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Isomorphic aspects of conceptual metaphor in music analysis

Matthew Park Custer

University of Iowa

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Thesis Committee:

_______________________________
Jennifer Iverson, Thesis Supervisor

_______________________________
Robert C. Cook

_______________________________
Nathan Platte
ABSTRACT

Metaphor is an important tool for describing musical structure and interpretation. Recent research suggests that metaphor goes beyond a linguistic device; we use conceptual metaphor frameworks and cross-domain mapping based upon our embodied experiences to understand our world around us. I review the linguistic origins of metaphor theory and show how the purview of metaphor theory has recently extended into cognitive domains through a case study, primarily using the work of metaphor scholar Zoltán Kövecses. I then review how two prominent music theorists—Michael Spitzer and Lawrence Zbikowski—have developed current theories of metaphor to refine their approach to music analysis. These sources provide an effective backdrop into my case study of isomorphic conceptual underpinnings of metaphors used in two prominent analytical essays in music theory, Donald F. Tovey's, “Tonality” and David Lewin's “Music Theory, Phenomenology, and Modes of Perception.” Finally I utilize conceptual metaphor and cross-domain mapping to support my analysis of the tonal role of C♯/Db in Beethoven String Quartet No. 7 in F Major, op. 59, no. 1, first movement, and hexatonic cycles in Schubert Piano Trio in E♭ Major, D. 929, first movement. My analyses aim to elucidate the isomorphic aspects of evocative and useful metaphors in music analysis that help us engage with music in a deeper, nuanced manner.
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CHAPTER 1

OVERVIEW OF CURRENT METAPHOR THEORY

Form is the vessel of the spirit. The greater its capacity, the greater the spirit needed to fill it. The word 'symphony' designates the largest proportions so far achieved in the realm of instrumental music.

Robert Schumann, 'Review of Berlioz: Fantastic Symphony'

The quote above from Schumann's famous review of Berlioz's Symphony Fantastique represents the often poetic language music scholars employ to describe and analyze music. We are able to recognize this poetic language by considering the literal implications of, for example, the opening statement. We might be familiar with versions of this statement if we think of “form” as bodily form. It is a fairly common metaphysical concept that the flesh-and-blood body houses the spirit, soul, mind, and consciousness. The concept, however, is based upon a metaphor, because neither bodily form nor musical form literally holds the spirit within themselves.

The metaphor used in the opening statement, of course, is describing musical form as a vessel of the spirit. Without delving any further into the complex relation between musical form and the human body, which is a metaphor in itself, we can further unpack the components of the Schumann quote to help understand some of the implications of this metaphor. The metaphor helps us establish that form is a vessel, but what are the properties of this vessel and spirit that fills it? Schumann considers the form container as an object that can have relatively larger or smaller dimensions based upon the musical genre to which the composition belongs. For example, the “symphony” container is relatively large in comparison to a “sonata” container. The spirit inside the

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container seems to represent the aesthetic musical content, which the composer creates to hopefully fill up the container to capacity. It is implied that the musical worth of the composer is measured by the ability to completely fill the form container as well as create new form containers.² This colloquial introduction to metaphor and its use in analysis is useful as far as it goes, but it can be sharpened considerably. In what follows, I will review the linguistic origins of metaphor theory and show how the purview of metaphor theory has recently extended into cognitive domains. In the final section, I will review how two prominent music theorists—Michael Spitzer and Lawrence Zbikowski—have used tools developed from current theories of metaphor to refine their approach to music analysis.

Metaphor often appears when abstract concepts are being discussed, since it is difficult to speak precisely and literally about abstractions. We might know the more common literary definition that many of us have learned in grade-school English class. Metaphor in this case is defined as a non-literal comparison between two things, without using “like” or “as” (which are reserved for similes). Popular examples of metaphor come from classic poems, novels, and plays. The examples “Juliet is the sun” and “Achilles is a lion,” from Shakespeare and Homer, respectively, are prototypical. There are many different types of figurative language other than metaphor such as simile, metonymy, allegory, among others, that seem to have much in common with each other.³

Current literary scholars recognize the general historic trend that seems to broaden

² These implications are made more clear when Schumann states, “We are satisfied if a second-rate talent shows that he has mastered the traditional range of forms, whereas with a first-rate talent we allow that he expand that range. Only a genius may reign freely,” in “Review of Berlioz,” 171.

criteria of what constitutes metaphor. The definition and identification of metaphor, much like its realization, can be indefinite. It is a contextually slippery concept that has changed over time. Zoltán Kövecses recognizes what he considers “traditional” definitions of metaphor and then challenges these concepts with research in cognitive theories of metaphor. The “traditional” definition of metaphor, according to Kövecses, has five characteristics.

First, metaphor is a property of words; it is a linguistic phenomenon...Second, metaphor is used for some artistic and rhetorical purpose, such as when Shakespeare writes 'all the world's a stage.' Third, metaphor is based on a resemblance between the two entities that are compared and identified...Fourth, metaphor is a conscious and deliberate use of words, and you must have a special talent to be able to do it and do it well...Fifth, it is also commonly held that metaphor is a figure of speech that we can do without; we use it for special effects, and it is not an inevitable part of everyday human communication, let alone everyday human thought and reasoning.

The fifth characteristic refers to discussion in George Lakoff and Mark Johnson's *Metaphors We Live By*. Although metaphor is traditionally known as a linguistic phenomenon, it is created through conceptualization of domains of knowledge that is a

---


7 George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago: University of Chicago Press, 1980)
common cognitive tool people use every day. Kövecses provides a simple way to formalize conceptual metaphors that is derived from Lakoff and Johnson's work. He states, “Thus, all the preceding expressions that have to do with life and that come from the domain of journey are linguistic metaphorical expressions, whereas the corresponding conceptual metaphor that they manifest is LIFE IS A JOURNEY. The use of small capital letters indicates that the particular wording does not occur in language as such, but it underlies conceptually all the metaphorical expressions listed underneath it.” Kövecses, therefore, effectively situates the conceptual as underlying the linguistic, which is an important distinction. The mapping of components between two domains (such as the source domain LIFE and the target domain JOURNEY) is where the conceptual metaphor begins to take shape.

As a further example, let us apply these new ideas of cognitive theories of metaphor on the Schumann epigraph above. Figure 1 formalizes the main conceptual metaphor, FORM IS A CONTAINER by mapping certain aspects of each domain based upon the linguistic metaphorical expressions of the entire quote. The left-hand column represents the source domain and its attributes and the right-hand represents the target domain and its attributes. The arrows represent the mapping of the source domain onto the target domain. The source domain tends to be a relatively concrete domain that maps onto the more abstract target domain. The identification of the source and target domain

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8 The nature of metaphor conceptualization is a contested subject that will be elaborated upon below. See, for example, Ortony, ed., *Metaphor and Thought*, for some contrarian views.

9 Kövecses, *Metaphor*, 4. Occasionally linguistic and conceptual metaphors are one in the same. The all-capitalization style format for conceptual metaphors and image schema is derived from Lakoff and Johnson, *Metaphors We Live By*.

10 Figure 1 is based on the format given in Kövecses, *Metaphor*, 9–10.

11 This mapping directionality implies that conceptual metaphors are usually unidirectional.
takes some thought as to which domain is relatively concrete or abstract. We are able to
deduce that musical form is much more abstract and complex than a container, which is a
fairly simple, concrete concept. Figure 1 formalizes some conceptual elements of the
Schumann quote, but it leaves much to be desired as to the linguistic, poetic side of the
text itself, as well as the complexity of cognitive theories of metaphor. We will therefore
discuss each of these topics in turn as well as their specific application to music analysis.

![Figure 1](Mappings of FORM IS A CONTAINER)

<table>
<thead>
<tr>
<th>Source: CONTAINER</th>
<th>Target: FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>the spirit</td>
<td>the aesthetic musical content</td>
</tr>
<tr>
<td>the different size containers</td>
<td>the different kinds of musical form</td>
</tr>
<tr>
<td>the relatively large container</td>
<td>the “symphony”</td>
</tr>
<tr>
<td>the ability to fill the containers</td>
<td>the mastery of form</td>
</tr>
<tr>
<td>the creation of new containers</td>
<td>the creation of new forms</td>
</tr>
</tbody>
</table>

Samuel Guttenplan in his book, *Objects of Metaphor*, reflects upon the diversity
of theoretical approaches to metaphor:

> It is as if a lot of very clever people [metaphor theorists], confronted with
> a huge jigsaw puzzle, all set to work in different places. Pieces, often
> many, are fitted together, and if you watch them being assembled, it is
> easy enough to share the satisfaction that comes from each additional
> piece snapping into place. But if you stand back to try to get some sense of
> the whole, what you see are only small sections, jagged in outline, which
> do not suggest that they themselves fit together.\(^\text{12}\)

Metaphor is a part of the family of linguistic devices known broadly as figurative
language that deal in word or phrases that are not to be taken literally.\(^\text{13}\)

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\(^{12}\) Guttenplan, *Objects of Metaphor*, under “Introduction.”

\(^{13}\) Metaphor is also in the broad category of rhetorical tropes. As Guttenplan states, “As a trope, metaphor
traditionally took its place in a list which included irony, meiosis, litotes, hyperbole, metonym,
Use of figurative language, such as metaphor, is usually considered to have a linguistic origin in literature. This is only partly true. All other forms of media (pictures, film, music, etc.) plus everyday discourse provide the breeding ground for metaphor to be born and flourish. Take, for instance, the varied uses of a type of metaphor, personification, in poetry and in casual conversation. It isn't uncommon for a person not only to name a vehicle, but also to talk about it as if it were alive. We can imagine a scenario where someone might say, “My old car refuses to start. She's being stubborn.”

Poetry does, in fact, employ certain techniques to make a metaphor more novel and creative, but they are often based upon fairly simple metaphoric principles like personification. Kövecses mentions that “ordinary conceptual metaphors are regularly transformed by poets and writers in a number of ways: by (1) extending, (2) elaboration, (3) questioning, and (4) combining.”¹⁴ This doesn't mean that there aren't any cases of conversational metaphor that are creative. For example the slang phrase “dead presidents” is an image metaphor for US dollar bills, referring to the pictures of past presidents printed on the bills.

We might recognize that we colloquially use the term “metaphoric” in a loose way, as a synonym for the word figurative. Literary scholars, while disagreeing on many specific issues on metaphor, seem to mostly agree on a definition of metaphor that is less strict. For example, Robert Sharpe states that, “On what has been called the 'substitution theory' a metaphor is assumed to stand in for a literal equivalent.”¹⁵ Guttenplan, on the other hand, seems to have a less favorable view such loose talk: “More liberal still is a synecdoche, catachresis, parable, allegory, etc,” in *Objects of Metaphor.*

¹⁴ Kövecses, *Metaphor,* 59. Poets and writers can question the extent to which a metaphorical relationship is valid.

¹⁵ Sharpe, “Metaphor.”
current practice of using ‘metaphor’ pretty much interchangeably with ‘figurative’ and
‘non-literal’.” This statement does not necessarily go against Sharpe's comment because a
“substitution theory” seems to negate the possibility of non-literal devices such as irony
of entering the realm of metaphor, yet Guttenplan prefers specific engagement with the
definition of metaphor despite “current” trends.

While there seems to be some disagreement on the finer points of metaphor, other
scholars recognize that there is a need for the categorization of different types of
metaphor, based upon the underlying theory behind each type. Michiel Leezenberg
separates existing theories on metaphor into three different kinds: referentialist,
descriptivist, conceptualist. Each kind has four different levels: syntax, semantics,
pragmatics, outside linguistics proper.16

The referentialist metaphors involve due to the listener's or reader's comparison of
the objects that are subjected to metaphoric language. Descriptivist metaphors rely on
additional information that describes the interaction of the metaphor's objects.
Conceptualist metaphors rely on our basic cognitive ability to recognize similarities
between objects.17

Zoltán Kövecses provides a simpler and useful distinction between metaphor
types by describing the difference between conceptual metaphors and linguistic
metaphors.18 This description effectively swallows up all the disparate theories of
metaphor into a cogent system that explicitly acknowledges the simultaneous presence of
metaphor on the linguistic surface and at a basic cognitive level. I use this version of

16 Leezenberg, *Contexts of Metaphor*.
18 Kövecses, *Metaphor*. 
metaphor theory in the material that follows. There are certain assumptions cognitive theories of metaphor make that should be brought to light, however.

The cognitive, conceptual basis of metaphor privileges universal experience and application above all, which can leave any exceptions by the wayside. Kövecses devotes an entire chapter in his book to “The Universality of Conceptual Metaphors,” claiming common metaphorical idioms in different languages are based upon the same conceptual metaphor.¹⁹ He does, in a way, take a step back from such a bold claim later in the book, but there is relatively little information as to the extent of the universality of metaphorical experience.²⁰ This extent has to do with how we use our experiences to form concepts and metaphors. Kövecses mentions different types of motivated experience, correlations and resemblance or similarity. Correlations in experience can be separated into embodied, perceptual, cultural, and category-based types. Resemblance or similarity experience are either “perceived structural similarities,” real, objective, or preexisting similarity types.²¹ Most, if not all of these experience types, however, are not as universal as the theory claims. For example, the assumption of embodied experience is that most, if not all, humans share the same physiological attributes used for conceptualization. However, all human bodies are not identical. The way in which we experience in our bodies is as diverse as the genetic differences between each person. From a physical difference as simple as height to differences more drastic such as various impairments and disabilities, there are ways of experiencing and engaging with the world that is unique among individuals. These caveats do not make conceptual metaphor theory useless in its


²⁰ Kövecses, Metaphor, 310.

application to music, however.²²

What Kövecses considers as “perceived structural similarities,” seems to be related to schema theory.²³ The ability to abstract important structural components from an experience to apply to new, similar experiences is a basic assumption in the formation of concepts and therefore conceptual metaphors. This task seems rather complicated, but many people are able to do this without necessarily being aware of the process. However, not all people use schemata to form concepts. People on the autism spectrum, for example, sometimes form concepts in the opposite order of schema processing. A generalized conceptual category is formed relatively early according to schema theory and used for future, specific situations that are similar. Some people, on the other hand, collect specific instances without abstraction until late in the cognitive categorization process.²⁴

It seems as though some of what Kövecses and other metaphor theorists call the “subindividual” level of metaphor (in other words the experiential elements that give substance to concepts and metaphor) is not quite as universal as they might think. Even though there is a certain amount of biased universality involved with cognitive theories of metaphor, it is still useful to the people who think in this way. Any claims of universality should be taken with a considerable amount of skepticism. I will, therefore consider any

²² Pertaining to music in particular, see Joseph N. Straus, Extraordinary Measures: Disability in Music (New York: Oxford University Press, 2011). See also Michael Spitzer's, Metaphor and Musical Thought (Chicago: The University of Chicago Press, 2004), 79 -82, criticism of Lakoff and Johnson's schematism and a look into Adorno and Horkheimer's “projection” argument of schema.

²³ See, for example, Lawrence M. Zbikowski, Conceptualizing Music: Cognitive Structure, Theory, and Analysis (New York: Oxford University Press, 2002), 65 –76, for an overview of image schema and more specifically how it relates to cross-domain mapping.

application of these helpful tools to be more indicative of personal interpretation than perhaps Kövecses and others imply.

Nevertheless, these cognitive theories of metaphor are able to shed light on a wide array of approaches to music analysis. This includes hermeneutics, narrativity, musical drama, musico-poetics, and theories of musical gesture. These forms of analysis are based on implicit conceptual metaphors. Michael Spitzer addresses many different music theories throughout history by showing how conceptual metaphors and metaphoric language are ingrained within musical discourse.\(^{25}\) Spitzer is well aware of the biases in cognitive metaphor theories.

