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PHRASE STRUCTURE, HYPERMETER, AND CLOSURE IN POPULAR MUSIC

By

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ABSTRACT

Phrases in common-practice music are traditionally defined by harmonic processes, particularly goal-directed progressions to tonic. In popular music, however, harmonic motion toward a tonic is not always present, making traditional approaches to phrase segmentation problematic. The goal of this dissertation is to provide a systematic methodology for addressing phrase segmentation and closure in popular music, particularly in the absence of goal-directed harmonic motion. Additionally, I aim for simplicity of application and consistency of results.

Because contemporary popular music is heavily focused on vocal melodies and lyrics, it is important to use a methodology that privileges melodic activity in classifying formal structures. My methodology for phrase segmentation is based on patterns of melodic repetition, particularly in reference to recurring quadruple hypermeter. With a consistent method for segmenting phrases, cadences can be identified and classified, allowing for comparison of closure in popular songs.

This research aims to engage the musical syntax of popular music on its own terms while drawing on the rich resource of common-practice analytical methodologies. There are many theoretical concepts and terms that carry into popular practice such as periods, sentences, and cadences; however, the transfer is not always exact, resulting in some concepts that are loosened or expanded, such as allowing subdominant (IV) and subtonic (bVII) harmonies to support half cadences. New categories of phrase structure and cadences are also necessary to accurately describe popular music, specifically rotated phrases, rotated subphrases, and submediant cadences, none of which have established analogues in common-practice scholarship. In rotated phrases and subphrases, lyrical content is displaced from melodic repetition, creating formal ambiguity. Submediant cadences occur as part of the submediant double-tonic complex (DTC), where tonal fluidity is created between relative major and minor keys. Songs featuring the submediant DTC fluctuate between the major and minor rotations of a single diatonic collection, allowing cadences that articulate the major and minor modes simultaneously.

This dissertation represents the first step of a longer process of studying, classifying, and presenting the musical syntax of popular music. The methodology has the potential to address the wide spectrum of popular music, and I trust that it will be a useful tool for scholars working in the field of popular music scholarship.

CHAPTER 1

INTRODUCTION

Goals

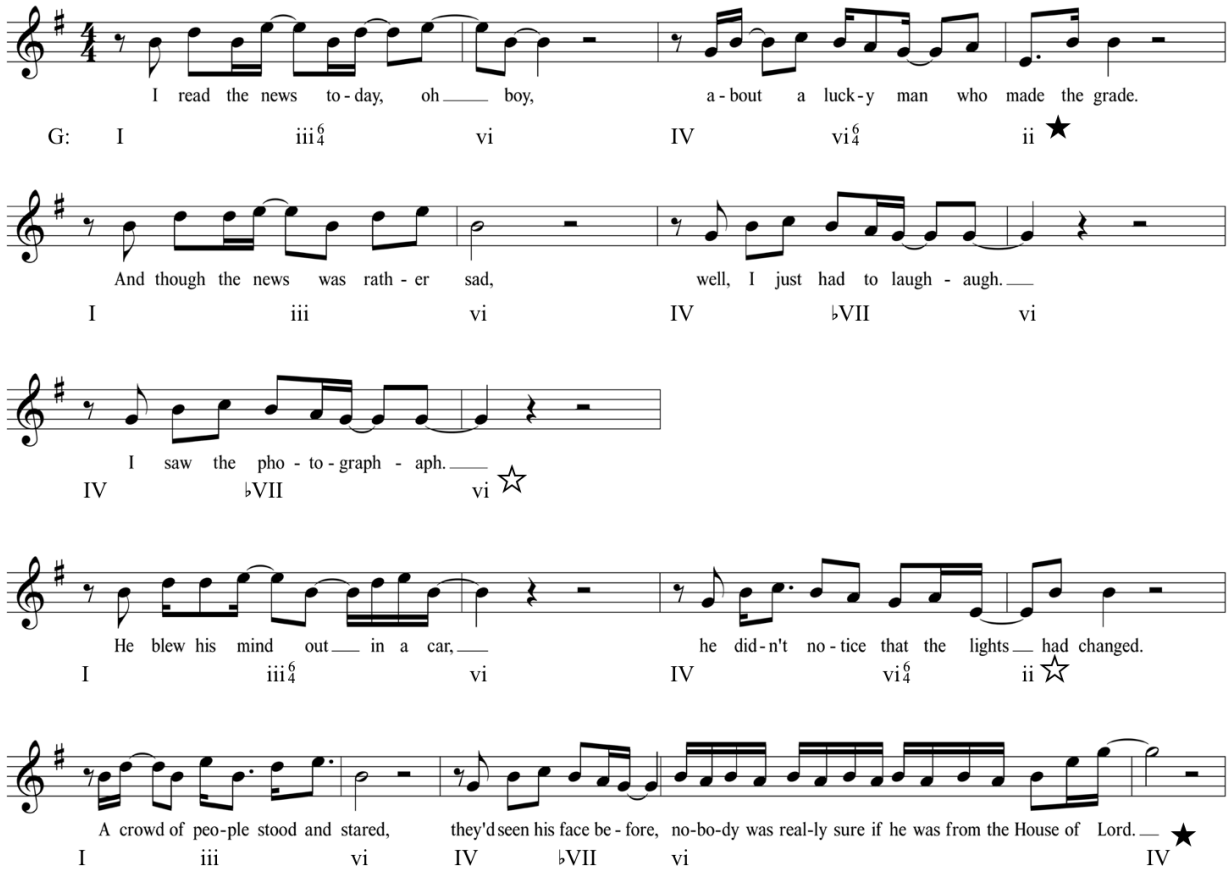

Figure 1.1: Verse of "A Day in the Life," performed by the Beatles. (*Sgt. Pepper's Lonely Heart Club Band*, 1967, Track 13, 0:12 – 1:11)

