction at an unstable point (as you ”wind up” to throw it back).

The arrows in **Figure 2.3** show how the three-note patterns from the map may be combined according to Larson’s criteria for graceful gestures and can be restated in the

form of two rules: 1) patterns to be combined are elided, and 2) inertia continues through the shared pitch in the same direction. One result of these rules is that changes of direction occur on unstable pitches. **Example 2.3** illustrates the combination of two patterns from the map: $\hat{3}$–$\hat{2}$–$\hat{1}$ and $\hat{1}$–$\hat{7}$–$\hat{1}$. In this combination inertia continues through the stable point of elision ($\hat{1}$) and changes direction on the unstable pitch ($\hat{7}$). Additionally, The $\hat{1}$-$\hat{7}$-$\hat{1}$ motion represents a circling motion around the stable point of arrival ($\hat{1}$), further adding to the gracefulness of this combination by easing the arrival to that goal.

Example 2.3. Pattern combination

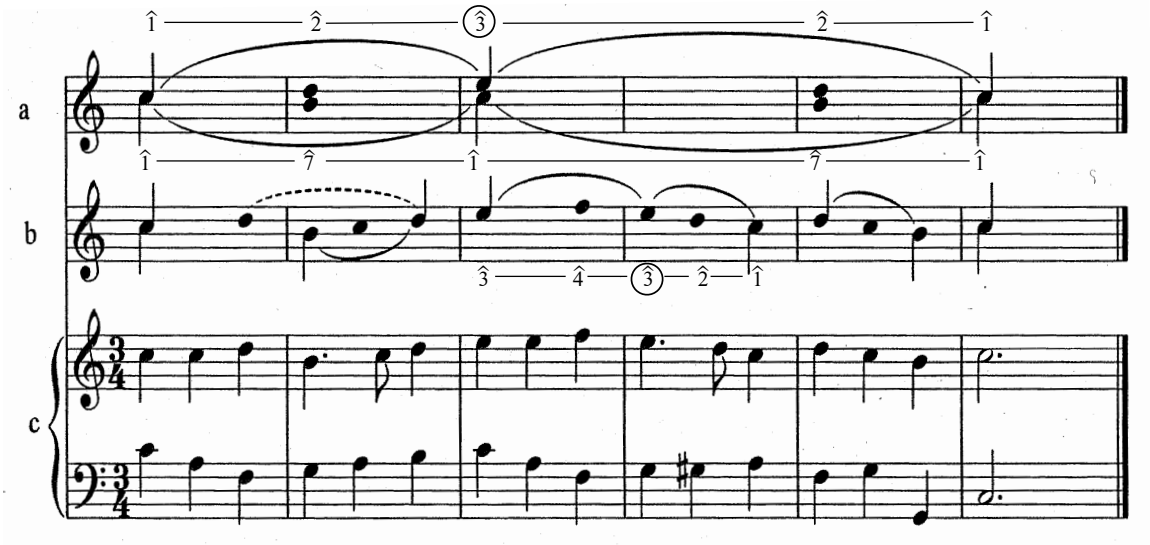


Many pieces of music contain patterns from the map on the musical surface. For example, in "Twinkle, Twinkle, Little Star," after the initial leap from $\hat{1}$ to $\hat{5}$ the melody continues by combining three patterns from the map: $\hat{5}$–$\hat{6}$–$\hat{5}$ + $\hat{5}$–$\hat{4}$–$\hat{3}$ + $\hat{3}$–$\hat{2}$–$\hat{1}$ (refer back to **Example 2.1**). However, patterns from the map are not limited to the musical surface but can occur on multiple levels of structure. One of the central claims of Larson's theory of musical forces (and the pattern map) is that these three-note patterns operate on all levels of structure, thus correlating nicely with Schenker's theories.

Example 2.4 reproduces Larson's (2006, 67–68) analysis of the first phrase from "God Save the Queen/King." As shown at level *a*, the first phrase combines three different patterns: $\hat{1}$–$\hat{2}$–$\hat{3}$ and $\hat{3}$–$\hat{2}$–$\hat{1}$ in the upper voice, coupled with two instances of

$\hat{1}$–$\hat{7}$–$\hat{1}$ in the lower voice. Some of the patterns from the map can also be found at the musical surface, as shown at level *c*: measures 3–4 combine the patterns $\hat{3}$–$\hat{4}$–$\hat{3}$ and $\hat{3}$–$\hat{2}$–$\hat{1}$. The pattern map need not be applied consistently across all levels of structure, and the map cannot account for every note in a musical passage. However, the patterns from the map, and their various combinations, represent some of the most important patterns in tonal music. The pattern map, and the criteria for the graceful combination of gestures will be applied in the second half of Chapter III in the analysis of two of Bach's gigue subjects.

Example 2.4. Larson's analysis of "God Save the Queen/King"



Models of tonal structure

The dominant model of tonal structure today is that of Heinrich Schenker, which is based on the metaphor Music As Organism. Schenker's theory of tonal music consists

of multiple hierarchical levels, all of which elaborate the same basic patterns. The guiding model behind these levels is the *Ursatz* (fundamental structure), which contains a stepwise melodic descent from $\hat{5}$ or $\hat{3}$ to $\hat{1}$ accompanied by a I–V–I progression in the bass. For Schenker, the hierarchical structure of a composition emanates from the background (the *Ursatz*) through any number of middleground levels to the foreground (the musical surface). However, as an analytic practice, Schenkerian analysis often proceeds from the foreground to the background. Thus, as practiced, Schenkerian analysis is often viewed as a reductive method.

Kofi Agawu (2009) turns the process of Schenkerian analysis on its head by proceeding from background to foreground. Schenker ([1910–22] 1987, 175) uses the metaphor of "bridges to free composition" in *Kontrapunkt* to assert that free composition is essentially a continuation of strict counterpoint. However, strictly speaking, the bridges that Schenker speaks of do not exist, nor does Schenker make clear how one moves from strict counterpoint to free composition. Without delving into the finer points of this issue we can examine the benefits of trying to find these "bridges," which link an abstract or idealized tonal model to the musical surface.

In order to do a successful Schenkerian analysis one must have some background progressions in mind (pedagogues often speak of simultaneously working from the "bottom-up" and the "top-down"). But what does Agawu's approach entail? He writes: "I wish to emphasize a *generative* approach over a reductive one… In other words, to encourage students to work from the abstract level to the concrete, from a prototype to a piece-specific manifestation, from a background to a foreground" (2009, 113). One benefit of the generative approach is that it "compels empathy with the imagined

compositional process; in the best of cases, it brings genuine insight into how a particular composition works" (2009, 113).[13]

So how does a generative approach lead to a discussion of meaning? First, by thinking in basic tonal prototypes it emphasizes the fact that tonal meaning is inherent in and of itself according to tonal tendencies. A basic I–V–I progression with $\hat{3}$–$\hat{2}$–$\hat{1}$ in the upper voice illustrates these basic tendencies from which we draw meaning. This archetypal progression shows that "tonal tendency is the product of tonal dependency, that meaning is context while context is meaning, that succession generates expectations, and that the disposition of voices and lines signifies as does intervallic motion" (110). The two tonic chords do not mean the same thing: the first opens up the progression (a beginning) and the second closes off the progression (an end). When moving from I to V the dominant chord (a middle) signals the expectation of a resolution to tonic (and if it does not resolve to tonic, that expectation is fulfilled in a different way). Second, it highlights the ways in which particular compositions express or elaborate basic tonal motions, and places an emphasis on the way that patterns are realized. Finally, when viewed as a fictional improvisation, the generative approach tells us something about the different "tricks, licks, clichés, and conventional moves" in a given composer's style and engages the metaphor Music As Language (2009, 148).

[13] This approach has much in common with Laurence Dreyfus's (1996) study of Bach's "inventions" and their subsequent transformation. For other approaches based on prototypes, models, and their transformations see Brown 2006, Lester 1998, Linsley 2008, and Renwick 1995.

Models in general

I have not detailed all of the models that I will use in my analyses because a wide variety of commonplace models in music theory can be used to create meaning. Models will be used throughout this study in varying ways. Anytime we make use of models in analysis we create an opportunity to say something about meaning; however, these claims about meaning often lurk beneath the surface of analytic discourse. For example, when we do a simple roman-numeral analysis we engage a model of the tonal system (each triad or seventh chord is built on a scale degree of the major or minor scale and carries a characteristic chord quality based on that scale) and models of functional harmonic progression (such as the T–PD–D–T phrase model). When we analyze the phrase structure of a passage we engage models of phrase length and hierarchical structure (8 [4+4] or 8 [2+2+4]), models of phrase type (sentence, period, etc.), and models of hypermeter (large-scale meter where measures act as beats). The list of models in music theory goes on and on, and I challenge the reader to think of any music-theoretical tool that is *not* based on some model. Models also underlie the whole transformational branch of music theory (the mathematically-based Lewinian type or the more general and intuitive "How do we get from *a* to *b*?")

Regarding models in general, we should ask: Where do models come from and how do models lead to meaning? One answer is that patterns (when used consistently) give rise to models, models (when used consistently) give rise to expectations, and the confirmation or denial of these expectations gives rise to meaning. We should bear in mind that models need not be generated from, or applicable to a wide body of repertoire.

Individual pieces of music can set up their own models. These piece-specific models may be in dialogue with other more conventional models or may be particular to a given work.

If meaning is synonymous with understanding, then the use of models in analysis goes a long way to engender that understanding by giving us a measuring stick for conventional expectations within a given musical style. In fact, one way in which to view a musical style is as a collection of models that represent the conventions of that style.[14] If music never surprised us by deviating from expectations it would be rather uninteresting. On the other hand, if music never generated any expectations it would also be rather uninteresting. Models play a key role in generating these expectations. Having expectations, and being "pleasantly surprised" by passages of music that deviate from those expectations, is one of the great pleasures of listening to music. While a consideration of the psychological mechanisms of expectation and surprise is beyond the scope of this study, David Huron's (2006) work in these areas suggests that models play an important role in creating these effects.

Preliminary Examples

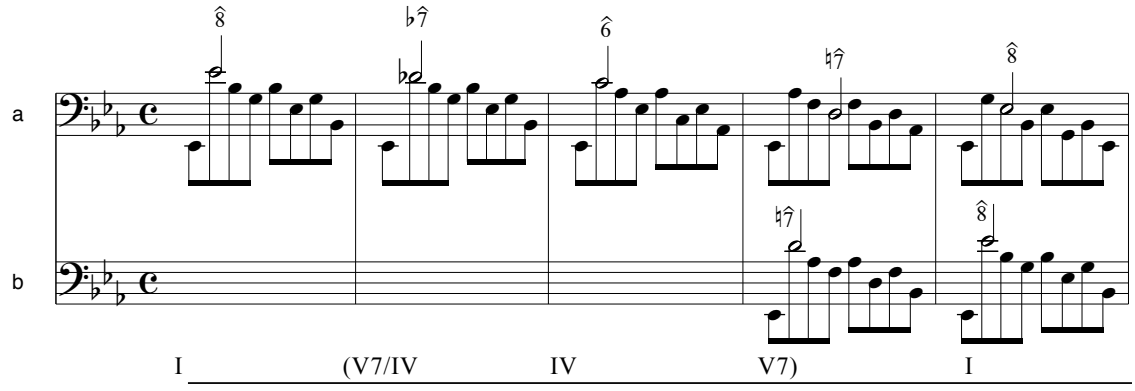
Expectation, denial, and fulfillment: a prelude by Bach

The Prelude from Bach's fourth Cello Suite opens with a standard tonic prolongation pattern (I–V^7/IV–IV–V^7–I) over a tonic pedal (**Example 2.5a**). Bach realizes this harmonic pattern with a near-consistent pattern of figuration. Based on the figuration pattern established at the opening we would expect the final two measures to

[14] For style-specific models see Gjerdingen 2007 (on pitch patterns in the galant style) and Hepokoski and Darcy 2006 (on the late-eighteenth-century sonata). These model-based approaches to style are consistent with Leonard Meyer's view that "style is a replication of patterning…that results from a series of choices made within some set of constraints" (1989, 3). These patterns can be represented through models.

continue this pattern exactly (**Example 2.5b**). The result would be a salient upper-voice line of $\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\natural\hat{7}$–$\hat{8}$ in the same register. Instead, the last two pitches of the expected voice-leading line (D–E♭) plummet to a lower register.

Example 2.5. Bach, Prelude from Cello Suite no. 4, opening prolongation

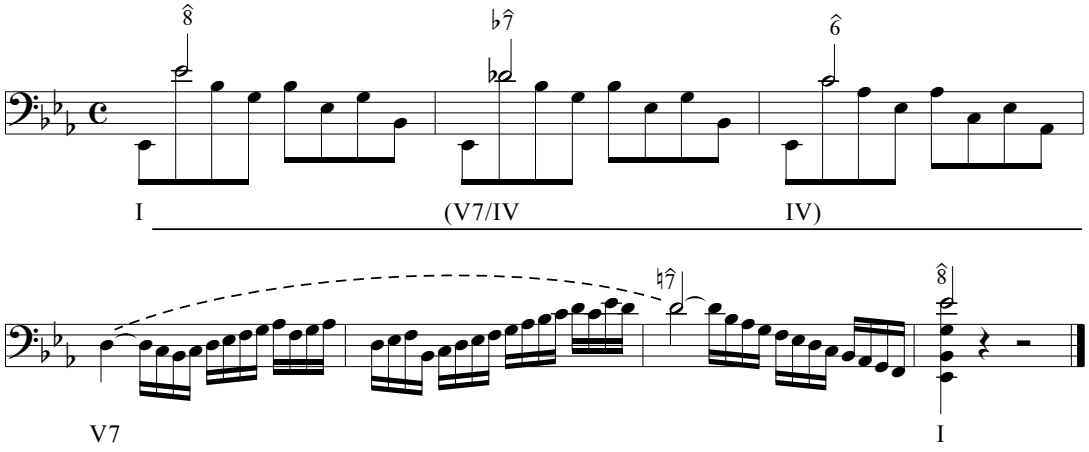


The prolongation pattern and associated salient voice leading can be viewed as a model, and many pieces make use of this model. As the basis for creating meaning in this prelude we can assert the following: the opening prolongation serves as a model, the harmonic pattern creates the expectation of a voice-leading pattern, the figuration pattern established at the outset creates an expectation of how those harmonic and voice-leading patterns should be realized, and the actual music denies the completion of the voice-leading pattern when the last two elements move to a lower register (and the metric

placement of those elements also changes; they no longer fall on the 2nd eighth note of the measure).[15]

At the end of the prelude the same prolongation pattern is repeated, and this time the expected voice-leading pattern is completed in the same register (**Example 2.6**). This completion is dramatized by the sixteenth-note flourish that begins in the "wrong" register (D3) before dramatically climbing to the "right" register (D4). Thus, the expectations generated by the opening model are finally fulfilled.

Example 2.6. Bach, Prelude from Cello Suite no. 4, closing prolongation



We can create meaning in this prelude by using the model of the opening prolongation as the basis for that meaning. By setting up a pattern, and then thwarting the completion of that pattern, our attention is drawn to the model. Between these two prolongational frames the music dramatizes the return to a complete and "correct"

[15] The opening prolongation is what Meyer would call a "generative event" (1973, 118). The opening prolongation generates expectations (or "implications" to use Meyer's term) because some aspect of the pattern is incomplete or unstable. Here, the change in register and the shift in metric placement make the pattern unstable.

version of the opening pattern through several feints toward, and reinterpretations of the pattern (E♭–D♭–C–D♮–E♭) in different tonal contexts. As I mentioned earlier when discussing models in general, patterns give rise to models, models give rise to expectations, and the confirmation or denial of these expectations gives rise to meaning. This process plays out in Bach's prelude and allows us to tell a story about the piece that relates our understanding of this process (thus making it meaningful) and helps to explain our experience of listening to the piece.

The start of a journey: *Schubert's "Das Wandern" and "Gute Nacht"*

To illustrate the types of meaning that can be constructed by applying a metaphorical approach to musical motion (including the theory of musical forces and related concepts of musical gesture) we begin with the opening songs from Schubert's *Die schöne Müllerin* and *Winterreise*. Each song cycle chronicles the journey of its protagonist, but these journeys begin in strikingly different ways.[16] In *Die schöne Müllerin* the young miller begins by conveying his excitement about setting out on a journey to fulfill his innate desire to wander and see what life has to offer. In *Winterreise* the traveler begins by saying good night (really meaning good bye) to his estranged beloved from outside the gate of her home, and leaves town to wander in disillusion without a real purpose or destination. The structural similarities between these two songs provide a common ground for comparing their different expressive meanings: both songs begin with harmonic stasis and repetitive phrases, move to a sequential middle section, and conclude with a cadential section based on the opening phrase that is also repetitive.

[16] Feil (1988) elaborates on many points of contrast between the opening songs in each cycle, and in particular, differences in the qualities of motion.

"Das Wandern," the opening song of *Die schöne Müllerin*, begins with the miller describing the innate pleasure of wandering before he actually sets out on his journey (**Example 2.7**). The first stanza is provided below:

Das Wandern ist des Müllers Lust,	To wander is the miller's joy,
Das Wandern!	To wander!
Das muß ein schlechter Müller sein,	He must be a poor miller
Dem niemals fiel das Wandern ein,	Who never thought of wandering,
Das Wandern!	Of wandering!

The incessant pulse of the piano accompaniment can be interpreted in a number of different ways. As a physical motion, the accompaniment suggests the never-ending grinding of the mill wheels. The offbeat accents of thirds and sixths in the right hand of the piano (sometimes referred to as "double-stops" because they imitate this technique on the violin) punctuate the otherwise continuous sixteenth-note pulse. These accents can be interpreting as expressing impetuous joy the miller feels at the prospect of his journey by bursting through the otherwise undifferentiated rhythmic texture. The eighth-note pulse in the left hand of the piano suggests the physical motion of walking. And the *manner* of motion (a brisk pace, almost a jog) can be interpreted as expressing the excitement the miller feels about his impending journey. (Recall from our earlier examination of metaphors for motion that motion has both a *path* and a *manner*.)

When the miller begins to sing, the vocal line contains three distinct musical gestures, as shown in **Example 2.7**: 1) the leaps of a 4^{th} and 5^{th} in m. 5; 2) the tonic arpeggio in m. 6; and 3) the cadential gesture that circles around the tonic pitch B♭ in m. 7. We can begin to create expressive meaning by examining the ways in which musical forces shape our experience of these gestures.

Example 2.7. Schubert, “Das Wandern”

The opening leaps expend energy and strive upwards against gravity to arrive at the pitch D in m. 6, which serves as the initial goal of motion. When we arrive at the pitch D, we pause for a moment by arpeggiating the tonic harmony through m. 6. We then dissipate the energy expended by the opening leaps by giving in to gravity and descending D–C–B♭ (3̂–2̂–1̂) to conclude the phrase.[17]

By metaphorically mapping specific physical gestures onto these musical gestures, and by examining the *manner* of motion we experience in those gestures, we can tell a story that relates the expressive meaning of this passage and complements the overall mood expressed in the text. In a general sense, we could imagine the miller walking or skipping down the lane at the start of his journey, or scampering up a hill to survey the lay of the land ahead. We might tell a more specific story that correlates with the three distinct musical gestures in the first phrase as follows: 1) the miller scampers up a hill (the ascending leaps), 2) jumps into the air (the arpeggio), and then 3) lands securely on the ground (the cadential gesture with a circling motion around the stable point of arrival). The specific *manner* of these gestures expresses the youthful effervescence and unrestrained excitement the miller feels at the start of his journey.

By considering the gestures and qualities of motion across the entire brief song, we can add an additional perspective to the story of this piece. The phrase rhythm is 8 (4+4) + 4 (2+2) + 4 (2+2), and the form is A–B–A'. The two identical phrases in the first 8 bars (the A section) begin with leaps and conclude by balancing those leaps with stepwise motion in the opposite direction over a tonic-dominant oscillation. The next 4

[17] This opening phrase recalls a similar quality of motion in "Twinkle, Twinkle, Little Star." In both phrases the energy expended by the opening upward leap(s) is balanced by stepwise motion back down to the stable platform of 1̂.

bars (the B section) contain stepwise motion over a harmonic sequence, passing through the submediant on the way to the dominant. The final 4 bars (the A' section) are a compression of the opening phrase and begin with the leap of a 7^{th} followed by a stepwise $\hat{3}$–$\hat{2}$–$\hat{1}$ motion over the final authentic cadence.

We can also contribute to our story by considering the larger-scale melodic gestures and harmonic motion across the entire brief song as illustrated in the voice-leading sketch of the vocal line (**Example 2.8**).

Example 2.8. Schubert, "Das Wandern," voice-leading graph (vocal line only)

The opening harmonic stasis and prevalence of leaps in the melodic gestures suggests that the miller has not yet gone anywhere but is exuberant. The brief sequence and stepwise motion in the B section suggests a move forward, or the actual start of the journey. However, this journey is not yet actualized, as the miller ends up right back where he started. Susan Youens (1992, 74) describes the opening harmonic stasis as "walking-in-place," an apt musical representation of the miller's desire to wander (but he is yet to actually set out on his journey; the journey begins in the next song).

A decidedly different type of journey is begun in "Gute Nacht," the opening song of *Winterreise* (**Examples 2.9** and **2.10**). Although the musical gestures in the opening songs of both cycles suggest the physical gesture of walking through the use of a constant rhythmic pulse, *the manner* of that motion, and the expressive meaning attribute to it, is decidedly different.[18] Whereas the persistent eighth notes in "Das Wandern" suggest a sprightly optimism, the persistent eighth notes in "Gute Nacht" suggest a more reluctant journey—in some sense, a determination to continue rather than begin a journey. The first two stanzas are provided below:

Fremd bin ich eingezogen,	1	A stranger I arrived,
Fremd zieh' ich wieder aus.	2	A stranger I depart.
Der Mai war mir gewogen	3	May blessed me
Mit manchem Blumenstrauß.	4	With many flower garlands.
Das Mädchen sprach von Liebe,	5	The maiden spoke of love,
Die Mutter gar von Eh' –	6	Her mother even of marriage –
Num ist die Welt so trübe,	7	Now the world is so desolate,
Der Weg gehüllt in Schnee.	8	The path veiled in snow.

[18] As I will show in Chapter IV, many of the songs in *Winterreise* represent the physical gesture of walking but with decidedly different expressive meaning as the cycle progresses.

Example 2.9. Schubert, “Gute Nacht,” mm. 1–25

Example 2.10. Schubert, "Gute Nacht," mm. 26–38

In "Gute Nacht" we can distinguish two distinct moods expressed in the text: resignation for the apparently dreadful journey that lies ahead (lines 1–2 and 7–8), and fond reminiscence of times past (lines 3–6). These two different emotional orientations are represented with different musical gestures in Schubert's setting of the vocal line: falling lines express melancholy for the journey ahead, and rising lines express fond reminiscence of past times. These gestures correspond to our basic orientational metaphors, Happy Is Up and Sad Is Down.[19]

By applying the theory of musical forces in the analysis of the vocal gestures we can illuminate meaning and ground that meaning in embodied experience. Specifically,

[19] The expressions "I'm on *top* of the world" and "My spirits were *lifted*" are examples of the metaphor Happy Is Up. The expressions "I'm *down* in the dumps" and "I'm feeling *depressed*" are examples of the metaphor Sad Is Down (Lakoff and Johnson 1980, 14–21).

falling lines can be interpreted as giving in to melodic gravity (expressing sadness, resignation, or generally feeling *down*) and rising lines can be interpreted as striving upwards against melodic gravity (expressing happiness, purposeful striving, or generally feeling *up*). In applying the concept of melodic gravity we must first envision the stable platform to which notes have a tendency to descend. In "Gute Nacht" that platform is the pitch D4 (note that register matters here). According to the metaphor Musical Space Is Physical Space we can envision D4 as "ground." Therefore, when the melodic line cadences on the pitch D5 (in m. 29) we have a locally stable platform, but the claim here is that we *hear* D4 *as* the stable platform globally because the vocal line comes to rest in that register in all but one of the tonic-key authentic cadences.

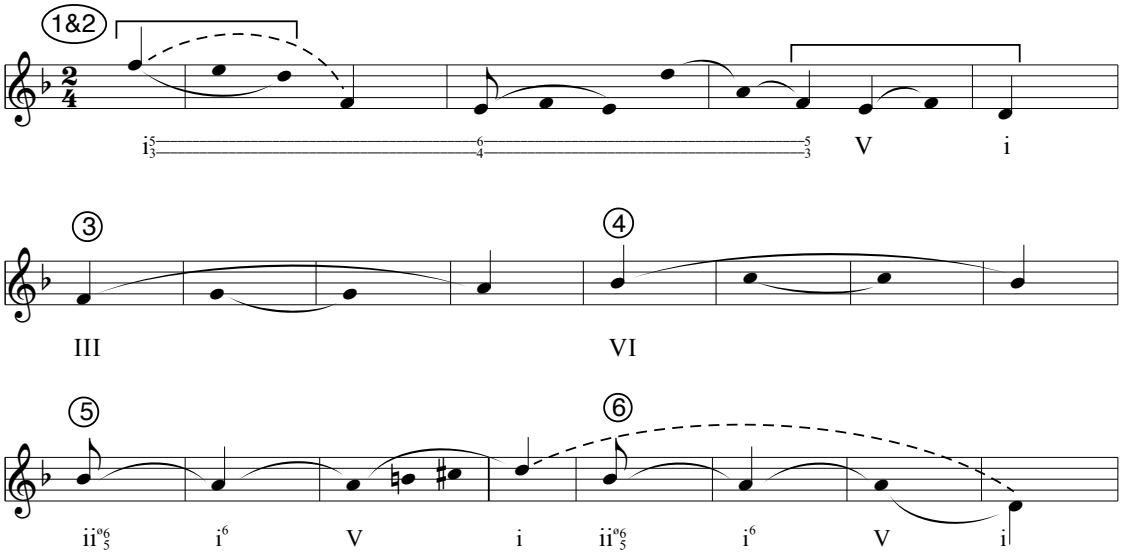
Phrases 1 and 2 are set in minor and follow an overall descending contour that gives in to gravity (phrases 1–6 are labeled in **Examples 2.9** and **2.10**; the form is A–[phrases 1, 2]–B [phrases 3, 4]–A' [phrases 5, 6]). Each 4-measure phrase is divided into two 2-measure subphrases with an eighth-note pickup. The second half of each phrase attempts to regain a higher register by leaping from E4 to D5 (mm. 9 and 13), but this attempt fails when the phrase ends on the stable platform of D4 (mm. 11 and 15). These initial descending gestures express the weight of the journey that lies ahead and the struggles that the wanderer will face. Phrases 3 and 4 (which are sequential) are set in a more optimistic sounding major key and continually rise upward against gravity.[20] These two phrases express a purposeful striving upwards as if pushing back against the grief of the first two phrases. However, this optimism is short-lived and the sense of melancholy

[20] Phrase 4 is not an exact sequence of phrase 3; if phrase 4 had been an exact sequence the final pitch would have been D rather than B♭. This suggests the impending weight of gravity and return to descending motion in the final two phrases, which coincides with the return to gloomier text.

returns in the final two phrases. In phrase 5, the vocal line cadences on D5 suggesting that perhaps the wanderer has overcome the loss and is able to maintain a sense of strength against the relentless downward pull of gravity. However, in phrase 6 the vocal line cadences on D4 (*heard as* the stable platform for this section) thus giving in to the relentless weight of gravity and suggesting that the traveler is already exhausted at the outset of the journey.

We can summarize our experience of these ascending/descending gestures (and the expressive meaning we attribute to these motions in light of melodic gravity) by looking at a voice-leading graph of the vocal line (**Example 2.11**). Phrases 1 and 2 (which are identical) contain a stepwise descent from F to D in two different registers and at two different levels of structure. These phrases give in to gravity by descending from F and express the *down* feeling of those lines of text. Phrases 3 and 4 then rise upward from F to B♭ and expresses the *up* feelings of those lines of text. However, it is important to note that the final pitch of phrase 4 is B♭, not the expected D if the sequencing of these two phrases had been exact. This suggests that the optimism and *up* feeling of these middle phrases is short lived. The final two phrases then treat this B♭ as an upper neighbor to A, which in phrase 5 rises by step to D5 and in phrase 6 leaps down to D4 (the stable platform for this section). Through the use of register, these final phrases encapsulate the dichotomy of gloomy resignation versus fond remembrance in the text, which is realized in Schubert's musical setting by giving in to gravity (expressing sadness) or striving against gravity (expressing happiness).

Example 2.11. Schubert, "Gute Nacht," mm. 1–38, voice-leading graph (vocal line only)



These preliminary examples have shown how some of the metaphors and models detailed in this chapter can enable a discussion of musical meaning. The analysis of the Bach prelude showed how identifying (and paying attention to) a piece-specific model leads to meaning, and the two Schubert Lieder illustrated how a metaphorical approach to musical motion allows us to relate the expressive meaning we attribute to those motions. The analyses presented here (with the exception of "Das Wandern") will be expanded upon in Chapters III and IV.