We are suspicious today of schematism’s supposed 1 normativity and 2 autonomy. In the first case, surely projecting conventionalized (be this by nature or training) schemata onto experience is inimical to the particular? Second, how can we believe that human subjectivity is autonomous from the objective contexts of gender, society, and politics?\(^{26}\)

These concerns raised by Spitzer are further evidence to the impossible endeavor of creating a truly universal metaphor theory. There are two distinct ways in which Spitzer addresses these concerns, but he manages to rescue the use of metaphor in music analysis. These are, on one hand, the acceptance of “analytical fictions” and on the other hand, the use of poetic theories in addition to cognitive theories.

Our metaphorical understanding of music and its analysis is based upon our ability to create and accept the notion of “analytical fictions.”\(^{27}\) Spitzer describes this unusual quality of music analysis by stating, “Analytical discourse is fictive in the

\(^{25}\) Spitzer, *Metaphor and Musical Thought*.

\(^{26}\) Spitzer, *Metaphor and Musical Thought*, 79.

particular sense that it shares in the peculiarly immaterial qualities of musical space."28

This immaterial quality also translates into indeterminacy of agency, which gives relatively free reign for metaphor to interpret music. Spitzer defines musical metaphor as "the relationship between the physical, proximate, and familiar, and the abstract, distal and unfamiliar."29 This definition highlights the basic principle behind cross-domain mapping of a conceptual metaphor, that is, the mapping of a relatively concrete domain onto the target domain, which is usually more vague. Spitzer states that there are three useful types of musical metaphor, a “hearing as” effect of an analytical graph dealing with perception, the nature of analytical models themselves, and cultural and historical metaphors. The “hearing as” metaphor guides our listening of a piece that essentially cognitively structure sounds into music, essentially hearing significance that is not present within sounds themselves.30 The metaphorical nature of analytical models has to do with the “substitution effect,” in which musical objects in the score are abstracted and substituted for objects in the model. Finally, cultural and historical metaphors are directly related to linguistic and conceptual metaphors found in literature.

We can, for example, see all three types of musical metaphor in the theories of Heinrich Schenker as discussed by Spitzer.31 Schenker's graphs guide our hearing in a hierarchical manner by visually differentiating stable, structural points in a piece from the more elaborative. We are to hear these graphed moments as focal points even if the

28 Spitzer, *Metaphor and Musical Thought*, 86.


30 Spitzer notes that a visual illusion such as Wittenstein's rabbit/duck image is an example of a “seeing as” phenomena, in which we “decide” how we want to see the picture. This is a visual analogue to the “hearing as” effect. Spitzer states, “Seeing (or hearing) something as something else suggests the device of metaphorical comparison,” in *Metaphor and Musical Thought*, 9.

31 Spitzer investigates Schenker's metaphorical use in *Metaphor and Musical Thought*. 
musical surface disturbs our ability to do so. The graph itself is a sort of metaphor, because we are to understand that the musical objects in the graph represent objects or groups of objects within the music score that are abstracted from the musical surface. One Stufe in a middleground graph can represent an entire thematic group. Lastly, some general conceptual metaphors that operate in Schenker graphs include MUSIC IS MOVEMENT and MUSIC IS AN ORGANISM. The perception of tonality itself is largely based upon metaphors that play upon movement and hierarchy. Once we are attuned to the underlying metaphorical conceptions behind every theoretical model, we can understand the basic assumptions involved in their development.

For Spizter, the “absence of poetic theory is the great failing of much contemporary writing on musical metaphor.” Simply put, poetic theory describes how aesthetics in the arts helps us alter our perspective on reality, which is basically the opposite of cognitive conceptualization theories. Spitzer draws heavily from French philosopher Paul Ricoeur's “tension” theory, which is a phenomenological concept that involves the “physical” movement of a metaphorical statement through the tension of a literal meaning of the statement, the epochē (the space in between the literal and

32 Spitzer, Metaphor and Musical Thought, 37. Spitzer draws upon Heinrich Schenker's writings in Free Composition, trans. and ed. by Ernst Oster (London: Longman, 1979), 5–6. Schenker writes about movement by stating, “In the art of music, as in life, motion toward the goal encounters obstacles, reverses, disappointments, and involves great distances, detours, expansions, interpolations, and, in short, retardations of all kinds.” He also compares music to organic growth by stating, “The hands, legs, and ears of the human body do not begin to grow after birth; they are present at the time of birth. Similarly, in a composition, a limb which was not somehow born with the middle and background cannot grow to be a diminution.”

33 From the time of Fétis onward, tonality has always been associated with ideas such as attraction, gravitational forces, and even anthropomorphism to describe motion, goal-directedness, stability among other perceptions of tonal music. See Brian Hyer, “Tonality,” in The Cambridge History of Western Music Theory (Cambridge: Cambridge University Press, 2002), 726–52, for more information.

34 These metaphorical assumptions can be extended to the rhetorical content of an analysis as well.

35 Spitzer, Metaphor and Musical Thought, 82.
metaphor), the metaphorical meaning, and finally to the statement’s ability to alter reality.\(^{36}\) I will not dwell on musical poetics as much as the cognitive side of metaphor due to my interest in conceptualization, but it is an essential element nevertheless.

Spitzer spends that majority of his discussion between musical poetics and three different historically and culturally based conceptual musical metaphors, which are HARMONY IS PAINTING (seventeenth century), RHYTHM IS LANGUAGE (eighteenth century), and MELODY IS LIFE (nineteenth century).\(^{37}\) Spitzer does not delve deeply into the actual theoretical cognitive models, however, Lawrence Zbikowski expounds upon the cognitive structures that deal with cross-domain mapping and categorization.\(^{38}\)

Zbikowski uses similar tools in explaining cross-domain mapping and image schemata, all of which are based upon work from Gilles Fauconnier and Mark Turner, but he is more rigorous in modeling conceptual categories and the mapping process itself with the use of conceptual integration networks or CINs.\(^{39}\) CINs are the visual representation of our cognitive process in cross-domain mapping and blending. These CINs draw upon blending theory, a major cognitive tool to help understand the interaction of two domains of a conceptual metaphor. This interaction differs from the unidirectional mapping of a source domain onto a target domain as shown in Figure 1. Kövecses defines blending by stating, “Blends are cases where understanding of a sentence (or some nonlinguistic message) involves the conceptual integration, or “fusion”


of two domains into one—a new mental space. Thus, a conceptual metaphor can be seen as a special case of blending.” Blending meshes well with the idea of “analytical fictions” because the blended mental space based of the cross-domain mapping of two concepts requires our imagination to create a fictive situation where elements of both domains “exist” and are flexible in application just as conceptual metaphors generate many different iterations of its underlying principles.

CINs are made of the two input domains, each with conceptually constrained attributes that are isomorphic (this is why the CINs are symmetrical) and sometimes based upon similar image schema, which are then combined to form the blended space. There is also a generic space which outlines the conditions of the isomorphic attributes and the resultant blending. This blended space is where the conceptual metaphor is born. Let's use the metaphor from the opening quote as an example of CIN interaction. We can see the similarities between the CIN and Figure 1, but Figure 2 below involves the element of blending the two domains and the specific interactions therein. The conceptual metaphor is a combination of each input domain that yields new insight into the metaphor used in the above quote.

Image schemata, which can be understood as representations of embodied metaphors. Despite its claim of universality, schema theory is still a useful tool for structural abstraction of certain concepts. Image schema can usually be visually represented by simple geometric configurations that underlie concepts. For example, the center/periphery schema, which can be represented by a circle with a center-point form

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which arrows point outward, is a common image schema for tonality.\textsuperscript{41} The tonal center, or tonic, is represented by the center and circle represents a piece's overall tonal environment.

Zbikowski brings CINs to bear on such diverse topics such as musical syntax, music ontology, poetics, and form. Whereas he is concerned with how conceptual models operate within music theory, I am concerned with the way metaphor operates conceptually and linguistically in music analysis. CINs are a fine tool for this.

investigation because of their multi-directional, nuanced approach to metaphorical interaction that shows both linguistic and cognitive interplay. Even though the tools I use are based on cognitive theories, I am well aware of the pitfalls of relying too heavily upon these models as mentioned by Spitzer. My aim is to use these models as tools for fictive interpretation, not as a universal solution to musical metaphor. Contextual elements ranging from music history to physics will enrich the analysis. In the chapters that follow, I will use CINs with nuanced contextual caveats to explore the richness that musical metaphor has to offer. Even though this cognitive methodology seems to imply a sense of objectivity, we must understand that the elucidation of musical metaphor is ultimately an interpretation. The evocative nature of metaphor is dependent on its indefinite nature, which serves to create interpretations that are personal. We can understand the logic behind such interpretations in a systematic way that should (given sufficient knowledge of the cognitive models used) shed light on musical analysis and give us a more nuanced and contextual listening experience.

The following chapters will apply conceptual metaphor to past analyses by well-known music scholars as well in my own analyses. Chapter 2 will study Donald F. Tovey's use of color metaphors in Schubert and David Lewin's use of personification in Beethoven. Tovey uses one of Spitzer's main historical conceptual metaphors, HARMONY IS PAINTING, in an interesting way while describing the aesthetic content of Schubert's tonality. Using the context of the article as well as other articles that have used Tovey's insight help elucidate the unconventional metaphor. Lewin's article highlights a fairly common analytical practice of personifying musical objects for interpretation.

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Although the article is more known for invoking phenomenology, it includes a notable discussion of how one might perceive the dramatic content of Beethoven Symphony No. 5, first movement. Lewin's use of narrative is a metaphor combining musical and dramatic events with anthropomorphic descriptions. Chapter 3 uses personification in my analysis of Beethoven's String Quartet in F Major, op. 59, no. 1, first movement and Chapter 4 will apply conceptual metaphor in my analysis of Schubert's Piano Trio in Eb Major, D. 929, first movement. My analyses draw much of their influence out of their historical counterparts analyzed in Chapter 2.
CHAPTER 2

EXAMPLES OF PROMINENT CONCEPTUAL METAPHOR IN MUSIC ANALYSIS

Part I: Harmony Metaphor in Schubert

There are many instances of metaphor used in music analysis, yet some examples of its use are particularly novel and even “extravagant.” In this chapter we will explore two such examples of metaphor that both in a sense make up for the failures of pure, technical music analysis. First, we will investigate how Donald F Tovey uses color metaphors to describe harmonic structure in Schubert, especially when traditional diatonic harmony is stretched to the limit. Second, we will discuss how David Lewin uses the dramatic potential of motivic elaboration of enharmonicism in Beethoven.

In “Tonality,” his famous essay on Schubert’s use of harmony, Donald Tovey writes, “[Tonality] is not a thing which can be discussed in nonmusical terms; and in calling it a perspective I have exhausted my stock of such metaphors as can bring it within the cognisance of persons of general culture.” 43 The type of perspective he alludes to is perspective in painting and this is made clear when he states, “the key of a piece is like the point of view, or the vanishing point of a picture.” 44 He states that tonality can't be explained in nonmusical terms, but he continues to use derivatives of the painting metaphor throughout the essay. As far as painting metaphors are concerned, Tovey is partial to ideas of color in relation to harmonic progression. When we examine this aspect of the governing conceptual metaphor, we can establish some general mappings from the source domain of painting to the target domain of harmony based on the conceptual metaphor, HARMONY IS PAINTING. Tovey's specific application of this metaphor in the


44 Tovey, “Tonality,” 341. Tovey's metaphor relates to Spitzer's ideas of useful musical metaphor, specifically the cultural and historical category.
article highlights his seemingly idiosyncratic extension. The main use of the conceptual metaphor in the essay is to connect harmonic progression with color. Indeed, Tovey's aim is to explain logical progressions between closely related and more remote key relations.

Tovey uses color quality to describe certain harmonic progressions, recognizing the implicit element of motion involved in both categories. He explains his observation by evoking the VERTICALITY image schema by stating,

In referring to 'a darker minor key' I am not describing subjective fancies. Keys in themselves are major or minor, and their other differences vary according to the techniques of instruments and not at all on voices except in pitch. That is to say, there is no difference between a song in C and the same song transposed to F sharp, except that in F sharp it will suit a totally different voice, and the colour of its accompaniment will be much lighter if the transposition is upwards and probably impossibly darker if it is downwards.

Given his explanation, how do color shade relations compare to directed pitch relations and also harmonic progression? It has much to do with the embodiment of performance and how this affects Western conceptions of pitch level and change. The physical act of music making, especially vocal music, affects how musicians perceive pitch. Zbikowski addresses this metaphoric phenomenon by fleshing out the conceptual metaphor PITCH RELATIONSHIPS ARE RELATIONSHIPS IN VERTICAL SPACE. This metaphor is mostly a Western phenomenon, with other cultures employing different conceptual domains such as WATERFALL CHARACTERISTICS or PHYSICAL SIZE mapping onto PITCH RELATIONSHIPS. It is interesting that Tovey considers the Western metaphorical relationship to be an objective observation, especially since most scholars today would

45 Extension is one of the four ways a metaphor can be transformed as mentioned in Zoltán Kövecses, *Metaphor: A Practical Introduction*, 2nd ed (New York: Oxford University Press, 2010), 53.

46 Tovey, “Tonality,” 343.

point out the inherent cultural biases that attune many Western musicians to this relationship. How we link pitch space to color properties is a more complicated affair.

Many musicians typically associate pitches located at the upper extremes of their respective instruments to have a light, bright, or even strident timbre, whereas the lowest pitches have a dark, rich, or heavy timbre. Many of these timbral qualities can be related to color properties, hence the musical concept and term, “tone color”, which already shows itself as a hybrid between sound and visual perception. One aspect that makes pitch and harmony relate to color are their shared attribute of directionality. Color has particular properties such as hue, saturation, and lightness that are arranged in gradients. For example, hue (ROYGBIV) is organized by decreasing wavelength and increasing frequency from red to violet. We can map certain harmonic progressions or modulations with respect to their pitch levels as well as map a certain aspect of color on a spectrum, such as light to dark mapping (lightness gradient) with upward and downward pitch and harmonic changes. In addition, there seem to be some interesting correlations in the sciences of chromatography and acoustics that complement the conceptual metaphor between color and harmony. Take for instance paper chromatography of a seemingly solid, dark colored marker. We see that, in fact, the one dark color is made up of many different colors that can be precisely measured (such as length and Rf values) and graphed. Similar results occurs when we analyze a single timbre that is actually made up of a combination of overtones. Spitzer mentions a similar link between sound and color by stating, “Painting's main gift to music was thus not the problematic of resemblance; theorists were perfectly aware of music's limitations as a mimetic art. Rather, is

established a common interest in expressive immediacy based on the perceived analogy between the dynamics of light and sound." Such isomorphic properties between these two domains make for some intriguing possibilities in music analysis and criticism.

Figure 3
HARMONY IS PAINTING CIN

So far we have laid out some basic correspondences between HARMONY and PAINTING that help to make the opening pages of Tovey's essay more clear. Using our

knowledge of conceptual models to aid in the understanding of metaphor at our disposal, we can formalize some of the characteristics of these two domains that he has highlighted thus far. Figure 3 shows the harmonic and color characteristics in a CIN that displays the particular one-to-one links Tovey relies upon in his essay. As mentioned in Chapter 1, this conceptual blending scheme shows how one attribute from the source domain maps on to the corresponding, isomorphic attribute from the target domain. So far, Tovey has restricted his use of the overall conceptual metaphor mainly to how color relates to harmony. Later in the article, however, he extends the metaphor in a way that is quite specific. This extension comes from attributing specific colors to the harmonic domain. There are two forms of this new element in the article, the first being Tovey's description of how Beethoven, “had picturesque ideas about keys,” such as how “B minor was 'black.'” This sort of association, even though it can have useful connections to metaphorical thought, is usually considered as a synesthetic one that is idiosyncratic and personal. We can, for example, see some logic in how the key of B minor could be related to black, with the association between minor keys and dark colors perhaps being the most prominent, but this metaphor extension is difficult to generalize. Unfortunately, there isn't enough evidence given in the single Beethoven anecdote by Tovey to be sure of an accurate mapping of source and target domains that could be generalized beyond the anecdote. The second conceptual metaphor extension is perhaps the crux of the article.