Immediately after defining common-practice cadences in *The Foundations of Rock*, Walter Everett concedes that "a phrase may end much more ambiguously on some chord other than I or V," and offers "A Day in the Life" (Figure 1.1) as an example where "the phrases…lead the listener through a maze of cadences so weak (as on ii^{m9}…and on IV) they would be considered as phrase endings only because of the succeeding encroachment of recognized

recurring phrase beginnings."[1] The two cadences he mentions specifically are marked with filled-in stars in Figure 1.1, but the locations marked with open stars are likely also a part of the "maze" of cadences he describes. Aside from the harmonic choices, the melodic material does not fit common-practice phrase definitions either; the first cadence leaps from scale-degree 6 to 3, and the second skips up to scale-degree 1. Implicit in this assertion is that the key of the excerpt is G-major and not E-minor. Both keys are emphasized at different points, and the tonal ambiguity may contribute to the cadential ambiguity.

Current analytical methodologies of popular music rely heavily on common-practice analytical tools that, as Everett's description shows, sometimes lack efficacy in engaging the harmonic and melodic syntax of popular songs. "A Day in the Life" is not an exceptional example, and as this dissertation will show, harmonic, melodic, and cadential characteristics of this song are found in songs from all decades and styles of popular music. This dissertation aims to address the analytical challenges posed by this, and many other popular songs, and represents my initial work in developing an analytical methodology for defining phrase structure and closure in popular music.

In my methodology, phrase boundaries are defined by melodic patterns of same and different in successive subphrases, and the methodology works even in the absence of functional harmony, an important consideration for contemporary popular music that features recurring chord loops. With a consistent method for identifying phrase boundaries, I can also engage cadential function and syntax at those boundaries. The end result is a methodology that addresses phrase rhythm and cadential syntax in popular music that is not reliant on functional harmony, allowing for comparison of musical practice across the spectrum of popular music. The purpose of my research is to provide an analytical tool that 1) accurately reflects the musical practice of popular music, and 2) is useful for other scholars addressing phrase structure and closure in popular music.

Methodology

My methodology is informed by common-practice analytical theories, but I seek to demonstrate what is syntactical for popular music without viewing it as an aberration or

[1] Walter Everett, *The Foundations of Rock: From Blue Suede Shoes to Suite: Judy Blue Eyes* (Oxford: Oxford University Press, 2009), 135.

exception to common-practice norms. The two styles are related, but there is enough distinction between them to consider the musical practices independently. However, the distinctions between the two styles are not always clearly identifiable. Moreover, the line separating common-practice tonality from popular practice is a shifting target between various genres, artists, and even individual songs. Some popular songs are explicitly tonal and can be analyzed using common-practice theoretical systems without alteration, while others invoke no common-practice harmonic considerations at all. Between the two extremes are many songs that are dependent on and independent from common-practice paradigms in varying degrees. Therefore, it is impossible to argue for a completely separate theoretical system for popular songs. However, it is crucial to recognize where common-practice methodology applies, and where it does not. My approach adapts the components of common-practice theoretical methodologies that are most useful, illustrative, and insightful for popular musical practice.

As a music theorist, I naturally gravitate towards common-practice analytical techniques I have learned and used in my studies and research. Two scholars whose research I rely on heavily are William Caplin and William Rothstein. My approach to phrase structure and cadences is informed by Caplin's work on those subjects.[2] Similarly, Rothstein's research on the interaction of phrase structure and hypermeter (phrase rhythm) is foundational to my considerations of those topics in popular music.[3]

While common-practice analytical techniques provide rich resources for engaging popular music, there are limits to their applicability when musical practice diverges significantly from common-practice contrapuntal paradigms. In particular, Schenkerian analysis, which shows idealized counterpoint and the coordination of melody and harmony, has varying degrees of usefulness in popular music. As is frequently recognized, the melodic and harmonic practice in popular music does not always align with common-practice contrapuntal norms.[4] I share many of the same reservations articulated by Lori Burns concerning the application of Schenkerian

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[2] Willam E. Caplin, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (New York: Oxford University Press, 1998), and "The Classical Cadence: Conceptions and Misconceptions." *Journal of the American Musicological Society* 57 no. 1 (2004): 51-118.

[3] William N. Rothstein, *Phrase Rhythm in Tonal Music*. (New York: Schirmer Books, 1989).

[4] A representative example is Drew Nobile's adapting Schenkerian paradigms to songs with varying degrees of coordination between harmony and melody. "Counterpoint in Rock Music: Unpacking the "Melodic-Harmonic Divorce," *Music Theory Spectrum* 37, no. 2 (2015): 189-203.

methodology to popular music, which she expresses in her analysis of Tori Amos's "Crucify." Excerpts from two relevant passages are reproduced below.