CHAPTER III

BACH: A PRELUDE AND TWO GIGUE SUBJECTS

This chapter will demonstrate how models and metaphors can create paths to meaning in several instrumental works by J. S. Bach. I begin by showing how the opening prolongation in the prelude from Cello Suite no. 4 is based on a voice-leading model, and how paying attention to the model and its progress across the piece can enable a discussion of meaning. I then show how this model, and the meaning derived from it, can be tied to aspects of our embodied experience. The second half of the chapter applies a model for the combination of musical gestures (Larson's pattern map) to two gigue subjects. The model and the metaphors upon which it is built (Musical Succession Is Physical Motion and Musical Gesture Is Physical Gesture) allow us to explain our judgments about the ways in which gestures are combined. This, in turn, allows us to discuss musical meaning in terms of our bodily experience of physical motion.

Prelude from Cello Suite no. 4 in E♭ major

Many of Bach's works naturally lend themselves to a discussion of pattern. As an avid contrapuntalist Bach displays a masterful manipulation of surface patterns, which are intimately tied to voice leading and harmonic progression. Bach's so-called "pattern preludes" elaborate an underlying harmonic progression with a consistent (or near-consistent) pattern of figuration.[1] One could imagine the compositional process as

[1] For example, the musical surface of the C-major prelude from the book 1 of the *Well Tempered Clavier* (henceforth *WTC*) can easily be reduced to an underlying 5-voice progression with one chord per measure.

beginning with the construction of a harmonic outline for the prelude—whose typical components include an opening tonic prolongation, a modulatory middle section touching on at least one additional key area, a dominant pedal preceding the return to tonic, and a closing tonic prolongation—which is then activated rhythmically with a consistent pattern of figuration.

A variety of models can be applied in the analysis of the prelude from Bach's fourth cello suite: models based on figuration patterns, models based on prolongation patterns, models based on voice-leading strands, and models of musical form. By focusing on this prelude's interaction with these various types of models we can create paths to meaning.

Overview

In many respects, the prelude from Bach's fourth cello suite is a conventional pattern prelude. On the surface, one notable difference between this prelude and more typical pattern preludes is the long sixteenth-note run that breaks the figuration pattern halfway through the piece.[2] Such breaks in figuration are not uncommon (see, for example, the C-minor prelude from *WTC* I), but these breaks typically occur near the end of the piece (often as a part of a dominant prolongation) rather than in the middle. As we will see, this early break in figuration has an important role to play in the larger drama of the piece.

My analysis of this prelude closely follows Carl Schachter's (1994) Schenkerian reading. While we both largely draw the same conclusions about the underlying "musical

[2] For reference, complete scores of all the pieces discussed in this dissertation can be found online at the IMSLP Petrucci Music Library—http://imslp.org/wiki/.

idea" and its progress across the piece, and while we both utilize similar tools (models of voice leading and harmonic progression), we differ in that Schachter has little to say about meaning per se. I will critique Schachter's analysis after I present my own in order to highlight the subtle differences in our approach, and to show how even a seemingly conventional analysis can be made more rewarding by explicitly engaging meaning through the use of models. Furthermore, some of those models can be made even more meaningful by mapping them onto image schemas derived from our bodily experience.

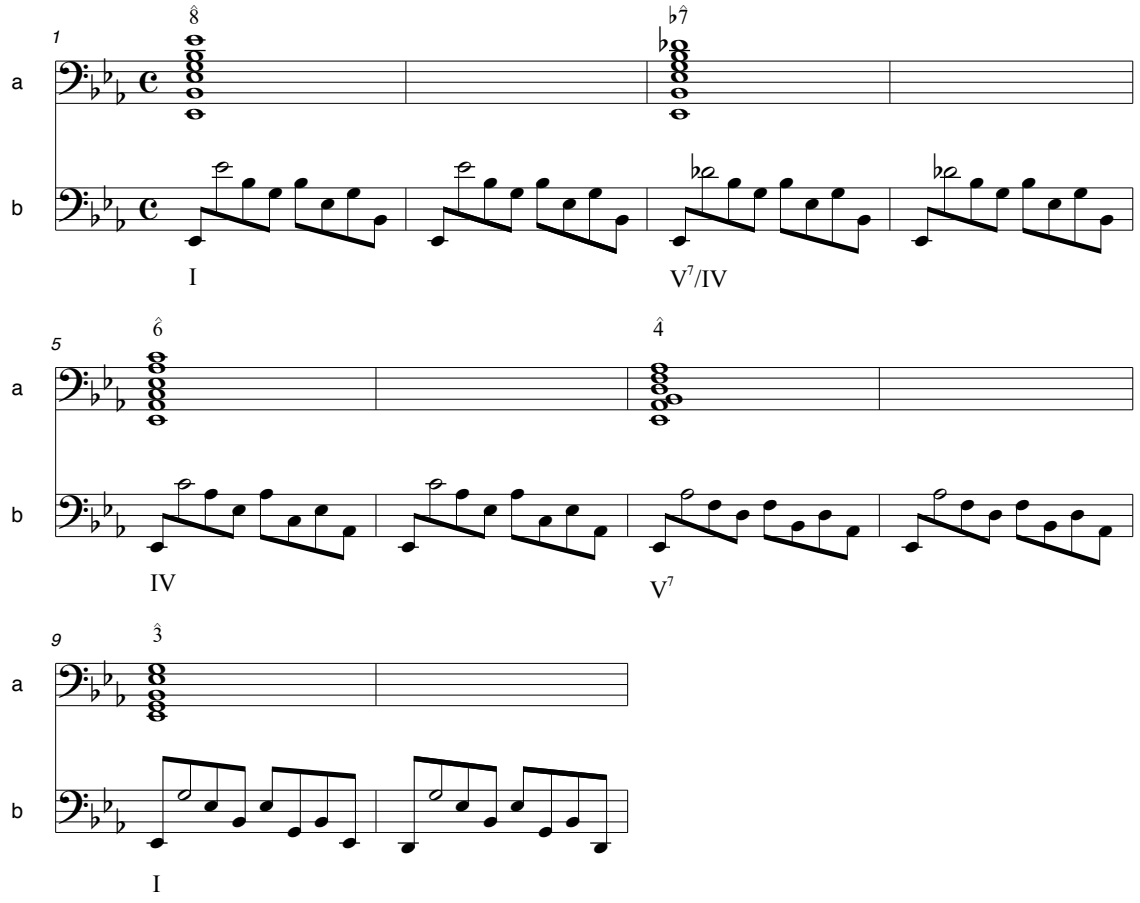
The prelude opens with a 10-measure tonic prolongation over a tonic pedal as shown in **Example 3.1b**. (In this and subsequent examples, open noteheads trace an important voice-leading strand.) A consistent pattern of figuration activates the harmonic progression I–V^7/IV–IV–V^7–I over a tonic pedal. A near-consistent pattern of voice leading can be traced from this figuration. As discussed in Chapter II, the second eighth note of each measure is easily identified as a salient voice-leading strand ($\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\hat{4}$–$\hat{3}$) because it is the highest pitch in each measure and occurs in the same metric location (**Example 3.1a**). While this voice-leading strand is unexceptional in some regards—each chordal seventh, both applied and diatonic, resolves down by step—the leap from $\hat{6}$ to $\hat{4}$ introduces an unnecessary leap.

An entirely stepwise voice-leading strand is possible ($\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\natural\hat{7}$–$\hat{8}$) and this pattern more elegantly circles around the stable tonic pitch E♭ creating a simple closed shape. I will refer to the $\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\natural\hat{7}$–$\hat{8}$ voice-leading strand as the *circular pattern*.[3] This circular pattern is indeed found in the opening prolongation; however, the final two

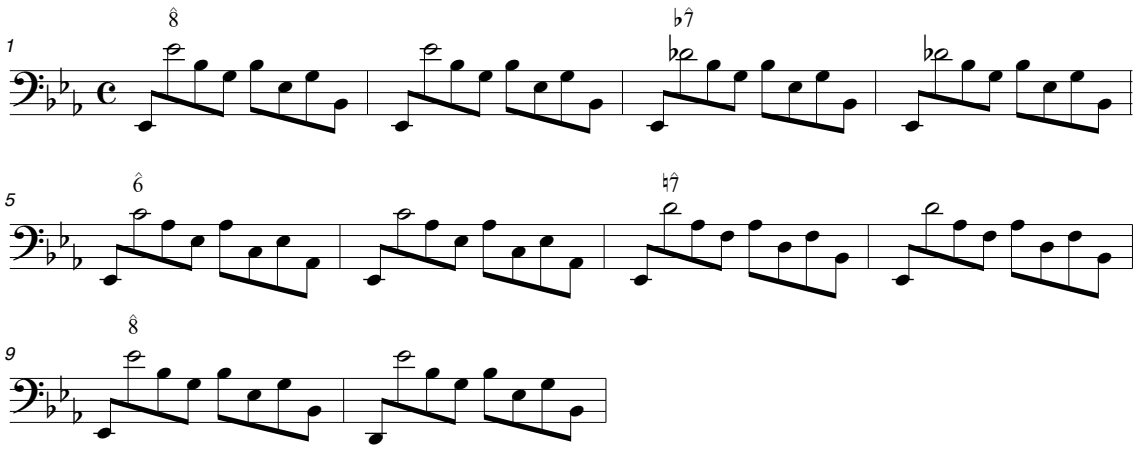
[3] This circular pattern is commonly encountered in Baroque and Classical works as an opening tonic prolongation. Examples by Bach include the Sarabande from Partita no. 1 in B♭ major, and the Sarabande from French Suite no. 4 in E♭ major (the pattern here is in the bass voice). Two typical examples from the Classical repertoire include Mozart's Piano Quartet in E♭ major, K. 493, and Haydn's Piano Sonata in E♭ major, Hob. XVI:52 (Hepokoski and Darcy 2006; 91–92, 103–104).

pitches of the pattern (D♮–E♭) plunge to a lower register and have a different metric placement. Rather than falling on the 2nd eighth note of the measure as with all previous pitches in the pattern, the D♮ falls on the 4th eighth note, and the E♭ falls on the 3rd eighth note (**Example 3.1b**). The opening prolongation could easily be rewritten with an absolutely consistent pattern of figuration coupled with the circular pattern as the salient upper voice-leading strand (**Example 3.2**).

Example 3.1. E♭ major prelude, opening prolongation, mm. 1–10



Example 3.2. E♭ major prelude, hypothetical version of mm. 1–10

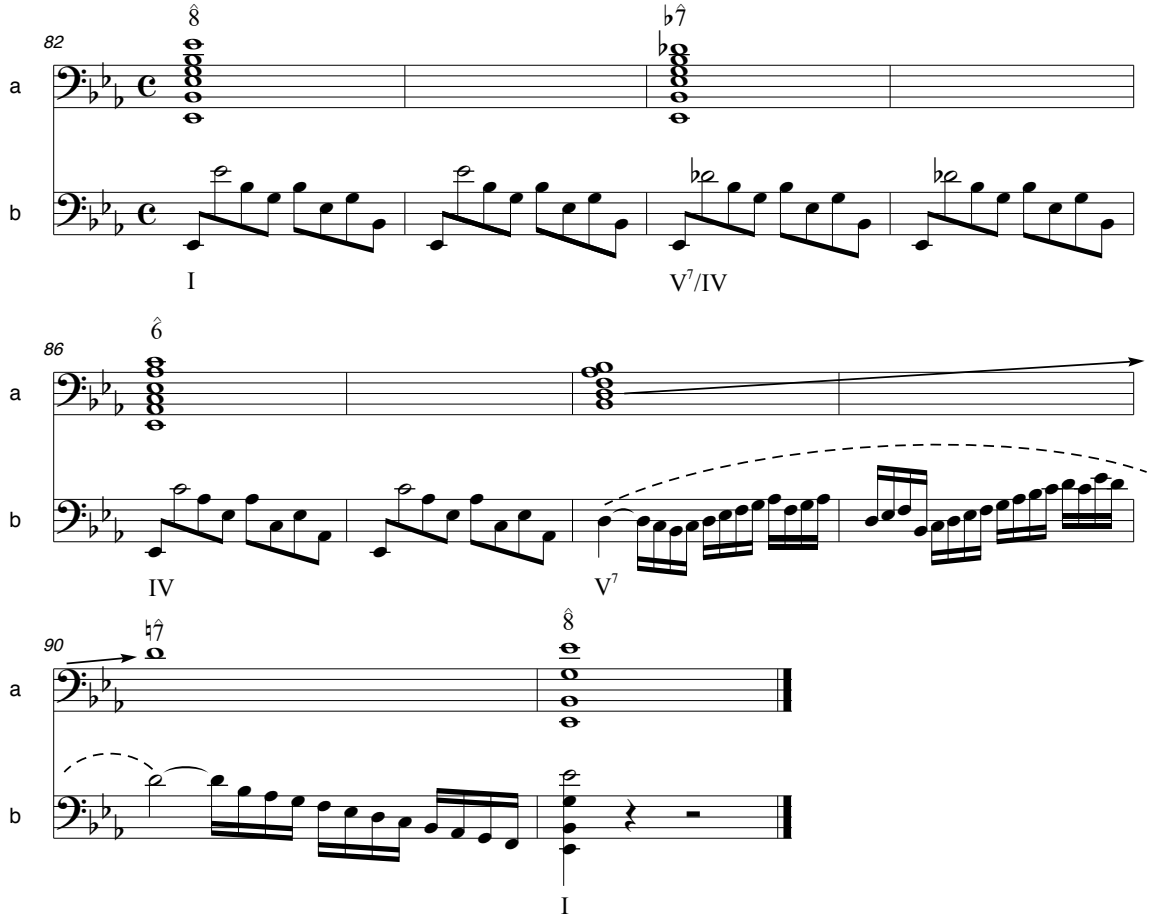


With regard to typical usage of the $\hat{8}$–♭$\hat{7}$–$\hat{6}$–♮$\hat{7}$–$\hat{8}$ circular pattern, Bach's actual voice leading in the opening of this prelude is unexceptional in and of itself.[4] However, the failure of the opening prolongation to complete this circular pattern *in the same register* becomes, as Schachter (following Schoenberg) notes, the "musical idea" of this prelude.[5] The importance of the circular pattern and its initial lack of completion in the same register are confirmed in the closing tonic prolongation with a return to the exact same progression and figuration pattern. This time the complete circular pattern is completed in the same register (**Example 3.3**). The completion of this pattern is dramatized by the rising sixteenth-note flourish in mm. 88–89, as if to say: "OK, now *here* is the pitch you have been waiting for."

[4] To cite but one example, the C-major prelude from *WTC* II contains a salient upper voice-leading strand of $\hat{8}$–♭$\hat{7}$–$\hat{6}$–$\hat{4}$–$\hat{3}$ over a tonic prolongation just as in the cello suite prelude.

[5] Schoenberg explains the "musical idea" as follows: "Every tone which is added to a beginning tone makes the meaning of that tone doubtful… In this manner there is produced a state of unrest, of imbalance which grows throughout most of the piece, and is enforced further by similar functions of the rhythm. The method by which balance is restored seems to me the real *idea* of the composition" ([1946] 1985, 123).

Example 3.3. E♭ major prelude, closing prolongation, mm. 82–91



The initial denial and final completion of the circular voice-leading pattern in the same register is not exceptional in and of itself. Many pieces of music can be interpreted as the working out of an opposition or problem. If there were nothing more to say about this prelude than that it initially fails to complete a pattern and then does so, it would be rather uninteresting. If the intervening music did not somehow engage or dramatize the initial problem of pattern completion then the model might hold less significance. As it turns out, the intervening music clearly plays with the expectation of returning to the original model as I show in the more detailed analysis below. Register plays a significant

role in this pattern; it is the *specific* pitches E♭4, D♭4, C4, and D♮4 that are of interest. One could argue that the pattern is in fact completed by applying the concept of register transfer; that is, the final two pitches are transferred to a lower register. However, I do not use the concept of register transfer as an explanatory tool here because the specific register *matters* in this prelude.

The form of the prelude is divided into 6 sections as shown in **Table 3.1**. The complete circular pattern occurs 4 times: in section 1 (mm. 1–10), in section 2 (mm. 11–28), across the boundary of sections 4 and 5 (mm. 59–69), and in section 6 (mm. 82–91). After the initial tonic prolongation there is a return to the opening pitch E♭4 in m. 11, which now commences a prolongation of C minor.

Table 3.1. E♭ major prelude, formal outline

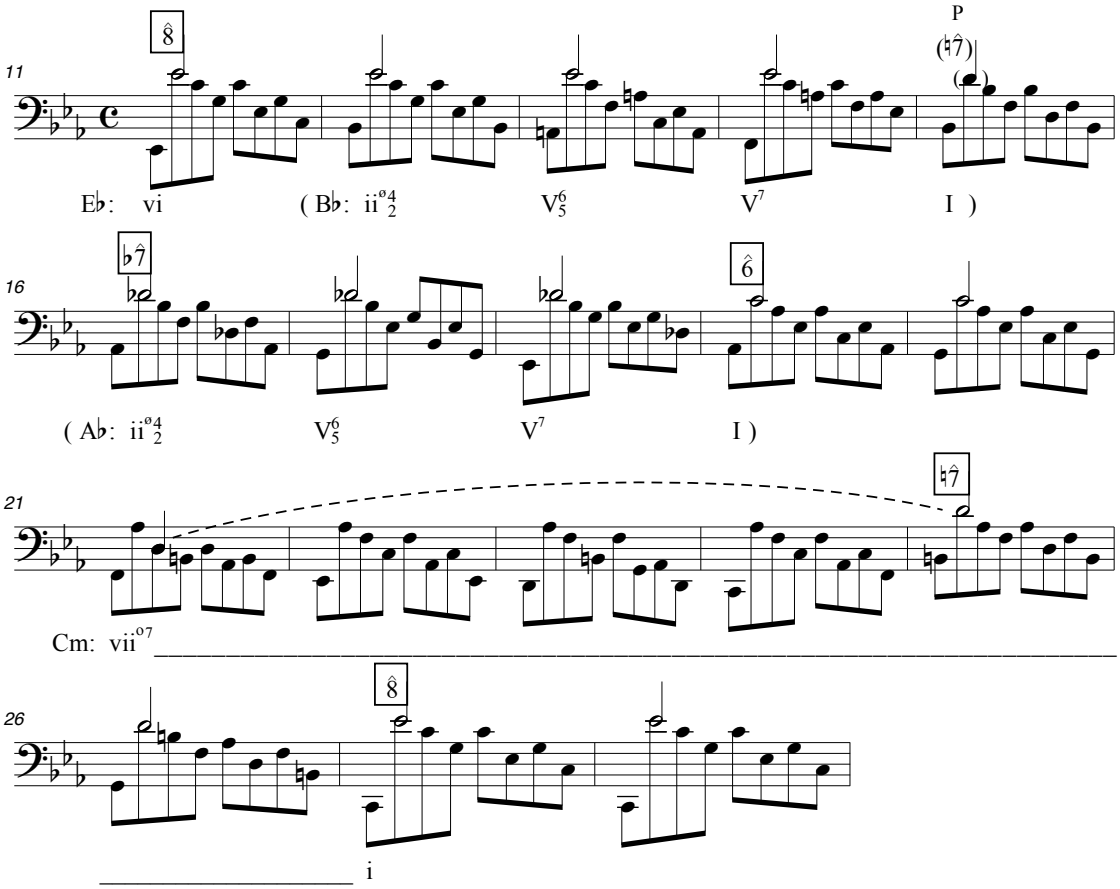
1 *mm. 1–10*	***2*** *mm. 11–28*	***3*** *mm. 29–49*
opening prolongation	C-minor prolongation	harmonic instability, variation of pattern, fermata on C#
E♭: I_____	vi_____	(I) (iii) **Gm**: vii^{o7}/V

4 *mm. 49–62*	***5*** *mm. 62–82*	***6*** *mm. 82–91*
sixteenth-note runs, long dominant pedal	variety of rhythm and pattern, minor mode inflection	closing prolongation (coda)
Gm: V_____i **iii:PAC**	i **E♭**: ♭II^{6} V I **I:PAC**	I_____

Over the course of mm. 11–28 we retrace the complete circular pattern in a different tonal context and with different durational pacing (**Example 3.4**; in this iteration

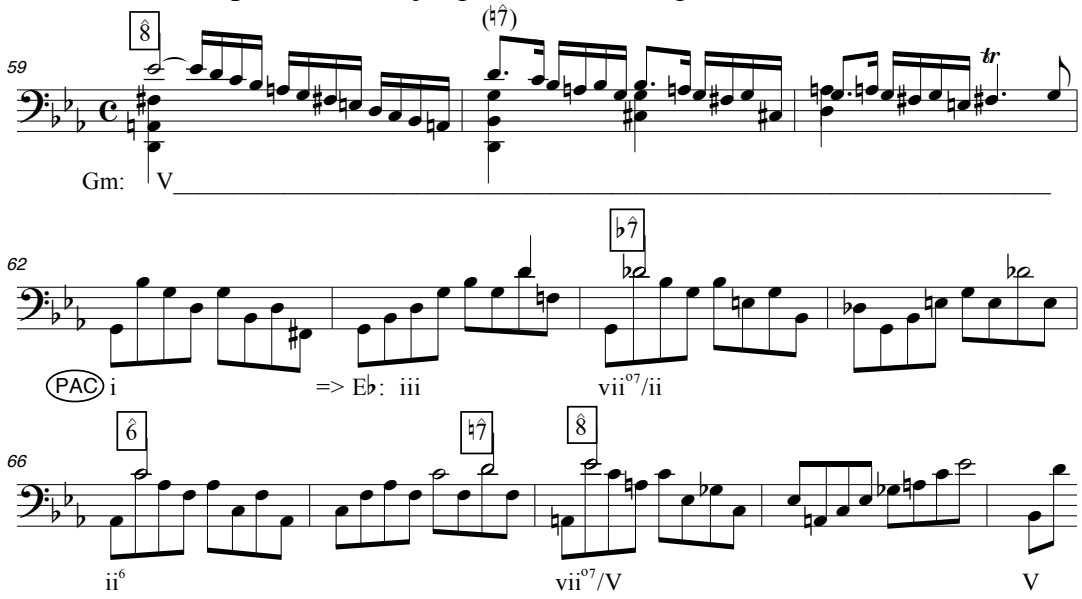
of the pattern there is a brief passing tone D♮ before the D♭). This prolongation also contains an ascending register transfer from D3 to D4 in mm. 21–26, which will be recalled with a register transfer of the same pitches in the closing prolongation. Although the harmonic rhythm in this iteration of the pattern is not equally paced, and although the tonal context is shifting, the pattern can still be traced aurally. The fact that the pattern consists of the highest pitch in each measure, that this pitch falls on the second eighth note of each measure (which is preceded by the lowest pitch in each measure on the first eighth note) and that each measure follows an overall descending contour from the highest pitch, makes the pattern salient from an analytic and aural perspective.

Example 3.4. E♭ major prelude, circular pattern, mm. 11–28



Following the C-minor prolongation, the circular pattern disappears completely in section 3 (mm. 29–49). A major turning point in the prelude occurs with the fermata on the pitch C#2 in m. 49. Following this fermata, there is a shift to sixteenth notes and a temporary abandonment of the figuration pattern. The pitch C# can be viewed as tonicizing the pitch D, which now functions as a long dominant pedal in G minor that prepares the PAC in G minor in m. 62. Just prior to this PAC we return to the pitch E♭4 in m. 59 (which now functions as a dissonant dominant ninth in G minor) and restart the circular pattern once again (**Example 3.5**). We can trace the circular pattern across mm. 59–69 with the insertion of a passing tone D♮ before D♭ as in the C-minor prolongation. However, because this third iteration of the circular pattern straddles the cadential boundary of the PAC in m. 62, and because of the uneven durational pacing and shifting tonal contexts, the pattern is far less aurally salient this time around.[6]

Example 3.5. E♭ major prelude, circular pattern, mm. 59–69



[6] In this instance of the pattern the tonal roles of E♭ and D♮ are reversed: the E♭ is now tonally unstable and the D♮ is now tonally stable.

After the final PAC in the tonic in m. 82, the opening tonic prolongation and the circular pattern are restated, and the pattern is now finally completed in the correct register with the same harmonization as the opening prolongation (refer back to **Example 3.3**). Preceding this final prolongation, the PAC in E-flat major in m. 82 uses the pitches D3–E♭3 as if a reminder of the plummet to this lower register in the opening prolongation. The final attainment of the pitch D4 to complete the circular pattern in the same register is dramatized by the sixteenth-note flourish in mm. 88–89. After initially landing in the "wrong" register on D3 and breaking the figuration pattern, the sixteenth-note run finally ascends to the "right" register on D4. Not only does the octave ascent draw attention to this moment, the absence of the tonic pedal and arpeggiated figuration also draws the listener's attention to the final attainment of the pitch D4.

To summarize, we can trace the instances of the circular pattern and its harmonic and registral contexts in each section where it appears. We will assume that the "correct" version of the pattern is in a single register (E♭4–D♭4–C4–D♮4–E♭4) and that the "correct" harmonization is a tonic prolongation (I–V^7/IV–IV–V^7–I). In section 1 we get the correct pattern but the final two pitches are in the incorrect register. The pattern is coupled with the correct harmonization. In section 2 we get the correct pattern—although we first encounter D♮4 as a passing tone before D♭4 in m. 15, and we initially land on D♮3 before a rising to D♮4 in m. 25—but within the context of a relatively stable C-minor prolongation. In sections 4–5 we get the correct pattern—once again with the passing tone D♮4 before D♭4—within the context of a much more dissonant harmonization. The initial E♭4 appears as a dissonant dominant 9^{th} over the dominant pedal in G minor, and the pitches D♭4 and the final E♭4 are members of secondary leading-tone chords. In

section 6 we finally get the correct pattern with the correct harmonization, dramatized by the rise from D♮3 to D♮4.

Model as a path to meaning

The basis for meaning in this prelude is the model of the circular voice-leading pattern $\hat{8}$–♭$\hat{7}$–$\hat{6}$–♮$\hat{7}$–$\hat{8}$ presented in the first 10 measures. Although Schachter's analysis of this prelude does not explicitly discuss this pattern as a model, his conclusion encapsulates the importance of the opening prolongation:

> The contrast between the opening and closing pedal points [prolongations] is a contrast between the disruption of a musical process and its completion, between musical frustration and fulfillment. And the tonal events between the two pedal points are what makes the music achieve completion and fulfillment in so overpoweringly convincing a way. (1994, 71)

Schachter's conclusion could be reformulated to engage meaning more specifically. To do so would be to recognize that the "process" he describes is what gives rise to meaning in this prelude. That process is based on recognizing the following: 1) the opening prolongation is a model, 2) the model deviates from its most basic form by not completing the pattern in the same register, 3) in deviating from its most basic form the model leaves a musical pattern incomplete, 4) the deviations from the model are based not only on expectations of smooth voice leading but also on expectations set up by the pattern of figuration in *this* prelude, 5) the opening model gains significance over the course of the prelude as the complete circular pattern of *specific* pitches is presented in different tonal contexts, 6) the final dramatized completion of the pattern—which melds the two distinct types of rhythmic and melodic motion in the prelude (arpeggiated eighth notes and running sixteenth notes)—brings the process of problem and resolution to a

close and confirms its status as the "musical idea" of the prelude, and 7) all of these aspects can be interpreted as meaningful in some way. The story we can tell about this piece would simply restate the above process in narrative form.

Many analysts might tell a story about this prelude that includes most of the elements I describe above, but those elements might not be explicitly related to meaning (in fact, Schachter's analysis does just that). So what do we gain by laying bare the process of meaning construction? I would argue that we gain a broader view of how music is meaningful to us (where meaning is synonymous with understanding), and we gain a broader view of the types of tools used in music analysis (such as models). By thinking of tools such as voice-leading reductions or Schenkerian analysis more generally as models, we can examine the role that these models play in analysis, and the ways in which various types of models give rise to meaning. Thus in the approach I am advocating, we move beyond a *specific* analytic method and arrive at a *general* path to meaning.

It should be pointed out here that the process of meaning construction is an ongoing one. Upon first hearing the prelude a listener might not be aware of the circular pattern and the significance of register throughout the piece. The point here is that by formulating an analytic approach with the goal of creating a path to meaning, and by viewing music analysis as a fluid process without a fixed endpoint, we can engage in a never-ending process of refinement that ultimately leads to a better understanding of a given work upon each subsequent hearing. In other words, the better we understand a given work the more meaningful it is to us, and vice versa.