50 Zoltán Kövecses considers metaphor “extension” to be when, “a conceptual metaphor associated with certain conventionalized linguistic expressions is expressed by new linguistic means based on introducing a new conceptual element in the source domain,” in, Metaphor: A Practical Introduction, 2nd ed (New York: Oxford University Press, 2010). 53.

51 Tovey, “Tonality,” 343.

from a metaphorical point of view. Tovey takes off on the idea of attributing specific colors to harmonic progression by writing,

For example, the modulation to C from A major in the middle of Example 4 [the trio of the scherzo of Schubert's “Great” C major symphony] is the right thing in the right place; but our clever young (or old enough to know better) contrapuntists who Godowskify the classics by combining everything with everything else could easily make it disastrous by introducing the theme of the scherzo in the bass, for it is not a return to the tonic of the scherzo but a beautiful dark purple [emphasis mine] in the A major trio.\(^53\)

This statement is the first time Tovey links a specific color, purple, to a musical passage. Why would he choose a seemingly unconventional metaphor extension to describe the Schubert excerpt? Let us first examine Tovey’s suggestion that the key of A major is dark. The idea of dark and light progressions was described in an earlier quote, but we can also look at a more thorough description of these color qualities when Tovey explains modulation between keys with third-relations. He states,

The effect of the other modulations is highly coloured, those in the forward direction (III and VI) being very bright, while their converses (flat-VI and flat-III) are correspondingly dark.\(^54\)

With this information, we can assume that any progression to a flatted chromatic harmony would be described as dark in his terms. The big problem with this interpretation is that A major is not bVI to the tonic of C. It is simply plain VI or vi made major. To have a bVI effect, and the “darkness” that Tovey seems to associate with the flat-side modulations, we would need to have an Ab major digression in the middle of the C major piece.

To discern the meaning of purple would be more complicated, mostly because Tovey doesn't give any leading clues as to which specific colors map onto certain

\(^{53}\) Tovey, “Tonality,” 351.

\(^{54}\) Tovey, “Tonality,” 350.
harmonic progressions. When we take a look at Example 1, a reproduction of the article's Schubert excerpt (part of his Example 4), it's not entirely clear which harmonic progression or modulation is purple. Tovey seems to point us to mm. 117–135, where there is a modulation from D major to B♭ major via a chromatic progression after m. 120. The A major chord at m. 120 (V in D major) transforms into an F dominant seventh (m. 121) through half-step voice leading. The move to B♭ major by m. 123 is short lived, with a progression leading back to the scherzo tonic, A major, starting at m. 130. When we consider the “purple” key relation of D major to B♭ major, the bVI modulation seems to correlate with Tovey's idea of a dark colored progression. While these clues are some confirmation of part of the metaphor we're examining, the concept of purple is still cloudy in this context.

Example 1

Reproduction of Tovey Example 4

55 Tovey, “Tonality,” 345–6.
We could argue that the color purple is a relatively dark color compared to others such as yellow or blue, but different color shading possibilities are among one of many factors that make the argument slippery. What we can count on, however, is that other theorists have read Tovey's essay and have pondered over this very conundrum. Richard Cohn writes, “Consistent with his general model of Schubert's sonata expositions, Webster primarily characterizes F♯ minor in terms of its alterity: it is 'remote,' 'purple' (Tovey's term), 'wrong.'”56 He then examines the metaphorical relation of these terms to hexatonicism. The F♯ minor that Cohn (and James Webster) speaks of is in the second theme group of the first movement of Schubert's B♭ major piano sonata, D. 960. The key of F♯ minor is related to the movement's tonic, B♭, by an enharmonically spelled bvi.57 This relation is close to the bVI relation described above that we assume is “purple.” If we take Cohn's word that B♭ major to F♯ minor is “purple,” this fact narrows down the possibilities in the Schubert scherzo example to the D major to B♭ major progression that we marked as the only similar key relation available for comparison. With this knowledge in mind, we can deduce that something about a flat submediant key relation, be it major or minor, can be metaphorically understood as purple, especially in modern scholarship.

Webster's description of F♯ minor as “remote” and Cohn's continuing analysis in his article give us more to decipher purple. According to Cohn, B♭ major to F♯ minor are hexatonic poles within the “southern” hexatonic region of parsimoniously related major and minor triads.58 So polarity and “remote” therefore relate to purple in some way.


57 Cohn describes the relationship as “as 'bvi'—i.e., an minor inflection of the triad on the flatted submediant degree,” in “As Wonderful as Star Clusters,” 218.

58 See Cohn's Figure 1 in “As Wonderful as Star Clusters,” 216.
In an effort to discover such relations between polarity and purple, let's examine the properties of the color purple, historically and scientifically. Perhaps the most telling clue Tovey gives in his article is when he uses purple later. He explains,

The choice of a key for the slow movement of a sonata, or for the trio of a scherzo, or for the second group (miscalled 'second subject') of a first movement, implies key-relation; but episodes and purple patches [emphasis mine] in these divisions must be referred to the key of the division not to that of the whole.\(^{59}\)

The term “purple patch” is borrowed from literary criticism (also known as purple prose) and is defined as “prose that is too elaborate or ornate.”\(^{60}\) Stephanie Lysyk muses on the literary origins of this idiom when she writes:

The figure of the purple patch was made famous by Horace's *Ars poetica*, composed in the first century B.C.E.; likely Lucian's reference, and perhaps Quintilian’s as well, is to the well-known passage that appears at the beginning of Horaces's epistle: “Works with noble beginnings and grand promises often have one or two purple patches so stitched on as to glitter far and wide.”\(^{61}\)

The color purple has cultural significance, most notably its association with royalty as far back as the ancient Roman Empire.\(^{62}\) This association has much to do with the expense of purple dye, which was extracted from the spiny-dye murex, a Mediterranean shellfish, such that only the very wealthy could afford such luxuries. Tovey extends the literary use of purple and purple patches into the realm of music and this extension is a novel way to describe a specific element of Schubertian harmony. Unlike the literary definition, however, Tovey's purple is something to be desired as a departure from compositional

\(^{59}\) Tovey, “Tonality,” 351.


norms.\textsuperscript{63} Save for the negative connotations attached to purple patches, there is a direct correlation between the literary and musical uses, with both purples exuding an extravagant or out-of-the-ordinary quality.

From the prospective of color theory and physics, purple is generally known as a secondary color made up of two primary colors, red and blue. In more specific, color theory language, purple,

as well as all the magenta-purple hues, are non-spectral colors. There is no wavelength associated with them because they are not part of the spectrum of white light. They are exclusively mixed colors. Magenta is the mixture of spectral red (700 nm) and spectral blue (440 nm) or spectral violet (400 nm), while all purples are simply low-intensity magentas.\textsuperscript{64}

Intensity is roughly a color's relative purity or saturation. If we were to view refracted light through a prism, there are technically no instances of purple seen in rainbow spectrum of color. This notion is at odds with the layman's definition of purple, which can be conflated with the specific spectral colors of indigo and violet. For our purposes, we will use purple instead of magenta, as it is our color of focus and is understood to be intuitive; this is reinforced by the nomenclature of the chromaticity diagrams below.

Purple's spatial relations to spectral colors is isomorphic with Tovey's use of purple. There seems to be three different interpretations of this relation which we will examine based upon specific color models that relate to the Schubert purple progression's remote and polar qualifications. Let us examine each of these interpretations in turn.

First, the fact that purple is a non-spectral, secondary color as compared to colors within the visible spectrum presents an interesting correlation to the purple metaphor


\textsuperscript{64} P. U. P. A. Gilbert and Willy Haeberli, \textit{Physics in the Arts} (Waltham, MA: Academic Press, 2008), 112.
extension. Using simple image schema we can imagine visible spectrum colors (red, orange, yellow, green, blue, indigo, violet) or primary colors (red, yellow, blue) as being, in a sense, foundational or central categories of color. Purple, therefore, is outside of these categories, almost remote in comparison. With these geographic descriptions in mind, we can use the center-periphery image schema as seen on Figure 4. Spectral and primary colors in the schema occupy the central region within the circle, while non-spectral and secondary colors are located at the circle's edge. If we consider this schema from a spectral/non-spectral point of view, colors such as red and green are in a sense “local” colors and purple is a “remote” color.

![Figure 4](image)

Center-Periphery Image Schema: Color Categories

We can support the previous observations by borrowing mathematical mappings of color spectra to give us our second interpretation of purple. In 1931, one of the first mathematically defined color spaces was published by the Commission internationale de l'Eclairage, (CIE or the International Commission on Illumination, headquartered in
Vienna, Austria) based upon independent observations by W. David Wright and John Guild. The space, called the CIE 1931 chromaticity diagram, roughly represents the gamut of hues visible to the human eye. Figure 5 shows both the XYZ, three-dimensional model and the derived xyY, two-dimensional model of this color space. The xyY chromaticity diagram has three main regions important for our conceptualization of purple. The space overall represents the human gamut of visible color, with luminance (or brightness) held constant. The horseshoe-shaped arc boundary or spectral locus represents the visible spectrum of monochromatic light (rainbow colors), with each point on the locus represented by a single wavelength value. The line connecting the ends of the locus is called the “purple line” and is essentially a mathematically-defined, visual description of the definition of purple. Unlike the arc boundary, the points on the “purple line” are a mixture of red and violet colors. A particular color's dominant wavelength and purity can be ascertained using this color model. When we categorize the three main parts of the xyY chromaticity diagram, the “purple line” stands apart from the spectral locus and the gamut interior. It has characteristics of the spectral locus in that both lines contain fully saturated colors and contains a mixture of monochromatic wavelengths like much of the gamut interior.


Figure 5

CIE 1931 Chromaticity Diagrams (XYZ and xyY models)
Perhaps the best way to represent the pertinent information from the CIE 1931 diagrams is not necessarily through image schema (although the xyY model is relatively simple in shape), but through a simple conceptual model, the Venn diagram. Figure 6 diagrams the unique quality of “purple line” relative to the other main components of the color model. The figure shows the mixtures of red and violet colors. When we categorize the three main parts of the xyY unique quality of the intersection area we see how it relates to the purple key relationship having characteristics of both traditional diatonic tonality and hexatonic polarity (see Figure 7 below). Specifically with hexatonic poles, both chords within its relation can be thought of and spelled as having dominant tonal qualities with respect to one another. As shown in Figure 8, we can see the double leading tone characteristics (scale degree 7 to 1 and also flat-6 to 5) in each enharmonic iteration of the same hexatonic pole relation. So not only are hexatonic poles purple in the general sense of tonal remoteness, but also because the components of purple, red and violet, have a isomorphic relationship to the special characteristics of hexatonic poles, having both dominant-like and hexatonic qualities. Tovey's purple patch happens to be an apt description of Schubertian tonality not only in a literary context, but a colormetric context as well.

The third metaphoric inflection of purple based in color science takes a closer look at the visible spectrum of monochromatic colors mentioned earlier. We can imagine isolating the spectral locus from the previous color model and “straightening” the line out to create possibly the most commonly known color model to those of us that are not physicists. The contents of the visible spectrum arranged in this configuration, as in

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Figure 9, doesn't include the color purple. What is included in this figure, however, are the components of purple, red and violet.

Figure 6
Venn Diagram of CIE 1931 xyY Model Component Characteristics

Figure 7
Diatonic/Hexatonic Components of Purple Venn Diagram
We also notice that the location of these components are at opposite ends of the spectrum. Much like the theoretical hexatonic regions, the spectral components of purple are polar in a similar geographic way as a hexatonic polar relation. In other words, both categories are defined by a combination of elements on the opposite ends of their respective models (see Figure 10 below). Polar-like relations also still exist specific to Tovey's music example. The way in which Tovey explains tonal relations create ever-increasing harmonic distance from tonic, with $b\text{VI}$ being among the key relations farthest away in modulatory distance from the tonic in “traditional” diatonic tonality. If we

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arrange Tovey's remote key categories in a similar fashion to a hextonic region (see Figure 11), key relations such as $b\,VI$ would be among the farthest away from I on the model.

![Hexatonic/Color Model Isomorphism](image10.png)

**Figure 10**

Hexatonic/Color Model Isomorphism

![Remote Key Collection](image11.png)

**Figure 11**

Remote Key Collection

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69 This model is derived from Tovey's Example 8.1 in “Tonality,” 350.
Figure 12

CIN: Interpretation of Tovey's Musical “Purple”

With the above-mentioned metaphorical inflections in mind, these three separate components can be integrated into a single, cogent definition of a musical “purple patch” through the use of a CIN model. Figure 12 condenses the three main, scientific-based definitions of purple into concise input characteristics in the *color space* with the corresponding characteristics, directly across the model median, within the *musical space*. This resultant blended space is a combination of the two mental spaces that creates
a partial mapping of the figure's characteristics to yield a musical representation of “purple.” Before we discuss how each component is blended, however, some reflection on what is not included in this CIN should be taken. First, as mentioned earlier, any negative and noble connotations of purple have largely been stripped away, leaving the general sense of extravagance preserved. Perhaps the most unusual aspect of this conceptual metaphor interpretation is the thought of color operating and interacting in space. This isomorphism proves useful with regard to musical space. Much of what Tovey wrote (and perhaps the layman thinks) about color has to do with quality and the emotions they might elicit when describing music. We are using this common (but somewhat unwieldy) descriptor of quality within the confines of mathematically defined spectra of colors to not only arrive at a more specific interpretation of purple, but to have a conceptual metaphor that also resonates with modern music theory. This interpretation provides a solid isomorphic foundation that adds to the literary and historical relations to purple. The specific characteristics in each mental space chosen for blending have much to do with spatial similarities (color and music geography) and categorical paradigms (color model properties and traditional tonal versus hexatonic systems). Tovey probably didn't think of the purple metaphor in quite the same way as the CIN figure above (we can only directly relate literary purple prose to his version of musical purple in the text), but the added nuances that it provides gives a deeper appreciation for the aptness of his description. While Tovey's use of purple examines harmonic spaces in Schubert, David Lewin uses metaphor to discuss hierarchical implications of specific pitches and motives in Beethoven.
Part II: Tonal Hierarchy Metaphor in Beethoven

David Lewin's “Music Theory, Phenomenology, and Modes of Perception,” is perhaps one of the renowned music theorist's most notable works. The “modes of perception” tangent Lewin explores in his final two pages is less often discussed, however. This small section explores an interpretation of the first movement from Beethoven's Symphony No. 5, not necessarily from a phenomenological standpoint, but a “theatrical” one. By “theatrical” Lewin means analysis by the use of a dramatic narrative with anthropomorphic musical objects and a sartorial flair. The dramatic elements involved in his reading of the movement are the themes of identity and deception, which are represented by the suit and cloak, respectively.

Example 2

F♯/Gb in exposition of Beethoven, Symphony No. 5, op. 67, first movement, mm. 17–24 and 52–58

Lewin's first paragraph sets the scene and the character of focus, which happens to be a F♯/Gb “dual personality” character-note in relation to the piece's tonic, C.

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calls the character-note “you” to perhaps give a sense of emotional investment in the development of the story at hand. We already have an idea of the main themes involved in this interpretation and possibly some guesses as to the sort of tonal drama that might unfold according to this “antipodal” perspective. The two thematic elements we've identified become apparent when Lewin writes, “You enter here wearing your F♯ cloak, as leading tone to G; but you abruptly hurl the cloak way and reveal yourself in a suit underneath as G♭, upper neighbor to F.”

Example 2 shows the first appearance of both the F♯ and G♭ versions of “you” in the movement. The first involvement of “you” is in m. 20 as F♯ in an augmented sixth chord and mm. 52–56 as G♭ in a vii° of V chord in E♭. Lewin describes F♯ in this instance as a false identity intended to deceive and mislead the listener. The G♭ is, for now, the real “you” and therefore your true identity. As mentioned earlier, the theme of deception is represented by the cloak (F♯) and the theme of identity by the suit (G♭). These metaphors for the most part seem intuitive, but we might not know why this is the case. Let us first look into possible metaphorical connections between deception and the cloak.