> If one attempts a reductive analysis based on Schenkerian techniques, the unique features of certain sections would be lost for the sake of "organicism" or, at the very least, for the sake of linear continuity. The passages that are not based on paradigmatic tonal constructs would be "rewritten" so as to "fit" the system. Linear progressions and harmonic resolutions that do not exist would be "implied." Harmonic tensions or polarities would have to be resolved in favor of one or the other. As I stated in the introduction to this study, I do not wish to take a corrective stance on this music. I believe that Amos is deliberately manipulating mode, voice-leading, and harmony to explore the potential for continuity and discontinuity in the overall musical narrative.[5]

> I have deliberately attempted not to identify and attach significance to a *single* moment in the song when all conflicts are resolved. Tonal theorists (especially Schenkerian theorists) have been trained to tie up the loose ends so that music is heard as ultimately unified. But I am arguing here that this is not an appropriate stance for the evaluation of this popular song and, I would venture to generalize, for the vast majority of popular songs.[6]

As stated earlier, my primary goal is to develop an analytical system that engages popular music without viewing the musical practice as an aberration of common-practice paradigms. Even though I often compare the melodic and harmonic practice of popular music to common-practice ideals, I do it for primarily pragmatic reasons; common-practice tonality, particularly harmonic practice and voice-leading, draws upon extensive scholarly research when addressing popular music. However, forcing the musical practice of popular music to align directly with common-practice analytical systems can minimize characteristic musical features exclusive to popular music. Throughout my research I attempt to balance applying traditional theoretical systems with presenting new systems and and classifications that better reflect the musical practice of popular music.

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[5] Lori Burns, "Analytic Methodologies for Rock Music: Harmonic and Voice-Leading Strategies in Tori Amos's "Crucify."" in *Expression in Pop-Rock Music: A Collection of Critical and Analytical Essays*, ed. Walter Everett. 2000, 240.
[6] Ibid., 243.

Corpus

The initial corpus for my research was the recorded output of the British band Coldplay. This stemmed from a research paper addressing cadences, and initially seemed like a helpful boundary to place limits on the scope of my dissertation. However, in the interest of arguing the applicability of my methodology to the broader spectrum of popular music, I decided to expand the scope of this dissertation beyond Coldplay's songs. Coldplay is still heavily represented in my examples because I spent considerable time analyzing their music, and when I needed specific examples I had copious notes detailing where I could find specific phrase structures and cadential patterns. Although Coldplay was my springboard, I hope to have demonstrated the wider applicability of my methodology by including a variety of songs, artists, and time periods in my examples, particularly for phrase structures in Chapter Three. Additionally, one of the strengths of my methodology is the applicability to songs without functional harmonic progressions. This is realized most explicitly in the two complete songs at the end of chapter five, Adele's "Love in the Dark" and Taylor Swift's "Wonderland," both of which feature recurring chord loops.

Outside the Coldplay examples, there were no specific criteria for choosing songs or artists except for the general approach to favor "mainstream" songs, that is, songs that appeared on playlists for the best songs of a style or decade. Some examples originate from my own personal familiarity with Top-40 songs of the past twenty years, as well as songs suggested by peers familiar with my research. As a whole, the collection is eclectic. The oldest song is "Rock Around the Clock," performed by Bill Haley and the Comets, released in 1955, and the most recent is "Something Just Like This," a single released by Coldplay and The Chainsmokers on February 22, 2017. Most songs fall into the category of rock, but there are pop songs as well, such as "I Got a Boy," by the K-Pop group Girls' Generation, and "…Baby One More Time," performed by Britney Spears.

Structure of the Dissertation

Although presented as separate chapters and topics, this dissertation offers one extended argument for the cadences and submediant double-tonic complex in chapter five. As I stated, this research stemmed from a paper detailing cadences in Coldplay songs. The initial research limited the scope of cadences by demanding vocal rest and formal completion, but I also wanted to argue

convincingly for phrase-level cadences inside formal units. To have phrase-level cadences, there need to be phrases, which leads into topic of the initial chapters of this dissertation.

Chapter Two presents my methodology for identifying and segmenting phrases in popular music. It begins with a review of literature on phrase structure and hypermeter (phrase rhythm) in common-practice music, research that I draw on in my approach to defining phrases in popular music. Fundamentally, common-practice cadences are identified as harmonic processes, which makes identifying phrase boundaries problematic in popular songs that do not use functional harmonic progressions. My solution is to focus solely on melodic patterning, specifically patterns of same-different between successive subphrases. There are a limited number of paradigmatic patterns, many of which align with traditional phrase structures such as periods and sentences. These patterns of same-different occur on multiple levels, meaning careful consideration of large- and small-scale repetition is necessary to identify the appropriate formal level for phrase segmentation.

Chapter Three applies my phrase segmentation methodology to a variety of songs, progressing from single phrases to complete formal units. The examples and accompanying discussion demonstrate paradigmatic subphrase and phrase patterns, as well as the various instantiations of sentence and periodic structures in popular music, both of which are very common. The chapter also discusses how my phrase segmentations interact with traditional formal patterns such as the 12-bar blues and 32-bar song form.

Chapter Four addresses methodological complications created by the interaction of lyrics and harmony with phrase segmentation based on melodic activity. I identify, describe, and provide examples of what I term *rotated phrases,* a common misalignment of lyrics and melodic repetition. The second half of the chapter engages methodological complications caused by harmonic processes that interfere or modify melodic repetition.

With the theoretical groundwork for identifying phrases presented in Chapters Two through Four, Chapter Five addresses how those phrases end, namely the cadential syntax of popular music. The chapter begins with a review of literature on cadences in common-practice and popular music, explaining how that research informs my cadential classifications. I then present my cadence types, and provide examples and discussion, particularly of the melodic and harmonic alignments that do not have explicit parallels to common-practice cadences. The

chapter concludes exploring manifestations of the submediant double-tonic complex (submediant DTC), a musical feature where the major and minor modes are invoked simultaneously in a song.