Critique of Schachter's approach

My analysis of this prelude draws the same conclusions about the importance of register in the opening and closing prolongations as Schachter's (1994) account. I would now like to critique his approach, and then show what we gain from my alternative approach. Schachter proposes to "identify underlying patterns worked out in the Prelude…in the hope that this will permit insights…into the technical and intellectual aspects of the piece" (1994, 54). Thus, as I noted earlier, one important difference in our approaches is that Schachter does not set out to explicitly discuss meaning in his analysis.[7] One could argue that this is not a shortcoming of his analysis, since he clearly has other purposes (a detailed Schenkerian reading). I would argue that Schachter misses an opportunity by only discussing the "technical" and "intellectual" aspects of the piece. It is not exactly clear what these "intellectual" aspects of the composition are—are they present in the composition itself or in the analyst's contemplation of the composition? One could argue that these "intellectual" aspects include meaning (in the sense that meaning is understanding), but Schachter does not make this orientation toward meaning explicit.

The subtitle of Schachter's article, "The Submerged *Urlinie*," indicates that his analysis is based on a model (Schenker's *Ursatz*), and that the prelude deviates from that model in some way. By "submerged" Schachter means that the *Urlinie* can be found in the middle of the contrapuntal texture rather than at the top. As such, "the outer voice

[7] Schachter does offer a speculative hermeneutic interpretation in terms of Christian symbolism and a down/up dichotomy toward the end of his article. He does this with some degree of trepidation and takes a "symbolic" approach to meaning (the section is headed "Symbolism?"). Schachter seems to include this brief discussion of symbolism to acknowledge that there are valid interpretations of music that go beyond mere structure.

counterpoint has less explanatory power for the Prelude than it does for most of the tonal repertory" (1994, 71).

While I have no qualms with Schachter's Schenkerian reading, one of his conclusions about the structure of the prelude and its implicit meaning—that because the *Urlinie* is submerged within the contrapuntal texture, the model of the *Ursatz* has less explanatory power than it typically does—remains ultimately unsatisfying. Perhaps this is because the deviation from the model occurs at the background level, thus making aural engagement with the model more difficult. Perhaps it is because I am not as invested in a complete Schenkerian reading of the prelude as an end-in-itself. Or perhaps it is because Schachter doesn't tie his observations about the submerged *Urlinie* to some larger point about the prelude. It is as if he is simply saying: "Look! The *Urlinie* is submerged in this piece."

The submerged *Urlinie* is certainly an interesting feature of the prelude when compared with more typical Schenkerian analyses, and Schenkerian analysis can certainly contribute valuable insights about voice leading and tonal structure to analysis (which can in turn give rise to meaning). But if Schenkerian analysis is used as an end-in-itself (which can result in a discussion of the piece that focuses solely on the details of the voice-leading graph) then I think we have missed an opportunity to use the model for a larger purpose; that is, to create meaning. The path from traditional structural analysis to a discussion of meaning can easily be forged and does not require the invention of new analytic methods, given that many of our most popular analytic techniques make use of models. We simply must lay bare the models we use and clearly articulate the meaning we derive from a given work's interaction with those models.

As I hope to have shown by drawing attention to the use of models in constructing meaning—and as I hope to further demonstrate in the section that follows by tying those models to embodied experience—the particular model the analyst chooses, the conclusions the analyst draws from using that model, and the degree to which the analyst discusses (or fails to discuss) meaning, can vary greatly and leave the reader with varying degrees of satisfaction. I do not mean to suggest that all analyses must discuss meaning in order to be satisfying (although I will argue in Chapter V that music analyses are at their best when they do just that). Studying the technical and structural aspects of a composition is certainly a worthy avenue of study. But if we utilize an approach to analysis that shows how the structural aspects of a composition give rise to meaning, then we are ultimately more informed about the mechanisms or processes that make music meaningful to us.

Embodied meaning

Thus far, I have been talking about meaning in this prelude from a rather "disembodied" stance. I base my account of meaning on a model of music theory (voice leading), not a model that explicitly relates to any type of bodily experience.[8] We can come to a deeper understanding of musical meaning in Bach's prelude by tying some of my earlier observations about models—specifically, the opening and closing prolongations—to embodied experience by utilizing the CYCLE schema, Larson's theory

[8] We should keep in mind that in Schenker's view, harmony and voice leading *do* relate to bodily experience. For example, in the preface to *Harmony* Schenker writes: "I should like to stress in particular the biological factor in the life of tones ([1906] 1954, xxv). Candace Brower (2000) has shown how Schenker's *Ursatz* can be interpreted in terms of a SOURCE-PATH-GOAL schema (refer back to Figure 2.2e, p. 43).

of melodic expectation (which argues that listeners prefer "simple closed shapes"), and Cox's notion of mimetic participation.[9]

I have been referring to the $\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\natural\hat{7}$–$\hat{8}$ voice-leading pattern as "circular" without being specific about how this circularity is envisioned. The pattern begins and ends on the same pitch and thus forms a cycle. We can map these pitches onto the CYCLE schema (**Figure 3.1a**). By mapping the voice-leading pattern onto this schema we can then understand the pattern in terms of our bodily experience of cycles (particularly the way in which time is marked off into cycles).

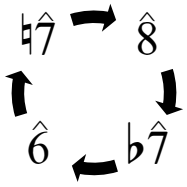
When understood in terms of bodily experience, the failure of the opening prolongation to complete the cycle as expected can be interpreted as a shift from one cycle to another (**Figure 3.1b**). Rather than completing the pattern within a single $\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\natural\hat{7}$–$\hat{8}$ cycle, after arriving on $\hat{6}$ we jump on to the $\hat{8}$–$\hat{7}$–$\hat{6}$–$\hat{5}$–$\hat{4}$–$\hat{3}$–$\hat{2}$–$\hat{1}$ cycle at $\hat{4}$. This implies a continuation within this larger octave cycle to $\hat{2}$ and then $\hat{1}$. In other words, we get back to the same starting point ($\hat{8}$) but we reach this point via a different path. It is true that the $\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\natural\hat{7}$–$\hat{8}$ cycle is in fact completed, but remember that the final two elements of the cycle ($\natural\hat{7}$–$\hat{8}$) remain somewhat hidden aurally and thus are less immediately relevant from the perspective of our embodied experience as listeners.[10]

[9] Hallgjerd Aksnes (2001) approaches music analysis with a similar goal: to understand how music analysis can benefit from an embodied approach to meaning.

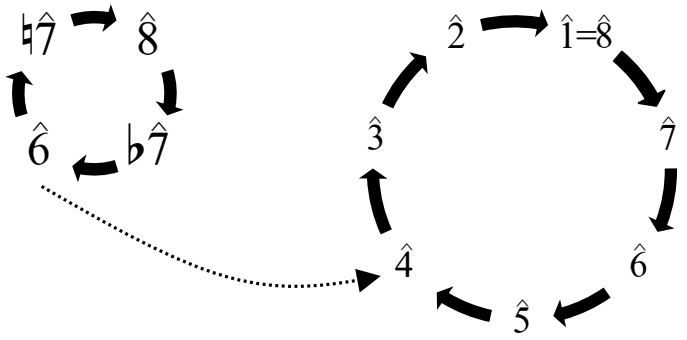
[10] Situations such as these often occur in music theory where the "logical" explanation for a particular event may not square with the listening experience. In this prelude it is perfectly plausible to claim that the circular pattern is completed in the opening prolongation whereby the final two pitches are transferred an octave lower. An attempt to hear this register transfer as completing the pattern can be somewhat successful. However, in the most immediate bodily sense, we expect the pattern to be completed in the same register.

Figure 3.1. Patterns mapped onto CYCLE schema:

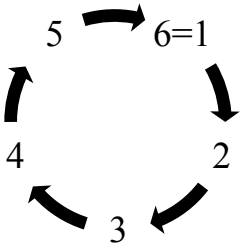
(a) complete voice-leading pattern



(b) shift from one voice-leading pattern to another



(c) formal design

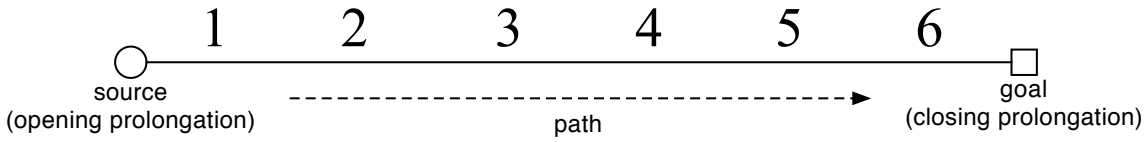


On a larger scale, we could map the entire prelude with its 6 distinct formal sections onto the CYCLE schema (**Figure 3.1c**). This does not imply that the piece could go on forever in a circular fashion; there is a distinct difference between the functions of the opening and closing prolongations despite their similarity. Rather, by mapping the

formal sections onto the CYCLE schema we understand the piece as taking us right back to where we began.

Alternatively, we could map the form of the prelude onto a SOURCE-PATH-GOAL schema (**Figure 3.2**). This would account for the fact that the opening and closing prolongations serve different functions: the opening prolongation is the source, and the closing prolongation is the goal. And the path between these two points keeps recycling elements from the source (the circular voice-leading pattern) on its way to the goal.

Figure 3.2. Formal design mapped onto SOURCE-PATH-GOAL schema



Larson's theory of melodic expectation can also shed light on our embodied experience of the circular pattern. While the full details of that theory are beyond the scope of the present discussion, part of the basic claim is that "experienced listeners of tonal music expect melodic completions in which the…stepwise displacement of auralized traces create simple closed shapes" (2012, 110). A few terms in the above statement should be defined here. Larson writes:

> To "auralize" means to hear sounds internally that are not physically present. The term "trace" means the internal representation of a note that is still melodically active. In a melodic "step" (meaning a half step or a whole step), the second note tends to displace the trace of the first, leaving one trace in musical memory; in a melodic "leap" (meaning a minor third or larger), the second note tends to support the trace of the first, leaving two traces in musical memory. (2012, 120)

The complete circular pattern *in the same register* creates a simple closed shape because each note in the pattern displaces the previous one with stepwise motion. On the other hand, when the salient voice-leading strand is heard as $\hat{8}$–♭$\hat{7}$–$\hat{6}$–$\hat{4}$–$\hat{3}$, the leap from $\hat{6}$ to $\hat{4}$ leaves an auralized trace that prevents us from hearing the passage as a simple closed shape. The claim here is not that all passages of music must create simple closed shapes, but simply that we expect passages to create these shapes (or prefer ones that do).

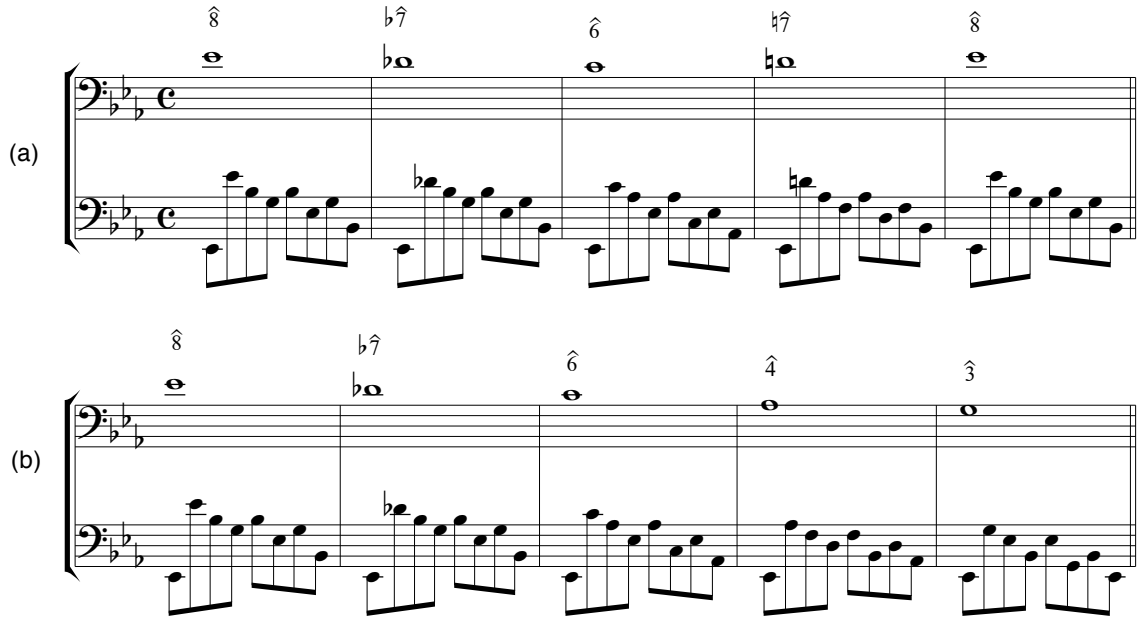
Arnie Cox's "mimetic hypothesis" (2001) claims that part of the way in which we understand sounds we hear is by comparing them to sounds we have made ourselves.[11] The process of understanding sounds involves imitation of the sound source through overt or covert mimetic participation,[12] comparison of these sounds to similar sounds previously made or heard, which in turn leads to cross-domain mappings (metaphors) that draw upon our embodied experience. These cross-domain mappings are what enable our metaphoric conceptualizations of music. The mimetic hypothesis, and the wide variety of evidence that supports it—from scientific studies of face-to-face imitation, motor imagery, subvocalization, musical imagery, speech as gesture, and evidence for the conceptual metaphor Musical Sounds Are Vocal Sounds—has important ramifications for discussions of musical meaning because it provides another example of the indispensible nature of our embodied experience for conceptualizations of music.

[11] Cox (2011) has recently updated and expanded the principles of the mimetic hypothesis and the growing body of empirical evidence that supports it (the details of which are beyond the scope of the present discussion). He also notes that his use of the term "mimetic" is not the same as the classical *mimesis*, which broadly refers to art imitating life. Broadly speaking, the mimetic hypothesis examines the "perceptual and cognitive processes whereby music gets into the flesh, blood, and minds of listeners" (2011, 6).

[12] Overt forms of mimetic participation include toe-tapping, swaying, dancing, and singing to music. Covert forms of mimetic participation include subvocalization (the process of inaudibly articulating speech or sound) and aspects of motor imagery (Cox 2001, 197).

We can *experience* the effect of creating a "simple closed shape" (or not) by actively engaging our bodies, thus applying Cox's notion of mimetic participation. To do this, play the two different versions of **Example 3.6** at the piano while singing the voice-leading strand notated in the upper staff. I think there is a clear as sense in which version (a) is more satisfying than version (b) because it creates a simple closed shape. By actively engaging the body through overt participation in the form of singing and playing (or by engaging the body silently through covert participation in the form of auralization), and by mapping the voice-leading model onto an image schema from bodily experience, we can ground musical meaning in bodily experience. This makes the discussion of meaning more immediate and relates it to other forms of meaning construction in our lives, which are also grounded in bodily experience.

Example 3.6. Two possible voice-leading strands



This section has discussed the ways in which a model of music theory (the circular voice-leading pattern and associated tonic prolongation) can create a path to meaning, and how our understanding of that model can be deepened by mapping it onto a model from our bodily experience (the CYCLE schema). The circular voice-leading pattern can be mapped onto a variety of different image schemas. I have chosen to use the CYCLE schema here (in a circular representation) because the $\hat{8}$–$\flat\hat{7}$–$\hat{6}$–$\natural\hat{7}$–$\hat{8}$ pattern fits within a single tonic prolongation. But we could just as easily map the voice-leading pattern onto a SOURCE-PATH-GOAL schema, one that initially encounters blockage before finally reaching its goal. No one mapping is better than the other. In fact, there are often multiple complimentary mappings in any given situation that help to explain our experience of a passage of music. The next section will show how models and multiple metaphors can be used to create paths to embodied meaning in two other works by Bach.

Two Gigue Subjects

Bach's dance-suite movements are often viewed as stylized versions of dances rather than movements written for actual dancing; however, these dance-suite movements have clear choreographic roots (Little and Jenne 2001).[13] While no specific correspondences between music and dance will be considered here, the fact that this music stems from a tradition of music meant for dancing further invites an interpretation of musical motion in terms of physical motion.

[13] Meredith Little and Natalie Jenne engage metaphors of musical motion and musical forces when they write: "In Bach's music, it is easy to feel the *forceful* or at least *graceful swing* of the dance, not only in his titled dances but throughout much of his other music"(2001, preface [n.p.]; emphasis added).

This section will demonstrate how we can apply Larson's pattern map (a model for the combination of three-note stepwise pitch patterns that give in to musical forces based on the metaphor Musical Succession Is Physical Motion) in the analysis of two of Bach's gigue subjects (from the English Suite in G minor, and the Partita in A minor).[14] By applying the model in analysis we can arrive at an embodied understanding of the combination of musical gestures in these subjects, and explain our perceptions about the gracefulness of these combinations. And by mapping musical gestures onto physical gestures according to the metaphors Musical Gesture Is Physical Gesture and Music As Dance, we can tell stories about the expressive meaning of those gestures.

English Suite no. 3 in G minor

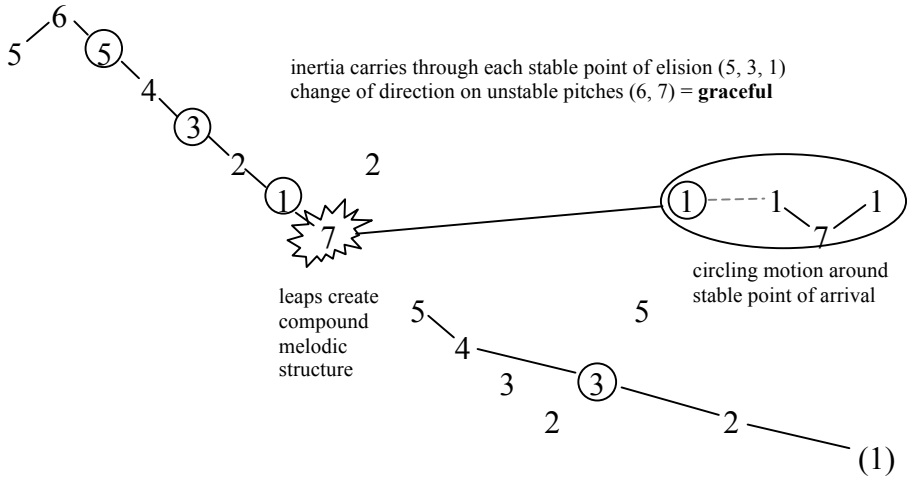
The gigue subject from Bach's English Suite in G minor is shown in **Example 3.7a**. The first seven pitches of the subject exhibit the graceful combination of three three-note patterns such that inertia carries through the point of elision in the same direction: $\hat{5}$–$\hat{6}$–$\hat{5}$ + $\hat{5}$–$\hat{4}$–$\hat{3}$ + $\hat{3}$–$\hat{2}$–$\hat{1}$. The circled scale degrees in the schematic representation of the subject represent points of elision between the three-note patterns from Larson's pattern map (**Example 3.7b**). The combination of these patterns is considered graceful because inertia carries through each stable point of elision ($\hat{5}$, $\hat{3}$, and $\hat{1}$) and changes of direction occur on unstable pitches ($\hat{6}$ and $\hat{7}$).

[14] I use the term "subject" in the same manner as it is used in fugue. Bach's gigues are fugue-like in that each reprise begins like the exposition of a fugue, but the music that follows treats the voices more freely.

Example 3.7. G-minor gigue, subject:

(a) notation

(b) schematic representation



In addition to tracing patterns on the map, we can also describe these opening melodic gestures in terms of analogous physical gestures. We begin in a crouch on $\hat{5}$. In order to generate downward momentum, we first rise to $\hat{6}$ before beginning our descent.[15] This initial descent could just as easily have departed from $\hat{5}$ by simply giving in to

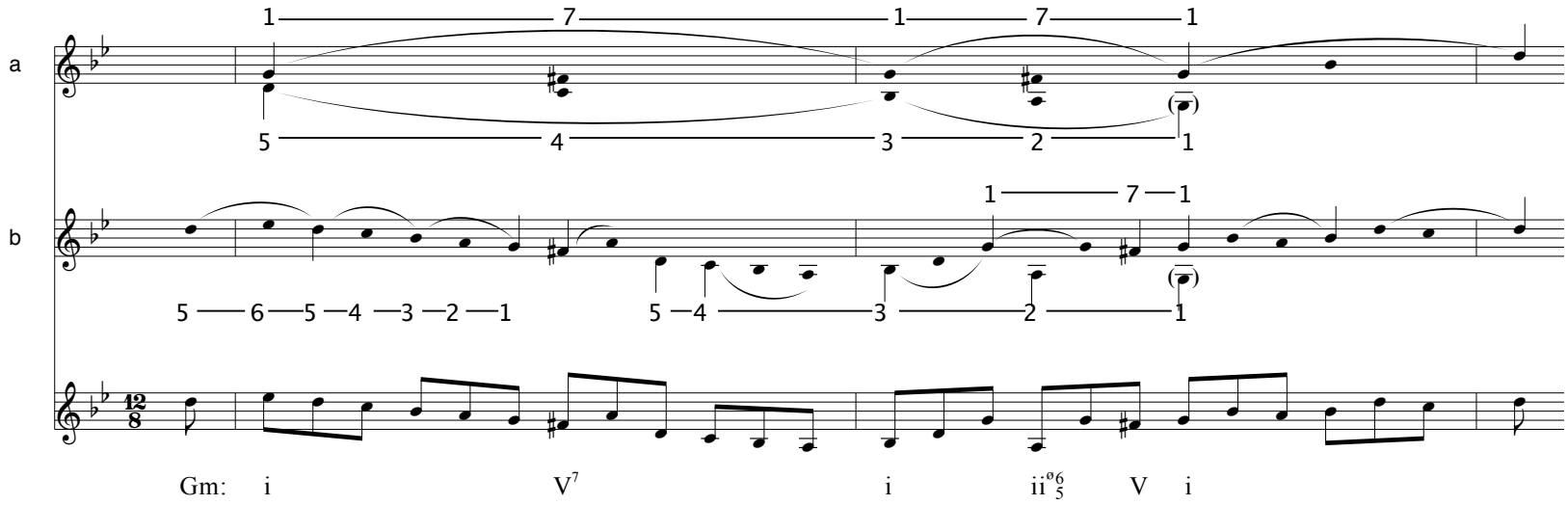
[15] The crouching and rising motions I describe above correspond to a convention of Baroque dance. Dance phrases are almost always preceded by a preparatory gesture called a *plié*, where the dancer bends his or her knees in preparation for the next downbeat. The downbeat is usually marked by a gesture called an *elevé*, where the dancer rises on the balls of his or her feet (Little and Jenne 2001, 21). In the above example we could map the *plié* on to $\hat{5}$ (the crouch) and the *elevé* on to $\hat{6}$ (the rise), which correspond to the upbeat and downbeat respectively.

gravity without rising first. However, the force of the descent is strengthened because both gravity and magnetism combine to force the line downward.

Upon arriving at the stable platform of $\hat{1}$, inertia continues to propel the line downward to $\hat{7}$. Our first expectation of a graceful completion to this subject might be that the $\hat{3}$–$\hat{2}$–$\hat{1}$ pattern to elides with a $\hat{1}$–$\hat{7}$–$\hat{1}$ pattern creating a circling motion around this stable point of arrival. In fact, this does occur, just not immediately. Upon arriving at $\hat{7}$ the first leaps are introduced, creating a compound melodic structure. The upper strand hovers around $\hat{1}$–$\hat{7}$–$\hat{1}$, eventually completing the melodic pattern with a circling motion around G4. In fact, this circling motion is repeated (we get the $\hat{1}$–$\hat{7}$–$\hat{1}$ pattern twice in the upper strand of the compound melody). The lower strand of the compound melody begins to retrace the initial $\hat{5}$–$\hat{4}$–$\hat{3}$–$\hat{2}$–$\hat{1}$ descent an octave lower, although this time the descent is embellished with additional steps and leaps as shown in the voice-leading graph (**Example 3.8b**). At a higher level of structure, the lower strand of the compound melody repeats this $\hat{5}$–$\hat{4}$–$\hat{3}$–$\hat{2}$–($\hat{1}$) pattern while the upper strand circles around $\hat{1}$ (**Example 3.8a**). By applying the pattern map in analysis we can map our understanding of smoothly connected physical motions (which are governed by the forces of gravity, magnetism, and inertia) onto musical motions at multiple levels of structure, and in doing so we create meaning.

In addition to creating meaning by using the pattern map as a model, we can also create meaning by using the metaphor Musical Gesture Is Physical Gesture. As discussed in Chapter II, the patterns on the map are also gestures according to Larson's definition: they have "beginnings, middles, and ends that move from stability to instability then back again to stability" (2012, 145). By mapping specific musical gestures onto specific

Example 3.8. G-minor gigue, voice-leading graph of subject



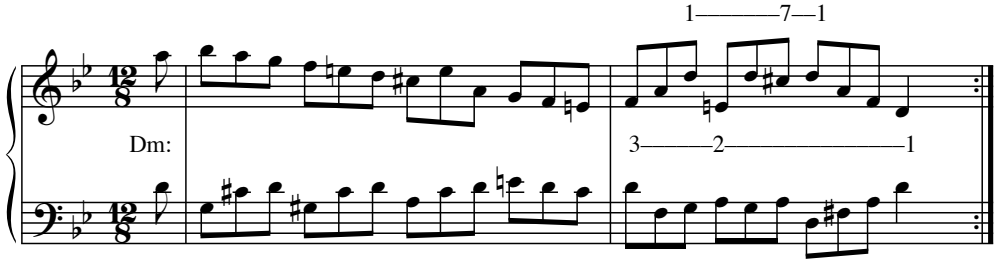
physical gestures we can tell a story about the expressive meaning of those gestures and their combinations.

The initial descent to $\hat{7}$ fractures the subject into two distinct melodic strands. Thus, what starts as a single melodic gesture becomes two distinct strands, each with its own distinct gestural path. With the G-minor arpeggio in m. 2, the two strands of the compound melody are brought into dialogue with one another. We might imagine the lower strand trying to reunite with the upper strand from which it was earlier separated in order to arrive at the goal pitch G4 rather than giving in to gravity and falling toward the pitch G3. The final pitch of the subject is G4, but the expected $\hat{5}$–$\hat{4}$–$\hat{3}$–$\hat{2}$–$\hat{1}$ gesture in the lower strand of the compound melody is never obtained in its own register. The voice-leading graph of this passage includes an implied G3 to complete this lower voice-leading strand (**Example 3.8**). If we think of this passage according to the metaphor, then we have a compelling reason to expect G3 at this point. In terms of a physical gesture giving into gravity we *must* arrive at a stable platform to complete the $\hat{3}$–$\hat{2}$–$\hat{1}$ gesture. In fact, the need to complete this gesture was so compelling that Glenn Gould ([1977] 2001) actually played both G3 and G4 in a recording of this gigue.

The fact that we do not get the expected pitch G3 to complete the $\hat{3}$–$\hat{2}$–$\hat{1}$ pattern in the lower strand of the compound melody invites an expectation that we will finally get this pitch at some point. This incomplete registral pattern sets up a "problem" in much the same way as the failure of the opening prolongation to present the complete circular pattern in the same register did in the cello suite prelude. As we will see shortly, this pattern is eventually completed in the same register at the close of the first reprise.

Another way in which we can discuss meaning in this gigue is by using the metaphor Music As Dance. According to this metaphor, we could imagine the melodic strands as dancers. In the first half of the subject, the dancers are moving together as one in a single melodic strand. Upon arriving at $\hat{7}$, the melodic line is split into two strands and the two dancers begin to dance separately. At the conclusion of the subject, the dancer represented by the lower strand is reunited with the dancer represented by the upper strand. The upward arpeggio in the second measure of the subject could be viewed as an attempt by the lower dancer to reunite with the upper dancer. That attempt is successful as both dancers reunite on the pitch G4 to conclude the subject. However, at the conclusion of the first reprise the subject is presented in a slightly modified form as shown in **Example 3.9** (the first reprise ends in the dominant key, D minor). Here the $\hat{3}$–$\hat{2}$–$\hat{1}$ pattern is actually completed *in the same register*. Thus, we could interpret this presentation of the subject as a failure of the two dancers to reunite since the melodic strands complete their patterns in two separate registers (the upper strand completes the $\hat{1}$–$\hat{7}$–$\hat{1}$ pattern on D5 and the lower strand completes the $\hat{3}$–$\hat{2}$–$\hat{1}$ pattern on D4). We could obviously tell a variety of stories about the initial coming together of the dancers and their standoff at the end of the first reprise, but I will leave those stories for the reader to imagine.