Even among the earliest etymological research on the word cloak, its usage begins to paint us a picture of the potential metaphorical inflections it possesses. According to the Oxford English Dictionary, cloak was likely first used in the thirteenth and fourteenth centuries in French and Latin languages and has basically retained its meaning in the nounal form ever since as “A loose outer garment worn by both sexes over their other clothes.”


into two new variants, one which gives specific identity to the cloak-wearer (a minister) and the other which generalizes the word to mean anything “That which covers over and conceals; a pretext, pretence, outward show.” Lewin uses both the sartorial version of cloak with the generalized figurative definition as an implied inflection. This implication is highlighted by his use of the word “reveal” as if to suggest the cloak “you” wear is concealing something underneath.

Perhaps the most colorful derivation of cloak was introduced in nineteenth century France and Spain in the form of the idiom “cloak and dagger.” Both the French de cape et d'épée and the Spanish de capa y espada involve drama and narrativity, which happens to be an integral facet of Lewin's interpretation. The theme of deception is dependent on the cloak and dagger implications of secrecy and espionage. “Your” dual identity can be thought of as a double agent scenario where the audience doesn't know who you're “working for,” either the note G as the F♯ “you” or the note F as the Gb “you.” Lewin's description of “you” as the antipode of the global tonic C suggests that your character is either working against C or that “you” are an antihero with opaque allegiance to the other characters in the drama. The cloak is not only a physical garment, but also a concealing instrument with allusions to drama and intrigue.

With this brief etymological overview, we are able to construct a CIN of what a cloak is when used as a conceptual musical metaphor. What we haven't investigated specifically is how exactly the characteristics of the cloak correspond with musical elements. Figure 13 shows one interpretation of Lewin's musical cloak. We can see with this CIN how Lewin combines the etymological significances of the cloak with pitch role

73 OED Online, “cloak, n.”
74 OED Online, “cloak, n.”
ambiguity and the dramatic narrative of this conflict that he creates. This CIN tries to map etymological and musical traits onto each other, one to one, to create a specific music-theoretical and narrative based conceptual blend. Let's explore each input component mapping individually.

Figure 13
Lewinian Cloak CIN
The first input pair deals strictly with the sartorial definition of the cloak and pitch nomenclature. When we listen to the first movement of the Beethoven, it isn't difficult to discern the note name of the F♯ played in m. 20 (as shown in Example 2) given the context of the piece up to the F♯ or at least that it is a part of a augmented sixth chord as a leading tone. There doesn't seem to be any sense of a cloaked note in that instance. The “hammering” diminished seventh chord of mm. 52–56 does however carry some ambiguity because of the enharmonic symmetry that four stacked notes each a minor third apart possesses. Although written as a G♭, in a first inversion A diminished seventh chord, it is possible to mistake the chord as a F♯ diminished seventh chord in second inversion before its resolution, considering how the F♯ version behaved as such in m. 20. 

Figure 14 shows two different harmonic outcomes involving F♯/G♭, one approached and resolved as in the score with G♭ and the other using the enharmonic version of the diminished seventh with F♯, approached the same way as the score but resolved to a first inversion G major, dominant chord. Since it is plausible that both options could be approached in a similar manner, a listener could possibly perceive the continuity of the F♯ identity throughout mm. 20–56 before the big “reveal” of m. 57.
The second input pair actually relates closely with the first pair in the same way that the first two definitions of cloak are related, in other words, a more literal versus a figurative interpretation of the musical cloak. The first input pair has a comparably direct relation to pitch nomenclature while the second pair deals with what sorts of musical objects in the tonal environment act as a cloak. This idea opens up our focus beyond the F♯/Gb note itself and moves to what tonal influences help identify or cloak either one of the “you” personas. When F♯ “you” appears, there seems to be no effort by the surrounding notes to conceal your identity and “you” are approached and resolved in an unsurprising manner. This highlighting of F♯ at this moment gives the listener an opportunity to comprehend the pitch and its tendency to move to G and possibly memorize its particular nature. We have already discussed the potential ambiguous quality of the diminished seventh chord with G♭, but the approach to mm. 52–56 provides an extra layer of uncertainty. After the second pair of fermati at mm. 21–24, begins a lengthy 28 measure building section with a significant pedal C (and occasional G to C movement) as stated by the cellos. This insistence on C leading up to m. 52 can easily lead the listener to maintain C minor as tonic and therefore the diminished seventh chord would include our previous F♯ rather than G♭, as the former relates in a closer manner to the global tonic. When the cloaked G♭ is then resolved downwards to F, the F♯ cloak is therefore removed, revealing a G♭ suit, which for now is the true identity of “you.”

The third input pair involves the allusive quality the cloak has to drama, especially the cloak and dagger variety. Lewin is at least implicitly aware of these allusions through the way he shapes his narrative. We can take a look at some of his suggestive phrases that characterize his narrative, such as, “...you abruptly hurl the cloak
away” and claims of “you” as being “mighty” and having “extraordinary powers” all
heighten the drama.\textsuperscript{75} When all the input pairs are combined into the blended space in the
CIN, the general idea of Lewin's musical usage of cloak comes to the fore. It is perhaps
more clear with the specific connections that have been described thus far that he uses the
cloak as both an analytical and narrative tool in his interpretation. The cloak covers or
potentially hides a person's identity and in Lewin's narrative, but the suit is the symbolic
piece of clothing that represents who “you” are. When we take a close examination of the
etymological nature of suit, there are distinctive components to it that reinforce its
metaphorical connection to identity and therefore to musical narrative.

Suit's etymological background is considerably more varied and complex than the
cloak mostly due to its prominent close cognates, suite and sequel. Originating in the
Anglo-Norman region of present day France in the twelfth century, suit has royal origins
meaning, “In full, suit of court: Attendance by a tenant at the court of his lord.”\textsuperscript{76} This
base meaning becomes generalized in the fourteenth through sixteenth centuries from the
attendance itself to the duty one has to another entity or more simply, to follow suit. To
follow suit is also more commonly known as what something or someone does in accord
with others. Both of these archaic definitions will have an important role to play in the
interpretation of Lewin's suit, because of how such actions relate to identity.

The suit as an article of clothing seems to have been developed around the same
time as the aforementioned suit of court and also seems to have similar royal overtones.
The suit as a uniform has been long established as clothing that not only matches one's

\textsuperscript{75} Lewin, “Music Theory, Phenomenology, and Modes of Perception,” 107.

\textsuperscript{76} OED Online, “suit, n.” Oxford University Press,
http://www.oed.com.proxy.lib.uiowa.edu/view/Entry/193718?
rskey=UJ7uol&result=1&isAdvanced=false (accessed January 17, 2013).
line of work or role in society, but also as a marker of identity. Suits as we more commonly might know of them today did not come into use until the early fifteenth century, with a meaning defined as, “of men's or boys' outer garments; in full, suit of apparel, suit of clothes. Now usually, a jacket and trousers of the same material, sometimes with matching waistcoat, and esp. for formal or office use.” Its association with women's apparel did not appear until the mid eighteenth century.

On the surface, Lewin's use of the suit is quite simple in its connection to “you” and your identity. However, identity is a complex notion in both Lewin's narrative, especially combined with the cloak, as well as musical identity, regarding pitch role and hierarchy in tonal music. With understanding of both music theory and specific sartorial etymology, we will be able to draw out some nuanced parallels between these domains. When we examine how Lewin uses the suit and its connection to identity, we see that it is not quite as straightforward as it might seem. The first iteration of suit, which was connected to the cloak (“You enter here wearing your F♯ cloak, as leading tone to G; but you abruptly hurl the cloak way and reveal yourself in a suit underneath as G, upper neighbor to F.”), contains the pure form of the conceptual metaphor at hand. With hints from the sentence structure of the quote above, we are able to tell that in the exposition of the movement, G♭, for now, is your true identity. The leading phrase, “reveal yourself” also helps guide us to such a conclusion. The direct nature of this metaphor, however, becomes clouded in the recapitulation when Lewin states, “Everyone is waiting for you to throw off your F♯ cloak and reveal yourself as G♭. You throw off your F♯ cloak all right,

77 OED Online, “suit, n.”
but now you are wearing an F♯ suit beneath it!”\textsuperscript{79} The previous surprise surrounding your identity reveal has now become an expectation in the recapitulation and this expectation has been thwarted, thus complicating the matter of the true identity of “you.” After Lewin mentions the major events of the exposition and recapitulation involving your suits, there is no direct mention of suit throughout the remainder of the narrative. There is, however, one extra mention of your cloak. This lack of your suit presents a significant opportunity to specify the extent of its metaphorical connection to its etymology.

The development of the first movement of Beethoven's Fifth Symphony contains a distinct change of dramatic tone when describing your involvement within the musical events as told by Lewin. At first, “you” are in your F♯ form, within the environment of G minor (“...the bass moves by step up the G minor scale until it reaches—you as F♯!”), but after the events of the exposition, we might not trust the authenticity of “you” as F♯.\textsuperscript{80} This suspicion seems to be well founded when you as G is stated shortly after when Lewin writes, “…the tonic shifts and the steps finally arrive at a tonicized—\textit{you} in your capacity as G!”\textsuperscript{81} Then after a supposed resolution of a developmental identity confusion, the G turns out to be the cloak and “you,” “reveal yourself enharmonically as F♯ all the time!!”\textsuperscript{82} What follows is the true expression of yourself as the antipode to the global tonic of C, including a shift in dramatic energy described by Lewin thusly:

\begin{quote}
The dynamics here, \textit{piano}, \textit{sempre diminuendo}, and finally \textit{pianissimo}, are unique in the movement and \textit{antipodal} to the \textit{forte} and \textit{fortissimo} bluster of C minor. Also antipodal is the dead calm, breathing, riding-gently-up-and-down-on-little-waves effect, compared to the frenzied
\end{quote}

\textsuperscript{80} Lewin, “Music Theory, Phenomenology, and Modes of Perception,” 107.
\textsuperscript{81} Lewin, “Music Theory, Phenomenology, and Modes of Perception,” 107.
\textsuperscript{82} Lewin, “Music Theory, Phenomenology, and Modes of Perception,” 107.
*Sturm und Drang* of C minor. This is “you-country,” if one may say that of a phenomenon so oceanic.³³

As we know, “you” as F♯ is confirmed yet again in, “your big coup in the reprise.”³⁴ With an outline of Lewin's narrative now in mind, we can now look specifically at the music to draw out a multifaceted interpretation of the musical suit by examining each specific instance of its use in the music.

Our previous Example 2 shows the first musical instance of your suit as G in mm. 52–56. After the initial F♯ of m. 20, the sudden G♭ resolution of m. 58 can be interpreted as a musical “reveal,” with “you” performing an integral role in the switch to the E♭ major second theme. Whether or not “you” were called upon by C minor to deceive in the particular way that occurred is up to dramatic interpretation. Lewin seems to be unclear as to where exactly your allegiance lies within the exposition, but at least the drum and trumpets seem to be surprised, holding onto pedal C. We now turn to the development, where your true identity as F♯ is confirmed after a flip-flopping of identities from F♯, G♭, and then F♯ again. Example 3 shows the first salient appearance of F♯/G♭ in the development, mm. 171–179, this time being “you” as F♯ within the confines of G minor. F♯ is an important member of the D Major chord that serves as dominant of the beginning of a new motivic cycle based upon the second theme in G. As Lewin mentions, F♯ is a prominent player as the *Entwicklung* tightens (development harmonic rhythm acceleration) and the bass line ends its stepwise ascent on “you” at m. 178.³⁵ Your role as F♯ at this point, however, puts your true, main identity into doubt once again after the events of the exposition. The way in which Lewin describes your

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³⁵ Lewin uses the term *Entwicklung* in “Music Theory, Phenomenology, and Modes of Perception.”
involvement within the development as a whole makes it seem like “you” have a certain amount of free will to choose what role to play. He states, “there ensues a sequence whose local tonics move through the circle of fifths from F, through C, to G minor. F and G are your potential tones of resolution in your dual capacities as G♭ and F♯, respectively; C is your antipode.”

Example 3

F♯ Development Tightening in Beethoven, Symphony No. 5, op. 67, first movement, mm. 171–179

This choice—your potential tones of resolution—is presented once again, but this time “you” chose G♭ as your identity. Not only is there a similar sequential motion within this second motivic section, there is also a similar development tightening with familiar stepwise motion in the bass. Example 4 shows this parallel section, mm. 185–194. What Lewin claims here is that the development tightening pivots from B♭ minor to the local tonic of G♭ major, yet there are no signs of a G♭ minor chord spelled as such. What we must rely on at this point are both our ability to “hear” G♭ at m. 194 after a subdominant-dominant pivot at mm. 191–193 and the fairly common tonal spelling conventions that

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retains the function of the chord at hand, but for simplicity's sake, minimizes the use of accidentals. These reasons are possibly why Lewin considers the moment as “you in your capacity as Gb” and not more simply “you as Gb.” This extra layer of identity confusion happens to lend itself well to the narrative as a whole and especially to the events directly proceeding the ones we discussed above.

![Example 4](image)

“Gb” Development Tightening in Beethoven, Symphony No. 5, op. 67, first movement, mm. 185–194

The Gb cloak, now strangely literal as well as figurative, is abruptly cast off to reveal your true self as F#. The difference between the cloaked and real “you” is a matter of tonal context. Example 5, mm. 195–206, shows the musical realization of your true identity. The Gb-ness is retained after m. 194 until the C#/Db chord members engage in
parsimonious voice-leading to D♮, which creates a D major sonority at m. 200. What Lewin calls “you-country” happens at this moment when, “the enharmonic shift takes place.” From mm. 200–206, “you” are finally free of any role that might be called upon you to play. The musical character of this small section, along with the conspicuous lack of suit mentioned within the narrative are important clues to how identity and its metaphorical counterpart, suit, can be interpreted. Flipping the order of Lewin's narrative to mention the development events prior to the recapitulation gives us a hint at an interpretive “motivation” of the “big coup” that happens afterward.

We return now to the recapitulation, where the suit metaphor is presented once

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87 Lewin, “Music Theory, Phenomenology, and Modes of Perception,” 107
again under similar circumstances to the exposition. It is understandable that we could now expect the same enharmonic theatricality as performed within the exposition from a certain dramatic and phenomenological point of view, but those expectations are unconfirmed as we approach the beginning of the second theme. Example 6 shows a familiar looking diminished seventh chord, mm. 275–279 (see Example 2 for comparison), but this iteration will resolve differently (m. 281) than the one within the exposition. The same events leading up to the example, such as the insistent pedal C and the cascading eighth note figures in the strings leading to the expression of the diminished seventh are potential leading indicators of similar events to come after the pivotal moment at m. 279. As we know, however, “you” are a member of a sonority with a distinct ability for enharmonic reinterpretation. We had, in fact, forecasted such a possible outcome in Figure 13 and the simplified projections are similar to the actual musical result. The F♯ resolves up to G, functioning as a leading tone instead of G♭ resolving down to F and the bass C voice resolves down to B instead of up to D. With a brief musical overview of the importance of F♯/G♭ identity complete, we can now weave in our etymological data of suit to enhance our understanding of Lewin's analysis.

Both suit and cloak have obvious feudal overtones that permeate their rich etymology. It is known that music, especially tonal music roughly around the time of Beethoven, also carries similar overtones in music theory. Therefore, it behooves us to fashion a metaphorical interpretation that uses these elements that helps us shape an understanding of the conceptual metaphor, the musical suit. Identity for musical pitches as well as us can be largely defined as the role we play within society or the tonal hierarchy. According to Lewin's narrative, “you” are not so pleased as to your role as a tonal “vassal” to your overlord, C. Although displeased, “you” give your suit and service
as commanded of you, but as the pedal C is hammering away, “you” perform your first act of defiance, revealing your Gb suit, which comes as a surprise to all in attendance in the court.