Terminology

Scale-Degrees and Chords

In the body of the dissertation, scale degrees are typed out; i.e. scale-degree 5. (See Figure 1.2) In examples, scale-degrees are shown using the traditional number with carat, and melodic/harmonic alignments are shown with a scale-degree over a Roman numeral. Scale degrees (1-7) represent the diatonic pitches of the *major* scale. For example, the pitches of the C-major scale (C, D, E, F, G, A, B) are represented by unaltered numbers. This means that scale degrees in the minor mode are represented with flat symbols to reflect they are lowered in comparison to the major scale. While this biases the major mode, it serves the purpose of producing clarity, particularly when modally mixed scale degrees are present (in major and minor).

Body of the Text	Examples
Scale-degree 5	$\hat{5}$
Scale-degree 3 over tonic	$\begin{matrix}\hat{3}\\ \mathrm{I}\end{matrix}$

Figure 1.2: The representation of scale-degrees in the body of the text vs. examples.

Roman-numeral representation follows the same practice as scale-degree representation (Figure 1.3); Roman numerals without a flat or sharp reflect the diatonic *major-mode* root, while flats or sharps reflect roots altered by a half step from the major mode. In the minor mode, flats are placed before Roman numerals built on scale-degrees 3, 6, and 7 to indicate they are lowered from the major mode. This facilitates an absolute comparison between chord progression in major and minor.

	C	D	E	F	G	A	B	C
C Major:	$\hat{1}$	$\hat{2}$	$\hat{3}$	$\hat{4}$	$\hat{5}$	$\hat{6}$	$\hat{7}$	$\hat{8}$
	I	ii	iii	IV	V	vi	vii^{o}	I

	C	D	E♭	F	G	A♭	B♭	C
C Minor:	$\hat{1}$	$\hat{2}$	♭$\hat{3}$	$\hat{4}$	$\hat{5}$	♭$\hat{6}$	♭$\hat{7}$	$\hat{8}$
	i	ii^{o}	♭III	iv	V	♭VI	♭VII	I

Figure 1.3: Representation of note names, scale degrees, and Roman numerals in the dissertation.

As a general rule, Roman numerals will represent only the chord root and triad quality. Sevenths and other extensions are important musical considerations, but they do not influence the methodology of the dissertation so they are omitted for clarity.

Form Terminology

The form definitions I use are not fundamentally different from the standard definitions in scholarly literature; I only include them to clarify how I use the terms in this dissertation. For example, when I state an example is from the bridge of a song, "bridge" refers to the complete formal unit, not the "middle eight" of a quaternary song.

bridge – A complete formal unit found in some verse-chorus and 32-bar AABA songs; not to be confused with the smaller "middle eight" of quaternary forms.[7]

chorus – A complete formal unit in verse-chorus songs, featuring an invariant melody and invariant lyrics. Like the verse, subtle shifts in the lyrics of the chorus are possible.

introduction – An untexted, instrumental material before a vocal entrance.

link – An untexted unit between lyrical sections such as verse or chorus that is at least four measures long.

module – A neutral term for a complete formal unit. Modules may be a verse, chorus, bridge, or terminal climax.

outro – Either an untexted section following the final iteration of a formal unit, typically a chorus, or a modified version of a verse or chorus that concludes a song, not followed by another untexted outro.

[7] Christopher Endrinal's term for this smaller bridge is interverse; *Form and Style in the Music of U2* (Ph.D. Dissertation, Florida State University, 2008), 74-76.

prechorus[8] – A formal unit that precedes the chorus that is distinct from the verse. It typically falls between the verse and chorus units, but may also be present between a bridge and chorus.

postchorus – A breakdown of the chorus that is not a link or a new verse. It serves to dissipate the energy of the chorus, often featuring retained timbral elements and a fragmentation of lyrical elements of the chorus.[9]

refrain – A repeated lyrical and melodic idea that appears on its own, or as part of a verse or chorus; not to be confused with the large formal section of a Verse-Refrain form.

solo – An instrumental solo that occupies all or part of another large formal structure such as a verse, chorus, or bridge.

terminal climax[10] – A "non-recapitulatory, autonomous" formal unit that concludes a song. The terminal climax is non-recapitulatory because it features no lyrical or melodic content from earlier in the song, and autonomous because it functions as its own complete formal unit.

verse – A complete formal unit in verse-chorus songs, featuring invariant melody with variant lyrics.

Labels, Symbols, and Phrase Diagrams

The annotations of musical excerpts throughout the dissertation follow consistent formatting, and the annotations transfer directly to associated phrase diagrams. Figure 1.4 is a musical excerpt from "Something Just Like This," performed by The Chainsmokers and Coldplay, and Figure 1.5 is the associated phrase diagram. In examples featuring multiple formal units, those sections are identified by name or label, such as the "end of the prechorus" and "chorus" in Figure 1.5. Subphrase spans are marked with dashed lines bound by triangles, and identified with the lowercase letters x, y, and z. When extra letters are needed, such as in this example, w and v are also used. Subscripts on the subphrase letters identify phrase membership. For example, the subphrases in the prechorus are labeled x_a, y_a, and z_a, showing their temporal

[8] Jay Summach, "The Structure, Function, and Genesis of the Prechorus." *Music Theory Online* 17, no. 3 (October 2011).
[9] Mark Spicer, "(Per)Form in(g) Rock: A Response." *Music Theory Online* 17, no. 3 (October 2011), [8].
[10] Brad Osborn, "Subverting the Verse/Chorus Paradigm: Terminally Climactic Forms in Recent Rock Music." *Music Theory Spectrum* 35, no. 1 (Spring, 2013), 25.

order of appearance and their association with phrase *a*, the label given to the phrase of the prechorus. Phrases are identified by lowercase, italicized letters in the text and examples.