Example 3.9. G-minor gigue, conclusion of the first reprise



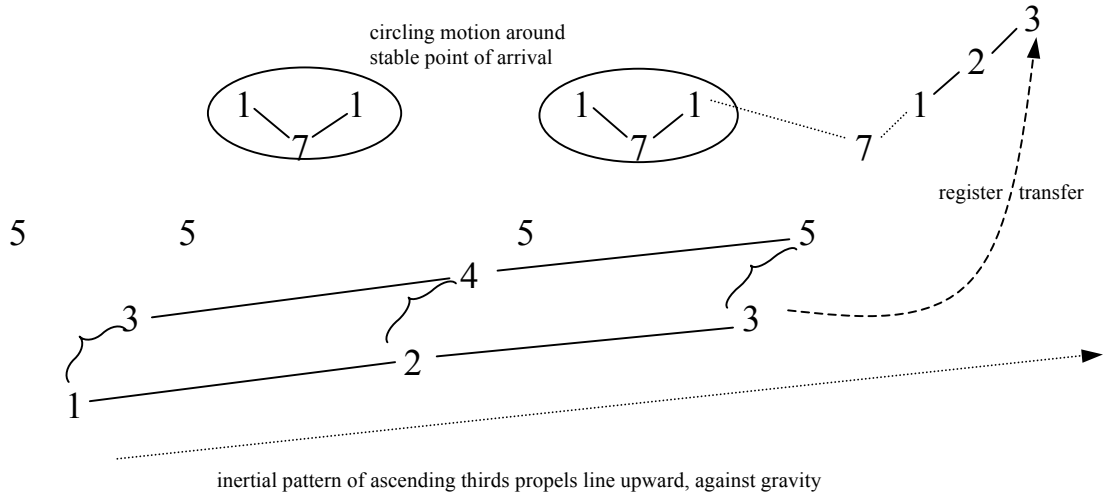
Partita no. 3 in A minor

The gigue subject from Bach's Partita in A minor is shown in **Example 3.10a**. The subject is inverted in the second reprise (a frequent practice in many of Bach's gigues) and two different versions of the second-reprise inverted subject survive in different manuscript copies (Wolff 1991). Before discussing these two different inversions I will comment on the subject itself.

Example 3.10. A-minor gigue, subject:

(a) notation

(b) schematic of m. 1–m. 2 (beat 2)

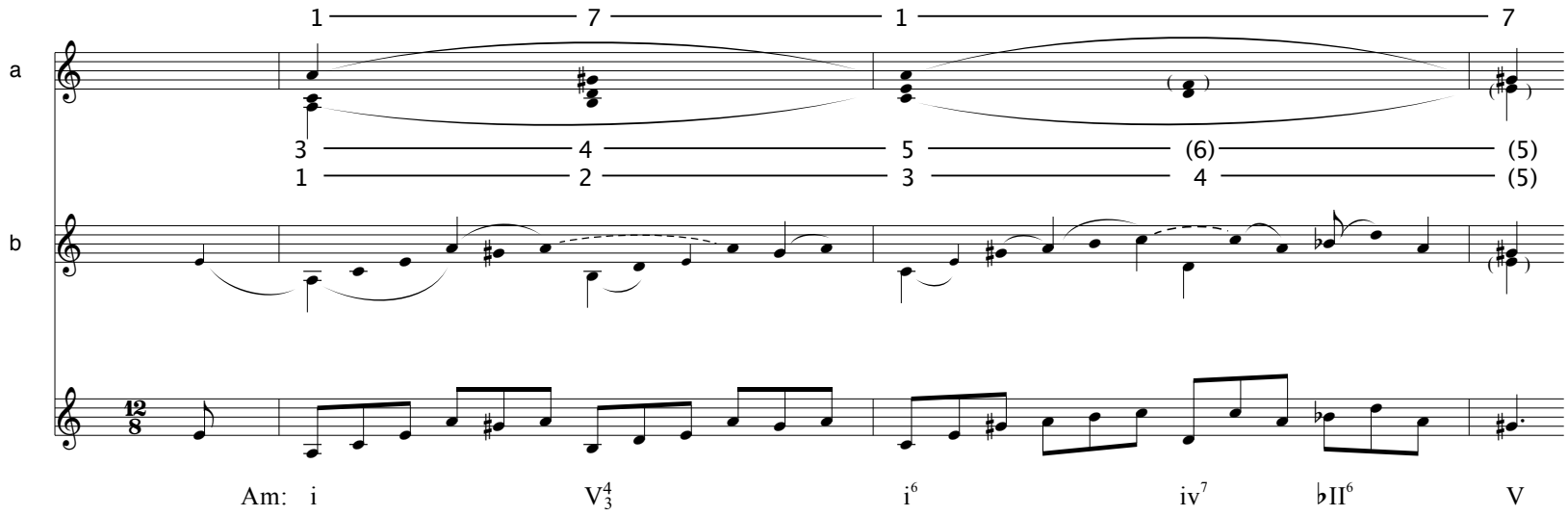


The A-minor gigue subject contains a compound melodic structure from the outset, and these two strands remain independent throughout. Although this subject contains less stepwise motion from the pattern map on the musical surface, it nevertheless exhibits qualities of graceful musical gesture. For example, there is a circling motion around the stable point of arrival ($\hat{1}$) on beats two and four in the upper strand of the compound melody (**Example 3.10b**).

The lower strand of the compound melody contains a graceful combination of gestures at a higher level of structure by combining the patterns $\hat{1}$–$\hat{2}$–$\hat{3}$ and $\hat{3}$–$\hat{4}$–($\hat{5}$), as well as other patterns from the map (**Example 3.11a**). The final pitch in this pattern ($\hat{5}$, E4) must be read as an implied tone at the surface; however, the next statement of the subject on the dominant (the "answer") supplies the E4.

We can create embodied meaning according to the metaphor Musical Gesture Is Physical Gesture by imagining the physical gestures associated with jumping on a trampoline. We begin by jumping from a ledge (E4) onto the trampoline. We then begin to bounce. Initially, we are constrained in terms of the height we can bounce—we can't go higher that A4. We could view this registral height as a stable platform, albeit in mid-air. After gaining momentum by bouncing a total of three times we are finally able to move higher than A4. If we imagine the lower strand of the compound melody as bounces on the trampoline then the process goes *one* (A3), *two* (B3), *THREE* (C4)! On *THREE* we finally break through A4 as an upper boundary, arriving on C5. We then bounce a fourth time (D4) and go slightly higher than our previous bounce, arriving on D5. To complete the subject and complete the pattern we would expect the fifth bounce to be on E4 (or perhaps a landing rather than a bounce since this event concludes the

Example 3.11. A-minor gigue, voice-leading graph of subject



subject). However, we do not get the expected E4. We end without completing this gesture in the lower strand of the compound melody. The next subject statement in the dominant (the "answer") immediately supplies the expected E4, which then serves as the initial upper boundary constraining the height we can bounce in that subject statement.

By leaving a musical pattern incomplete in the lower strand of the compound melody ($\hat{1}$–$\hat{2}$–$\hat{3}$–$\hat{4}$–x) we might look for some larger drama associated with this pattern as a way to explain this initial non-completion and subsequent completion as a source of meaning. However, in this case, meaning derives not from a larger story we can tell about the eventual fulfillment of the $\hat{1}$–$\hat{2}$–$\hat{3}$–$\hat{4}$–$\hat{5}$ pattern within a single subject statement, but rather from the nature of tonal harmony itself. The subject in the A-minor gigue ends on the dominant; thus, the non-fulfillment of a melodic pattern leaves a musical process open in the same way that the dominant harmony leaves a harmonic process open. The eventual completion of both processes does occur, just at a higher level of structure. The quality of openness at the end of the subject helps to propel the music forward.

We could also create meaningful stories about the subject according to the metaphor Music As Dance. One such story would imagine each subject statement as an individual dancer where one picks up (the answer) where the other left off (the subject). Another story might involve a struggle or give and take between two dancers within a single subject statement, represented by the upper and lower strands of the compound melody. The dialogue between the two dancers is realized musically as a chain of 4^{th}-species suspensions (**Example 3.11b**).

Now that we have examined the details of the subject, we will turn to the two different versions of the inverted subject. **Example 3.12b** shows what I will call the

Example 3.12. A-minor gigue, subject and two different inversions

upper-neighbor version since it contains a three note *upper*-neighbor gesture on beats two and four. **Example 3.12c** shows what I will call the *lower*-neighbor version since it contains a three note *lower*-neighbor gesture on beats two and four (the original subject is provided in **Example 3.12a** for reference and comparison to the inversions).

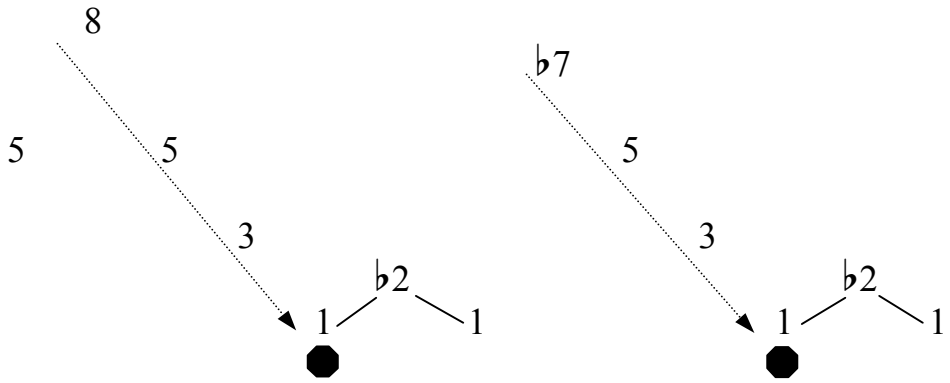
Although the differences between the two versions of the inverted subject may seem minute (and may not even strike the listener upon first hearing), these two versions correspond to physical gestures in strikingly different ways. We can examine these musical gestures in terms of their analogous physical gestures according to the metaphor Musial Gesture Is Physical Gesture, and in doing so we can provide a basis for understanding our judgments regarding which version is more graceful. The gracefulness of gestural combinations is an important aspect of the different expressive meanings we attribute to each version.

The upper-neighbor version of the inverted subject is the more literal of the two inversions. The $\hat{1}$–$\hat{2}$–$\hat{1}$ upper-neighbor gesture on beats two and four of the inverted subject is a literal inversion of the $\hat{1}$–$\hat{7}$–$\hat{1}$ lower-neighbor gesture on beats two and four of the subject (other differences between Bach's actual inversion and a literal inversion exist but are beyond the scope of the present discussion). The first measure of the inverted subject is comprised of two elements: a descending arpeggio and an upper-neighbor gesture. The subject begins with an upward leap from $\hat{5}$ to $\hat{8}$ before the arpeggio descends to the stable platform of $\hat{1}$ (**Figure 3.3a**; the scale degrees in this example represent E major as tonic). If we evaluate the combination of the descending arpeggio and the upper-neighbor gesture we find that this combination is decidedly ungraceful according to our two criteria: 1) inertia does not carry through the stable point of elision ($\hat{1}$) in the same

direction, and 2) a change of direction occurs on a stable pitch ($\hat{1}$) rather than an unstable pitch ($\flat\hat{2}$). If we imagine this passage in terms of analogous physical gestures we can further explain our judgments about the lack of gracefulness in this combination.

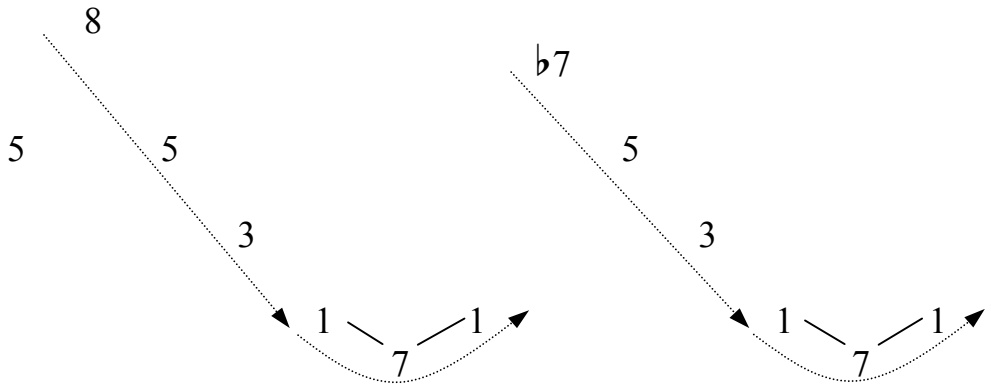
Figure 3.3. A-minor gigue, inverted subject schemas:

(a) *upper*-neighbor version



inertia does not carry through stable point (1)
change of direction on stable pitch without pause (1) =**ungraceful**

(b) *lower*-neighbor version



inertia carries through stable point (1)
change of direction on unstable pitch (7) = **graceful**

In the upper-neighbor version, we can once again imagine that we are jumping, this time on stable ground. We begin by jumping off a ledge ($\hat{5}$), leap into the air ($\hat{8}$), and then descend to the ground ($\hat{1}$). When we land on the ground we do not bend our knees to absorb the impact. Instead, we land rigidly and actually bounce up in the air slightly ($\hat{1}$–$\flat\hat{2}$–$\hat{1}$). This physical gesture not only seems implausible, if we landed rigidly like this it would certainly hurt!

If we now turn to the lower-neighbor version and examine it in the same manner we find that the lower-neighbor version is decidedly more graceful (**Figure 3.3b**). When the descending arpeggio arrives at a stable point ($\hat{1}$), inertia now carries through this stable point of elision in the same direction (to $\hat{7}$). The change of direction now occurs on an unstable pitch ($\hat{7}$), rather than a stable pitch ($\hat{1}$). Additionally, the lower-neighbor gesture points upward to the next arpeggio descent (from $\flat\hat{7}$). If we correlate these musical gestures to physical gestures, when we jump off the ledge ($\hat{5}$) and land on stable ground ($\hat{1}$) we now bend our knees ($\hat{7}$) to absorb the impact as opposed to landing rigidly. This bending of the knees helps to propel us back upward for the next jump (from $\flat\hat{7}$), and serves as a circling motion around the stable point of arrival.

To summarize our experience of musical motion in the two versions of the inverted subject, we could say that the lower-neighbor version contains a series of smoothly connected musical gestures that correlate well with our experience of smoothly connected physical gestures while the upper-neighbor version does not (it contradicts this experience). Based on this experience then, the lower-neighbor version is the more graceful of the two inversions. The claim here is not that all musical passages must correlate well to physical motions. Rather, the claim here is that given two versions of the

inverted subject, a detailed examination of the combination of musical gestures in terms of analogous physical gestures can support our intuitive assumption about which version is the "correct" one. I suspect that if asked to choose which of the two versions was the "correct" one most musicians would choose the lower-neighbor version, even though it is the less literal of the two inversions—simply put, the lower-neighbor just feels "right." Furthermore, the claim here is not that the lower-neighbor version is more meaningful because it more closely correlates to our experience of physical motion. Both versions of the inverted subject are meaningful in terms of our experience of physical motion. Rather, the claim here is that the different ways in which we map those musical gestures onto physical gestures gives rise to different expressive meanings. The musical gestures in the lower-neighbor version correlate with physical gestures in a way that seems natural, while the upper-neighbor version correlates in a way that seems unnatural. The point here is simply to take note of these different experiences of musical motion. We could say, perhaps, that given a choice between two nearly identical musical passages we would prefer the version that mimics our bodily experience of motion (as in the lower-neighbor version) rather than contradicts it (as in the upper-neighbor version).

Summary

This chapter has shown how we can create paths to meaning by interpreting musical passages in terms of models and metaphors. In the prelude, we saw how paying attention to the model of the opening prolongation and its circular voice-leading pattern left a musical process incomplete, which was dramatized across the course of the piece and then finally completed at the end. We also saw how the meaning we derived from the

initial application of a music-theoretical model of voice leading was deepened by relating it to a model from our bodily experience (the CYCLE schema).

In the two gigue subjects, we saw how thinking of musical gestures in terms of analogous physical gestures and their combinations created a path to embodied meaning. This meaning was based on a model (Larson's pattern map) and three metaphors (Musical Succession Is Physical Motion, Musical Gesture Is Physical Gesture, and Music As Dance). All of these approaches combined to provide a rich account of the graceful combination of musical motions on multiple levels of structure, and point out at least one place where musical motion contradicted our bodily experience of physical motion.

The next chapter will further explore the ways in which we can crate paths to meaning by using a metaphorical approach to musical motion and gesture with an important added element that contributes to meaning—sung text.

CHAPTER IV

SCHUBERT'S *WINTERREISE*

The metaphorical perspective on meaning advanced in this study claims that we experience musical motion/gesture in terms of physical motion/gesture, and that metaphorical mapping between the musical and physical domains is what gives rise to embodied musical meaning. When we analyze instrumental music with the purpose of creating meaning, these mappings help us tell a story about the piece that relates our experience of musical motion. In the previous chapter, we saw how this type of approach led to embodied meaning in Bach's gigue subjects. By mapping specific musical gestures onto specific physical gestures, and by examining the ways in which these gestures were combined, we were able to tell stories about the expressive meaning of those motions. When we analyze music with text (such as Lieder) we still experience qualities of motion in the music itself, but we also have the additional component of the text to help guide our interpretation. And oftentimes, the music is called upon to express specific gestures or types of motion represented in the text (such as a person walking, a spinning wheel, or a babbling brook).

Schubert's Lieder often contain an undeniably visceral quality of motion, which is closely related to the text and helps express its meaning. After briefly examining four general types of motion in *Winterreise*, this chapter will focus on the "walking songs," which depict the main character (henceforth "the wanderer") as he walks on his journey through the winter landscape. In the five case studies that follow, we will see how Schubert is able to represent the physical gesture of walking, and then imbue this gesture

with different qualities of motion to express the changing emotional state of the wanderer along his journey (and reflect the changing qualities of motion described in the text). A close examination of the different qualities of motion in the walking songs leads to expressive meaning, and reveals both the subtlety with which Schubert responds to the poetry and the ways in which he realizes the various emotional states of the wanderer in a visceral manner.

Winterreise is one of Schubert's most famous and compelling works, and as such it has proved to be fertile ground for a variety of interpretations by scholars, performers, and pedagogues. Writers such as Susan Youens (1991) and Arnold Feil (1988) have provided compelling interpretations of the complete song cycle, and my analyses largely agree with (and draw on) those accounts.[1] As is common with the analysis of Lieder, the poetry often guides the analysis and writers often look for musical details that support or help to express the meaning of the text. In some cases, writers also claim that the composer's music adds to (or provides commentary on) the meaning of the text. These interpretive approaches can vary greatly in the degree of specificity regarding *how* the hermeneutic claims are supported by musical details.

The approach used in this chapter provides a more systematic basis for creating paths to meaning by applying the theory of musical forces and the metaphorical mapping

[1] Youens's (1991) study is broad-based and includes details of the genesis of the poetry and music, compositional drafts and revisions, biographical details on Schubert and Müller, and focuses on interpretations of the poetry. Feil's (1988) study is more analytically driven, and focuses on aspects of rhythm and meter and the resulting qualities of motion. Feil also pays particular attention to songs that feature walking motion, and to points of contrast between *Winterreise* and *Die schöne Müllerin*. Several additional authors provide insights into specific aspects of *Winterreise*: Walter Everett (1990) argues from a Schenkerian perspective that the $\hat{5}$–$\flat\hat{6}$–$\hat{5}$ motive is consistently used to represent grief on multiple levels of structure; Thrasybulos Georgiades (1967) analyzes selected songs focusing on aspects of rhythm and meter; and Rufus Hallmark (2011) focuses on the rhetorical device of apostrophe in Müller's poetry ("turning aside" to address absent, abstract, or nonhuman listeners), and the ways in which Schubert responds to this rhetorical device with significant musical changes.

of musical motion/gesture onto physical motion/gesture to arrive at expressive meaning. These methods allow the discussion of meaning to move beyond mere hermeneutic interpretation and toward a more rigorous discussion of musical meaning that accounts for the embodied nature of such meaning, and is more closely tied to musical structure. For example, when I discuss the circling motion of the triplet figuration in "Die Krähe" I will be specific about the metaphors I engage to make that claim, and will provide a model of how that circling motion can be visualized. And when discussing the different qualities of motion present in the walking songs, I will provide specific mappings of rhythmic patterns onto walking gestures in an effort to show the musical details that contribute to our different experiences of motion.

One of the things I hope to demonstrate in this chapter is that an embodied metaphorical perspective on musical meaning not only agrees with other writers' interpretations, but that this perspective further strengthens and enhances these interpretive claims by being more specific about how meaning is grounded in our embodied experience of musical motion. Often, there is an intimate relationship between the kinds of motion we experience in the music and the kinds of motion described (or experienced) in the text. While these two sources of motion need not necessarily coincide, they often do. By beginning with our experience of musical motion as a source of meaning, and then correlating that experience with the text (which also conveys a sense of motion that is reflected in the music) we can create multiple paths to meaning. This approach does not limit us to the types of motion described in the text, but rather accounts for our entire experience of musical motion in any given song.

This chapter begins with an overview that revisits some of the key issues in this study: the process of meaning construction, motion and gesture, a view of rhythm and meter informed by the theory of musical forces, and some general comments regarding the representation of motion in Schubert's Lieder. Then we will look at four types of motion present in *Winterreise*, and focus on walking motion specifically. After laying this groundwork, five detailed case studies examine the different expressive meanings that result from the different *manners* of motion in the walking songs.

Overview

Paths to meaning in non-texted vs. texted music

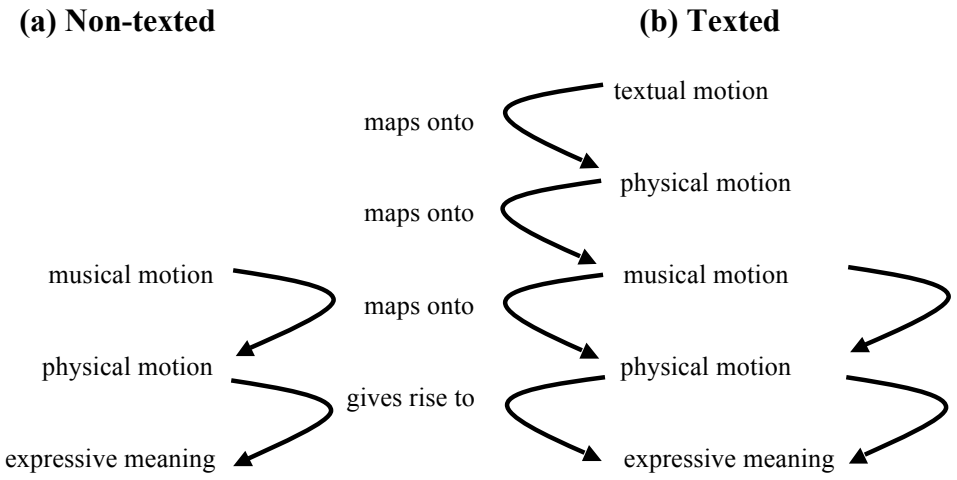
The meaning we create by mapping musical motion onto physical motion takes place whether or not text is present. However, when text is present we have another source from which to draw meaning, one that often correlates with and supports our experience of musical motion. **Figure 4.1** models the process of meaning construction in non-texted versus texted music. We should note, however, that the processes I describe below often happen simultaneously, and that meaning emerges from our experience.[2]

The process of meaning construction in music without text begins with an experience of musical motion that maps onto our experience of physical motion, and the qualities of that motion give rise to expressive meaning (**Figure 4.1a**). And this same process of meaning construction happens in music with text as well. However, in music with text we also have an additional source from which to draw meaning—the text itself.

[2] Johnson and Larson make this point when they write: "We do not merely experience a musical work and then understand it. There is not experience first, followed by our grasp of the meaning of that experience. Rather, our understanding is woven into the fabric of our experience" (2003, 78).

We might model this process by imagining the compositional process (**Figure 4.1b**). We begin with a text that conveys an image or quality of motion that we then map onto physical motion, which then gives rise to expressive meaning. This physical motion is then represented or translated into musical motion by the composer. Then, just as in non-texted music, musical motion maps onto our experience of physical motion via metaphor, and the qualities of that motion give rise to expressive meaning. However, it is important to note that in texted music we are not limited to the type(s) of motion expressed in the text; we can also draw on our experience of musical motion independent of the text.[3]

Figure 4.1. Paths to meaning in non-texted vs. texted music



[3] The relationship between words and music in song analysis is the subject of much debate. Although Kofi Agawu does not specifically address aspects of musical motion, his cogent assessment of the issue seems appropriate here: "There is no necessary relationship between the words and music of song; the music may support, contradict or remain indifferent to the text" (1992, 30).

Motion vs. gesture

As discussed in Chapter II, we often describe passages of music in terms of motion generally, and gesture more specifically. These two terms will be used somewhat interchangeably in the analyses that follow. When I use the term "motion" I am referring to any aspect of motion in the physical world (both human and non-human), and this motion has both a *manner* and a *path*. According to Johnson and Larson (2003), our experience of musical motion is dependent upon our experience of physical motion, and mapping between the musical and physical domains gives rise to embodied meaning. Physical motion need not be motion of the body (imagine the physical motion of a flowing river), but as the larger theory of conceptual metaphor claims, everything we conceptualize is based on our embodied experience (thus our conceptualization of a flowing river is dependent upon our own experience of seeing liquids move).

When I use the term "gesture" I am referring to a more specific act of motion as Larson (2012) defines it—one with a beginning, middle, and end that begins and ends at stable points. For example, jumping from point A to point B is a gesture. It contains a stable beginning (the preparatory crouch before launching into the air), an unstable middle (the flight through the air), and a stable end (the landing). And aspects of that jumping gesture can be described in terms of the motion contained within: the *manner* of motion (i.e., controlled or flailing) and the *path* through space. Gestures need not be human, although the term itself is suggestive of intentional human motion (Hatten 2004).[4] Additionally, when we use the term "gesture" we engage the metaphor Knowing Is

[4] Larson makes a similar point: "One way in which we commonly anthropomorphize musical motions is to call them 'gestures,' mapping musical succession onto intentional human motions" (2012, 50).

Grasping; thus, there is a more immediate and visceral connection to our conceptualization of the musical passage (Cox 2006).

The point here is that we can speak about motion in any musical passage (and we understand that musical motion through our bodily experience of physical motion), but only certain passages lend themselves to being described as gestures. When we speak of musical motion we are referring to general aspects of our experience, which can span any temporal length (a few notes, a phrase, a section, an entire piece). When we speak of musical gesture we are dealing with more discrete units that have beginnings, middles, and ends, and can often be mapped onto specific human gestures.

Musical forces revisited: rhythm and meter

Musical forces do not operate solely in the domain of pitch, but have an important role to play in rhythm and meter as well. In addition to the three melodic forces outlined in Chapter II —"melodic gravity," "melodic magnetism," and "musical inertia" (which operates in the domain of rhythm as well)—Larson identifies and defines two rhythmic forces: "metric magnetism" and "rhythmic gravity."[5] While a full consideration of rhythmic forces is beyond the scope of this study, a view of rhythm and meter informed by the theory of musical forces adds some additional perspectives that lead to expressive meaning.

Musical inertia (the tendency of a pattern of pitches or durations, or both, to continue in the same fashion) is a fundamental component of musical rhythm. We hear

[5] Metric magnetism is defined as "the pull of a note on an unstable attack point to a subsequent and more stable attack point, a pull that grows stronger as the attracting attack point grows closer." Rhythmic gravity is defined as "that quality we attribute to a rhythm, when we map its flow onto a physical gesture, that reflects the impact physical gravity has on that physical gesture" (Larson 2012, 22).

durations grouped into patterns, and these patterns give rise to inertial expectations. At the most basic level, we often hear durations grouped into twos or threes (something that gives rise to our basic distinction between duple and triple meter, and/or duple and triple division of the beat). And just like pitches, durations are also hierarchically structured. To review, Larson argues that musical motions are heard in terms of physical motions, that physical motions are hierarchically structured, and that musical motions and their combinations are constrained in the same ways that physical motions are.

One of the general conclusions that Larson draws about rhythm in light of the theory of musical forces is that rhythm is not solely a musical phenomenon but rather an embodied meaning. Larson defines the *rhythm* of music as "the quality of motion we experience in it, a quality that is only partly dependent on its timing, and a quality that includes grouping and meter" (2012, 139). Thus, rhythm is more than mere duration and encompasses other aspects of our experience such as "flow," "groove," or more basically, the way we experience rhythm as part of the flow of our embodied experience. Any time we use adjectives to describe a passage of music (for example, "hurried," "lazy," "smooth," or "uneven") we are describing an aspect of musical rhythm.

Musical inertia and hierarchies of motion play a pivotal role in our modes of hearing and result in new ways to think about musical meter in light of the theory of musical forces. Larson writes:

> I believe that it is this way of hearing (our embodied tendency to attribute inertia to musical motions with hierarchies of beginnings, middles, and ends) that gives rise to what we usually call "meter." According to this view, we could define meter as the expectation that a pattern of physical motion (think of conducting or dancing) that reflects the movement quality and fluctuations in rhythmic stability of the patterns heard in a passage of music will, upon repetition, continue to reflect the qualities of the following passage — experienced as "in the same meter."