Example 6

F# “Big Coup” in Beethoven, Symphony No. 5, op. 67, first movement, mm. 275–281

“You” are then free to leave court (the exposition), back to your land (the development) to ponder the events that had taken place and to decide what your true identity will become. Your decision does not come easily as “you” change your mind from F#, to “Gb,” and then back to F# again. We notice within the development that there is no mention of suit by Lewin. You are not at this moment bound to your duties to overlord C and are therefore able to figure out your identity as you please without your rigid suit on, proclaiming a specific allegiance. F# after all is decided upon and in this “you-country,” a certain amount of peace and calm has washed over “you.” This calm is the eye of the Sturm und Drang before your “big coup.”

The recapitulation arrives and you are called upon once again to perform your suit of court for your overlord. This time, however, your overlord and all the members of the
court are aware of your previous show of defiance and are “expecting” a similar act
during the recapitulation. Under your cloak reveals a suit, but a different one than before.
The identity of your true self has finally come to fruition and “you” set into motion your
“big coup” that changes the balance of power in the kingdom. Lewin has made a
connection between suit and identity that runs deeper than the narrative he has presented.
Once we are aware of such a subtextual interpretation of his metaphorical choices, we
can begin to extract key input data to create our conceptual metaphor of suit.

We know that the word suit roughly equals identity on a basic figurative level, but
we can make this main connection more specific and nuanced given our investigation
above. As we will see, all the relevant definitions of suit can logically be fed back to our
main narrative theme of identity. If we start with the suit as presented on the surface of
Lewin's narrative, it is simply an article of clothing. The suit as clothing, however, is
intimately connected to identity simply because clothing often reflects our identity and
more significantly, if the suit is a uniform, it reflects our role in society, ergo, identity
once again. When we examine a common figurative idiom, to follow suit, we notice that
following suit can be interpreted as fulfilling a role, therefore enhancing our metaphorical
feedback loop. What is at the heart of this loop is none other than the etymological
origins of suit itself, which is the feudal suit of court. To be beckoned by your feudal lord
to perform suit and service is a prime example of societal roles and hierarchy and it
happens to have an important, historically significant influence on our thoughts about
tonal music hierarchy. The other feudal connections to music outside of our main sartorial
investigation adds to the relevance of the metaphorical interpretation. With the
metaphorical feedback loop examined, we can now build the CIN that blends the suit
mental space with the music mental space.
Figure 15 represents Lewin's musical suit in a CIN, given the connections made above. Our preponderance on identity proves to be well founded based upon Lewin themes and how simply each mental space blends together. When we compare this CIN to the cloak CIN, they are actually quite similar. The main difference is how we determine a musical cloak from a suit in Lewin's narrative and the music itself; it depends upon context. Before we examine the input spaces themselves, we must discuss what is missing or lacking from the CIN. It doesn't display how the lack of suit in specific parts of the narrative carries importance. The lack of suit does not necessarily mean lack of identity. In this case, it can be argued that the suit is a feudal identity, but not a reflection of what “you” consider your true self. When looking at the input pairs from both the suit and musical space, we can observe an abstract interpretation of Lewin's musical suit. The first input pair involves the strictly sartorial definition of suit with its connection to identity and tonal note spellings and their influence on tonal identity. This pair is perhaps the most simple abstraction of Lewin's suit narrative. The second input pair relies upon conclusions made from our metaphorical feedback loop. All of the relevant definitions of suit are related to some sort of role or duty someone wearing a suit or performing suit and service. Pitch nomenclature in tonal music provides a clue as to what role it plays and where it lies on the tonal hierarchy. Finally, the third input pair uses the feudal link between suit and tonality to shape a dramatic narrative. When we make the leap from a person or note's role in a system, tonal or societal, to having them, in a sense, “owe” a higher authority their allegiance, a notion of agency and narrative can be realized. When we blend the input pairs from each mental space together, an interpretation of the Lewinian musical suit arises. This blend plays upon our metaphorical thoughts about pitch hierarchy in tonal music and personifies it with the help of the suit. It is reinforced
by the feudal element involved in both input spaces and the grand style in which Lewin describes the dramatic journey of “you.”

Both conceptual metaphor investigations of the Tovey and Lewin articles are heavily influenced by certain idiosyncrasies of interpretive analysis. This fact, however, does not make the analysis less useful to us. The complexity of the associated mental structures, and eventually conceptual metaphors are generalized in theory, but are highly personalized for every individual. Our ability to understand different points of view
allows us to become more deeply engaged with the subject matter at hand. The purpose of cognitive studies of musical metaphor is to provide some sort of theoretical foundation that is beyond the sphere of music itself and to have a larger pool of intersubjective discourse to draw from in analysis.

In the following chapters, our discussion of how motives create and pervade musical structure will be used to guide an analysis of Beethoven's motivic elaboration on the enharmonic relation between C♯/Db in op. 59, no. 1. and our discussion of the structural similarities of purple to hexatonicism will help us investigate coherence via structural harmonic progression in Schubert D. 929.
CHAPTER 3

TONAL IMPLICATIONS OF C# IN BEETHOVEN'S STRING QUARTET NO. 7 IN F MAJOR, OP. 59, NO. 1, FIRST MOVEMENT

Beethoven's Opus 59 “Rasumovsky” quartets are considered to be three string works of his “Middle” or “Heroic” period. Count Andrey Kirillovich Rasumovsky, Russian diplomat to Vienna, commissioned Beethoven to compose these works. In the first movement of the F major quartet, op. 59, no. 1, the pitch class C# plays many different roles. This pitch class becomes a part of, with insignificant beginnings, some of the more unusual sections within the movement, eventually adopting two distinct tonal roles, and progresses through the sonata only to have its main role within the piece still in doubt. This pitch seems bound up with the thematic idea of identity and is a major narrative of the work, an analytical observation that takes after Guck and Cone. I will explore the issue of analyzing a note and its hierarchical roles within a piece as related to this particular movement. Language formalized by Caplin, Hepokoski, and Darcy is used as a framework to guide the analysis.

Instability is a primary affect of this movement, which Beethoven creates and

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91 Formalized language used in the analysis are from William Caplin, Classical Form (New York: Oxford University Press, 1998) and James Hepokoski and Warren Darcy, Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata (New York: Oxford University Press, 2006).

Sonata form rotations and cadence types will be labeled according to Hepokoski's nomenclature while the supporting formal functions will follow Caplin's.
exploits. Let's explore an aspect of this instability within the the Primary Theme Zone (P). P “builds” a dominant seventh by “adding” the absent chord tones within the lower three strings beginning with the addition of scale degree four, B♭, in m. 7 to the already present C and G in violin 1 and viola parts respectively, thus creating an incomplete dominant seventh. With the addition of E in m. 12 in violin 1, this completed chord leads P to resolve into the sonata's first PAC (m. 19), giving emphatic confirmation of the global tonic, F major. The post-cadential material after P encompassing mm. 20–29, begins with strictly diatonic harmonies in m. 20 into m. 22. Chromaticism is first introduced here through a progression of diminished seventh chords. There are six chromatically altered notes within this section (B, A♭, C♯, D, E, and F♯) but only the C♯ and D have an enharmonic relationship. Is C♯ primary and D secondary, or vice versa? What are the hierarchical ramifications of each?

The C♯ is first introduced as the root of a vii°7/vi chord in the key of F major in m. 24 as an elaboration of a deceptive progression from V in m. 23 to vi°6 in the second half of the m. 24. This progression implies one role of this pitch: as a leading tone to D, the relative minor. This role seems simple, but the introduction of D♭ on beat two of m. 26 and again on the downbeat of m. 28 (as shown in Example 7) raises doubt about the C♯ hierarchy. The D♭ is the seventh in a second inversion vii°7 chord and the third of a ii°6 chord, respectively. The first iteration of D♭ is also an elaboration similar to C♯, but in this instance the D♭ within a progression from a B diminished chord in m. 25 and an F♯ diminished chord in m. 26 all of which resolves to a G major chord in m. 27. The second iteration of D♭ in m. 28 is part of a passing motion that connects to V in m. 29. In both iterations, the pitch fulfills another role as the chromatic upper neighbor, borrowed from F minor, which resolves to the global dominant. However, the second iteration of D♭ is
functionally distinct from the C# and is the beginning of a clear separation of identity between C# and Db. The observed theme of instability and uncertainty is apparent not only in the dual roles C#/Db plays, but also in the sharp contrast in texture, harmonic motion, and melodic material in the post-cadential section as compared to the material in the Primary Theme Zone. The P-material's perpetual eighth-note rhythmic drive with diatonic, melodious musical lines is juxtaposed against the meandering chromatic expressions of the post-cadential, transitional material.

The music after the post-cadential material regains some stability with the arrival of the imperfect authentic cadence (IAC) in F major and the start of the transition (TR) at m. 30. The transition moves the tonic from F major to G major in mm. 30–48. The C# makes a quick appearance in m. 47 (see Example 8), in this case as the chromatic lower neighbor of D, dominant of G major. This one note within the context of TR is not given
As much significance as when it was previously stated.

\[\text{Example 8} \]

C♯ Inclusion in TR
Beethoven's String Quartet No. 7 in F Major, op. 59, no. 1, first movement, m. 47

\[\text{Example 9} \]

Db Inclusion in TR
Beethoven's String Quartet No. 7 in F Major, op. 59, no. 1, first movement, m. 55

This modulation to G major does not last long within the TR proper. By m. 53, the music is sequencing downward, eventually changing G major from tonic to dominant in m. 59 via a cadential six-four chord, and resolving to C major in m. 60. Within the sequence of mm. 53–58, a Db in the viola is stated in m. 55 as the seventh of a E diminished chord with violin 1 arpeggiating the chord in first inversion (see Example 9). This chord essentially is a chromatic intermediary between the two more tonally stable
major chords that surround it (two other instances of this type of chord without D♭ in this section are in m. 53 and 57), that of a V₆ and a IV₆ chord in the key of C major, respectively. This particular statement of D♭ is another instance of the pitch functioning as a chromatic passing tone.

The Secondary Theme Zone (S), beginning at m. 60, is without any form of C♯/D♭ within its sixteen-measure sentence-like structure with cadential extension via a deceptive progression until m. 85. The cadential section from mm. 85–90 is significant due to its highly contrasting material, not unlike the P post-cadential material mentioned above, and it is also the most prominent role of C♯ in the sonata. Before we discuss its importance, the measures just prior to this section have some features worth discussing that give context to the music at hand. The continuation extension of mm. 77–82 begins a slow build-up of short triplet figures that increase in dynamic and statement length, leading to a climatic “whirlwind” of notes that are swept up into the high tessitura of violin I. The momentum of this section is a contrasting set-up to the following six measures.

The following phrase (Example 10) contains contrasting characteristics as compared to the salient eight-note drive of the previous measures, including the sparse texture, the see-sawing musical motion between the violins and viola/cello, sharp registral contrast, and the repetition of an unconventional V⁷/ii to V⁷ harmonic progression in relation to C. These characteristics have the effect of stalling forward motion. The role of C♯ this time is as the third of the V⁷/ii chord in C major. The chord's resolution is denied two times before the D minor dyad (as substitute for a ii chord)

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finally presents itself in m. 90. Before there is anytime to decipher these six measures, the music settles back into a comfortable jaunt starting at m. 91, which effectively resolves V through a circle of fifths progression, A to D, and finally to G. This measure is the start of the Closing Zone or C. The Closing Zone proper modulates the musical material from C major back to the global tonic of F major. The development section, which is initiated at m. 103, starts with the first four measures of P. This expository-repeat feint is exposed by the fifth bar of the development when thematic material from C is used instead of the continuation of P if the entire exposition did indeed repeat itself.

As the development is transforming motivic material from P, S, and C, C♯ is used again as a leading tone to D in a large-scale sequential pattern derived from P and TR. This pattern includes elements reminiscent of the prominent slurred and staccato articulations in the compound basic idea of P and the separated ascending figures with piano and subito fortepiano dynamic contrast in mm. 52–57 of TR. The G minor focus of
the section prior to m. 124 is then transposed to the local key of D minor by m. 130. It is interesting to note that from mm. 124–132, C♯ is the only chromatically altered pitch class within this section prior to the V of G chord of m. 133. The sequence modulates back to G minor before heading to E♭ major. The “whirlwind” technique described earlier is used here from mm. 139–143 but using a duple rhythmic motive derived from P instead of using triplets. Example 11 shows the transition away from the prevalent D minor (mm. 130–133) to the F♯ diminished seventh chord of m. 134 that hints at G.

![Example 11](image)

Example 11 shows the transition away from the prevalent D minor (mm. 130–133) to the F♯ diminished seventh chord of m. 134 that hints at G.

Example 12 recalls back to the post-whirlwind phrase of mm. 85–90, but this version is within the development. We may draw some intriguing conclusions from a comparison of these sections. First, the C♯ is used as the root of a minor third dyad hinting at 7 in Example 12, while C♯ was used as the third of an applied dominant seventh chord in Example 10. Second, the C♯ in the exposition is eventually resolved in a
traditional manner, while in the development the pitch is denied such a resolution and is instead resolved by a G♯ fully-diminished seventh chord. These two sonorities alternate in a manner similar to the way the V/ii and V⁷ chords do in the exposition, though here the similarities stop. The G♯ fully-diminished seventh chord is enharmonically reinterpreted as a B diminished seventh in m. 149. The enharmonic compatriot of C♯, D♭, makes a relatively unimportant appearance in this section after a 96 measure lull as a chord member of a B♭ minor triad in m. 151 (this triad completes a C/F/B♭ circle of fifths relations, mm. 149–151). The D♭ until this point had almost no chance at all to assert itself as having any more importance over the seemingly dominant role C♯ is playing in the piece thus far. As we will find out, D♭ will have an distinct role in the development.

Example 12

C♯/Db Version of the “Second Entrance”
Beethoven String Quartet No. 7 in F, Op. 59, No. 1, Mvt. I, mm. 144–151

The previous eight measures (mm. 144–151) essentially end the first core of the development section. Core 2 begins in m. 152 in the dominant of the local key of F minor, further developing P motives in violin I while the other strings sustain a C major chord. This material makes a short detour to resolve the key of F minor in mm. 158–159
before it decisively modulates to the key of D\textsubscript{b} major (see Example 13). D\textsubscript{b} went from being almost forgotten to having its own local tonic key, which was foreshadowed in Core 1 and now nearly spans the entirety of Core 2. This D\textsubscript{b}-ness is so obvious in this section in that violin I is basically playing the D\textsubscript{b} major scale and simple patterns based on said scale. The idea of having D\textsubscript{b} as an established key area (bVI of F), is a role that C\# does not play and therefore becomes a challenge to the assertion of the previous statements of C\#. D\textsubscript{b} as a key area as compared to C\# as leading to D is the main tonal plot. A theoretical C\# key area in itself is more unwieldy and remote (♯V of F) in relation to the global tonic as compared to D\textsubscript{b}. The core ends on a PAC at m. 180 and has four bars of post-cadential material before abruptly ending in a half cadence in the key of B\textsubscript{b}, signifying the initiation of Core 3 of the development.

![Example 13](image_url)

**Example 13**

Key of D\textsubscript{b} in Core 2
Beethoven's String Quartet No. 7 in F Major, op. 59, no. 1, first movement, mm. 160–163

Core 3 is dominated by a fugato that uses thematic material from C and P. The particular local key from the outset of the fugato is slightly ambiguous given the early presence of D but the subject of the fugue largely rests on pitches of E\textsubscript{b} minor. The
inclusion of $Db$ (see Example 14) as a pitch within the second subject of the fugato is functioning as a passing tone and then is included throughout Core 3. The fugue material lasts from mm. 184–209 and then there is a drawn out descending pattern from $E3$ to $G$ in violin I, while all the other strings descend in fairly similar fashion to $G$ octaves. This ends Core 3 and initiates the retransition into the recapitulation.