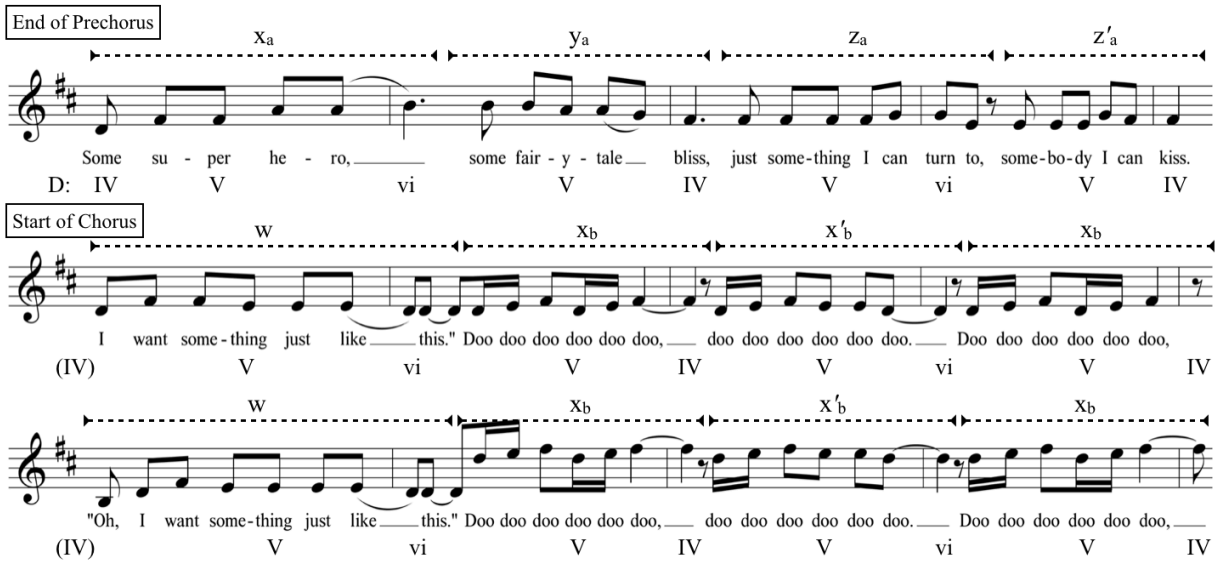

Figure 1.4: Annotated excerpt of "Something Just Like This," performed by The Chainsmokers and Coldplay. (*Something Just Like This*, Single, 2017, 0:34 – 1:05)

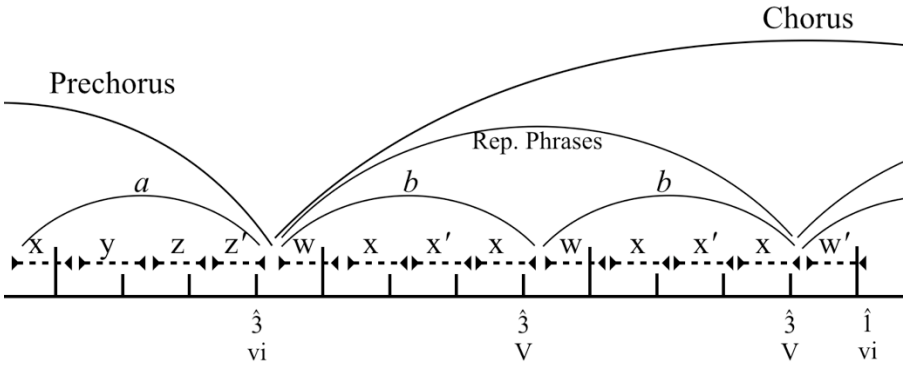

Figure 1.5: Phrase diagram of the excerpt in Figure 1.3, "Something Just Like This," performed by The Chainsmokers and Coldplay. (*Something Just Like This*, Single, 2017, 0:34 – 1:05)

In Figure 1.4, the prechorus line consists of four subphrases, all belonging to phrase *a.* This is shown graphically in Figure 1.5 as a phrase diagram, with phrase *a* as a slur encompassing the four subphrases. The subscripts are not transferred to the phrase diagram for visual clarity, and phrase membership is instead defined by the phrase arc encompassing the

subphrases. It is crucial to recognize that the x subphrases under different phrase arcs (*a* vs *b*) are not the same.

Larger arcs encompassing the smaller phrase arcs show higher level groupings of phrases. In Figure 1.4 the two *b* phrases group as repeated phrases, and this label is placed below the larger arc to identify the relationship. In some cases, multiple levels of phrases are present, and these are identified with the capital italicized letters *A*, *B*, and *C*. For example, the two *b* phrases could be grouped as a longer single phrase, and a *B* would be placed over the slur grouping the repeated phrases. Complete formal units are also spanned by a large arc, and the formal label is placed above, such as the prechorus and chorus labels in Figure 1.5.