> According to this view, 3/4 is not a single meter; that is, not all pieces in 3/4 are in the same meter. Rather, each piece in 3/4 creates expectations for continued hierarchical patterns of durations, each with its own characteristic way of capturing or implying a physical motion. (2012, 162–63)

The notion that pieces of music with the same time signature (thus, nominally in the same meter) each have their "own characteristic way of capturing or implying a physical motion" allows for a wide range of expressive meanings based on the specific mappings between musical and physical motion (and the pitch and rhythmic patterns that support these mappings). One of the main points of this chapter is that although many of the walking songs maintain a constant pulse and are set in the same meter, the *rhythm* (as Larson defines it) of each one is different; that is, they are based on different patterns of durations, which in turn lead to different expressive meanings.

Motion in Schubert's Lieder

In 19th-century German Lieder (and Schubert's Lieder in particular), the piano accompaniment often conveys the sense of motion described in the text. Perhaps the most famous example of the representation of motion in Schubert's Lieder is "Gretchen am Spinnrade." Here, the piano part clearly represents the motion involved with Gretchen sitting at a spinning wheel: the motoric sixteenth-note figuration in the right hand represents the constant spinning of the wheel, and the repetitive long-short (trochaic) pattern in the left hand represents the up-down motion of the foot pedal that propels the wheel. Another well-known group of examples include the so-called "brook pieces" from *Die schöne Müllerin*, which represent the motion of a babbling brook through constant

arpeggiated figuration in the accompaniment.[6] And as we will see in the analyses that follow, many of the songs in *Winterreise* represent the motion associated with walking on a journey.

Qualities of motion in Schubert's Lieder, and in particular the motion of the piano part (which is more than mere accompaniment), frequently play an integral role in musical analyses of this repertoire. For example, when considering the qualities of motion in the first 12 songs from *Winterreise*, Anthony Newcomb writes:

> In poems, one must reconstruct types of physical motion from the verbal images. In songs, especially in songs by Schubert, types of motion are presented directly to the imagination, and are among the fundamental elements of the artwork. It is thus no surprise that Schubert's music makes clearer and stronger the design of motion types implied by Müller's poems. (1986, 168)

By recognizing the metaphorical nature of musical motion we can examine the types of motion that Newcomb and other writers identify. Doing so not only allows us to discuss embodied meaning, but also gives us a deeper understanding of the types of motion present in Schubert's songs and how that motion relates to, or helps express, the meaning of the text. And when we consider questions of meaning in light of the theory of musical forces, we can be more specific about the forces that act upon the domains of both pitch and rhythm. These forces help us to explain aspects of our experience of musical motion and the expressive meaning we attribute to it. By using this approach we are not beginning with the text and looking for evidence of the representation of a type or quality of motion in the music. Rather, we are taking a broader look at musical motion and

[6] The brook pieces include "Wohin?," "Danskagung an den Bach," "Der Neugierige," "Eifersucht und Stolz," and "Der Müller und der Bach."

gesture that certainly draws on, but is not limited to, the types or qualities of motion conveyed in the text.

Schubert's Lieder have long been admired for their ability to express the meaning of their texts, and rhythmic effects contribute significantly toward these expressive ends. In his study of rhythm and meter in the German Lied, Yonatan Malin (2010) identifies two functions of these rhythmic effects: expressive and representational. Expressive effects are tied to poetic declamation and phrase rhythm. Representational effects are typically found in the accompaniment and may reflect aspects of nature or human movement. As Malin writes:

> It was Schubert's particular gift to find uncannily precise representational effects, which also function powerfully as expressive means. One finds similar effects throughout the history of the Lied, but rarely with the simplicity and directness of Schubert's songs. Furthermore, by combining expressive and representational effects, Schubert links the external world of nature and bodily movement with the internal world of the emotions. (2010, 95)

Thus, what makes many of Schubert's Lieder so effective is not simply the way in which physical motion is conveyed musically, but how this motion helps to express the emotional context of the poem. By recognizing the metaphorical nature of musical motion we are able to move beyond surface-level discussions of the representation of motion that Malin speaks of to more fully consider the embodied nature of that motion, and in turn, its expressive meaning.[7]

[7] Malin (2008) engages conceptual metaphor theory more directly in his analysis of Lieder by Wolf and Schoenberg. He applies the "metaphor of energy" (which relates aspects of rhythm, meter, and melodic contour) to discuss embodied meaning.

Motion in *Winterreise*

Four types of motion

In *Winterreise*, the wanderer leaves town and journeys through the winter landscape, wrestling with the grief of his unrequited love. However, this journey is not one of purpose. As Arnold Feil notes, "Each song seems in its own way to wander hopelessly in a circle" (1988, 87). This circular aspect to the journey (or motion without a destination) is created in part by the fact that many of the songs conclude by repeating the piano introduction (such as "Rast," "Die Krähe," and "Das Wirtshaus"), or stop without any real conclusion, often just repeating tonic harmony (such as "Auf dem Flusse," "Einsamkeit," and "Der Wegweiser").

The types of motion present in *Winterreise* can loosely be grouped into four categories: 1) songs that depict or suggest walking, such as "Gute Nacht" or "Der Wegweiser"; 2) songs that contain stylized dance motion, such as the lilting waltz-like feel of "Täuschung" or the sarabande-like quality of "Die Nebensonnen"; 3) songs that represent nonhuman motion, such as the swirling weathervane in "Die Wetterfahne" or the rustling leaves in "Der Lindenbaum"; and 4) songs that seem to stand still or go nowhere, such as "Im Dorfe" or "Der Leiermann." Before moving on to the more detailed case studies of the walking songs, we will examine the general characteristics that these songs share, and consider the ways in which other authors have discussed walking motion in these songs.

Walking motion and the expressive medium

As the preliminary analyses of "Das Wandern" and "Gute Nacht" in Chapter II illustrated, the physical gesture of walking can be represented in ways that carry different expressive meaning based on the qualities of motion we experience in that gesture. The physical gesture of walking is realized in a variety of different ways in *Winterreise*, and these different representations carry different expressive meaning as the cycle progresses, thereby contributing to the larger overall narrative in the song cycle. The wanderer begins by saying "good night" to his sweetheart as he leaves town. As he travels through the winter landscape he gradually becomes more distraught and disillusioned, and longs for the comfort of his own grave. At the most basic level, walking motion is depicted through a constant eighth-note pulse, first established in the opening song, "Gute Nacht." The particular patterns of durations that give rise to this constant eighth-note pulse are varied throughout the cycle, and these various patterns of durations give rise to different experiences of musical motion, which in turn lead to different expressive meanings.

The *manner* of the wanderer's walking motion changes throughout the cycle. While there is certainly little room for optimism in the overall narrative, there is a sense in which the journey begins with a sure-footed sense of motion (or determination); however, this sense of purpose gradually wanes. The wanderer gradually becomes more exhausted as the cycle progresses and he struggles to continue with his journey, eventually seeking the comfort of his own grave. The wanderer's struggle to continue on his journey is reflected in the music's struggle to maintain the underlying pulse. What was originally taken for granted in the opening song ("Gute Nacht") becomes a struggle

to maintain when we reach the twentieth song ("Der Wegweiser"), and the cycle concludes with a song that suggests complete stasis ("Der Leiermann").

The walking songs contain similar features that suggest a mapping onto the physical gesture of walking first established in the opening song, "Gute Nacht." The constant eighth-note pulse and largely chordal accompaniment in moderate to slow 2/4 meter can be thought of as a type of "expressive medium" in *Winterreise*.[8] By "expressive medium" I mean a particular textural configuration that is consistently used to express a general type of physical gesture, one that may be manipulated to produce different expressive meanings. In *Winterreise*, the chordal, pulsing eighth notes express a general sense of melancholy, resignation, and obsession associated with the wanderer's journey.[9]

The characteristic eighth-note pulse of the walking songs can be realized through a variety of different rhythmic patterns. These different rhythmic patterns have an effect on our experience of musical motion, and also affect the ways in which we map that motion onto a walking gesture. In other words, despite being written in 2/4 meter with a constant eighth-note pulse, each of the walking songs has a different *rhythm* (as Larson defines the term). We will also see how the song "Ruckblick," although notated in 3/4

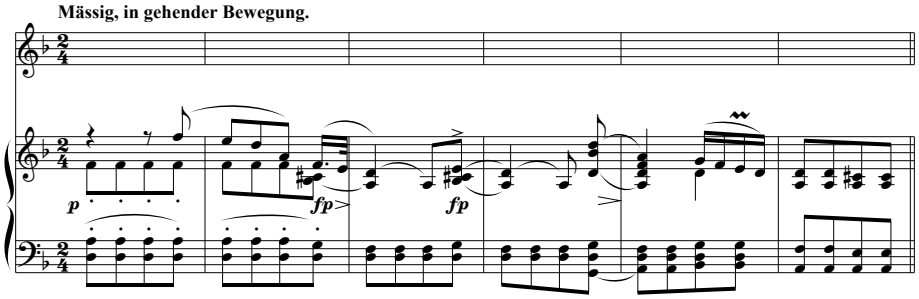
[8] The term "expressive medium" is borrowed from David Charlton (1975–76). Charlton defines "expressive medium" as a particular textural and harmonic configuration (slow tempo, pedal point, oscillating string figuration, stable tonic-dominant harmony) that is used to express mutual affection, love, or peace in 18th-century orchestral music. I borrow Charlton's term but redefine it according to the parameters listed above.

[9] All of the songs in duple or quadruple meter contain elements of walking motion, and I will briefly mention the qualities of motion present in those songs not covered in the case studies. The motion in "Gefror'ne Tränen" encounters blockage or restraint in the opening bars before flowing more freely. "Erstarrung" contains a frenzied quality due in part to constant eighth-note triplets. "Auf dem Flusse" makes use of the expressive medium, but also represents the motion associated with the central image of the poem: the contrast between the icy crust of the river and the warm water flowing underneath. "Der stürmische Morgen" and "Mut" are set in faster tempos and remind one of hiking songs. Finally, the motion in "Das Wirtshaus" has the quality of a slow stately procession or hymn.

meter, can also be experienced as walking motion. The opening of each song that uses the expressive medium is shown in **Examples 4.1** and **4.2** to illustrate the different ways in which the eighth-note pulse is realized.

Example 4.1. The expressive medium

(a) "Gute Nacht"



(b) "Rast"

(c) "Einsamkeit"

Example 4.2. The expressive medium, additional examples

(a) "Die Krähe"

(b) "Der Wegweiser"

The expressive meaning we attribute to the musical motion in these songs is not solely dependent on the text: we experience a different quality of motion in each song that is independent of the text. However, the qualities of motion we experience in the music often directly correlate with the qualities of motion in the text—this was Schubert's great gift as a composer of Lieder. The text serves to enhance, refine, and help us choose among possible interpretations.

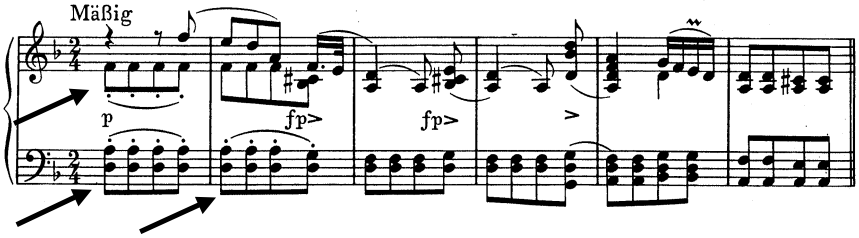
Youens and Feil on walking motion

Both Susan Youens (1991) and Arnold Feil (1988) discuss aspects of walking motion in *Winterreise*. Youens identifies what she calls the "journeying figure" that appears at the opening of "Gute Nacht," and defines this figure as "four non-legato

repeated pitches or chords" (1991, 84) (**Example 4.3**). According to Youens, this figure does not represent actual walking but rather suggests the *idea* of a journey.

Example 4.3. Youens's "journeying figure"

(a) "Gute Nacht," mm. 1–6



(b) "Der Wegweiser," mm. 1–5

(c) "Die Krähe," mm. 40–43

Youens then proceeds to look for other instances of the journeying figure in the accompaniment, the most thoroughgoing example being "Der Wegweiser." Youens (with appropriate caveats) attaches symbolism to this motive. However, many of the examples of the journeying figure that she cites rely too narrowly on articulation and seem isolated

from larger contexts of motion.[10] In other words, her identification of the motive is limited to locating it on the printed page according to the criteria she sets forth. This symbolic approach seems too narrow in my view, and misses larger aspects of motion present in many of the songs. My approach is based on a broader view of musical motion (which recognizes the metaphorical status of that motion) and transcends specific identifiable motives of the type that Youens identifies (however, my approach still relies on a close examination of specific melodic and rhythmic patterns). In some cases, very specific mappings between musical and physical motion are possible; in others, broader aspects of motion are represented. My approach accounts for both of these instances, which are dependent upon our *embodied experience* of musical motion.

Feil discusses walking motion more generally than Youens, and in ways that bear striking resemblance to the types of meaning that derive from an embodied metaphorical perspective on musical motion. In other words, Feil considers the *manner* of walking motion as a source of expressive meaning. Feil identifies walking motion in songs that relate stylistically to "Gute Nacht" through the use of 2/4 meter with a constant eighth-note pulse: "Auf dem Flusse," "Rast," "Einsamkeit," "Die Krähe," "Der Wegweiser," and "Das Wirtshaus."[11] More generally, Feil suggests that all of the songs in 2/4 meter retain some of the initial walking motion so clearly found in "Gute Nacht," and that songs in 3/4 meter stand out by contrast (the exception being "Rückblick" as discussed in the case studies below). My approach is inspired by and expands upon Feil's by being more

[10] I will cite but one example of the shortcomings of Youens's approach. In "Die Krähe," Youens only identifies the journeying figure in penultimate bar (Example 4.3c). As I will show later in this chapter, this song represents walking motion throughout.

[11] Although "Das Wirtshaus" in notated in 4/4 meter, Feil suggests that the meter can also be interpreted as 2/4.

specific about the mechanisms that lead to the expressive meanings we draw from the music. Specifically, I focus on how different rhythmic patterns lead to different experiences of musical motion, and how we can map these patterns onto walking gestures in different ways.

The Walking Songs: Five Case Studies

"Gute Nacht": The reluctant start of the journey

"Gute Nacht" represents the start of the wanderer's journey and establishes the basic "expressive medium" of walking motion that will be present throughout numerous other songs in the cycle. There is a sense in which the journey in *Winterreise* can be viewed as the reluctant resumption of motion rather than a purposeful start. The piano introduction is based on a melody-plus-accompaniment model (refer back to **Examples 2.9** and **2.10**, pp. 62–63). The accompaniment begins on the downbeat of the first measure and simply pulses a D-minor chord in eighth notes, and the main melodic motive F–E–D enters with a pickup into m. 2. At the beginning of the song, it is as if the motion begins (or resumes) out of thin air due to the non-descript nature of the repetitive opening chords—they don't really establish anything beyond tonic harmony and a basic pulse. Arnold Feil describes the effect of the accompaniment and these repeated eighth notes before the melody enters as "resigned waiting" (1988, 90). The more purposeful and goal-directed entry of the melody's pickup note is delayed for a moment until the basic pulse has been established. One could imagine a version of the introduction that begins

right away with the pickup note F in the melody and would have a different expressive meaning, one that conveys a greater sense of purpose.[12]

In the preliminary analysis of Chapter II, we saw how Schubert set the sad/happy dichotomy of the opening stanza by using falling lines (that give in to gravity) to express resignation about the journey that lay ahead, and rising lines (that strive purposefully upward against gravity) to express fond remembrance of times past. We also saw how at the end of the major-key B section the upward sequence in the vocal line failed to be completed exactly (ending on the pitch B♭ rather than D), and how the vocal line in the A' section first cadenced on the pitch D5 before finally ending in a lower register on the pitch D4. In that preliminary analysis I claimed that the pitch D4 should be *heard as* the stable platform, and that the failure of the vocal line to cadence on D5 could be interpreted as giving in to gravity, therefore expressing resignation, sadness, and generally feeling *down*.

When we consider the song as a whole, it turns out that D5 becomes the stable platform as the song progresses. We can tell a larger story about register and the interaction of the vocal line with melodic gravity by examining some of the musical gestures in Schubert's setting of the third and fourth stanzas (the first and second stanzas

[12] Recall the different qualities of motion between "Gute Nacht" and "Das Wandern discussed in Chapter II. In the context of the present discussion it is interesting to note that although both songs begin on the downbeat, the qualities of motion present in those entrances are very different. "Das Wandern" begins much more confidently and with a greater sense of purpose. Perhaps this is because the accompaniment there consists of motoric figuration and the melody-plus-accompaniment texture is absent. When the accompaniment begins in "Das Wandern" there is nothing to wait for—it stands on its own, chugging along.

are an exact repetition). In the discussion that follows it will be helpful to keep in mind the larger narrative in "Gute Nacht" as summarized by Susan Youens (1991, 125):[13]

- Stanza 1: The contrast of the past/springtime/love and the present/winter/isolation
- Stanza 2: The nature of the journey that begins here
- Stanza 3: Anger against the townspeople and against God, who created Love as inherently fickle
- Stanza 4: The farewell to the sweetheart

By examining how the vocal line is shaped by melodic gravity (and the role that register plays in this process) we can see how the expressive meaning of the vocal line affects the expressive meaning we attribute to the walking motion of the underlying eighth-note pulse. Although "Gute Nacht" is a strophic setting and contains the same basic motion throughout, the expressive meaning we attribute to that motion changes as the song progresses based on subtle changes to the vocal gestures and the shift from the minor to major modes (and back again). These subtle changes are tied to the overall narrative outlined above, and the qualities of motion help support the meaning of the text.

Stanza 3 contains some small but significant changes to the vocal gestures, all of which impart more of a rising contour and emphasize D5 as the stable platform (rather than D4 as in stanzas 1–2). This rising contour correlates well with the text and can be interpreted as a more forceful, resolute, and angry motion that pushes back against the desolation and darkness of stanzas 1–2. The first two changes to the vocal gestures occur in the opening phrase (**Example 4.4b**; stanzas 1–2 are shown in **Example 4.4a** for comparison). In m. 41, the vocal line contains an upward arpeggio of the $ii^{ø7}$ chord, and

[13] The translations used in this chapter are by Youens (1991). For reference, a complete English translation of *Winterreise* (along with the original German) can be found online at http://www.gopera.com/winterreise/songs/.

the approach to D5 in m. 43 contains a stepwise ascent from F4 to D5 (this stepwise ascent makes use of the raised $\hat{6}$ and $\hat{7}$ in its effort to overcome gravity). The expressive meaning of these musical gestures (a resolute striving upward) correlates well with the text: "Why should I linger here any longer and be driven out?" These subtle changes to the vocal gestures allow us to *hear* D5 *as* the stable platform, and the overall rising contour of these gestures carries a very different expressive meaning than the descending contour in stanzas 1–2.

Example 4.4. "Gute Nacht," vocal gestures

The force of melodic gravity helps to account for these different expressive meanings by imagining that the vocal line gives in to, or successfully strives against gravity, respectively. And when mapped onto our embodied experience of physical gravity, we derive expressive meaning that correlates with and helps support the meaning of the text. The contour of the vocal line also adds an additional layer of meaning to the underlying pulse, and thus alters slightly the expressive meaning we attribute to the walking motion.

The more resolute nature of stanza 3 is also expressed in the A' section when the vocal line closes with a conventional melodic cadence on D5, complete with a double-neighbor figure (E–C#) that circles around this stable point of arrival (**Example 4.4e**; stanzas 1–2 are shown in **Example 4.4d** for comparison). This cadence coincides with the text "Fein Liebchen, gute Nacht!" (Beloved, good night!).[14] The motive in mm. 64–65 will not only be retained in the setting of stanza 4, but will also be recalled in the piano postlude. Thus, beginning in the third stanza we now *hear* D5 *as* the stable platform because nearly all of the vocal phrases cadence on this pitch (the only exception occurs in the B section).

We could summarize the larger narrative thus far as follows: stanzas 1–2 are helpless to overcome the downward pull of gravity and give in to the desolation and

[14] Schubert makes a subtle change to the text setting in stanzas 3–4. In stanzas 1–2 the lines of poetry corresponded to the three-part form as follows: A (lines 1–4), B (lines 5–6, 5–6), A' (lines 7–8, 7–8). In stanzas 3–4 the general correspondence is changed to: A (lines 1–4), B (lines 5–8), A' (lines 5–8). However, the end of stanza 3 is slightly different still: the B section sets lines 5, 6, 7, 6, and the A' section sets lines 5, 8, 7, 8. This results in a change of emphasis in the poetry. In the poem, lines 5–8 read: "Love loves to wander / God made it so / From one to another / Beloved, good night!" In Schubert's setting, the B section emphasizes God's design of love as inherently fickle: "Love loves to wander / *God made it so* / From one to another / *God made it so*." And in the A' section, Schubert's setting emphasizes saying good night to the beloved: Love loves to wander / *Beloved, good night!* / From one to another / *Beloved, good night!*"

darkness of the winter landscape that awaits the traveler (there is but a glimmer of hope in the fond remembrance of times past in the major-mode B section); stanza 3 takes up a new attitude and the traveler is determined to take matters into his own hands (and he expresses anger at his circumstances and the inherent fickleness of love).

The shift to the major mode in stanza 4 steps in to another world, so to speak, with the dream-like farewell to the sweetheart. The traveler does not want to disturb her rest but simply wants to say "good night" and let her know that he thought of her (**Example 4.4c**). Although the first phrase of stanza 4 initially cadences on D4, this move to the lower register takes on a different expressive meaning in the context of the major mode. We might interpret the motion in stanza 4 as a soft and tender landing rather than a helpless giving in to gravity as in stanzas 1–2. A subtle change to the vocal line in mm. 73–74 lessens the sense of D4 as the ultimate stable platform. The placement of D5 on the downbeat of m. 74 (as opposed to its placement on an upbeat at the analogous point in m. 9 of stanza 1) allows us to attribute a sense of strength to this upper register, and even to hear it as the upper strand of a compound melody that is still sounding at the conclusion of the phrase. Therefore, the descent to the lower register when the vocal line cadences on D4 is interpreted differently here—there is a sense in which the descent to the lower register is only temporary.

The conclusion of stanza 4 repeats the double-neighbor gesture around D5 originally used in stanza 3 (**Example 4.4f**). This motive is now set to the text "An's Tor dir: gute Nacht" ([I write] on your gate: good night) and "An dich hab ich gedacht" (I have thought of you). Schubert repeats the final line of text and its associated gesture as an appendage to the fourth stanza and shifts back to the minor mode (**Example 4.4g**).

Thus, with the sudden shift back to the minor mode, the dream-like farewell of stanza 4 is abruptly ended and the wanderer is thrust back into reality and the gloomier outlook of the preceding stanzas. The final major/minor shift highlights the different expressive meanings we attribute to the $\hat{3}$–$\hat{2}$ motion in the major mode versus the $\flat\hat{3}$–$\hat{2}$ motion in the minor mode, which can be attributed in part to the weak versus strong magnetic pull ($\hat{3}$–$\hat{2}$ has a weak magnetic pull because it is a whole step, and $\flat\hat{3}$–$\hat{2}$ has a strong magnetic pull because it is a half step).

The piano postlude does not revert back to the melody-plus-accompaniment texture that has been present at the beginning and end of each stanza. Rather, the postlude simply contains a chordal accompaniment that continues the eighth-note pulse representative of walking motion. The pulsing motion could be interpreted as a resumption of motion at the beginning of "Gute Nacht," and at the end it seems as if it could continue on forever. The postlude also echoes the "gute Nacht" motive in the inner voices of the accompaniment, first in the left hand and then in the right hand (indicated by the open noteheads in **Example 4.5**). Thus, in the concluding measures of the song we have a four-fold repetition of the motive associated with the text "gute Nacht." This incessant repetition at the end of the song suggests an obsession. As we will see, this repetitive or obsessive quality to the motion will only escalate as the wanderer continues on his journey.

The expressive meaning we attribute to the walking motion in "Gute Nacht" changes over the course of the song. The initial melancholy and resignation (stanzas 1–2) gives way to resolution and frustration (stanza 3), which then gives way to a fond farewell (stanza 4). After this farewell the wanderer is suddenly thrust back into the

reality of his melancholy while the "gute Nacht" motive keeps echoing. The expressive meaning that we attribute to the underlying walking motion (which is represented by the constantly pulsing, chordal accompaniment) is colored by the gestures in the vocal line and the way that they interact with melodic gravity.

Example 4.5. "Gute Nacht," mm. 94–105

"Rückblick": Remembered motion that starts and stops, a backward glance

As Susan Youens has suggested, at this point in the journey the wanderer is "immersed in memory" and "relives his frantic flight from the sweetheart's town as if it were the present moment" (1991, 188).[15] Although not written in 2/4 meter, the A and A'

[15] This aspect of remembrance is not conveyed until the final stanza. Stanza 1 is written in the present tense, but as it turns out this moment actually occurred in the past. Stanza 2 is in the past tense, and stanzas 3–4 are further in the past. Stanza 5 is a present tense reflection of the wander's memory of fleeing the town.

sections of this ternary form can still be interpreted as representing walking motion, but in a way that differs slightly from the expressive medium (the constant eighth-note pulse and largely chordal accompaniment remain; the difference here is the faster tempo and nominal 3/4 meter). However, the wanderer is not presently walking but *remembering* a moment of walking from the past. As we will see in the analysis that follows, there are numerous shifts between 3/4 and 2/4 meter, and several points when these two meters are superimposed. These shifting metrical contexts affect the overall quality of motion we experience in "Rückblick."[16]

The 10-measure piano introduction is grouped into five 2-measure units, and conveys a sense of frenzied motion through the rapid alternation between the left and right hands (**Example 4.6**). The right hand is an exact imitation of the left hand, but is offset by a distance of one sixteenth note. In the second measure of each unit the rapid alternation between the hands is somewhat reduced, thereby slightly easing this frantic quality of motion. In other words, it feels as if we've arrived somewhere in the second measure, albeit only temporarily. The basic texture of the accompaniment that is set up in the introduction (alternation between the hands and imitation of pitch material) is consistent throughout the A and A' sections and establishes the general quality of frenzied motion.

When examining the quality of motion within each 2-measure unit of the introduction there is a sense in which we experience the motion not as continuous (despite the surface-level rhythm of continuous sixteenth notes), but rather as a series of starts and stops. But how can the motion stop when the surface-level sixteenth notes

[16] See Malin 2010 (100–4) for an analysis of this song that focuses on declamatory rhythm and aspects of motion. I am indebted to many of Malin's and Feil's (1988) observations about this song.

continue unabated? We can explain aspects of our experience of motion in this passage by using the metaphor Musical Space Is Physical Space. More specifically, musical space is understood here as pitch space, and pitch space can be conceived as tracing a path through the minor scale. We could represent this motion in space by mapping scale degrees onto a number of different image schemas: a VERTICALITY schema with $\hat{1}$ as "ground," a CYCLE schema, or a SOURCE-PATH-GOAL schema.

Example 4.6. "Rückblick," piano introduction, mm. 1–10

If we imagine the accompaniment as a four-voice SATB texture, then the motion I discuss below takes place in the "bass" voice and is imitated one sixteenth note later in the "tenor" voice. In m. 1 there is a chromatic rise through space from $\hat{1}$ that leads to $\hat{5}$ on

the downbeat of m. 2. In m. 2 this motion through space ceases, as the pitch remains constant on $\hat{5}$ throughout the measure. The same 2-measure pattern of motion-then-stasis through pitch space is repeated throughout the introduction even though the harmonies change. When mapped onto an image schema that traces motion along a path, the motion through space starts on the downbeat of the first measure and stops on the downbeat of the second measure.

We can interpret the start-stop motion of the introduction in a number of ways. Independent of the text, we could create expressive meaning by applying the REMOVAL OF RESTRAINT schema. The first measure represents forward motion through pitch space and the second measure represents motion that encounters restraint or blockage. In the third measure that restraint is removed and the forward motion continues. In the fourth measure another restraint is encountered. This process of forward motion for one bar, then restraint, then removal of restraint and continued forward motion continues across the entire 10-measure introduction. We could tell any number of stories about the meaning of this constant blockage that impedes forward progress.

When coupled with the title of the poem ("Backward Glance") and the wanderer's remembrance of fleeing the town expressed in the text, we can correlate this stoppage of musical motion to a stoppage of physical motion and tell a story about how the wanderer left town. The poem contains several striking images that convey a frantic quality of motion in the first two stanzas (such as burning underfoot, being out of breath, tripping, and being pummeled by snowballs and hailstones):

Es brennt mir unter beiden Sohlen,	The soles of my feet burn,
Tret' ich auch schon auf Eis und Schnee,	Though I walk on ice and snow.
Ich möcht' nicht wieder Atem holen,	I do not want to draw breath again
Bis ich nicht mehr die Türme seh'.	Until I can no longer see the towers.