Example 14

$Db$ in Second Subject of Core 3's Fugato
Beethoven's String Quartet No. 7 in F Major, op. 59, no. 1, first movement, mm. 185–190

Example 15

C♯ in Retransition
Beethoven's String Quartet No. 7 in F Major, op. 59, no. 1, first movement, m. 228

The retransition, which encapsulates mm. 219–253, contains material that brings the music back from the multi-core development into the recapitulation. Using P, S, and C-based motives, the music in this section overall modulates from the previous $G$ octaves
(V/V) to C, with P motives stated in a sequence of descending fourths (C, G, D, A, E). C# comes back into play within the sequence after being neglected during Db's time in the spotlight (see Example 15). After the sequential P motives, there is an extended standing-on-the-dominant function (mm. 232–240), which is a traditional technique for shifting the musical material back to the global tonic. What is not as common within the retransition, however, is once the music emphatically establishes F major in m. 242, after the standing-on-the-dominant, motives from the post-cadential section following the first theme of the exposition are introduced. We will later find out how this inclusion affects the recapitulation rotations.

The harmonic progression of this section, mm. 243–249 (Example 16), becomes even more complex than the original post-cadential section in the exposition. The C# reprises its role as the root of a vii°7/vi chord, but it does not get the satisfaction of resolving to the vi chord as it had before. Instead, the resolving D is contained within a vii°4/V chord in measure 247. This chord is not only part of a tonally unstable harmony itself, but is placed within a metrically unsuitable location for an emphatic resolution of the C#. The music, after this unconventional inclusion, finally leads into the recapitulation.

The recapitulation begins with a statement of P in the global tonic, but the post-cadential material is absent from this section because its position within the sonata rotations have been interchanged with P so that it precedes P instead of following the Primary Theme Zone. The P material therefore modulates straight into TR of m. 279 to the key of Db major (see Example 17). Once again, Db major has a substantial time in the spotlight before a brief modulation to C (mm. 295–306) to set up the traditional sonata recapitulatory S in the global tonic. The S section of the recapitulation rotation continues
from m. 307 and then the swirling “whirlwind” picks up steam until its familiar hanging climax at m. 331.

Example 16

C♯ Reprise of the Post-Cadential Motives
Beethoven String Quartet No. 7 in F Major, op. 59, no. 1, first movement, mm. 243–249

Example 17

Db in TR of the Recapitulation
Beethoven's String Quartet No. 7 in F Major, op. 59, no. 1, first movement, mm. 279–283

Example 18, mm 332–337, contains a similar dissonant, angular, antecedent
phrase as the one we had examined within the exposition that follows the “whirlwind” section. In comparing Example 10, mm. 85–91, to Example 18, there are some important differences that should be observed. First, Example 10 alternates between a V\(^7/ii\) and V\(^7\) chord in C major in the first four measures while Example 18 alternates between a V\(^7/ii\) and vii\(^{07}/vi\) chord in F major in its first four measures. The C\(^\#\) that has been followed throughout this piece is now located on the second and fourth measures rather than in the first and third measures of the phrase in the former example. Also take note of the pedal C in the cello in the second half of measures 333 and 335. This feature puts a wrench in the voice leading from the C\(^\#\) in violin II to its resolution of D in the cello in the following measure. When we look at the chord progression of Example 18, we notice that the V\(^7/ii\) chord is unstable within this context itself, wanting to resolve to G, but the presence of the vii\(^{07}/vi\) delays such a resolution. The G chord does come into play in m. 337 (functioning as ii of F major), but any sense of repose is short lived when the vii\(^{04}_{2}\) chord is sounded in the second half of the measure in which C\(^\#\)'s enharmonic partner, D\(^\#\), is stated. Example 10 within the exposition was tension-filled, but somewhat amazingly Example 18 in the recapitulation has additional elements that make these measures uneasy, given the dissonance from the vii\(^{07}/vi\) chord and the C pedal point.

The previous measures set up the initiation of the Closing Zone starting at m. 340, proceeding in a manner very similar to its companion within the exposition. It starts to veer off its parallel course by the sixth measure and fragments C elements in an ascending sequence (the fragments themselves are P-related, repeating the scalar melody of mm. 1–4) until the Coda asserts itself at m. 348 through a triumphant restatement of P. This P-based coda stays exclusively within the global tonic of F major interweaving some elements of S within the P ideas. Violin I reaches a C4 in m. 386, wherein the following
measures the movement ends with a few noteworthy motives from earlier in the movement. First, part of the basic idea from P is used in m. 387, then a portion that harkens back to the “whirlwind” section of the movement is quoted in m. 388, and finally a short motive from C is audible in m. 389. The C7 finally descends all the way down in a scalar motion to C4 as part of a F major chord in m. 394.

Example 18

C#/Db Version of “Second Appearance” in the Recapitulation
Beethoven's String Quartet No. 7 in F Major, op. 59, no. 1, first movement, mm. 332–337

Note that after the Db of m. 337 there are no C# or Dbs in the rest of the movement. There are, however, a couple of interesting features of the final cadential function of the movement (Example 19). The use of the vi chord as a pre-dominant harmony within the closing cadence in m. 396 seems not as common as the IV or ii chord. Another feature that is interesting is the change in registration from the I chord in F major to the vi chord. All the string parts move to a noticeably higher voicing which gives this vi chord special attention within the cadential progression. This chord can be
related with the C♯ pitch class that has been observed throughout the movement and with such observation, a couple of conclusions about its role within this movement can be drawn.

When we look back at the material after the “whirlwind” section of the recapitulation (Example 18, mm. 332–337), the chords that contained the C♯ (C♯ fully-diminished seventh chords) were not resolved in a way that definitively relieved the tension created by them. If we look at the voicing of especially the vii⁰⁷/vi chord of m. 335 to the voicing of the vi chord of m. 396, the registral similarities are striking as shown in Figure 16 below. So even though on a local level the C♯ was resolved to the subsequent D, perhaps the cadential vi chord has some long distance relationship to these vii⁰⁷/vi chords. It may go too far to say that this vi chord is a temporally displaced resolution of these chords, but it does create a sense of repose that the resolution of the C♯ diminished seventh chords on a local level could not.

Figure 16 combines each instance of the post-“whirlwind” C♯ phrases (m. 85
exposition, m. 144 development, m. 332 recapitulation) and also the registral rising action of the exposition prior to the first C♯ phrase and the long-distance resolution accomplished at the final cadence. The lines in the figure represent connections at a distance of octave or beyond. The exposition leading to m. 85 gradually raises the registral peak of the piece, culminating in the first “whirlwind” phrase. Each subsequent C♯ phrase can be connected through a descending A-minor scale as well as close harmonic relationships to the resolving D minor chord of m. 396. Although this middleground connection might not be as immediately evident as the D♭ key areas in terms of hierarchical importance, we can see C♯ was, in a sense, working behind the scenes to tie characteristically unusual sections of the piece together, thereby giving the pitch relevance within the overall F major environment. Depending on our point of view, both C♯ and D♭ play an important role within the piece.

Let's now explore the possible hermeneutic ramifications of C♯/D♭ and the underlying conceptual metaphors that give supporting evidence to the analysis above.
There is some common ground between the focus of this piece and Lewin's analysis of Beethoven Symphony No. 5, Mvt. I. The theme of identity, which has its roots in anthropomorphism, is where we can begin our investigation. Lewin expanded upon this theme by characterizing F♯ and Gb as two parts of a dual identity, whose true nature is revealed through the course of the music. The analysis in this chapter plays upon similar concerns, in that it uses the connection between identity and hierarchy.

There are two possible conceptual models that elucidate the disparate metaphorical data: image schema diagrams and CINs (conceptual integration networks). The music mental space, specifically tonal music, creates an opportunity to characterize motion in musical space represented by abstract visual models. We already have an implicit understanding of the “preconceptual” verticalization image schema applied to range, register, and the motion throughout musical space. Zbikowski describes this understanding simply as a model that links the verticality of musical pitch with the physiological experiences of “up” and “down” that we sense when participating in musical activities. Looking back at the “whirlwind” passage from mm. 77–82 (Example 20), we can utilize the verticalization image schema to elucidate the foundation of this metaphorical description. The directionality of a whirlwind is not just a matter of “up” and “down,” but also involves the notion of circular motion on the horizontal plane of Euclidian geometry. The idea of horizontal motion in musical space is sometimes associated with the passage of musical time within a music score, yet we are able to perceive the waving scalar patterns of mm. 77–82 as having circular impressions.

93 Examples of how we represent musical motion in abstract models can be as simple as the use an arrow in harmonic analysis or as complex in such works as Lewin's phenomenological studies and Lerdahl's models in, Tonal Pitch Space (New York: Oxford University Press, 2004).

We are able to understand a cross domain mapping between mental spaces with a distinct, directional connection via image schema, but it is more complex to elucidate the specific musical connections to anthropomorphic qualities. Lewin, in his Beethoven narrative, attributed characteristic features of the music to specific dramatic action. We can possibly generate many different plausible narratives from the same F♯/G♯ point of view, but these narratives are most effective with a high degree of supporting musical “evidence.” When constructing a musical narrative for the Beethoven string quartet, we must use the unique musical qualities it possesses to draw out the hermeneutic potential of the piece. The journey of C♯/Db within the quartet begins with the feeling of “doubt” within the post-cadential section of the exposition, mm. 20–29, where the appearance of C♯ is followed by Db shortly after. In Chapter 2, we had discussed the link between a note’s nomenclature and its role within tonal hierarchy. Unlike the dramatic, flashy reveal of Gb after the initial bold statement of F♯ in Beethoven Symphony No. 5, C♯ is muted, both in dynamic and in relative importance within the expositional rotation. We are then
able to take such analytical information to develop plausible anthropomorphic realizations, one of which is a lingering sense of internal insecurity. We can make a simple connection between loud and soft dynamics and external and internal conflict. Lewin speaks of magnificent entrances and abrupt reveals, yet these ideas do not suit the musical environment of C#/Db in this section. Therefore, an interpretation using the unique qualities of the string quartet movement would make the doubtful C# and intrusive Db representations more fitting. The close proximity of these two notes, in addition to the sforzando that accompanies the Db, gives credence to its “intrusive” quality. For all of these reasons, musical doubt and intrusion are relatable internal elements of conflict. Let us further examine the plausible physiological states of C#/Db with “evidence” from the musical material at hand.

The additional trade off of C#/Db statements leading up to S gives us creative license to give our note the ability to “ponder” the two options and consider the consequences, tonal or personal, of each. The lack of either note within the S proper could signify a reprieve from contemplation or perhaps an intentional ignorance via the lyrical quality of the theme. We can support the “intentional” quality based on the key of theme itself, C major. The presence of a C# or Db within such a tonal context would be rare, as if they were being intentionally avoided. The avoidance of C#/Db leads to a sense of being caught up in a “whirlwind” of exuberance by mm. 81–82. As we may know, intentional avoidance of intrusive thoughts sometimes causes us to increase our rumination over them. This concept, known as ironic process theory, can be explained by the simple thought experiment of telling someone not to think of a white bear.95

Therefore, the uneasy fixation upon C# in mm. 83–88 following the previous S section could be thought of as the musical equivalent of the initiation and realization of the psychological phenomenon. Our earlier explanation of the unusual nature of the “whirlwind” section helps provide additional evidence to support the interruptive quality of the end of m. 82, which prepares the contrasting quality of the following phrase.

Both C# and Db were not necessarily part of structurally important sections within the exposition until this point and it is this fact that further highlights the increasingly unsettling quality of these pitches. Within core 1 of the development, the presence of C# is increased during the sequencing material through the restatement of the “whirlwind” and interruptive sections at m. 139. Perhaps we can think of these appearances of C# as an attempt to gain confidence about the tonal implications of this identity. The rhythmic drive, combined with the musical intensifiers of sequencing and dynamics support an increased assertive quality to C#. Whereas the exposition can be considered as a statement of thematic material, the development in contrast is more introspective. Therefore, an increased rumination upon tonal “problems” would be fitting during this section. Any gained confidence is dashed once we reach m. 144 and the uncomfortable fixation on C# returns. As mentioned earlier, Db only makes one appearance during Core 1 in m. 151, during a period of “weakness” displayed by C#. All resistance by C# to avoid Db is exhausted during Core 2, as it succumbs to its enharmonic partner via a large expression of the key of Db major starting at m. 159. This section somewhat parallels what Lewin calls “you-country” in his dramatic analysis. The interpretations of these two sections, however, differ due to the narrative context up to this point. Both sections have a calm quality to them within an otherwise complex development section, representing a sort of freedom from past tonal struggle, but the narrative at hand retains better thematic
integrity if the D♭ major section is a succumbing rather than a realization of “your” true identity in the Lewin analysis. This reading might run counter to the surface importance of the pitches in the piece, but the narrative seems to have more impact when told from the C♯ point of view, because analytically speaking, the unusual post-“whirlwind” phrase is a focal point. Another way to think about the thematic differences between these analyses is to note that in the symphony, the main character already knows its identity despite cloaking it from the listener, while in the string quartet, the character is struggling with its identity.

The fugato of core 3 expands further upon D♭, as it is present within the subject when it modulates from E♭ minor to the answer in B♭ minor. Unlike the previous core, this one can be interpreted as being more contemplative, as a sense of struggle with D♭ is reengaged. C♯ finally comes back within the retransition, mm. 219–253, yet there is no particular focus upon the note. The recapitulation, starting at m. 254, begins without a hitch until TR, where D♭ comes into focus again. This section is reminiscent of the D♭ succumbing section within the development, in that it has a simple, scalar fluidity. The intrusiveness that D♭ represents has bled over from the development and has infected the recapitulation. The tentative C♯ appears yet again at m. 332 following a statement of the “whirlwind” and the note has regained its doubtful nature. This section can be contrasted against Lewin's “big coup,” with F♯ in the Beethoven symphony being revealed in a flashy manner and the C♯ returning, having regained some control over D♭ thoughts, but still largely in doubt. The concluding measures do little to assuage the struggle between C♯ and D♭.

We can preface our blending of the above metaphorical connections by constructing a narrative arc of the movement and contrasting it against Lewin's theatrical
interpretation. Figure 17 shows the main plot points of both the string quartet and symphony. We are able to see the contrast between these two arcs, namely the internal versus external events that shape the narratives. These differences are not only informed by the personal interpretive preferences, but also by what metaphorical potential each piece of music contains based on a specific tonal point of view. We can intuit that mapping the key features of each narrative on the opposing piece doesn't “fit” as well as the originals. Working with the given musical texture to develop a narrative makes the metaphorical connections easier to understand in the language chosen to articulate the analysis and allows for more consistent cross-domain mapping.

Figure 17

Beethoven op. 59 and op. 67 Narrative Arc
Figure 18 blends both musical and psychological domains to produce the main metaphorical ideas of the analysis at hand. Each input component in the psychological mental space corresponds to specific musical characteristics with the piece. Doubt is represented by a soft musical statement including C# with little structural significance (contrasted with the importance of Lewin's F#/Gb) and is followed shortly by Db. Intrusion usually follows doubt both as a plausible progression of thought and musical events. Musically, intrusion can be interpreted as a statement that is usually relatively loud (or contrasts with preceding music) and interrupts the previous musical texture.
Interpreting musical succumbing relies upon both using the music as supporting evidence and also keeping a sense of consistency within the narrative. In this particular case, the D♭ statement within core 2 of the development does not fit the conditions of musical doubt or intrusion. In addition, the order in which C♯ and D♭ are stated with the narrative as well as the key analytical focus of tonal hierarchy informs the succumbing interpretation. If D♭ were stated first, perhaps serenity, blissful ignorance, or another mental state that doesn't involve giving into intrusive thoughts would be apt.

This narrative bears some similarity to the Guck and Cone analyses cited above. The reference to roles notes play in relation to a theatrical work seems to be an intuitive parallel. For example, the notes are the characters, the main formal functions are the scenes in which the characters engage each other and the overall development of the movement is related to a plot set in three Acts, which refer to the three rotations of the sonata form. This is not just a colorful narrative backdrop, but a device that has, to quote Babbitt, “useful, useable, relevant, or significant characterizations.” This narrative sheds light on the tonal implications of C♯ within this analysis. While this analysis uses the Lewin material from Chapter 2 as a foil, the following chapter will use insights based on material from Tovey and Cohn to inform an analysis of Schubert, D. 929.