The grid represents the hypermeter of the excerpt, and each vertical line represents the downbeat of a notated measure. The tall lines are hypermetric downbeats, and occur every four measures. The subphrases in the diagram mirror the dashed lines and labels of the score annotations, and their location on the grid corresponds to their metric and hypermetric location. The diagram shows that subphrase x_a is a pickup to the hypermetric downbeat, an observation not explicitly obvious in Figure 1.4. Hypermetric patterning is an important musical feature of popular music, however, musical phrases do not always align directly with the hypermetric grid. I group the notation to show melodic repetition and patterns, but I also maintain the hypermetric emphasis by placing four measures on each line. The result in excerpts such as Figure 1.4 where the melodic repetition is displaced by three-and-a-half beats from the hypermeasure, obscuring the hypermeter of the notation visually. Despite this, there are still four metric downbeats in each line. Excerpts with melodic and metric misalignment typically have an incomplete measure at the end of each line, as this example does.

In the musical excerpts, the chords are placed below the music, and the key of the excerpt is provided at the beginning of the first line of Roman numerals. The concluding melodic and harmonic alignment of a phrase grouping is included in the phrase diagram at the location of that alignment.

Conclusion

My analytical interpretation of "A Day in the Life" appears in chapter six, the conclusion of the dissertation. The material in chapters two through five set up the theoretical and methodological considerations necessary for my interpretation.

CHAPTER 2

PHRASE STRUCTURE, HYPERMETER, AND PHRASE RHYTHM

Introduction

This chapter presents the theoretical foundations for my approach to defining phrases in popular music. Part of the challenge of developing a methodology of phrase segmentation for popular music is distinguishing which elements of common-practice music are still form-defining in popular music. Therefore, I review the primary musical components associated with phrase definition in common-practice music–meter and hypermeter, melodic patterning, harmonic motion, and cadences–as well as research by popular music scholars addressing those features. I retain some terminology and concepts from common-practice analytical tools, discard others, and redefine how some paradigms operate in popular music. I then present my methodology of phrase segmentation, which is based on comparing successive subphrases in a given musical excerpt.

Disentangling Meter, Hypermeter, Melodic Activity, Harmonic Motion, and Cadences

Phrases are commonly defined as a complete musical idea that ends with a cadence. The pithiness of the definition reflects the challenge of detailing the multitude of musical parameters that inform the concept of "complete musical idea." It implicates metrical length in that the idea must be long enough to allow sufficient musical activity to be "complete." "Sufficient musical activity" implies aspects of melodic patterning and associated harmonic activity. Cadences are a particular set of melodic and harmonic patterns that conclude musical ideas, but the musical idea must be substantive enough for the pattern to be a true cadence and not just a harmonic motion that resembles a cadence. Despite their apparent simplicity, phrases are complex phenomena, and it is impossible to truly separate all the musical parameters when discussing phrase segmentation. Therefore, throughout the following discussion, all components will be invoked simultaneously, even when addressing one specifically.

Meter and Hypermeter

William Caplin explicitly ties phrase structures to paradigmatic lengths. His two tight-knit theme types, period and sentence, are conceptually eight measures long. [1] In support of his position, he posits that *notated* measures in the score may not correspond to *real* experiential measures.[2] William Rothstein also argues that it is common for phrases to align with four-measure units, and for periods to occupy eight measures.[3] Groups of four measures in popular music are incredibly common and widely recognized. [4] The consistent grouping of melodic and harmonic activity into four-measure units leads to the concept of hypermeter.

Although the concept itself was implicit in previous writings, the term hypermeter was first used by Edward T. Cone in *Musical Form and Musical Performance.* Cone recognized the prevalence of four-bar groupings in Romantic music and posited a level of metric structure above the unit of the measure. *Hypermeter* behaves like regular meter, but with each measure acting as a beat.[5] Fred Lerdahl and Ray Jackendoff expand on this observation, demonstrating graphically the hierarchical nature of meter. They do this by placing dots corresponding to different pulse streams (eighth notes, quarter notes, half notes, etc.) under musical notation. The alignment of the different levels of pulse streams visually demonstrate the strong and weak beats occurring on multiple metrical levels simultaneously.[6]

Hypermeter is a significant component of Rothstein's "phrase rhythm," which he defines as the interaction of phrase structure with an established hypermeter. Rothstein states:

> At levels larger than the single measure, musical rhythm comprises two analogous but distinct components: hypermeter and phrase structure. Hypermeter refers to

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[1] Caplin, *Classical Form,* 35-58.
[2] Ibid., 35.
[3] Rothstein, *Phrase Rhythm,* 29.
[4] Jocelyn R. Neal, "Song Structure Determinants: Poetic Narrative, Phrase Structure, and Hypermeter in the Music of Jimmie Rodgers" (Ph.D. diss., University of Rochester, Eastman School of Music, 2002), 34; Ken Stephenson, *What to Listen for in Rock: A Stylistic Analysis* (New Haven: Yale University Press, 2002), 5; Jay Summach, "Form in Top-20 Rock Music, 1955-89." (Ph.D. diss, Yale University, 2012), 12; Allan F. Moore, *Rock, the Primary Text: Developing a Musicology of Rock* (Aldershot, Hants, England: Ashgate, 2001), 42.
[5] Edward T. Cone, *Musical Form and Musical Performance* (New York: W. W. Norton and Company, Inc., 1968), 79.
[6] Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge, Mass: MIT Press, 1983), 18-19.

> the combination of measures on a metrical basis, as defined above, including both the recurrence of equal-sized measure groups and a definite pattern of alternation between strong and weak measures. Phrase structure refers to the coherence of musical passages on the basis of their total music content—melodic, harmonic, and rhythmic. Hypermeter and phrase structure may coincide or they may not; their agreement or conflict represents a basic compositional resource.[7]

The "agreement or conflict" present between aspects of meter, hypermeter, melody, harmony, and rhythm is a foundational consideration in my approach to popular music.