Hab' mich an jedem Stein gestoßen,	I tripped on every stone
So eilt' ich zu der Stadt hinaus;	In my haste to leave the town;
Die Krähen warfen Bäll' und Schloßen	The crows threw snowballs and hailstones
Auf meinen Hut von jedem Haus.	Onto my hat from every house.

By allowing the qualities of motion described in the text (which are aptly realized by Schubert through musical means) to help guide the analysis, we can make more detailed expressive correlations, which can in turn reinform our experience of motion upon subsequent hearings. For example, the rapid alternation between the hands of the accompaniment helps to convey a sense of walking motion in which the wanderer is tiptoeing because the soles of his feet are "burning" (a paradoxical image since he is walking on ice and snow). We could tell a broader story about the introduction, in which the wanderer moves forward on his journey and then repeatedly pauses (every other measure) to look back at the town as he flees. It should be pointed out that our experience of the start-stop motion, and the frantic quality to that motion introduced by the alternation between the hands, is independent of the text. However, when we add the text our experience of the qualities of motion is not only confirmed, but also refined.

While the start-stop quality and backward glance discussed above is one general aspect of motion in the introduction, we could also be more specific by mapping the musical motion onto the physical gesture of walking in several different ways. As shown in **Example 4.7a**, we could count each 2-measure unit following the durations in the left hand as follows: | 1 & 2 & 3 & | 4 5 6 |. We could then map this musical motion onto the physical gesture of walking as a series of footsteps: 1 & (left–right), 2 & (left–right), 3 & (left–right), 4–6 (left, then stop and glance backward). This pattern of motion continues through each of the 2-measure units in the introduction, setting the stage for the overall quality of motion in the song and expressing the central images of the poem. And

the pace of this walking (which is very quick, almost a jog) also contributes to the overall quality of frantic motion.

Example 4.7. "Rückblick," introduction mapped onto walking gesture

We could also map this musical motion onto a walking gesture in a way that results in a slower pace. As shown in **Example 4.7b**, we could count the 2-measure unit according to quarter notes as | 1 2 3 | 4 5 6 |, and we could map this onto a walking gesture as follows: 1 (left), 2 (right), 3, (left), 4–6 (right, stop and glance backward). This interpretation is just as valid but results in a different *manner* of motion: when mapped onto eighth notes the pace of the walking is actually more of a jog, and when mapped onto quarter notes the pace of walking is more relaxed. This suggests different expressive meanings based on the pace of the wanderer's motion: is he running (because he can't bear to spend another second in the town and must flee as quickly as possible) or is he walking (because he is somewhat reluctant to leave)?

The point here is that multiple mappings are possible—no one mapping (as long as it is convincing) is better than another. However, we can use the qualities of motion

present in the text to help us choose among competing interpretations. In this case, the first mapping (as eighth notes) correlates more closely with the frantic quality of motion conveyed in the text. But depending on one's personal experience of motion in the song, both mappings can be viewed as equally valid. Even though the footsteps of the second mapping (as quarter notes) move at a slower pace, the rapid alternation between the hands of the accompaniment also affects our experience of that motion and the meaning we attribute to it. Regardless of the specific mapping we choose, in choosing one of the more specific gestural mappings we can add additional details to our story of the start-stop motion by correlating that general sense of motion to a more specific gesture, and the *manner* of motion we experience in this gesture leads to expressive meaning.

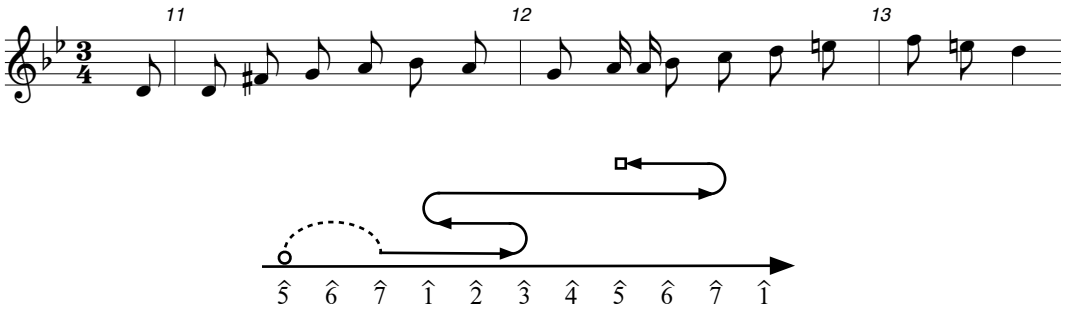
In addition to the start-stop motion in the accompaniment that can be viewed as representing the backward glance (the central image of the poem), several aspects of melodic motion in the vocal line also represent this central image. First, when the voice enters in m. 11 there is a canon between the vocal line and the piano accompaniment at a distance of one quarter note (and the two hands of the accompaniment continue the rapid alternation and imitation at a distance of one sixteenth note as in the introduction). Thus, the accompaniment is trailing the vocal line; or put another way, the vocal line is projected backward in time. Second, the vocal line contains several gestures that retrace all or part of a path through musical space. As shown in **Example 4.8a**, the opening vocal gesture (mm. 11–13) contains two patterns that retrace paths in pitch space: a $\hat{1}$–$\hat{2}$–$\hat{3}$–$\hat{2}$–$\hat{1}$ pattern (within tonic harmony) and a $\hat{5}$–$\hat{6}$–$\hat{7}$–$\hat{6}$–$\hat{5}$ pattern (or $\hat{1}$–$\hat{2}$–$\hat{3}$–$\hat{2}$–$\hat{1}$ within dominant harmony). In fact, nearly all of the vocal gestures in "Rückblick" retrace all or part of a path in musical space (the B section is remarkably consistent in this regard). The first

gesture in the B section traces multiple paths through $\hat{1}$ and $\hat{3}$, and the second gesture begins and ends on $\hat{2}$ (**Example 4.8b**). The retracing of paths in musical space can be experienced as the retracing of paths in physical space, and can be interpreted as representing the backward glance that the poem speaks of.

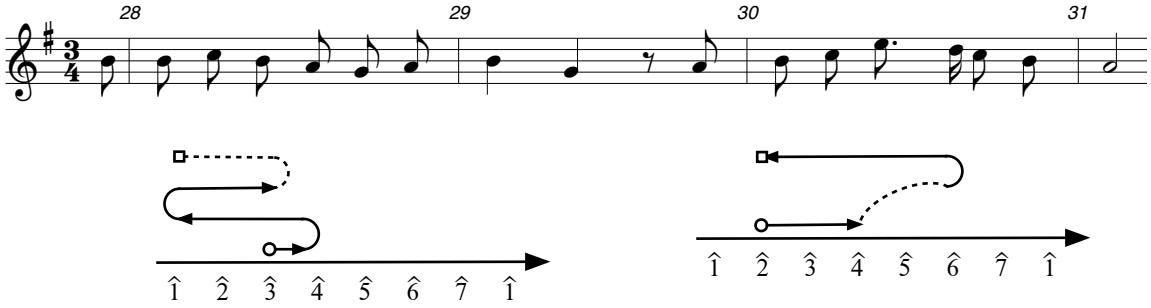
Example 4.8. "Rückblick," vocal gestures that retrace paths:

N.B.: Solid lines trace stepwise motion and dotted lines trace leaps. The paths should be read from the circular node (the source) to the square node (the goal).

(a) mm. 11–13



(b) mm. 28–31



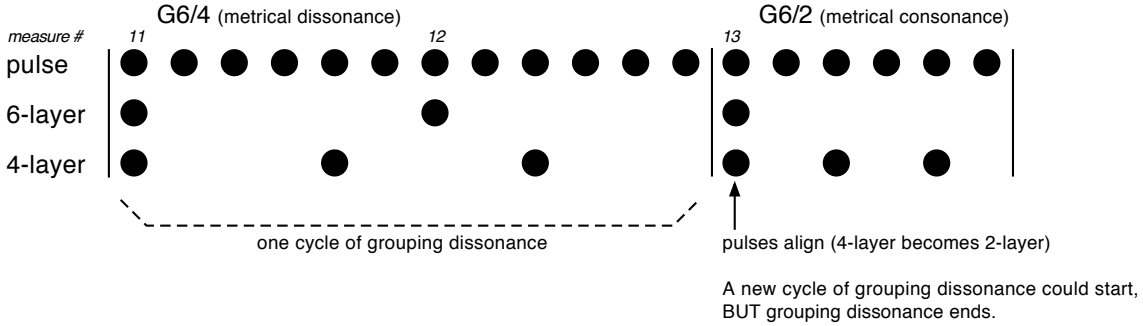
Both Malin (2010) and Feil (1988) note that the declamatory rhythm of the vocal part in the A and A' sections conflicts with the notated 3/4 meter (the B section is firmly in 3/4 meter throughout). Feil (1988, 44) goes on to claim that the metrical structure is a "formless continuum" that represents the flow of time itself, that the basic pulse in the song is a continuous quarter note, and that Schubert dispenses with the bar line as a ruler for organizing time. All of these aspects play a role in our experience of motion and the *rhythm* of "Rückblick." More specifically, the conflict and/or juxtaposition of 3/4 and 2/4 meters creates a tension or dissonance that enhances the frenzied nature of motion described earlier in the introduction. These shifting aspects of meter contribute to our experience of motion across the entire song.

The vocal setting of the first stanza (mm. 11–16) superimposes 3/4 and 2/4 meters, which contributes to the overall frenzied quality of motion (**Example 4.9a**). Following Harald Krebs (1999) I refer to this phenomenon as a "metrical dissonance." More specifically, the metrical dissonance arises from two different groupings of the basic eighth-note pulse: the accompaniment is regularly grouped into units of 6 pulses, and the vocal line is regularly grouped into units of 4 pulses. (This "grouping dissonance" would be labeled G6/4 in Krebs's system.) These two different groupings of the eighth-note pulse lead us to experience the accompaniment as being in 3/4 meter (with downbeats every 6^{th} pulse) and the vocal line as being in 2/4 meter (with downbeats every 4^{th} pulse). The perceived downbeats coincide with stressed syllables in the text, something that enhances our perception of the 2/4 meter.

Example 4.9. "Ruckblick," metrical dissonance:

(a) score, mm. 11–16

(b) model



A basic property of all grouping dissonances is that they form cycles, marked off by the points at which the two different groupings align. We can construct a model to represent this cycle (**Example 4.9b**). This particular grouping dissonance forms a cycle that is 12 pulses long (resulting in the alignment of all pulses every 13th pulse). In "Rückblick," the metrical dissonance lasts for one cycle of 12 pulses. But rather than starting a new cycle of metrical dissonance when the pulses align again, the grouping changes (the 4-layer becomes a 2-layer) resulting in a metrical consonance. This consonant grouping consists of groupings of 6 and 2 pulses (or G6/2) resulting in a normative measure of 3/4 meter. Thus the metrical dissonance is briefly "resolved" at the end of the vocal phrase with a single measure of metrical consonance. After this one measure of metrical consonance the entire 3-measure vocal phrase is repeated with the same metrical structure (one cycle of G6/4 that lasts 2 measures, then 1 measure of G6/2) before continuing in 3/4 meter with new material in m. 17. The effect of this metrical process on our experience of motion here is similar to our experience of motion in the introduction. In both cases the music hurtles forward before coming to a relative point of repose: in the introduction (mm. 1–10) that process was traced in pitch space, and in mm. 11–16 that process is traced through metrical space.

In mm. 17–20 we continue with a metrically consonant setting of 3/4 meter in both the voice and piano before shifting back to 2/4 meter in mm. 21–27 (**Example 4.10**). This time, however, the shift to 2/4 meter occurs in both the voice and piano and does not result in metrical dissonance. At this point the wanderer speaks of how "the crows threw snowballs and hailstones onto my hat from every house" (Die Krähen warfen Bäll und Schloßen / Auf meinen Hut von jedem Haus). The notated accents on the syllables "Krä-"

and “Bäll” and the 4-note pitch patterns that repeat in mm. 21–22 help to create the experience of 2/4 meter.

Example 4.10. “Rückblick,” mm. 17–27

Although there is no metrical dissonance with the shift to 2/4 meter in m. 21, the shifts between 3/4 and 2/4 meter (and the grouping dissonance discussed above in mm. 11–16) cloud our experience of meter in the A and A’ sections and prevent us from hearing regularly recurring hierarchical patterns of durations. (The B section provides a

point of contrast by remaining entirely in a normative 3/4 meter, which corresponds to the wanderer's fond reminiscence of his arrival in the town.) In other words, the *meter* (that is, the recurring pattern of fluctuations in rhythmic stability) is shifting so frequently we are not sure exactly what to expect next.

The expressive meaning we could draw from this experience of meter might describe a tension between competing forces in the A and A' sections, contrasted with a lack of tension in the B section.[17] The tension in the outer sections correlates well with the text, which describes the frantic nature of motion as the wander remembers his flight from the town: the soles of his feet burned, he tripped in his haste to leave, and crows threw snowballs at him. The B section contains an entirely different quality of motion (through the use of regular 3/4 meter) as the wanderer fondly reflects on the past: he was warmly received in the town, the birds were singing, the linden tree blossomed, the fountains were splashing, and his beloved's eyes glowed. In the A' section, the frantic quality of motion returns as we finally learn that the flight from the town described as if it was happening in the present was actually a reflection on events that happened in the past: the wander tells us that he is thinking of the day he fled and longs to return to the town and stand before his beloved's house.

The use of 2/4 meter in portions of "Rückblick" can also be interpreted as a way in which the remembered walking motion of the poem is represented.[18] This song talks about walking, but this walking is not happening at the present moment in the wander's journey. The walking motion represented by 2/4 meter is first overlaid with 3/4 meter in

[17] See Krebs 2007 for an example of the text-expressive function of metrical dissonance in Wolf's Lieder, and Krebs 2009 for an example of the expressive role of rhythm and meter in Schumann's late Lieder.

[18] I thank Steve Rodgers for this observation.

mm. 11–16 (creating metrical dissonance) and then shifts to 2/4 meter in mm. 21–27 (creating local metrical consonance with the accompaniment but large-scale dissonance with the prevailing 3/4 meter). The effect here is similar to that in the piano introduction: after being propelled forward for two measures the motion seems to come to a stop in the third measure (again, the surface-level motion continues but a sense of moving forward along a path stops).

The above aspects of rhythm and meter in "Rückblick" help to illustrate Larson's points about rhythm, meter, musical forces, and expressive meaning. Recall that Larson defines *rhythm* as an embodied meaning, one that is only partly dependent on timing and is more than mere duration. The *rhythm* of this song is frantic, and many aspects of the motion also represent the backward glance by retracing paths through musical space (and, via metaphor, physical space). Furthermore, the notated 3/4 meter of this song is brought in to conflict with the experience of 2/4 meter, both as a metrical dissonance between the vocal line and accompaniment in the A and A' sections, and as a shift to 2/4 meter at the end of these sections.

The lack of a consistent pattern of hierarchical durations affects our inertial expectations throughout the A and A' sections. At numerous points, we are unsure how the pattern of motion will continue because it is shifting so frequently. We should note that this uncertainty of meter occurs despite the consistent use of the same "mere durations" (eighth notes and sixteenth notes). The *rhythm* in the outer sections of "Rückblick" is unsettled, while the middle section provides a respite from this unsettled motion. While there are a wide variety of expressive meanings we could attribute to these

aspects of motion, one of the main points here is that the text helps guide and enhance the meanings we attribute to them.

"Rast": A paradoxical moment of rest, limbs that can't stop moving

The quality of motion we experience in "Rast" differs substantially from the quality of motion originally present in "Gute Nacht," even though the surface-level rhythm in both songs consists of a continuous eighth-note pulse. The musical motion in both songs can be mapped onto a walking gesture, but the *manner* of this motion is quite different: in "Gute Nacht" the motion is experienced as an uninterrupted, evenly paced flow; in "Rast" the motion has a hesitating or stuttering quality (the A section of this two-part form is shown in **Example 4.11**). A difference in the rhythmic patterns found in the accompaniment is the primary means by which this different *manner* of motion is achieved. The analysis that follows will account for the musical details that contribute to our experience of motion in "Rast" (and the expressive meaning we attribute to this motion): these details include the *rhythm* of the accompaniment, the relationship between voice and accompaniment, and aspects of harmony and voice leading.

Example 4.11. "Rast," A section, mm. 1–31

The piano introduction establishes the basic rhythmic patterns and texture of the accompaniment. The basic pulse in the accompaniment is grouped into a < ♪ ♩ > pattern that alternates between the left and right hands. **Example 4.12a** shows how this recurring pattern is distributed between the hands. The registral separation between the hands and the weak-strong metric placement causes us to *hear* this passage *as* a series of alternating < ♪ ♩ > patterns rather than a continuous < ♪ ♪ ♪ ♪ > pattern. The accompaniment maintains this texture and rhythmic pattern throughout the entire song but for a few exceptions (for example, mm. 13–14, 23–24, and 29–31).

Example 4.12. "Rast," rhythmic patterns, mm. 1–6

The basic < ♪ ♩ > pattern between the hands must be initiated in some manner. The piano introduction could have begun with an eighth-note pickup to set the pattern in motion. However, Schubert does not use a pickup but rather begins on the downbeat of the first measure with a quarter note in the left hand (we could think of this quarter note

as the second element in the <♪ ♩> pattern). This downbeat entrance affects our perception of the pattern in the left hand. Rather than forming a string of stand-alone <♪ ♩> patterns in the left hand, the entrance on the downbeat causes us to hear the left hand as a series of <♩ 𝄾 ♪ ♩> patterns that are continuously elided and begin and end on stable downbeats (**Example 4.12b**, lower staff [LH]; the elision of patterns is shown by alternating downstems and upstems). This three-note <♩ 𝄾 ♪ ♩> pattern is a gesture—it has a beginning, middle, and end that departs from and returns to a stable downbeat. If we focus on the left-hand registral stream for a moment, and we *hear* the first quarter note *as* initiating a pattern from a stable downbeat, then we expect that pattern to continue to a point of relative stability. The next stable point that we arrive on (in the left-hand register) is the downbeat of the following measure—thus the pattern can be *heard as* <♩ 𝄾 ♪ ♩>. At the same time, however, this downbeat arrival also initiates the start of another instance of the same pattern, and this chain of elided patterns continues until the fermata in m. 6 (and resumes again after the fermata).[19] When we *hear* the left-hand stream *as* a series of elided patterns, then this causes us to *hear* the right-hand stream *as* a two-note <♪ ♩> pattern, one which is not elided (**Example 4.12b**, upper staff [RH]). Based on this hearing, the accompaniment contains two different patterns: 1) an elided three-note <♩ 𝄾 ♪ ♩> pattern in the left hand, and 2) a two-note <♪ ♩> pattern in the right hand.

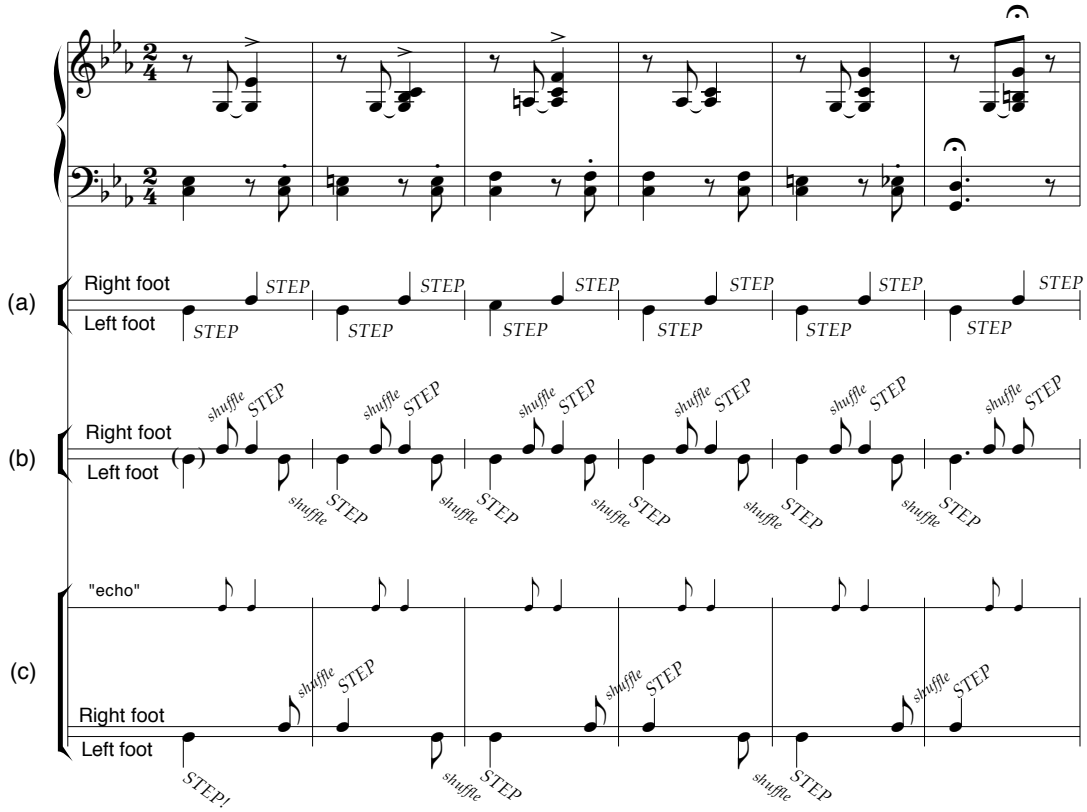
Regardless of how we hear the rhythmic patterns in the accompaniment, our inertial expectations are for that pattern of motion to continue in the same fashion. In both "Gute Nacht" and "Rast" we experience the motion as a continuous uninterrupted flow

[19] Larson (2012, 145–47) discusses how we tend to hear rhythmic patterns as elided in this way, something that our notational system obscures.

because the patterns, once established, remain largely unchanged. However, the main difference between these two songs is how the patterns that give rise to that uninterrupted flow are *heard as*: in "Gute Nacht" the basic pulse is *heard as* a < ♪ ♪ ♪ ♪ > pattern, and in "Rast" basic pulse is *heard as* a series of < ♪ ♩ > patterns that alternate between the hands (in the most basic sense, as shown in **Example 4.12a**).

The rhythmic patterns in "Rast" suggest a number of different mappings onto a walking gesture. In our first mapping (**Example 4.13a**), the agogic emphasis on the quarter notes suggests a mapping where each beat is one footstep. This mapping accounts for motion in the broadest and most general sense, but it ignores the surface-level eighth note that precedes each quarter note.

Example 4.13. "Rast," rhythmic patterns mapped onto walking gesture, mm. 1–6



In our second mapping (**Example 4.13b**), we can account for the eighth note that precedes each quarter note, and we can still map the motion of each left- and right-hand pattern in the accompaniment onto a single step. But now each step is preceded by a shuffle or slide of the foot, resulting in a shuffle-STEP gesture.

The downbeat entrance of the left hand not only changes our perception of the pattern, but also impacts the way in which we map musical motion onto physical motion. In our third mapping (**Example 4.13c**), we will account for the downbeat entrance. By beginning on the downbeat, we start with a single confident STEP, which then gives way to the hesitating shuffle-STEP motion thereafter. This mapping then continues according to the three-note elided pattern (in the left hand of the accompaniment) by mapping left and right feet onto the alternating patterns, resulting in a slower pace of walking. In this third mapping, the question of how to account for the motion in the right hand remains. We might think of the motion in the right hand as an "echo" or "reverberation" of the walking motion.[20] In this mapping the left hand is experienced as actual walking with a shuffle-STEP gesture, and the right hand is experienced not as actual motion but as a memory or contemplation of that same gesture (or it represents a constant reminder to move forward, or an obsession that cannot stop). Literally speaking, the wanderer is resting; but the motion associated with his journey continues in his mind. The first three stanzas are provided below:

[20] Malin (2010, chap. 5) uses the term "reverberation" to describe offset rhythms between voice and accompaniment in Schumann's songs.

Nun merk' ich erst wie müd' ich bin,	Only now do I notice for the first time,
Da ich zur Ruh' mich lege;	As I lie down to rest, how tired I am;
Das Wandern hielt mich munter hin	Walking kept my spirits merry
Auf unwirtbarem Wege.	On the inhospitable road.
Die Füße frugen nicht nach Rast,	My feet did not seek rest;
Es war zu kalt zum Stehen;	It was too cold to stand still.
Der Rücken fühlte keine Last,	My back felt no burden:
Der Sturm half fort mich wehen.	The storm helped blow me onward.
In eines Köhlers engem Haus	In a charcoal burner's cramped hut,
Hab' Obdach ich gefunden.	I found shelter,
Doch meine Glieder ruh'n nicht aus:	But my limbs cannot rest (relax),
So brennen ihre Wunden.	Their wounds burn so.

The meaning we derive from this third mapping then is both directly related to an experience of physical motion (the specific mapping we make onto walking motion with a particular *manner*) and also takes into account the central, paradoxical image of the text; that is, despite the fact that the wanderer is resting he feels as if his limbs keep moving.

Regardless of the specific mapping we choose, the pervasive quality of motion in "Rast" is inescapable: the use of a single rhythmic pattern lends a sense of inevitability to the motion, as if it could go on forever. While we could certainly make the same claim about the motion in "Gute Nacht," the use of a more distinctive rhythmic pattern in "Rast" causes us to identify it more strongly as a memorable pattern rather than as a continuous pulse (however, the underlying pulse in both songs is still grouped into a pattern of strong and weak beats within 2/4 meter).[21]

Despite the continuous eighth-note pulse and recurring rhythmic pattern, two fermatas momentarily stop the motion just before the voice enters each time in the two-

[21] We might illustrate the difference in relative strength of pattern (or lack thereof) between the two songs with an analogy: the motion is "Gute Nacht" is a continuously flowing faucet, and the motion in "Rast" is a dripping faucet.

part form. In m. 6 (beat 2) there is a fermata over the dominant chord, and then the accompaniment reenters on the downbeat of m. 7 (the voice part alone contains the pickup note into m. 7). The title of this poem is "Rest," and these two fermatas provide the only real moments of rest within the song. It's as if the fermatas hold out the promise of the desired rest a road-weary traveler might seek, but as the voice enters (and the obsessive patterning of the accompaniment resumes) this promise of rest is negated.

Not only are the rhythmic patterns in "Rast" different from those in "Gute Nacht," but so is the relationship between voice and accompaniment. In many of the walking songs both the voice and accompaniment contain the same quality of motion, but in "Rast" they do not. In "Gute Nacht," the voice and piano share similar rhythmic and pitch patterns. For example, the descending F–E–D motive of the first vocal phrase is previewed in the piano introduction, and the < ♪. 𝅘𝅥𝅯 ♪ > upper-neighbor pattern originally present in the second measure of each vocal phrase in the A and B sections (mm. 9, 13, 17, and 21) migrates to the accompaniment in the A' section. Additionally, the basic unadorned eighth-note pulse < ♪ ♪ ♪ ♪ > that dominates the accompaniment is also frequently found in the vocal line. The regular 4- and 8-measure phrases of "Gute Nacht" also contribute to our sense that the voice and piano work together (they are on the same page so to speak).

In "Rast," the voice and piano seem totally unrelated—they inhabit different worlds. The repetitive rhythmic pattern that drives the accompaniment is found nowhere in the vocal line. Instead, the vocal line contains three distinct rhythmic patterns, coinciding with three large phrase units (mm. 7–16, 17–20, and 21–31). Additionally, the accompaniment does not contain a distinct melodic line, and as such it does not share any

melodic patterns with the voice. The vocal phrases and the accompaniment are also out of sync. The first two vocal phrases (mm. 7–10 and 12–15) are 4 bars long, but the phrases in the accompaniment are 5 bars long. Thus, there is an "extra" bar at the end of each phrase (which can be interpreted as the limbs that "walk on alone" even as the wanderer rests). In fact, these extra bars of accompaniment at the end of the vocal phrases continue throughout most of the song.[22]

When coupled with the poem, the different qualities of motion present in the voice and accompaniment seem appropriate, and actually help represent the central image of the poem: limbs that cannot rest (or don't feel as if they are resting) even though the wanderer has stopped at a hut. And the walking motion in the "extra" bars at the end of each vocal phrase reflects the wanderer's view that "walking kept my spirits merry on the inhospitable road" (Das Wandern hielt mich munter hin / Auf unwirtbarem Wege). In other words, despite his emotional pain the constant plodding progress of walking is a comforting distraction.