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CHAPTER 4

SCHUBERT'S OTHERWORLDLY TRIO: TRANSFORMATIONAL ASPECTS OF PIANO TRIO IN Eb MAJOR, D. 929, FIRST MOVEMENT

Example 21 reproduces a passage from the coda of the first movement of Schubert Piano Trio in Eb Major, D. 929. This variation of the second thematic group presents challenges in traditional diatonic analysis, pushing this system's abilities to account for chromaticism in this passage to the limit. Neo-Riemannian transformational theory can be an effective tool to bridge this analytical gap, because it allows a non-diatonic interpretation that gives coherence to the passage without explicitly establishing tonal hierarchy of the chromatic sections. However, this passage can be supplemented with hexatonic analysis, a closely related system. The consonant triads with parsimonious voice-leading used in this passage form a closed hexatonic cycle which mathematically divides the octave into three equal parts with “diatonic indeterminacy”. This realization helps us understand the second thematic group's internal harmonic relationships; though they seem chromatic, they are actually systematic. In what follows, structural analysis of the hexatonic cycles in the movement will be the basis for a dramatic reading.

The music of Example 21 comprises three modulating periods. It begins in Eb major, then progresses through chords of Eb minor, Cb major, B minor, G major, G minor, and back again to Eb major. These chords are significant due to their structurally important positions within each period, located at the incipit, medial cadence, and closing cadence of the periods. An introduction before each period begins changes the mode of

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the chord from major to minor.\textsuperscript{98} Other than the dominant seventh sonorities in mm. 587, 591, 595, 599, 604, and 608, the entire passage is comprised of consonant triads. This is not necessarily a remarkable feature by itself. More interesting are the properties these triads exhibit and the relationship between them within the cycle. Neo-Riemannian theory models the voice leading and the resulting cycle, which conventional tonal theory does not do as well. Each period in diatonic Stufen space follows a (I)i – bVI – V\textsuperscript{7}, i – bVI – V\textsuperscript{7}/bVI – bVI progression, in which the antecedent tonicizes I and the consequent tonicizes bVI.\textsuperscript{99} The simple rhythmic motive of a quarter note followed by four eighth notes allows us to focus on this harmonic pattern. We can hear the progression of each successive period being a major third lower than the last. Here is where diatonic analysis reaches its limit. If we are to hear each period as bVI of the previous, this passage cannot begin and end in Eb major. Enharmonicism allows for this type of closure, but it does not represent each harmonic interval as being equal.\textsuperscript{100} Example 22 shows that the bVI of the bVI of Eb major is Fb. While this pattern of equal intervals can be heard, this does not account for the other aural property the passage presents: the perception of a closed cycle.

We hear the entire passage as beginning and ending on the same triad, Eb major, yet there is no way of encapsulating both this and sequence of equivalent sounding intervals in Stufen space.\textsuperscript{101} Schubert writes the starting and ending sonorities as Eb

\textsuperscript{98} The initial introduction from Eb major to minor is not shown in Example 1 due to formatting consistency.

\textsuperscript{99} I and bVI are Stufen or diatonic chords with structural significance.

\textsuperscript{100} Cohn states, “a symmetrical division of the chromatic twelve cannot also be a symmetrical division of the diatonic seven without engaging in some enharmonic sleight-of-hand,” in “Maximally Smooth Cycles,” 11.

\textsuperscript{101} See Cohn, “Maximally Smooth Cycles,” 9–13 for a detailed description of the indeterminacy of symmetrical division and diatonic Stufen.
major, emphasizing the cyclic nature of the passage and asserting the dominance of the global tonic of the movement. In order for him to do this, he must treat the enharmonic pair of C<b> and B<sup>♯</sup> as being functionally equivalent.

Example 21

Schubert's Piano Trio in Eb Major, D. 929, first movement, mm. 585–609
Figure 19 shows the progression of chords and the relationship between each chord using neo-Riemannian transformational symbols. Major and minor triads are differentiated with a + and – next to the note name, respectively. P represents the parallel relationship in which the third of a major or minor triad move by semitone, changing the mode and L represents the Leittonwechsel relationship in which the root of major triad or the fifth of a minor triad move down or up by semitone, respectively. Both P and L transformations possess a special voice-leading property, in which transformations preserve two common tones while the third voice moves by semitone.

Example 23 is a rendering of the abstract voice-leading presented in a graph. The graph presents the root movement of the passage that divides the Eb octave into three equal parts. Unlike Example 22, Example 23 incorporates Schubert's enharmonic seam.

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103 P and L transformations also share mode changing characteristics.
from Cb to B♮ to maintain the cyclic nature of the passage. The graph also shows the parsimonious voice-leading between the triads. Each movement between adjacent chords hold over two common tones represented by ties while the untied notes represent motion of one semitone. These voice-leading properties within the music are not as simply presented as in the example, hence the abstraction. While the P transformation is explicit on the musical surface due to the sparse musical texture and the simple rhythmic content, the L transformation voice-leading is dispersed among the ensemble which highlight melodic motions of minor thirds, perfect fourths, and also contain non-harmonic tones within the melody and accompaniment parts. These features somewhat obscure both the perception of common tone preservation and semitonal motion between L-related trichords. Nevertheless, the overall aural effect of the reduction shown in Example 23 is evident within the passage. Each “consequent” phrase contains stepwise motion that makes the L voice leading explicit on the musical surface.

The hexatonic system emphasizes parsimonious voice-leading of consonant triads within a closed cycle when using traditional tonal voice-leading practice. Figure 20

104 I derived the term “enharmonic seam” from David Lewin, “Amfortas’s Prayer to Titurel, 197.
below shows the hexatonic cycle unique to the passage represented in a clock-face design. Moving in clockwise motion, the cycle follows the progression of the consonant triads that was described above. All transposition by one step around the cycle exhibit parsimonious voice-leading. Unlike the neo-Riemannian transformations, the hexatonic cycle is more uniform in its construction, considering P and L relations to be equivalent. We could visualize Figure 20 as a cycle of alternating P and L transformations as in the Schubert passage, but that cycle would emphasize different elements of this chord progression. Neo-Riemannian transformations have diatonic remnants that are implicit in their conception. Parallel transformations are structurally no different than the parallel relationship of major and minor chords in a diatonic context. Leittonwechsel transformations relate a flat submediant to its minor tonic in a diatonic context. The hexatonic cycle, besides the privileged use of consonant triads and parsimonious, classically informed voice-leading practice are “tonally coherent” with respect to the concept of twelve equal-tempered pitch classes that can be enharmonically and functionally equivalent. Each move within the cycle is considered equivalent, outside of what different sort tonal implications may arise from a move between, for example, G+ and G-, and G- to E♭+. In addition, this cycle displays algebraic closure, which also requires twelve equal-tempered pitch classes.105

It is not to say that neo-Riemannian transformations are not useful in the perception of the passage.106 Each individual period with its corresponding mode-


106 In support of neo-Riemannian analysis, Suzannah Clark states, “the advantage to neo-Riemannian labels, as opposed to Roman numerals, is that harmonic moves are accessed as transformations of their immediate predecessors, rather than in relation to an overall tonic, although larger-scale harmonic ports of call can also be labeled,” in Analyzing Schubert, (New York: Cambridge University Press, 2011), 71.
changing introduction emphasizes the strictly tonal potential these progressions have. We can even say the P and L transformations are musically distinguished from each other by having the introduction to each period perform the P transformation as a clearly separate entity from the period proper which accent only the L transformation. The passage as a whole does not easily fit these tonal perceptions. The perception of an intervallically equivalent, large-scale sequence that forms a consonant triad cycle is striking among the diatonic implications of the passage. I mean *intervallically* equivalent in two different senses, one being the equivalent descending consonant triad pattern between the progression of chord roots and the other being the interval-class consistency each adjacent move through the hexatonic cycle emphasizes. The hexatonic system represents the passage's structure uniformly because of the cyclic implications that bind each of the three periods together.

![Hexatonic Cycle](image)

Figure 20

Hexatonic Cycle
When we compare hexatonic systems to the traditional diatonic system, the asymmetric quality of the diatonic collection is at odds with the symmetrical nature of the hexatonic cycle. The diatonic collection contains an uneven distribution of whole and half scale-steps, while the hexatonic collection contains an even, alternating distribution of LP relations. The ability for the hexatonic to express its six nodes of the cycle within one pass around all contained in a single octave is different than the diatonic system which requires interval schemes such as the circle of fifths to express all seven nodes within a diatonic scale once, requiring multiple octave displacements. These asymmetric properties lend diatonic tonality to “gravitate” toward a tonic whereas the symmetrical pitch-class collection of the hexatonic region through which the triads move with parsimonious voice-leading can be considered a “tonic” or, as Cohn mentions, seem to lack a tonal center. Traditional diatonic, neo-Riemannian, and hexatonic models are not necessarily mutually exclusive, but are all relevant depending on one's point of view of the passage. Suzannah Clark speaks of theoretical “lenses” that provide specific interpretations of the same piece of music based upon the perspective each theory itself lends in Analyzing Schubert. Multiple “lenses” can be operating at the same time within a single passage of music at different hierarchical levels, all of which are complementing


108 Cohn quotes Felix Salzer and Carl Schachter when they write, “we register the equal intervallic progressions without referring them to a supposed diatonic original. This temporary lack of a diatonic frame of reference creates, as it were, a suspension of tonal gravity,” in Counterpoint in Composition (New York: McGraw-Hill, 1969), 215. Brain Hyer speaks of hexatonic tonal coherence by stating, “In this sense, tonal coherence does not require a piece to elaborate a single prolonged tonic, but rather that we regard relations between harmonies as being tonal, or in the case of Riemann's theories, that we imagine them in transformational terms, relations that, given associative combination, can be written in one of the twelve canonical forms given in fig. 4,” in “Reimag(in)ing Riemann,” 130.
and competing with each other for the attention of the listener.

The preceding analysis will now help inform a structural interpretation of the subordinate theme group in the exposition and recapitulation. Example 24 reproduces a portion of the second theme within the exposition of the first movement. This theme is identical to the statement within the recapitulation except the expositional statement progresses toward the global dominant and the recapitulation progresses toward tonic. The first two phrases of the theme are not shown for concision and because their construction is identical to the phrases in the coda except for two instances: the tonal progression begins on B-, instead of E\(b^+\), and no initial mode change is present.

Example 24 is comprised of two periods which progresses through structurally important triads of E\(b^+\), C-, E\(b^+\), C-, G-, and B\(b^+\). This progression highlights one of the salient features of the passage that differs from the coda: the R or relative transformation.\(^{109}\) The R relation between the medial and closing cadences of each phrase is clear. The introduction transformation of these phrases is R, unlike the previous examples which were P. The separation of the introduction from the period proper that performs P is not as distinct compared to the coda passage as well as the link between the transformational role of the introduction (P in the coda and R in Example 24) and its location within each phrase group. Measures 66–67 shows the completed R move on the downbeat of m. 67 and the initiation of the period proper one beat later. Measures 75–76 shows the R move in progress within the introduction, but this move is completed within the period proper.

\(^{109}\) R occupies the same structural location as L in example 1. It is interesting that both L and R transformations invert to themselves. Interchanging Rs for Ls in both example 1 and 6 as a re-compositional exercise could yield some intriguing results. Using a P-R cycle instead of a P-L cycle for example 1 would require four phrases to complete a cycle because a P-R cycle has eight trichords instead of six. Replacing Ls for Rs for only the structurally important relations in example 6 would yield a progression of E\(b^+\), G-, E\(b^+\), G-, D-, and F+.
Schubert's Piano Trio in Eb Major, D. 929, first movement, mm. 66–84
The single, unaccounted relation within the aforementioned progression is between C- and G-. The G- within the second period is easily explained in a diatonic, non-transformational manner because of the tonicization through its own dominant, yet the triad's appearance in the first phrase immediately following the medial cadence on C- is more difficult to reconcile. Two tonal interpretations include G- functioning as $V^b$ of C minor or the mediant of $E_b$ major, with both seeming to be unsatisfactory representations of one's listening experience.\footnote{Minor V is usually found in minor-key pieces as part of a descending bass (in first inversion, with natural 7 in the bass) or as an intermediate harmony in a larger progression.} Figure 21 shows a transformational interpretation of this chord within the context of the surrounding triads of the phrase. We can hear the P relationship when the alternating V – i (G+ to C-) progression in C minor sets up an expectation of this dominant/tonic relationship to continue.\footnote{This idea of pattern continuance is related to Steve Larson's musical inertia defined as the “tendency of a pattern of motion to continue in the same fashion,” in *Musical Forces, Motion, Metaphor, and Meaning in Music* (Bloomington: Indiana University Press, 2012), 105. He however applies this concept mostly to melodic inertia.} The G minor chord is compared to this previous pattern (G- to C- as compared to G+ to C-) and then the P relation is realized. This is unlike the P relations in the coda passage because the transformation occurs where both triads have hierarchically similar roles within the
phrase and the transformation is a distinctly separate element outside the period proper. Tonally, the G major chord supports the C minor tonic, so G major is not a major tonal area, hence the two different positions within the period. The same transformational contextualization is evident in the second period of the passage, this time relating D minor to its surroundings.

Abstracting the voice-leading from the secondary thematic group within the exposition is more complex than the passage from the coda. The first two phrases can fit the hexatonic model but the second two phrases cannot be explained in this way. Example 25 shows the voice-leading from the later two phrases in the exposition on two different levels. Example 25a shows the relations between the structurally important key areas of the passage. We can see the preponderance of R relations this graph presents. Example 25b creates a voice-leading graph of Example 24, showing the secondary transformational L and P relations with a supplemental R relation for contextual purposes.

The trichordal relationships within the second thematic group of the exposition are more complex than the coda, yet it is more traditionally tonal at the same time. There isn't an apparent sense of cyclic closure like the tightly constructed hexatonic cycle of the coda, therefore no single model can abstract the salient transformational features of the second thematic group in the exposition as a whole. We can refer back to the transitional material of the exposition to see the long distance tonal closure from B♭ major within the transition proper, to the end of the second thematic group which also ends in B♭ major. It is likely difficult to connect these key areas because of the vast amount of musical material between them. This information informs us of how Schubert temporally separates the initiation of the global dominant from its traditional location within the
second theme proper.\textsuperscript{112}

a. Voice-Leading Graph, mm. 66–84

\begin{figure}
\centering
\includegraphics[width=\textwidth]{graph1.png}
\caption{Voice-Leading Graph, mm. 66–84}
\end{figure}

b. Voice-Leading Graph, mm. 69–74

\begin{figure}
\centering
\includegraphics[width=\textwidth]{graph2.png}
\caption{Voice-Leading Graph, mm. 69–74}
\end{figure}

Example 25

Voice-Leading Graphs on Two Structural Levels

\begin{figure}
\centering
\includegraphics[width=\textwidth]{fig22.png}
\caption{Transformational Model}
\end{figure}

Transformational Model
Schubert Piano Trio in E\textsubscript{b} major, Op. 100, Mvt. I, mm. 1–48

To gain a better understanding of the overall interaction of the second theme and its subsequent effect upon the listener, we will examine the musical material preceding it.

\textsuperscript{112} See James Webster, “Schubert's Sonata Form and Brahms's First Maturity,” \textit{19th-Century Music} 2 (1978): 18–35, for more information regarding Schubertian tonality in sonata second themes.
Figure 22 shows a transformational interpretation of this material leading to the second theme. In broad terms, the exposition moves from the global tonic of E♭ major in the primary theme to B♭ major, the dominant, in the transition. This premature initiation of the dominant allows Schubert to progress to a new key area for the second theme. A P–L adjacent transformation from the B♭ major key area in the transition moves from triads of B♭+, B♭−, to G♭+. The G♭+ triad is then reinterpreted and enharmonically spelled as a F♯7, the dominant seventh of the B minor key that initiates the second theme rotation. Instead of a tonic-dominant relationship between the primary and secondary themes, these themes have a hexatonic pole relationship, labeled H in the example, which is not uncommon among Schubertian second themes.113 This characteristic sound supports the second theme with its tonal peculiarities and relates to the unconventional chromaticism used within the theme itself.