As a pure theoretical construct, hypermeter is separate from melodic, harmonic, and rhythmic activity. However, in real musical situations hypermeter is perceptually created, reinforced, and modified through melodic, harmonic, and rhythmic activity. Much of the work in Rothstein's *Phrase Rhythm in Tonal Music* engages with phrase alterations based on melodic and harmonic activity. Therefore, phrase rhythm and hypermeter are frequently linked in analysis despite being conceptually separate entities. The theoretical challenge is to separate hypermeter from its melodic and harmonic content. This point is not lost on Lerdahl and Jackendoff who vigorously defend the separation of meter from grouping (melodic and rhythmic) structures.[8] However, they immediately discuss how interpretations of metrical structure are influenced by grouping patterns.[9] Similar issues of metric and hypermetric interpretations and reinterpretations based on melodic and harmonic activity appear throughout Rothstein's book. I borrow much of Rothstein's terminology, approach, and methodology for this research.

Jocelyn Neal's research on the recorded songs of Jimmie Rodgers shows how metric and hypermetric structures are created and altered based on melodic and harmonic activity.[10] Rodgers's vocal delivery and accompaniment characteristically deviate from conceptual structures, for example, the 12-bar blues, by extending or omitting measures. Despite this, a listener familiar with the style is able to locate metric and hypermetric downbeats within the song even when Rodgers's musical delivery diverges from the framework. Neal's transcriptions incorporate these alterations by maintaining four measures per unit with measures of variable

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[7] Rothstein, *Phrase Rhythm*, 12-13.
[8] Lerdahl and Jackendoff, *A Generative Theory,* 25. "We have established that the basic elements of grouping and meter are fundamentally different: grouping structure consists of *units* organized hierarchically; metrical structure consists of *beats* organized hierarchically.
[9] Ibid., 24. See particularly the different interpretations of Mozart's Symphony No. 25 in Example 2.11.
[10] Neal, "Song Structure Determinants."

length. Beginnings of measures and formal units are determined by identifying melodic and harmonic events that correspond to the expected conceptual framework.

A few key points arise when combining the methodologies of Rothstein and Neal. First, harmonic rhythm is crucially important in creating and maintaining metric patterns, and thus, hypermeter.[11] Due to the often repetitive nature of harmonic patterns in popular music, this aspect is even more prevalent than in common-practice music. Hypermeter is reinforced through continual repetition of chords in and through time, but there is no requirement or expectation for a specific number of harmonies per measure or hypermeasure. A harmonic loop itself does not necessarily produce a single hypermeasure. A four-chord loop with one harmony per measure can produce a regular four-bar hypermeter, but other options frequently occur. For example, harmonies may change every two beats rather than four, resulting in two complete four-chord loops per hypermeasure. Additionally, the rate of harmonic change may be slower, with one harmony every two measures. In such a case, one complete harmonic loop occurs over two complete hypermeasures.

Second, there is tension between end-oriented phrases and beginning-oriented metric patterns.[12] This is particularly important in popular music where rhythmic and harmonic elements often provide a continuous forward drive that may support or weaken melodic closure. The tension between phrase endings and hypermetric patterning allows Ken Stephenson to argue the following:

> Two traditional signals of closure, then—the rhythmic closure associated with melodic cadences and the tonal closure prompted by dominant-to-tonic harmonic motion—are in rock dissociated from traditional gestures of formal closure…In this way, the normal language of rock makes no provision for final resolution, has no way to end. For this reason, the fade-out, far from being the studio musician's easy solution to not being able to think of an ending, is actually the only way to end most rock while respecting the integrity of the style's phrase structure.[13]

[11] Rothstein, *Phrase Rhythm*, 22. Rothstein states, "The two kinds of motion—beginning-accented meter and goal-oriented phrase—coexist in a state of creative tension."
[12] Ibid., 28.
[13] Stephenson, *What to Listen for*, 21-22.

Melodic and harmonic closure are significant features even within the continuous nature of most pop/rock music. However, the "traditional gestures" associated with cadences need to be reconsidered to better account for closure in popular music.

Finally, Rothstein recognizes the prevalence of even-numbered hypermetric groupings, and the alternation of weak and strong beats at the level of the measure.[14] I interpret popular songs in quadruple meter with quadruple hypermeter unless some other strong musical parameter overrides the default. Therefore, I hear most songs as 4/4 (and occasionally 12/8) rather than 2/4 or 2/2. I determine meter based on the backbeat (beats 2 and 4), which is usually highly salient. Another possible metric reference is a bass drum hit (or similar timbre) on every beat.[15]

My theoretical preference is to group beats and measures into fours. The primary issue is the lack of a notated score for most popular music. Any rhythmic interpretation is subject to the conceptual difficulty of assigning a meter to an aural stimulus. A large portion of popular music is in simple quadruple with an obvious backbeat, minimizing this difficulty. However, this means I do not interpret duple meters in most cases. I do not deny that music may be conceived by an artist as duple, but I choose groupings of four for theoretical consistency. This consistency is maintained by using the backbeat or bass drum pattern to determine the level of the beat and the length of measures.

Trevor de Clercq points out that the backbeat can be an unreliable indicator of interpreted measure length. He argues that an absolute time duration (approximately two seconds) should be considered when making analytical decisions about meter.[16] This parameter creates alternative interpretations of some of my groupings, particularly songs I interpret as 12/8, where his methodology would interpret them as 6/8. I am not basing my phrase segmentation on explicit measure length, however, so his observations do not affect my methodology.