The motion in "Rast" is somewhat paradoxical. Arnold Feil elegantly encapsulates the crux of the poem and the paradox it creates with the walking motion of the accompaniment:

> The walking motion of "Rast" is the only way reality can adequately be portrayed: a reality in which the traveler does not notice how tired he is until he lays himself to rest and finds that his limbs cannot relax even while resting, that his heart can find neither new energy nor peace; a reality in which his feet walk on alone, so to speak. (1988, 105)

[22] The song could be recomposed by eliminating mm. 11, 16, 23, 26, and 29, and shifting the pickup notes to the preceding bar with no fundamental alternation to the melodic or harmonic events. The effect on our experience of motion, however, would be quite noticeable, as the events would proceed at a faster pace. The sense of "rest" that we experience in these extra bars (albeit fleeting and paradoxical) would be lessened.

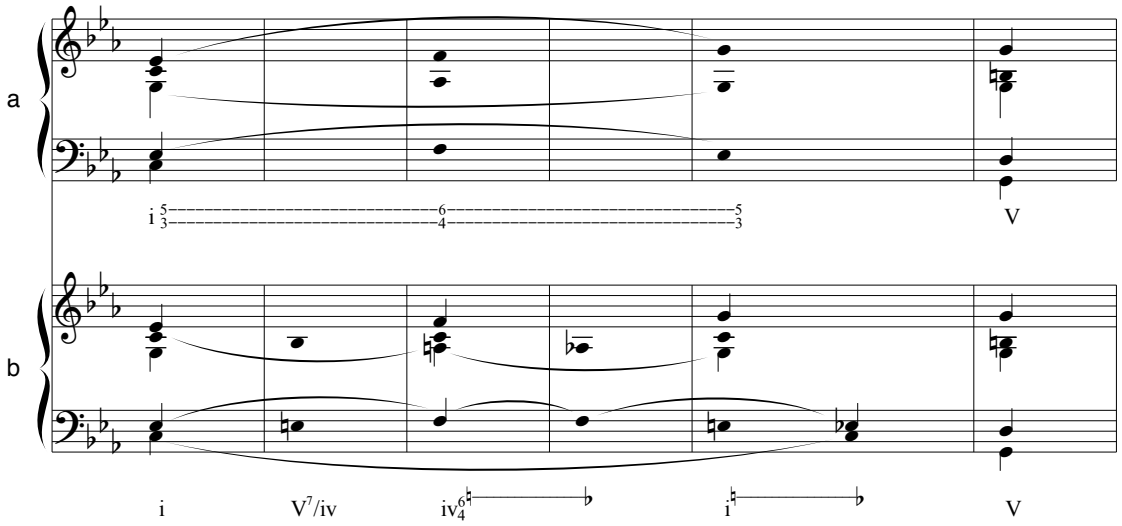
This obsessive walking motion correlates with the wanderer's realization that "my feet did not seek rest" and "my limbs cannot rest." Furthermore, as discussed above, when mapped onto the physical gesture of walking the < ♪ ♩ > rhythmic pattern contains a hesitating or stuttering quality. When considered in light of the text, we can better explain the reason for this quality of motion—the wanderer is tired. Imagine how you might walk if utterly exhausted. You might drag or shuffle our feet in the same manner as the shuffle-STEP motion of the primary rhythmic pattern.[23] (I encourage readers to try simulating this shuffle-STEP motion by walking to the music, referring back to **Example 4.13c**)

Harmonic stasis and slow harmonic rhythm (typically one chord per bar) is prevalent throughout the song. This is another paradoxical aspect to the motion in this song: the obsessive rhythmic motion is paired with a limited amount of harmonic motion within a restricted voice-leading space. The overall harmonic motion in the 6-measure introduction is from tonic to dominant and maintains a harmonic rhythm of one chord per bar (**Example 4.14**). And the tonic pedal remains ever present until the move to the dominant in m. 6, further restricting the harmonic motion in the introduction. We can interpret this restricted harmonic and voice-leading motion as a reflection of how tired the wander is at this point is his journey. Harmonic change occurs with as little effort as possible; the harmony is not static, but the voice-leading motion is extremely economical.

[23] The *manner* of motion becomes even more exhausted two songs later in "Einsamkeit," which shares a number of features with "Rast." Both songs contain a pattern that alternates between the hands in the accompaniment, and both open with a restricted harmonic and voice-leading space (however, the B section of "Einsamkeit" shifts to a recitative-like writing that abandons the established rhythmic pattern and becomes noticeably more chromatic). The main difference between these two songs is the specific rhythmic pattern that results in the continuous eighth-note pulse. The accompaniment in "Einsamkeit" frequently contains a < ♪ ♪ > pattern that is not only contained within a single beat, but often repeats the exact same pitches. Youens describes the quality of motion as "minimal, mechanical motion," that reflects the wanderer's "exhausted, plodding progress" (1991, 219), and Feil says the opening eighth notes "fall in droplets" (1988, 106).

Within the tonic prolongation there is a gentle rise and fall in the tenor voice (as shown in **Example 4.14** at level b), and the soprano voice maintains an evenly paced rise from $\hat{3}$ to $\hat{5}$ (as shown in **Example 4.14** at level a). The chromatic inflections ($\flat\hat{3}$–$\natural\hat{3}$–$\hat{4}$ in the tenor voice mm. 1–3 ascending and mm. 4–6 descending; $\natural\hat{6}$–$\flat\hat{6}$–$\hat{5}$ in the alto voice mm. 3–5) propel the music forward within the context of the regular harmonic rhythm.

Example 4.14. "Rast," voice leading, mm. 1–6



At the conclusion of the A section, the harmonic rhythm slows down even further. In mm. 21–23 and 27–29, the approach to the cadential six-four is preceded by three bars of harmonic stasis (first $\text{vii}^{o}{}^{4}_{3}$, then Gr^{+6}). At this point the wanderer says "my back felt not burden" (Der Rücken fühlte keine Last), and the harmonic stasis in the accompaniment—coupled with the vocal line that leaps upward against gravity and then gently falls—suggests that for a brief moment the wanderer has found rest, or at least a moment of peace. However, in the continuation of this phrase the wanderer reveals "the storm helped blow me onward" (Der Sturm half fort mich wehen).

One of the main points in the preceding analysis is that despite the use of 2/4 meter and a surface-level rhythm of continuous eighth notes in both "Rast" and "Gute Nacht," the *rhythm* of "Rast" (that is, the quality of motion we experience in it) is decidedly different. As Feil writes: "The original concept of motion [in "Gute Nacht"], not cheerful but at least somewhat relaxed, has been transformed into an obsession [in "Rast"], a compulsion to travel" (1988, 106). The repetitive eighth-note pulse in "Gute Nacht" is more of an underlying current or ever-present thread that runs through the song. By contrast, the repetitive < ♪ ♩ > pattern in "Rast" is foregrounded as a rhythmic motive, which takes on a single-minded quality that borders on obsession through constant repetition. Additionally, the pattern in "Rast" is asymmetrical with its weak-strong metric placement and continually leads to the next downbeat, imparting a greater sense of forward motion.

It is worth pointing out again that the expressive meaning we draw from this motion is not solely dependent on the text of the song. Without the text, I think most listeners would recognize the repetitive quality to the motion that seems to go on without end, and the sense in which the < ♪ ♩ > pattern has a hesitating or stuttering quality. Exactly how a listener unaware of the text would map these musical motions onto physical motions is an open question, but I believe that such a listener would arrive at similar conclusions about the qualities of motion as we have in our analysis above. Perhaps the motion would not be mapped onto walking. One could imagine pushing a heavy box or towing a heavy load with a rope (with two different people perhaps). Or one could imagine hammering, sawing, or digging with a shovel. The points here are that

different mappings are possible, and that it is possible to arrive at the same *manner* of motion with different mappings onto specific physical motions or gestures.

"Die Krähe": The crow flies, circling overhead

In a similar manner to "Gute Nacht," the motion in "Die Krähe" remains entirely consistent throughout. The eighth-note pulse is ever present and can generally be found in left hand of the accompaniment (except for the introduction and postlude where it is found in the right hand). In addition to the continuous eighth-note pulse there is also a new rhythmic element in "Die Krähe" (continuous sixteenth-note triplets) that not only affects our experience of the walking motion (and the meaning we attribute to it) but also invites mappings to other types of motion besides walking. In this song we not only have the representation of walking motion, but also a representation of the motion of the crow that flies overhead and has followed the wanderer since he left town.

"Die Krähe" provides a poignant example of how Youens's motivic and symbolic approach to the "journeying figure" fails to account for larger aspects of motion. Recall from our earlier discussion that Youens identifies one instance of the journeying figure in the penultimate measure of this song (refer ahead to the score in **Example 4.19**). She interprets this as a "musical symbol whose signification is by now unmistakable;" that is, it represents the *idea* of a journey (1991, 88). According to Youens's interpretation, by using the journeying figure at this moment Schubert is saying what Müller does not in the poem: at the end of the song "the bird flies on, and the wanderer, cheated of his desire [for the grave], continues his travels" (1991, 88). Thus on Youens's view, the wanderer is not actively traveling in "Die Krähe." Whether or not the wanderer is *actually walking* in

this poem (or in any of the poems) is a question that is open to interpretation considering the overall narrative in *Winterreise*. These questions are important for Youens's approach but play only a secondary role in the approach advanced in this study. My approach focuses on our *experience* of musical motion as a source of meaning. In that regard the entire song can be *experienced* as walking motion and carries a particular expressive meaning. And as the following analysis demonstrates, the motion in "Die Krähe" can be mapped onto both the walking motion of the wanderer and the motion of the crow that flies overhead (as described in the poem). The result is a perspective on musical motion, meaning, and the wanderer's journey that is richer and more complex than Youens's narrow motivic and "symbolic" approach yields.[24]

As usual, the piano introduction sets the stage and establishes the basic quality of motion (**Example 4.15**). The constant eighth-note pulse and slow tempo (marked "Etwas langsam") clearly maps onto a basic left-right walking motion throughout the entire song (each eighth note alternates left and right feet in this mapping, just as in "Gute Nacht"). Despite the slower tempo, the constant sixteenth-note triplets help to energize the walking motion.

[24] In addition, Youens's approach raises questions about the relationship between analysis and our hearing of the song. Can a listener actually identify the journeying figure aurally without reference to the score? I would argue that this is quite difficult, if not impossible. A skilled pianist could emphasize the difference between the legato articulation that precedes the non-legato articulation of the journeying figure. But the fact that the journeying figure is comprised of repeated pitches (by Youens's definition) makes this difference in articulation very subtle (if detectable at all) on the piano. Certainly there are cases where subtle aspects of the music are not aurally salient but are clearly indicated in the score. But in this case, I think it highlights the potential pitfalls of a "symbolic" approach to meaning. Even if one completely agrees with Youens's approach to meaning construction here, I question what (if any) effect that approach has on our *experience* of the song.

Example 4.15. "Die Krähe," A section, mm. 1–13

The triplets add an additional motoric element that affects the overall quality of motion. (Recall the effect of the constant sixteenth notes on the quality of motion in "Das Wandern" discussed in Chapter II; in both cases an ever-present rhythmic pattern at a lower hierarchical level affects the quality of motion in the basic eighth-note pulse). Each eighth-note pulse is energized with additional momentum, resulting in a fundamentally different *rhythm* to this song than others we have encountered thus far. This energized quality to the walking motion in "Die Krähe" contrasts with the lazy motion present in "Einsamkeit" (not discussed here), the most recent song in the cycle that uses the expressive medium, and one that contains the most exhausted *manner* of walking motion in the whole song cycle.

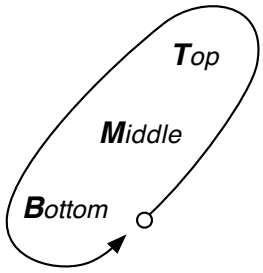
In addition to the effect that the sixteenth-note triplets have on our experience of the basic eighth-note pulse, the triplets also invite an interpretation of motion based on the title of the poem: "The Crow." Youens summarizes the poem as follows: "The wanderer hopes that the crow that has followed him since he left the town is an omen of death, circling overhead like a vulture waiting for its intended prey to die" (1991, 241).[25] When we consider the musical motion in light of the text, we can experience the musical motion in one of two ways: 1) as the basic walking motion of the wanderer, and 2) as the motion of the crow that is flying overhead. Both of these aspects of motion run simultaneously throughout the song, and at times the motion of the crow comes to the foreground.

[25] We should note that the interpretation here of the crow's circling motion does not necessarily agree with the typical flight path of crows. In fact, crows are known for flying in very straight paths, hence the old adage "as the crow flies" (meaning the shortest distance between two points). Vultures, however, are known for circling in flight. Clearly, the bird referred to in the poem is a crow, but this crow may behave in ways that remind the wanderer of a vulture.

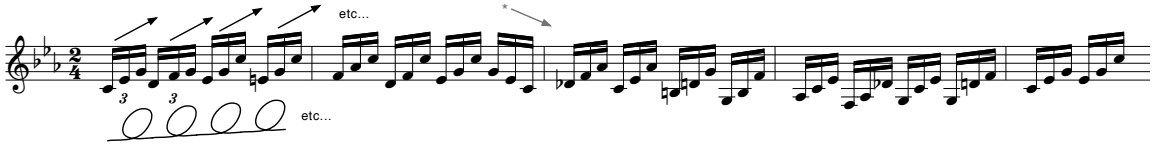
The sixteenth-note triplets in the introduction represent the circling motion of the crow (whether real or imagined) in a number of different ways. The motion of the crow is ever present, as expressed in the first stanza: "A crow has come with me from the town; to this day, it has been steadily flying about my head" (Eine Krähe war mit mir / Aus der Stadt gezogen, / Ist bis heute für und für / Um mein Haupt geflogen). When mapped onto the CYCLE schema, each triplet cycles (or circles) through three distinct elements in registral space, represented generically in **Example 4.16a** as bottom, middle, and top. The use of the generic terms bottom, middle, and top allow us to trace the motion according to registral space.[26]

Example 4.16. "Die Krähe," circling motion of triplets:

(a) generic schema



(b) upward trajectory



[26] The chordal structure of the triplets varies throughout. The triplets encompass triads and seventh chords in root position and inversion, as well as cases in which the middle element contains 2 pitches instead of 1.

The bottom-middle-top configuration of the sixteenth-note triplets is entirely consistent in registral space with one significant exception (to be discussed below): in mm. 29–37 the configuration changes to bottom-top-middle.[27] The consistent bottom-middle-top configuration of the triplets continually points upward in registral space, and can be interpreted (from the wander's perspective walking on the ground) as pointing toward the ever-present crow flying overhead (**Example 4.16b**). When coupled with the underlying walking motion we could tell the following story about our experience of motion: the wanderer walks on with an even pace (the eighth notes) but his gaze is fixed toward the sky (the triplets pointing upward).

In addition to the general qualities of circling motion in the sixteenth-note triplets (which we can map onto the motion of the crow circling in flight) we can also map other aspects of musical motion onto the motion of the crow. According to our pervasive metaphor Musical Space Is Physical Space, upward motion in pitch space can be mapped onto upward motion of the crow's wings, and downward motion in pitch space can be mapped onto downward motion of the crow's wings. But we can also allow for a third mapping, one that reflects our experience of watching a crow (or any bird) fly in the air: the crow's wings can also be in a neutral position allowing it to glide. In this neutral position the direction of motion could conceivably be up or down (depending on a variety of factors such as wind direction, overall trajectory, etc.) but for the purposes of this mapping we will imagine the glide as being in the downward direction, pulled down by the force of gravity.

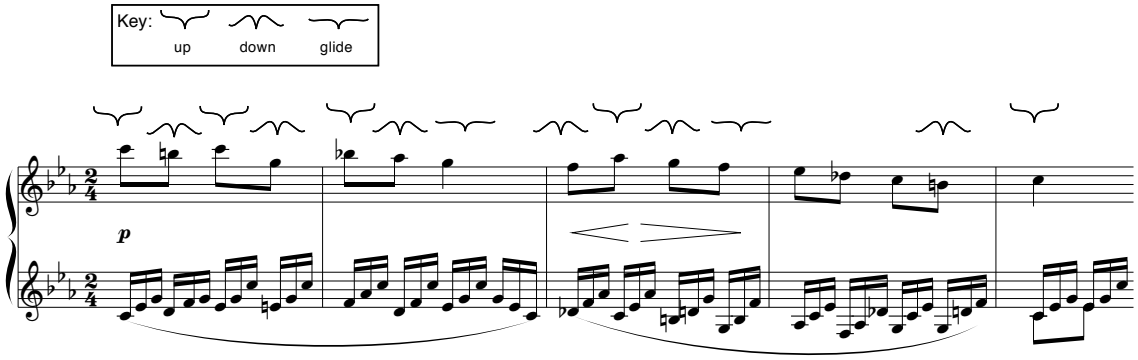
[27] A less insignificant exception occurs at the end of m. 2 (and the analogous passage in m. 39) where the configuration is top–middle–bottom, as noted in the example above. I interpret this as merely a slight change to surface-level detail. This change creates a nice flow into the next measure and marks the end of the 2-measure subphrase.

This more specific mapping of musical motion in the melody of the piano introduction onto the motion of the crow's wings is shown in **Example 4.17a**. This mapping is meant to be suggestive rather than a literal one-to-one correspondence between upward/downward motion in pitch space and upward/downward motion of the crow's wings. By adding the neutral glide position to the up and down motion we can account for the larger trajectory across the phrase. For example, in m. 2, the quarter note G cannot be a second consecutive downward motion but rather the 2-measure subphrase comes to a point of repose with a glide. And the larger successive descents in mm. 3–4 map onto a longer glide that descends through space as it is pulled down by gravity.

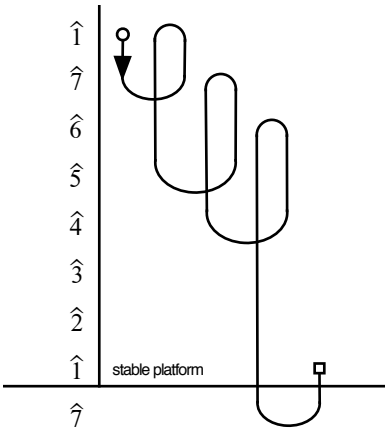
We can also map the motion of the crow onto a combined VERTICALITY and SOURCE-PATH-GOAL schema (**Example 4.17b**). The opening melody starts and concludes with a C–B♮–C neighbor motion that easily maps onto an up-down-up motion of the crow's wings (and this $\hat{1}$–$\hat{7}$–$\hat{1}$ pattern from Larson's pattern map represents a circling motion around both the stable point of departure and arrival). This type of mapping can be continued throughout the A section (which largely repeats material from the introduction) where the overall contour of the melodic lines emphasizes successive rising and falling motions. These rises and falls in pitch space suggestively map onto the motion of the crow's wings with varying degrees of specificity. In other words, at some points the mapping is clear, at others it is merely suggestive. (I have not carried out a detailed mapping of the entire A section, but the interested reader can refer back to the score in **Example 4.15** and imagine what those mappings would be.)

Example 4.17. "Die Krähe," introduction, mm. 1–5:

(a) melody mapped onto motion of crow's wings



(b) melody mapped onto VERTICALITY / SOURCE-PATH-GOAL schema



In the B section (mm. 16–24, stanza 2) the wanderer addresses the crow directly: "Crow, you strange creature, will you not leave me? Do you intend to seize my body as your prey here?" (Krähe, wunderliches Tier, / Willst mich nicht verlassen? / Meinst wohl, bald als Beute hier / Meinen Leib zu fassen?).[28] This direct address to the crow in the text

[28] The B section is one of Rufus Hallmark's (2011) examples of how Schubert responds to Müller's rhetorical device of apostrophe (in this case, turning aside to address a nonhuman listener [the crow]) with significant musical changes.

is coupled with a consistent up-down neighbor motion that again maps onto the crow's wings (**Example 4.18**).

Example 4.18. "Die Krähe," B section, mm. 16–24

The motion here strengthens our earlier assertion that the up-down motion in pitch space can be experienced as the up-down motion of the crow's wings. When the wanderer turns to address the crow directly, the musical motion more directly conveys the motion of the crow's wings through consistent use of neighbor motion. We could

imagine him gazing up and staring at the crow as he continues walking. The vocal part, though less consistently making use of neighbor motion, nevertheless exhibits similar qualities of motion to the piano part (motion that is constrained in space) through the use of a limited pitch range, chromatic inflections, and consistent use of appoggiaturas. The overall contour of the vocal line in the B section rises slightly (further suggesting that wanderer's gaze is fixed toward the sky in his address to the crow), and contrasts with the overall descending contour of the A section.

As mentioned earlier, a significant change to the bottom-middle-top configuration of the triplet figuration occurs in mm. 29–37 (**Example 4.19**). Here the configuration becomes bottom-top-middle, and this reconfiguration affects our experience of motion. Whereas the first configuration points upward, this new configuration points downward. This change in figuration coincides with a change in the text and a change in the musical materials.

Halfway through the third stanza (which forms the A' section) the wanderer directly addresses the crow once again: "Now, I will not have to journey much farther with my walking staff. *Crow, let me at last see faithfulness unto the grave!*" (Nun, es wird nicht weit mehr geh'n / An dem Wanderstabe. / *Krähe, laß mich endlich seh'n* / *Treue bis zum Grabe!*). Schubert sets these last two lines of the third stanza to new musical material rather than repeating the initial 4-bar phrase as in the A section.[29] This direct address to the crow is coupled with the repetitive neighbor motion as in the B section. And these last two lines of the stanza (directly addressing the fact that the

[29] The A section contains an 8-measure (4+4) phrase whose subphrases could be labeled a+a' (akin to a parallel period but lacking a half cadence at the end of the first 4-measure unit). The A' section contains a 14-measure phrase (4+5+5) whose subphrases could be labeled a+b+b'.

Example 4.19. "Die Krähe," A' section, mm. 28–43

wanderer seeks his own grave) correspond to a change in the trajectory of the triplet figuration, which now points downward to the grave. In addition, this change in trajectory coincides with a separation in registral space between the left and right hands of the accompaniment. This separation greatly widens the distance between the bottom element (in the left hand) and the middle and top elements (in the right hand) in the triplets. Whereas the close registral spacing that has been present throughout the song up to this point allows us to *hear* each left hand note *as* part of a single pattern—in other words, we don't realize aurally that the pattern is distributed between the hands—the registral separation that occurs when the pattern changes affects our perception of the pattern. Rather than *hearing* the pattern *as* bottom-top-middle distributed between the hands, we can now *hear* the pattern in the right hand *as* (rest)-top-bottom, which emphasizes the downward trajectory that will occur throughout the end of the song.

In addition to the text of the poem and our experience of musical motion, register plays an important role in the mappings we make in this song. The high register in which the song begins contributes to our mapping of musical motion to the crow, and throughout much of the song the accompaniment remains in this high register. It is not until midway through the A' section that things move "back down to earth" so to speak (the left hand of the piano remains in the treble clef until m. 29, and then proceeds to plunge all the way down to C2 in the final measure). This final shift to the lower register corresponds to the last two lines of text, a point at which the wanderer is most emphatic and the vocal line spans the widest range. This concluding section is an outburst of sorts: "Crow, let me at last see faithfulness unto the grave!" This last line of text is repeated twice, but with two slightly different vocal lines.

The overall descending trajectory at the end of the song can be traced through the following musical details (**Example 4.19**). The first phrase (mm. 29–33) rises to a peak of G4, and the second phrase (mm. 34–38) comes to a final rest on the pitch C3. This final vocal cadence is elided with the return of the piano introduction, which now begins two octaves lower than its original appearance. The penultimate bar reiterates the tonic pitch in the right hand while the left hand continues to plummet to an even lower register, coming to rest on the pitch C2. This penultimate bar was not originally present in the introduction and lengthens the phrase from 5 to 6 measures (this penultimate bar also contains one of Youens's examples of the "journeying figure").[30] Thus, from m. 29 to the end of the song there is a large-scale registral descent in the piano accompaniment. The implications of this descent in registral space are clear—it represents the descent to the grave that the wanderer envisions in his final outburst.

The vocal line in this closing section struggles to cadence in a higher register but ultimately fails. The two phrases in mm. 29–33 and 34–38 are nearly identical, but differ in terms of register and the type of cadence. Both phrases open with an octave leap from C4 to C5. The first phrase (mm. 29–33) then rises to G5 (the highest point in the song). A cadential 6/4 in m. 32 prepares an expected cadence in m. 33. However, this expected cadence is evaded when the dominant resolves to vii^{o4}_{3}/iv in m. 33. The second phrase (mm. 34–38) also begins with an octave leap from C4 to C5. But rather than continuing in the higher register like the first phrase, there is an immediate leap back down to the lower register. The second phrase concludes with the expected perfect authentic cadence,

[30] I hope that the preceding analysis has shown how Youens's more narrowly defined motivic approach can be expanded upon. In my view, the repeated Cs in the right hand of the piano at this particular moment are no different than—that is, we do not experience a different quality of motion in them, nor do they have a different expressive meaning than—the eighth-note pulse that has been present throughout the entire song.

where the vocal line comes to rest in the lower register on C4.[31] The expressive meaning we can draw from of this passage is a struggle against the downward pull of gravity, leading to (in light of the text) the grave. In the first phrase the wanderer resists or attempts to escape his fate (which fails), and then in the second phrase he succumbs to his fate and the relentless downward pull of gravity.

Now it is nothing new to point out that musical descents can be interpreted as descents into the grave. (Recall the discussion of the expressive meaning associated with the "lamento bass" in Chapter II and the ways in which that meaning is not arbitrary but is shaped by musical forces and metaphorical mapping.) However, it is worth emphasizing again that this expressive meaning is not a matter of mere convention or a "sign," but rather is dependent upon the metaphors Musical Space Is Physical Space and Musical Succession is Physical Motion.

We have previously seen how register affects the expressive meaning we attribute to the underlying walking motion in *Winterreise*. In "Gute Nacht," the specific register in which vocal gestures cadenced affected our perception of the stable platform to which pitches descended. The ways in which these vocal gestures interacted with melodic gravity helped to guide the expressive meaning we attributed to that motion (either they gave in to gravity, or strove against it). Some of the same conclusions could be drawn about register in "Die Krähe." The final descent to the lower register gives in to melodic gravity and can be viewed as a representation of descending into the grave (we could arrive at this meaning independent of the text, but the mention of the grave in the text

[31] The overall contour of the vocal line in "Die Krähe" is similar to that in "Gute Nacht." Both songs descend in the A section, rise upwards in the B section, and then finally descend in the A' section. And the same phrase is repeated twice in the A' section, cadencing (or attempting to cadence) in a higher register before ultimately falling to a lower register.

further strengthens this meaning). But there is also one important difference in the way that register guides the expressive meaning we attribute to the motion in "Gute Nacht" versus "Die Krähe." In the latter, register not only affects the *meanings* we attribute to musical motion, but also the specific *mappings* we make between musical and physical motion (the high register suggests a mapping onto the motion of the crow, and the lower register suggests a more "earthly" mapping onto the walking motion of the wanderer).

"Der Wegweiser": Motion that needs a jump-start, then turns into an obsession

As the wanderer's journey nears its end, we come to a song that is most closely related to "Gute Nacht" in terms of the way in which it represents walking motion. Both songs carry the same tempo marking ("Mässig") and feature a nearly constant eighth-note pulse throughout.[32] However, the *rhythm* of these two songs is entirely different. In "Gute Nacht," the eighth-note pulse is entirely continuous and seems to be a matter of course; once set in motion this pulse continues unencumbered and without variation. In "Der Wegweiser," the eighth-note pulse is largely continuous except for two complete cessations of motion: in m. 5 just before the voice enters, and at the end of the B section in m. 40.[33] But despite this nearly continuous pulse, the motion in "Der Wegweiser" requires a jump-start through a sixteenth-note pickup gesture that both sets the pulse in motion (at the opening, and after the two complete cessations of motion) and constantly reenergizes it (**Example 4.20**).

[32] The tempo making in the manuscript of "Gute Nacht" is actually "Mässig, in gehender Bewegung" (Moderate, in a walking tempo) but was changed to "Mässig" in the first edition. Most editions retain the original tempo marking.

[33] There are few other small exceptions where the eighth-note pulse is absent: the quarter note on the downbeat of m. 2, the dotted quarter notes in mm. 28 and 30, the quarter notes in m. 39.

Example 4.20. "Der Wegweiser," A section, mm. 1–23

Oftentimes, the sixteenth-note pickup gesture is coupled with a three-note rising stepwise pitch pattern (indicated with solid rectangles in **Example 4.20**; dotted rectangles indicate pickup gestures that do not contain the rising pitch pattern). Because this three-note pattern continues the pattern of pitches in the same direction we can interpret it as giving in to musical inertia. And because we move from an unstable upbeat to a stable downbeat we can interpret this motion as giving in to both metric magnetism (there is a pull toward the stable downbeat) and rhythmic gravity (we experience the *up*beats and *down*beats in terms of physical gravity). Thus, the strength of the rising pickup gesture as an agent of forward motion is due in part to the fact that the gesture ends on a stable point in both the rhythmic and melodic domains. Additionally, the rising sixteenth notes often lead to a stable pitch that is repeated (thereby establishing a stable platform) before subsequently descending (see, for example, the pickups that lead into the following two-measures units: mm. 1–2, 3–4, 6–7, 11–12, and 13–14).