Much has been written about the effect that Schubertian chromaticism has on a listener, many describing the “mystical” qualities that it possesses.114 We will use these ascriptions as a point of departure to put forth a dramatic reading of the second theme in relation to the entire first movement of the Piano Trio. Such a dramatic interpretation is not without supporting evidence from Chapter 2, where we explored how the color purple relates to music. We can use this information to shape a CIN to tie the narrative together.

113 Take, for instance, the first and second themes of Schubert Piano Sonata in B♭ Major, D. 960 which incorporate keys of B♭ major and F♯ minor, respectively. This observation is discussed in detail in Cohn’s article, “As Wonderful as Star Clusters: Instruments for Gazing at Tonality in Schubert,” 19th-Century Music 22 (1999): 213–32.

We already know that the color purple and its corresponding key relation have certain qualities ("polarity" as well as color model and tonal characteristics) that lend well to hexatonic analysis. Specifically, we can relate the definition of purple used in Chapter 2 as the window between traditional diatonic and hexatonic systems, because purple has dual tonal implications involving dominant-like and hexatonic characteristics. In addition, the traditional tonal, neo-Riemannian, and hexatonic systems that are used in this analysis have overlapping rules by which they operate.\textsuperscript{115} This is the reason why descriptions of extravagance, mysticism, and, in this case, otherworldliness captures both the similarities and differences a passage such as the Schubert coda exudes, as compared to sections that strictly fit the traditional tonal model.

As discussed in Chapter 3, our narrative choices are somewhat constrained by the music we are analyzing.\textsuperscript{116} This notion and the general practice of a narrative with metaphorical continuity are both ways we can confirm the usefulness of a specific conceptual metaphor operating within our interpretation. From a hexatonic point of view, iterations of the second theme throughout the movement serve as tonal feints away from traditional diatonicism until the completed cycle of the coda statement. Tovey and Cohn's particular ascriptions of remote tonality, whether it be a purple flourish or the realization of a hexatonic system, zero in on a realm of suitable narratives for the piece. We certainly wouldn't embellish the second theme with descriptions of tonal traditionalism or restraint.

\textsuperscript{115} In Clark's terms, we can consider these theoretical "lenses" to overlap much like the the basic template of a Venn diagram.

\textsuperscript{116} Larson argues that arbitrary interpretation of meaning without regard to the musical material itself does not resonate with how we attribute meaning to music. He states, "the reaction seems to suggest that if culture were the sole determinant of such associations, then the nature of the material would necessarily be irrelevant—that the nature of the material would not help determine such associations," in \textit{Musical Forces}, 25. Larson also turns to Deryck Cook's \textit{Language of Music} (Oxford: Oxford University Press, 1959), which describes how musical material is important to meaning.
In fact, the dichotomy of the diatonic and hexatonic is highlighted here to make connections between musical space and physical space. Tovey and Cohn both have at least an implicit understanding of this conceptual blend when describing Schubertian tonality as “star clusters.”\textsuperscript{117} We shall expand upon this idea by exploring the physical nature of otherworldliness and its relation, physical reality, in comparison to musical spaces.

We know that the physical world in which we live obeys certain rules or laws that govern the composition and nature of the universe. Many of these laws are ingrained in our bodily experience in such a way as to be predictable, for example, gravity. Therefore it wouldn't be too much to assume our perception of reality would shift in response to a change in the nature of gravity.\textsuperscript{118} This one change can be the difference between our reality and otherworldliness. There is much in common between these two worlds except for one fundamental change. We can look at our traditional tonal and hexatonic worlds in a similar fashion. As musicians, our default, Classical period, tonal knowledge is taught in a way that assumes such knowledge is foundational and largely the reference point of which we experience music. If something fundamental about these tonal rules were

\textsuperscript{117} Donald F. Tovey states, “Schubert's tonality is as wonderful as star clusters, and a verbal description of it is as dull as a volume of astronomical tables,” in “Tonality,” \textit{Music and Letters} 9 (1928): 362. Clark compares this cosmic metaphor to traditional tonality by stating, “instead of the traditional ‘solar system’ of Classical harmony, as Momigny characterized the gravitational pull of central tonic and the orbiting closely related keys, Schubert's tonality is 'as wonderful as star clusters. These clusters, whether open or globular, have a common gravitational bond but to the observer no single eyepiece of a telescope view will resolve all the stars,” in \textit{Analyzing Schubert}, 185.

\textsuperscript{118} The use of gravity as a descriptor for elements of tonality is prevalent among other metaphors such as pulling/pushing and a desire toward tonal stability. See Steve Larson, “The Problem of Prolongation in 'Tonal' Music: Terminology, Perception, and Expressive Meaning,” \textit{Journal of Music Theory} 41 (1997): 101–36 for examples of common classical mechanics metaphors in music. Larson provides a complete theory of musical forces that metaphorically govern melodic and rhythmic motion in \textit{Musical Forces}. I stay away from specific use of his theory and instead use \textsc{gravity is harmonic tendency} as a conceptual metaphor that has been frequently used in describing the pushes and pulls of tonal harmony. I use and agree with, however, Larson's use of the intuitive, embodied understanding of forces such as gravity, intertia, and magnetism, instead of delving too deep into the world of physics to aid our understanding of musical space.
thwarted, such as diatonic determinacy in *Stufen* space, we can conclude that we are operating under an altered world of tonality. This relates to how both Tovey and Cohn think about the Schubert coda and other “purple patches.” Hexatonicism is out of the ordinary and stands out in relief against the diatonic backdrop of the sonata rotations.

The metaphor *MUSICAL SPACE IS PHYSICAL SPACE* is a common blend in music theory, one reason being that both spaces are analyzed abstractly and often with mathematical precision. In addition, there are examinations of the metaphysical implications of Schubertian tonality, expanding upon the nature of the mystical. We are using such implications as a point of departure when comparing these two spaces as an extension of physical manifestations of hexatonic and diatonic passages using conceptual metaphor and blending. In order to do this, we must specify the constituent input spaces in both musical and physical space. Let us first explore some basic ideas about musical space and ways we differentiate hexatonic and diatonic space. As alluded to above, these two tonalities share many of the same structural features save for a couple important differences. The way we visualize these differences is crucial to developing a link to physical properties. Then we can use the figures of Chapter 2 involving purple as a point of departure.

When referring back to Example 22, we can discover parallels between diatonic indeterminacy and a change of a fundamental physical law, such as gravity. The “pull” toward tonic harmonically in diatonicism is largely based upon root movements of fifths,

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but this expectation is thrown off-course once we notice the cyclic movement of third
relations. The sense of tonic is largely preserved in both instances, but the way in
which motion is realized toward and away from tonic is different. The feeling of cyclical
motion, however, is not without its supporting member, enharmonic equivalency. The
“enharmonic seam” (for example, C#/B# equivalence in Eb major) is a visual cue for us
to readjust our phenomenological projections to a hexatonic conclusion. This “window”
to the otherworldly is most effectively displayed by the hexatonic pole relationship,
which has a rich history of allusion to the mystical and as discussed in Chapter 2, this
“window” has a distinctly purple hue.

As noted earlier, Schubert's use of hexatonic pole relationships goes beyond
instances of the second theme group. The Eb to B- move from the start of the movement
to the second theme proper is aurally striking in presentation, with the ascending
sixteenth note figures in the piano starting at m. 38, the fluctuating dynamics, third
relations between B# and G#, and the enharmonic shift from G# to F#. In a sense,
this breach of the enharmonic seam is the boundary between tonal “reality” and
otherworldliness, but only through the completion of the cycle in the coda do we fully
realize the implications of the previous feints. Our ability to remember the previous feints

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121 Root movements of thirds are not uncommon in the realm of diatonicism. A chain of flatted
submediant relationships, however, is more difficult to explain.

122 This particular imagery is closely linked with what Cohn and other prominent scholars call unheimlich
or the uncanny. See Richard Cohn, “Uncanny Resemblances: Tonal Signification in the Freudian
musical example of this imagery can be found in the soundtrack to Star Trek: Into Darkness, where the
composer, Michael Giacchino, uses a minor subdominant transformation in a minor key with
parsimonious voice-leading and other third relations resembling close hexatonic pole variants in order
to accompany the supernatural qualities of the main antagonist. Clark speaks of “hermeneutic
windows,” in Analyzing Schubert, that metaphorically relate closely to how diatonic and hexatonic
spaces have overlapping characteristics and analytical “gaps” that can be filled by an alternate theory
interpreted as a portal between each tonal environment.
have much to do with Schubert's non-teleological attributes in his sonatas as referenced by Clark. She states, “Schubert's memorable thematic material whose brightness or darkness shifts through transpositions enables long-term 'spatial' connections to be drawn —aurally, as well analytically.” In addition, there is no need to develop a hexatonic view based only upon the second theme. This rotation can be easily described using a L-P-L transformation (B-, G+, G-, Eb+ in the exposition), as it does not complete a cycle. The recapitulation version of the second theme does not possess the hexatonic pole relationship between the recapitulation incipit and the second theme, this time moving from Eb+ to E-, instead of Eb+ to B-. It does, however, preserve the flatted submediant relationship, with a progression from Eb to B within the sixteenth note ascension in relation to the Bb to Gb in the exposition. With these ideas in mind, when we look back from the coda, we realize that the second theme groups were, in sense, leading up to the completion of the cycle. We can also say the tension created by the standout musical characteristics of these sections is 'relieved' in the coda.

With the discussion above in mind, we have enough information to fashion a CIN for the hexatonic passages in relation to the rest of the Schubert piano trio movement (see Figure 23 below). The one to one connections that make up the resultant blend are summarized in the constituent input spaces. At our base level, the traditional tonal landscape is compared to the physical rules of classical mechanics. Both of these inputs share a sense of being fundamental to their respective mental spaces. In relation, the hexatonic passages are compared to the mystical, otherworldly realm, which keeps in


124 Something can be said for the particular role B/Cb plays within the movement. It's the note that is the “enharmonic seam” within the Eb hexatonic cycle and serves different purposes in the exposition and recapitulation before its important position within the coda. We can look to Clark's analysis of a single pitch's shifting tonal role in Schubertian tonality as a guide in *Analyzing Schubert*. 
touch with reality, yet the rules governing this environment have been noticeably altered. The last two input spaces specify how each mental space moves between different physical or musical environments. These not only give metaphorical significance to hexatonic properties relative to physics, but also lend themselves well to a narrative. The property of diatonic indeterminacy in hexatonicism represents a noticeable shift away from the regular pushes and pulls of diatonic *Stufen* to the cyclic world of third relations and parsimonious voice-leading. Within this property is the “enharmonic seam,” which is used to great effect within the piano trio as a window between diatonic and hexatonic worlds.

The consequent blend represents a metaphorical musical “physics” that highlights important differences between diatonic and hexatonic musical spaces. Musical reality is established within the trio movement following diatonic “laws” of motion throughout the first thematic group leading into the transition. The transitional material itself invokes a portal between diatonic and hexatonic worlds by expressing the hexatonic pole relation between the E\(^\text{b}+\) incipit and the B- beginning of the second theme proper. However, without completion of the hexatonic cycle in the second theme in both the exposition and recapitulation, the new world is not yet fully established. These two feints provide context for the second theme material within the coda, which contains the complete hexatonic cycle. It is only when we go away from the diatonic to the hexatonic pole and back again do we realize the harmonic significance of the theme as a whole.\(^{125}\)

\(^{125}\) On a larger scale, movement toward the hexatonic pole and back again occurs within the exposition from the first theme (E\(^\text{b}+\)), to the incipit of the second theme (B-), and finally to the resolution of the LPL transformation within the second theme (E\(^\text{b}+\)). The recapitulation has a similar hexatonic scenario when the transition moves to the subdominant (A\(^\text{b}+\)), onto the incipit of the second theme (E-), and to the LPL completion (A\(^\text{b}+\)). It is, however, more difficult to hear these relations across the span of many measures and multiple functional groups in the sonata. In addition, unlike the coda statement, each interval of the hexatonic cycle is not heard, so the cyclic nature of these two polar inflections are not clear.
The isomorphic characteristics of purple in relation to both our discussion of the physics of motion and the harmonic structure of Schubert allows us to place Tovey's conceptual metaphor as the interpretive crux of the analysis. Without this governing condition of isomorphism in conceptual metaphors and CINs, we wouldn't be able to blend such disparate mental spaces together. Indeed, the blending phenomenon is the
result of our ability to take our embodied experiences and find meaningful structural similarities between two domains.

To accept the conditions of conceptual metaphor is to explicitly separate ourselves from traditional definitions of metaphor that champion its extraneous nature to the idea that metaphor is in fact one of the main ways we experience and find meaning in life. Within the realm of music, our very ability to “make sense” of a collection of sound signals relies on metaphor, in this case the “hearing as” principle, that allows us to understand certain groups of sound as “belonging” together. There are, of course, certain pitfalls of this line of thinking that should be avoided. We should step back from any aggressive implications of the universality of conceptual metaphor when we consider the simple fact that not all humans are created equal and experience life in the same manner. We must therefore have a nuanced approach to conceptual metaphor that includes cultural, gender, and bodily factors among others that play against universality.

The ability for metaphor that draws upon an isomorphic source domain to make up for the “failings” of the target domain is one of its main, useful applications that has been a focus of my study. This characteristic of metaphor is used to great effect in music analysis as discussed in Chapter 2, which contains particularly novel approaches to musical metaphor. Tovey and other Schubert scholars use unique metaphors such as the color purple to express the lack of a complete explanation of a certain musical phenomenon that is beyond the scope of traditional analytical methods. Lewin expands on the idea that we are able to hear music in a “theatrical” way that involves narrative and agency of musical objects.

Both Tovey and Lewin's approaches to musical metaphor directly relate to my own investigations of structural harmony in Schubert and motivic elaboration on
enharmonic hierarchy in Beethoven. Within my Beethoven analysis in Chapter 3 underlies the importance of isomorphism between different domains. Structural similarities between psychological states and the musical surface must exist in the Beethoven string quartet to make a conceptual blend that is meaningful. We cannot expect a musical narrative to have as much impact on a listener if there isn't any musical “evidence” to connect to the story being told. Although there is no single correct metaphorical interpretation of the role of $C^\#/D_b$ in the quartet, conceptual metaphor theory implicitly posits that there are “better” and “worse” interpretations depending upon the degree of structural similarities between each domain.

Due to the isomorphic nature of conceptual metaphor, we can also use more than one blend at the same time to describe a musical phenomenon such as my interpretation of first movement of Schubert D. 929. I take metaphors of musical motion and extend its traditional use in music analysis to involve musical physics and motion between two different “worlds” of tonality, traditional diatonicism and hexatonicism. Operating at the boundary between these worlds is a “portal” that has the same metaphorical implications of our musical purple discussed in Chapter 2. This connection between these two non-musical domains not only gives additional support to my interpretation but also supports Tovey's description of purple and how it relates to Schubertian tonality being “as wonderful as star clusters.”

Our knowledge of conceptual metaphors and cognitive models such as the CIN gives us an effective strategy to decipher how metaphor helps us understand and engage with musical phenomena. Being able to codify the structural components of a metaphor gives us specific tools to discover why its use works or doesn't work well in any given situation. To take this line of reasoning further, it is this very characteristic of
isomorphism that is the basis for the evocative, impactful nature of metaphor. This is not
to say that the way in which we apply metaphor doesn't matter. In fact, our ability to be
creative and novel with metaphorical interpretation relies on our skill to tell a convincing
story that resonates with our audience in a way that is useful and this skill helps bring the
human element into musical experience.
BIBLIOGRAPHY


Tovey, Donald F. “Tonality.” *Music and Letters* 9 (1928): 341–63.