Despite the close similarities in the underlying pulse of "Gute Nacht" and "Der Wegweiser," there is something fundamentally different about our experience of motion in these two songs and the expressive meaning we draw from this motion. When examining the distinctions between "Gute Nacht" and "Der Wegweiser," Arnold Feil asks:

> What is it that is so different? Does a different mood, a different feeling prevail? Hardly, for mood and feeling recede equally in favor of an unmistakable motion that is totally different despite all similarity… While uninterrupted motion is the *foundation* for the first song, here it is the *result*. (1988, 119)

Feil's elegant point about the different qualities of motion could also be expressed in another way: the motion we experience in these two songs has a fundamentally different

rhythm despite all similarities. The analysis that follows will account for some of these fundamental differences.

The piano introduction sets the stage for the quality of motion in "Der Wegweiser," and we can derive expressive meaning from our experience of motion before the voice enters with the text. We can support Feil's interpretation above by noting the different ways in which the motion begins in each of the two songs. In "Gute Nacht" the piano begins on the downbeat of the first measure, setting the eighth-note pulse in motion, which remains the *foundation* throughout the entire song. (As noted earlier, the opening seems to be more a resumption of motion than a deliberate beginning; there is a sense in which the eighth-note pulse begins [or resumes] out of thin air before the main motivic idea.) After the pulse is set in motion, the upper voice enters with an eighth-note pickup to the downbeat of the second measure, introducing the melodic motive F–E–D. In "Der Wegweiser" the accompaniment does not begin on a downbeat, but rather enters with a rising sixteenth-note pickup that leads to the first downbeat. This motivic figure constantly spurs the motion forward throughout the song, *resulting* in a nearly constant eighth-note pulse. But this pulse is also infused with additional rhythmic figures that serve to spur the motion forward in the absence of the sixteenth-note pickup. The overall quality of motion is one of unevenness, or motion that must labor to continue.

Throughout the A section (mm. 1–21) the sixteenth-note pickup is present in nearly every measure, either in the voice part, piano part, or both (**Example 4.20**). When this pickup figure is not present, two other distinctive rhythmic patterns serve the same function of propelling the motion forward. These rhythmic figures support our earlier assertion (following Feil) that the eighth-note pulse is the *result*, not the *foundation* of

motion in “Der Wegweiser.” These additional rhythmic figures that propel the motion forward (which are bracketed in **Example 4.20**) include the accented turn figure in the bass (mm. 12 and 14) and the rising dotted-rhythm figure in both the piano and the voice (mm. 16–19). Despite this constant prodding forward there is a gradual slowing down or dissipating of rhythmic energy at the end of the song when the constant eighth-note pulse gives way to a constant quarter-note pulse in the final seven measures.

As noted above, the sixteenth-note pickup is one key point of contrast between “Gute Nacht” and “Der Wegweiser.” Although there was a consistent eighth-note pickup in “Gute Nacht,” that pickup had the quality of gentle ease, pushed forward by the constant underlying pulse of the accompaniment. In contrast, the pickup in “Der Wegweiser” seems to be the necessary impetus to continue the motion. The motion here is not to be taken for granted, but rather results from continuous prodding. These differences in the quality of motion we experience in the pickups, and the way that these pickups affect our overall experience of the basic pulse, help to account for the different *manner* of motion we experience in these two songs.

Thus far we have discussed the role that the pickups play in our experience of motion in “Der Wegweiser”—the pulse feels as if it must constantly be reenergized. We can enhance our general assertion about the unevenness of motion by taking a closer look at aspects of motion in the piano introduction. The rising sixteenth-note pickup leads to the downbeat of m. 1, and sets the eighth-note pulse in motion. Except for the pickup notes, the repetitive pulsing of tonic harmony here closely resembles that in “Gute Nacht.” But in m. 2, the pulse does not continue but rather comes to a brief point of repose on a quarter note. Then the rising sixteenth-note pickup (now in the bass voice)

leads to the downbeat of m. 3 where the pulse resumes. In m. 4, there is again an easing of the eighth-note pulse on beat 2 with a quarter note, which leads to the arrival of the cadence and a complete stoppage of motion on the downbeat of m. 5 to conclude the introduction. The decorated 4–3 suspension over the dominant in m. 4 heightens our expectation of the tonic arrival and is the primary means of expanding the phrase.

We can summarize our experience of motion in the introduction as follows: after the pulse begins, it almost immediately stops (m. 2, beat 1); the same pickup gesture (leading into m. 3) reenergizes the motion which carries us slightly further this time before coming to a complete stop (m. 5). Particularly in the introduction, the eighth-note pulse is not taken for granted but rather results from a variety of rhythmic processes. The expressive meaning that we derive from this experience of motion is this—the motion does not proceed effortlessly but rather must labor to keep going.

In addition to the surface-level rhythmic patterns discussed above, the continual disruptions to normative 4-bar hypermeter also play a role in our experience of motion.[34] The introduction (and the A section as a whole) is comprised mostly of 5-measure phrases, which can be modeled as distortions of normative 4-bar hypermeter through either expansion (the lengthening of an internal event) or extension (tacking something on to the end).[35] The irregular hypermeter lends a feeling of unevenness to the overall quality of motion and contrasts sharply with the more normative 4-bar hypermeter of

[34] See Krebs 2005 for an introduction to hypermeter and the expressive function of hypermetric irregularity in Lieder. See Krebs 2009 and Rodgers 2011 for analytic applications of hypermeter aimed at expressive meaning.

[35] It is important to remember that phrase length and hypermeasures need not coincide. Phrases are *formal units* that may begin or end with a strong or weak beat and have a well-defined harmonic path that ends with harmonic closure. Hypermeasures are *metric units* that are organized into strong and weak beats, must begin with a strong beat and end with a weak beat, and although they generally begin with a significant new harmony there are no other stipulations for harmonic path. For a succinct introduction to hypermeter see Krebs 2005 (14–20).

"Gute Nacht." By deviating from our basic hypermetric expectations there is an opportunity to create meaning. Our expectations are continually undercut, typically by adding only one extra bar. The resulting effect on our experience of motion is that we feel slightly off-kilter; not only does the motion continually need to be reenergized, but the goal of larger units of motion typically does not arrive as expected.

The piano introduction in "Der Wegweiser" is 5 bars long (2+3) (**Example 4.21a**). In the second half of the phrase we experience a longing for rhythmic and tonal stability through the drawn-out dominant, decorated with an embellished 4–3 suspension in m. 4. This elongated dominant is what disrupts the 4-bar hypermeter (the fourth hyperbeat is extended and lasts for 2 measures instead of one). This distortion of 4-bar hypermeter can be viewed in one of two ways: either the predominant in m. 4 is expanded, or the final tonic is added to the end thereby extending the phrase (the phrase could have ended with a half cadence rather than an imperfect authentic cadence).

We could reconstruct two possible models of the introduction that would have a different quality of motion, one that is more balanced and even: **Example 4.21b** eliminates the internal expansion of the predominant and ends with an imperfect authentic cadence, and **Example 4.21c** eliminates the final tonic and ends with a half cadence. The latter version is the most normative, since it contains both a 4-bar phrase and 4-bar hypermeter.

These hypothetical models illustrate how the overall expressive meaning in this song not only derives from the rhythmic patterns (which are more than "mere durations" to use Larson's characterization) but also from hypermetric irregularities. The *rhythm* of "Der Wegweiser" is uneven: the surface-level motion starts and stops (and requires a

constant reenergizing through the sixteenth-note pickup), and the hypermeter is irregular throughout much of the song.[36]

Example 4.21. "Der Wegweiser," piano introduction:

(a) Schubert's version, (b–c) hypothetical models

[36] Almost all of the phrases in "Der Wegweiser" contain some type of hypermetric irregularity, which can be interpreted as a continual undercutting of normative 4-bar hypermeter (rather than the establishment of 5- or 6-bar hypermeter). While a detailed hypermetric analysis is beyond the scope of the present discussion, an examination of the phrase lengths reveals the irregularity. The A and A' sections are made up of 5- and 10-measure phrases. The B section is comprised of 6-measure phrases. The omnibus progressions in the C section are made up of 11- and 9- measure phrases, and the song ends with a 6-measure phrase when the eighth-note motion finally gives way to quarter notes.

The transition to the B section (mm. 20–21) simply consists of 2 measures of the single pitch G that continues the eighth-note pulse before the rising sixteenth-note pickup leads into the B section, set in the parallel major. When considered in light of the text, the repeated Gs that lead in to the B section could be interpreted as the first signs of an obsession, one that will grow stronger as the song progresses. Note also how the repetitive pitches here contrast with those from "Gute Nacht." The quality of motion in these repeated Gs (which will figure prominently in the voice part of the C section as discussed below) contrast with the qualities of motion described thus far. For a moment it seems as if the eighth-note motion *is* a matter of course and does not need the constant prodding that has been present up to this point (the sixteenth-note pickup is still present in the B section but recurs only every two bars, and is absent altogether from the piano interlude in mm. 34–39). There is a sense in which the quality of motion in the B section is more effortless than other sections. Perhaps this is due to the simpler harmonies and the major mode, or perhaps it is due to the hypermetric structure. While still not making use of 4-bar hypermeter, the distortions in the B section often involve 2-bar extensions (resulting in 6-bar phrases) that have a more balanced feel than those in the A section.

The overall form of "Der Wegweiser" is A–B–A'–C, and each section corresponds to one stanza of text (the final stanza is repeated twice, with an extra repetition of the final couplet when the obsessive eighth-note motion finally gives way to quarter notes in m. 78). The overall narrative arc of the poem begins with a moment of reflection and self-questioning about the nature of the wanderer's journey in stanzas 1–2, and then moves on to discuss the central image of the poem (signposts) in stanzas 3–4, shown below:

Weiser stehen auf den Straßen, Weisen auf die Städte zu. Und ich wandre sonder Maßen Ohne Ruh' und suche Ruh'.	Signposts stand on the roads, Signposts pointing toward the towns, And I wander on, relentlessly, Restless, yet seeking rest.
Einen Weiser seh' ich stehen Unverrückt vor meinem Blick; Eine Straße muß ich gehen, Die noch keiner ging zurück.	I see a signpost standing immovably Before my eyes: I must travel a road From which no one has returned.

There is a gradual process of narrowing from many signposts in stanza 3 (which point to the many different towns that the wanderer passes by "relentlessly, restless, yet seeking rest") to a single signpost in stanza 4 (which leads to "a road from which no one has returned"). Stanza 3 forms the A' section, recalling the many signposts the wanderer has encountered. Stanza 4 is set to new music in the C section, and elements of the rhythmic, melodic, and harmonic motion in this final section represent the obsessive fixation on the one signpost, which leads to the grave (**Example 4.22**).

In the concluding C section, the eighth-note pulse is now ever-present in the piano. Although the sixteenth-note pickups occur every 2 measures in the voice part, the pickup now simply reiterates the same pitch, thus losing some of its distinctive character as an agent of forward motion (recall that musical inertia propelled the motion forward toward greater stability in both the domains of rhythm *and* pitch in the rising pickup gesture). At this point in the song the quality of motion is different from that at the outset despite the use of the same rhythmic patterns: the motion now seems inevitable or obsessive, quite a contrast to the constant jump-starts necessary throughout the song up to this point. The voice part begins each of two large phrases (mm. 56–67 and 68–77) by reiterating the tonic pitch G, which represents the "immovable" signpost that stands before the wanderer's eyes.

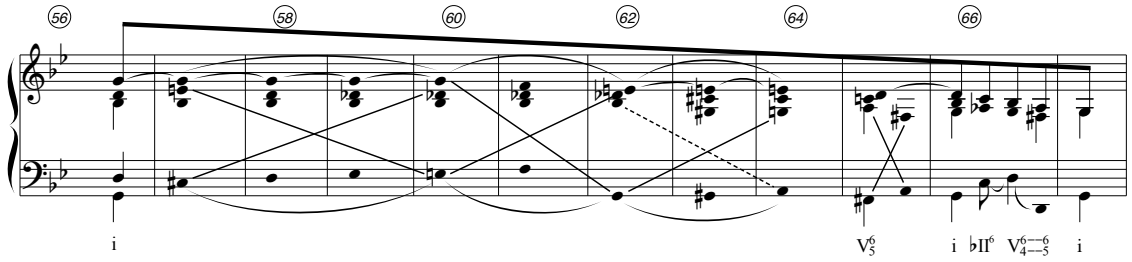
Example 4.22. ”Der Wegweiser,” C section, mm. 55–83

The repetitive, obsessive, inevitable quality to the motion in the rhythmic domain is coupled with an omnibus progression in the harmonic domain. The voice leading in mm. 56–67 and 68–77 contains a converging chromatic wedge, departing from and returning to the stable tonic (**Example 4.23**). This chromatic wedge in pitch space also helps to express the text as it converges on the tonic pitch from above and below. Additionally, the harmonic progression is continually pushed forward with chains of applied dominant and leading-tone seventh chords. Each of these two wedge phrases concludes with a conventional cadence pattern featuring the Neapolitan chord as a predominant. The text setting also places agogic emphasis on the word "keiner" (no one) by lengthening the word for one and a half measures (up to this point the text setting has been almost entirely syllabic). This agogic emphasis coincides with the melodic high point of the phrase (D5) and emphasizes the fact that *no one* has ever returned from that road (because it leads to the grave).

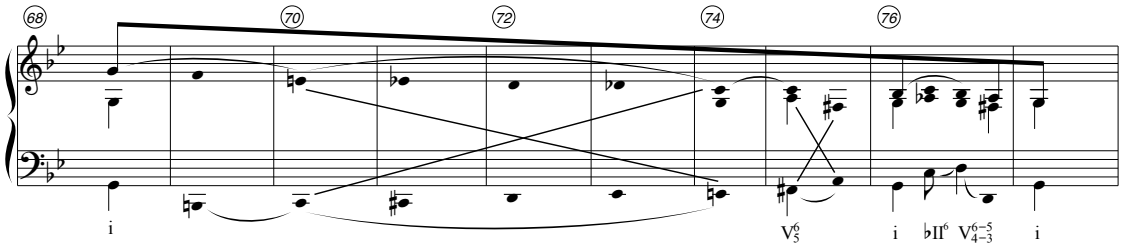
The meaning we derive from the chromatic wedge (inevitable motion toward a goal) is dependent upon the metaphor Musical Space Is Physical Space, one of our most ubiquitous but often unacknowledged musical metaphors. When the chromatic wedge is coupled with the mapping of the eighth-note pulse onto walking motion, these elements combine to shape our experience of both the *manner* and the *path* of motion pointing toward the signpost.

Example 4.23. "Der Wegweiser," chromatic wedge voice leading:

(a) mm. 56–67



(b) mm. 68–77



Many commentators have noted that the omnibus progression (with its chromatic wedge voice leading) and the vocal line (with its repeated Gs and upward arpeggiation in minor thirds) represent a focusing on the single signpost and the road "from which no one has returned" (Die noch keiner ging zurück).[37] A skeptic could argue that the printed notes on the page form such a wedge visually, and that the expressive meaning of focusing is only a consequence of our notational system. However, conceptual metaphor theory (and the theory of musical forces) counters this claim by arguing that our

[37] Regarding the second phrase (mm. 68–77) Youens writes: "The repeated Gs in the inner voice, like a tolling bell, sound on and on, while the boundaries of the road narrow in a slow, inexorable convergence surrounding the fixed point (1991, 277). Aldwell and Schachter (1989, 540–41) note the deliberate spelling of the vocal line as a series of rising minor thirds (Schubert uses D♭ in the vocal line rather than C# as in the accompaniment in mm. 63–64), which could continue rising and never return to its origin. This notation "embodies a musical symbol" for the road from which no one ever returned.

metaphorical understanding of musical space as physical space shapes our *experience* of this passage (and certainly the pianist viscerally experiences the focusing while playing). It is from this experience of musical motion through space that we draw expressive meaning, not just the abstract (or "disembodied") way that the notation appears on the page.

The final phrase (mm. 78–81) repeats the last couplet of text and the eighth-note pulse gives way to a quarter-note pulse. The final two bars of the accompaniment simply pulse tonic harmony with a descending arpeggiation through the tonic chord in the bass (in this regard it closely resembles the conclusion of "Einsamkeit" [not discussed here] and expresses the sense of exhaustion near the end of the wanderer's journey). The motion has finally ceased—there is nothing more to spur it on.

The ending of "Der Wegweiser" is fundamentally different than every other song in *Winterreise*. Unlike every other song in the cycle (which ends by repeating the all or part of introduction, or iterating the tonic with the same rhythmic pattern from the introduction) this one ends with a different *manner* of motion than that with which it began.[38] In fact, our experience of motion changes significantly over the course of the song. Throughout the first three quarters of the song (sections A, B, A') the rhythmic patterns constantly spur the motion forward, and the result is an eighth-note pulse that, while nearly continuous, constantly feels like it is in jeopardy of faltering. In the C section, this pulse takes on the character of an obsession, and despite making use of the

[38] The one exception to this generalization is "Frühlingstraum." This song alternates between two different meters and tempos throughout: 6/8 ("Etwas beget") and 2/4 ("Langsam"). It begins with a section in 6/8 and ends with a section in 2/4; therefore, it begins and ends with a different quality of motion. However, these different qualities of motion simply result from the alternation of different meters (each with its own characteristic *rhythm*) rather than a fundamental change in the quality of motion from the beginning to the end of the song.

same rhythmic patterns now feels more resolute, obsessive, and unfailing. In the final 6 measures, the eighth-note pulse slows to a quarter-note pulse (or is "ossified" as Feil [1988, 119] puts it) and the motion loses all energy—it simply evaporates.

Summary

Throughout this chapter we have seen how the same basic eighth-note pulse can be experienced as walking motion, and how that pulse can take on different expressive meanings. Many factors affected the different qualities of motion we experienced in this pulse: tempo, rhythmic patterns, meter, hypermeter, melodic motion, and harmonic motion. In the approach used here, we often began with a general experience of musical motion in the piano introduction, which set the stage for (and remained largely unchanged throughout) the rest of the song. By examining the *manner* of motion (and in some cases the *path*) we were able to tell stories about the expressive meaning of those motions. In addition, we were often able to map those musical motions onto very specific physical motions/gestures: the start-stop motion and backward glance in "Rückblick," the shuffle-STEP gesture in "Rast," or the motion of the crow's wings in "Die Krähe."

Our embodied experience of motion, and the expressive meaning derived from this experience, was not solely dependent on the text of each song. However, when coupled with the text, we discovered not only that Schubert is a master of translating textual motion into musical motion, but also that the text helped to refine and deepen the meanings we attributed to the musical motion based on experience alone. By adopting a metaphorical perspective on musical motion, and creating specific mappings between the musical and physical domains, our interpretive claims were able to rest on firm and stable

ground by being specific about *how* the qualities of motion were related to specific aspects of the music. And by engaging a variety of models (tonal structure, phrase structure, metrical structure, and hypermetrical structure) we were able to relate our experience of specific passages to details of musical structure.

CHAPTER V

CONCLUSION

This dissertation has examined *how* music means. Of the myriad approaches to musical meaning, I have focused on those that fall within two broad categories: metaphors and models. As discussed in Chapter I, none of the topics in this study (meaning, metaphor, and models) are new to musical discourse or professional music theorists. However, questions of meaning have often lurked below the surface in many theorists' work (with the exception of theorists who engage issues of meaning in an overt and systematic way such as Agawu, Hatten, and Larson, among others).

Every time we listen to, perform, or analyze a piece of music we have an opportunity to create meaning. Creating meaning is not some specialized task that remains the purview of those trained in the rigors of music theory; rather, creating meaning is something all of us do, not only with music but in every facet of our daily lives (some of which is so commonplace that we don't recognize it as "meaning" because it simply emerges from our attempt to make sense of our experience). This study has argued for two main points about the nature and source of musical meaning. First, meaning is not fixed or "out there" in the world just waiting to be discovered; it is something our minds create when we group things into patterned relations, captured in Larson's phrase "to hear as." And second, by mapping our experience of musical motion onto our experience of physical motion we create expressive meaning.

One of the most intriguing ideas to emerge out of Mark Johnson's (1987, 2007) work on meaning is that meaning is *embodied*; that is, meaning is dependent on, and

arises from, our bodily experience (there is no mind-body dualism). The consequences of this view for musical meaning are profound and are brought to fruition in Larson's (2012) theory of musical forces. We all agree that music moves, and we intuitively talk about music in terms of motion. The theory of musical forces allows us to examine musical motion in terms of specific forces, such as melodic gravity (the tendency of notes to descend), melodic magnetism (the tendency of notes to move to the closest stable point), and musical inertia (the tendency of a pattern of motion to continue in the same fashion). As we have seen, we can create expressive meaning based on our experience of motion in passages of music, and the ways in which these passages are shaped by musical forces in specific and quantifiable ways (in the domains of both pitch and rhythm). The larger conceptual metaphors for musical motion (the Moving Music metaphor and the Musical Landscape metaphor) allow us to create meaning by examining the *manner* of motion (that quality of motion we experience in it) and its imaginary *path* through space. The important point here is that it is our *experience* of musical motion that gives rise to expressive meaning (and we cannot experience musical motion without drawing on our experience of physical motion).

As I argued in Chapter IV, the usual aim of analysts who examine music with text (and 19th-century German Lieder in particular) is to create meaning by examining "text-music relations." If we just interpret the poem, and then look for what the music adds to that interpretation, we miss a broader opportunity. By approaching Lieder with an eye toward our experience of musical motion, and then combining that experience with the text, we come to a deeper and more visceral sense of meaning. The case studies of the walking songs from Schubert's *Winterreise* in Chapter IV illustrated the ways in which

we can create expressive meaning through metaphorical mapping by examining the *manner* of motion we experience in a piece of music. Despite the similarities in basic pulse and tempo, different surface-level rhythmic patterns led us to experience the eighth-note pulse in different ways. Irrespective of the text, we attributed expressive meaning to these motions based on how we might imagine moving (specifically, walking) to them. And when we looked deeper into this experience by considering the text, we not only discovered that Schubert was a master at translating textual motion into musical motion, but that the text helped to suggest additional and/or more specific mappings between musical and physical motion.

In all of the case studies, the main points were the same: the *manner* of motion we experienced in each song led to expressive meaning, and this expressive meaning was not solely dependent on the text but could be refined and expanded by considering how the aspects of motion in the text were conveyed in the music. For example, in "Gute Nacht," we experienced the unceasing eighth-note pulse as the foundation of motion for the song. The introduction to "Rückblick" contained a start-stop quality, which we then interpreted as the backward glance of the wanderer as he fled town. The repetitive motion in "Rast" highlighted the ways in which the *manner* of motion depended on the surface-level rhythmic patterns, which had a hesitating or stuttering quality despite the resultant continuous eighth-note pulse. And in "Der Wegweiser" (the song most closely related to "Gute Nacht"), the quality of motion changed from beginning to end: at first it was uneven and continually needed a jump-start; then it was transformed into an obsession; and finally, the motion evaporated altogether.

In addition to our general experience of musical motion, we also experience passages of music as containing more specific gestures (with beginnings, middles, and ends that pass from stability through instability and back to stability). Musical gestures are more discrete units of motion and are grounded in our experience of physical gestures and their combinations. Larson's pattern map provides a model of how musical gestures (in this case, three-note stepwise pitch patterns) can be combined in ways that reflect our experience of the graceful combination of physical gestures. Chapter III demonstrated how the pattern map could be applied in the analysis of Bach's gigue subjects, and how doing so allowed us to explain our experience of musical gesture in ways that reflected our experience of physical gesture (i.e., "this combination feels graceful because…" or "this combination feels ungraceful because…"). And by mapping those musical gestures onto physical gestures, we were able to tell stories that related the expressive meaning of those motions.

The gestural approach to meaning in this study was not limited to Larson's pattern map. We were also able to map musical motion onto a walking gesture in *Winterreise*. In "Gute Nacht" and "Die Krähe," the gesture was even and continuous from beginning to end: left and right steps mapped onto the eighth-note pulse. In the introduction to "Rückblick," the motion rushed forward and then came to a halt. We mapped this motion onto a specific walking gesture that moved forward several steps and then stopped before resuming again. In "Rast," the repetitive rhythmic pattern in the accompaniment mapped onto a shuffle-STEP gesture in a variety of different ways based on how that rhythmic pattern was *heard as*.

The role that models play in creating paths to meaning has been a thread throughout this study, and featured prominently in the analyses of Bach's prelude and gigue subjects in Chapter III. While the concept of models has been treated more generally than metaphors, almost every analysis in this dissertation has made use of some type of model. Many of these models are the tried-and-true tools of music theorists: Schenkerian analysis (an organic model of tonal structure), hypermeter (a model of large-scale meter where measures act as beats), phrase structure (a model of the length, internal division, and relationship of parts). Other models are more specific and serve a more narrow purpose, such as Larson's pattern map (a model for the combination of three-note stepwise pitch patterns that reflects our understanding of the graceful combination of physical gestures) and Krebs's (1999) approach to metrical consonance/dissonance (a model of different pulse layers and their interaction). A variety of additional models were constructed to make specific analytic points. Hypothetical reconstructions (creating a more basic version of a given passage that eliminates irregularities found in the original) were used to show how the opening of Bach's E♭ major Prelude deviated from an absolutely consistent pattern of figuration that caused a registral voice-leading strand to remain incomplete. Reconstructions of the piano introduction to "Der Wegweiser" showed how Schubert's 5-bar phrase was a distorted version of 4-bar norms. In the analyses of Bach's gigue subjects and Schubert's "Rückblick" we were able to create visual models to show how the music moved through musical space (and via metaphor through physical space).

The mappings between the physical and musical domains (via metaphor) are a fundamental aspect of meaning construction, but it is important to remember that these

mappings are not fixed. Steve Larson reminds us of this point when he summarizes his introductory analyses in *Musical Forces* (2012). He asks: What would happen if we changed the lyrics to a given song? Would it still have the same expressive meaning? If the text were well chosen, probably yes. Larson writes:

> The point here is *not* that there is only one mapping between the patterns of a piece and its musical meaning. Rather, when we do find persuasive musical meanings, they rely on mapping musical patterns onto life experiences—and when those mappings involve physical motion, the meanings they create rest on the operation of musical forces at various levels. (2012, 201–2)

But if multiple mappings are possible, does that open us to the charge of relativism? Does that imply that any mapping or meaning is possible? The answer is no. Mappings and meanings should be convincing, but the fact that there are multiple ways to approach meaning in any given piece of music is something to be celebrated, not decried.[1]

Many of us (myself included) have chosen to pursue music theory based on a desire to understand how music *moves* us (emotionally and physically). Some necessary components to this understanding are a technical vocabulary and analytic tools that are used to better understand the inner workings of music. However, if our inquiry stops there we have not gone as far as we can toward uncovering that sense of *how* music moves us, or why we find it meaningful in the first place. By recognizing the metaphorical nature of musical motion, and thus how our experience of physical motion enables our understanding of musical motion, we can come a lot closer to that goal. This is not to say that understanding musical motion is the only way to create meaning, but I believe it is one of the most rewarding. And by using models to represent aspects of our

[1] Johnson and Larson (2003, 79–80) discuss the positive aspects of the multiple, sometimes inconsistent metaphors that pervade most of our abstract conceptions, including musical motion.

experience we can deepen our own understanding (and convey that to others), examine various aspects of structure, or imagine more basic or normative versions of a given passage that conform to (or deviate from) our stylistic expectations.[2]

On the view of meaning adopted in this study (following Larson, that meaning is something our minds create when we group things into patterned relations), it is impossible to avoid the creation of meaning in music analysis. By its very nature, analysis allows us to examine technical features, relationships, and other bits of information about how a piece of music works. In the sense that meaning is understanding (following Johnson), this line of inquiry is rewarding in and of itself, and is the common purview of music theorists. But we can significantly enrich our discussions of meaning by connecting our understanding of a piece of music to our understanding of life experience, and we do this via metaphor. And in a broader sense, meaning is not something that is exclusively created or constructed by us; meaning also emerges from our experience, and the connections we make to other past, present, and future experiences (actual or possible).

The desire to connect the inner workings of music with our bodily experience is not new (for example, Schenker's entire conception of musical structure was that of a biological organism), but a metaphorical understanding of musical motion (and the forces acting upon that motion) not only accords with the basic ways in which we understand the world, it also allows us to connect our experience of musical motion to our experience

[2] One intriguing avenue for future research is to try and connect what is known about the psychological mechanisms of expectation and surprise (Huron 2006) with the approach to meaning and models used in this study.

of physical motion. And doing so makes any discussion of musical meaning more immediate, visceral, and ultimately more rewarding.

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