Metric and grouping ambiguity is most pronounced in music with irregular number of beats or beat divisions (with 7 being common in both cases). Consistent groupings of four measures are possible, producing either alternating measures with unequal length, or measures with unequal beat lengths. For example, seven beats can be divided into two measures; a

[14] Rothstein, *Phrase Rhythm*, 33-34.
[15] This is colloquially called the "four-on-the-floor" pattern and very prevalent in dance music.
[16] Trevor de Clercq, "Measuring a Measure: Absolute Time as a Factor for Determining Bar Lengths and Meter in Pop/Rock Music," *Music Theory Online* 22, No. 3 (September, 2016).

measure of four beats and a measure of three beats (or vice versa). The pattern will generally be consistent, producing a group of four measures with alternating measure lengths. A meter such as 7/8 will result in a triple meter with unequal beat lengths, either 2+2+3, 2+3+3, or 3+2+2 at the level of the eighth note. The chorus of "Glass of Water" from *Prospekt's March* demonstrates both possibilities. Figure 2.1 provides the bass line for this segment of music with two interpretations: the first as 7/8 with alternating beat lengths, and the second from the Piano/Vocal/Guitar sheet music with alternating 4/4 and 3/4 measure.[17] My preferred interpretation is 7/8, but the interpretations together demonstrate how irregular beats and beat divisions can be grouped to better reflect underlying quadruple patterns.

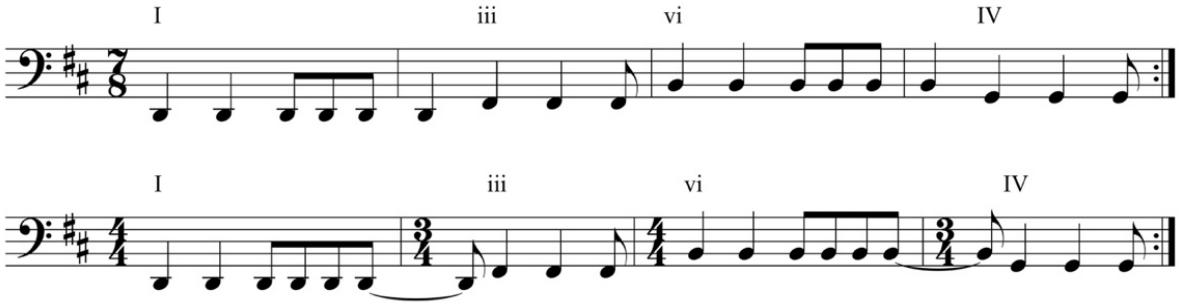

Figure 2.1: Bass line from the chorus of "Glass of Water." Two possible metric interpretations. (*Prospekt's March*, Track 3, 1:07-1:29)

Deciding between a simple triple (3/4) or compound quadruple (12/8) can be problematic.[18] Backbeats can be helpful in making a decision as they would still occur on the weak beats of a 12/8 measure. However, conflicting rhythmic material can complicate the issue, particularly at extreme tempos. In all cases, sensitive musical interpretation is necessary.

In addition to presenting theoretical and historical precedent for hypermeter, Rothstein demonstrates the variety of ways hypermeter and phrases can be manipulated. He distinguishes between overlap, a phrase-structure event, and elision, a metric structure event.[19] The key distinction is that overlap does not necessarily create hypermetric reinterpretation (and usually

[17] Coldplay, *Prospekt's March Piano/Vocal/Guitar*, arr. Derek Jones and Jack Long. (Milwaukee, WI: Hal Leonard, 2009), 26.
[18] Again, I prefer the quadruple grouping, 12/8, over the duple grouping, 6/8.
[19] Rothstein, *Phrase Rhythm*, 48.

does not). Elision, however, always causes a hypermetric reinterpretation because one measure functions simultaneously as two different hyperbeats. Unlike common-practice music where the fourth hyperbeat is commonly reinterpreted as a hypermetric downbeat (4=1), popular music generally reinterprets the third hyperbeat as a new downbeat (3=1).

Elisions and hypermetric reinterpretations are common in popular music. Stephenson adopts some of Rothstein's techniques and terminology in his discussion of phrase rhythm.[20] Additionally, Neal has demonstrated common hypermetric reinterpretations in contemporary country music.[21] Evidenced in Neal's examples is the association of hypermetric disruptions with ends of melodic units. She discusses elisions caused by melodic cadences at the ends of phrases, and the addition of extra measures (hyperbeats) to the structure to allow the singer to breathe following the conclusion of a melodic phrase.

A key concept from Rothstein's discussion of phrase alteration is the concept of the *basic phrase*, which is the "original, unexpanded phrase."[22] He argues that based on familiarity with style and recurring patterns within a specific piece, a listener creates a normative basic phrase and compares it (either actively or passively) with the music being heard. He describes the comparison as an "experience… of departure and return. The listener departs, often quite unexpectedly, from a fixed point of reference, and returns to it after a detour that may be either exhilarating, funny, climactic, disorienting, mysterious, or terrifying (or some combination of these)."[23]

The *basic phrase* may be the fundamental unit of common-practice music, but the fundamental unit of popular music seems to be a *basic hypermeasure*: a regularly recurring four-measure unit. The four-measure unit is nearly an *a priori* structure that melodic activity fits into. Ken Stephenson argues this point as well, stating, "Because vocal phrases do not normally line up with hypermeasures in a single, traditional way, the term phrase cannot be used as it commonly is in theoretical literature to refer indiscriminately to both the melodic line and the

[20] Stephenson, *What to Listen for*, 1-22.
[21] Jocelyn Neal, "Songwriter's Signature, Artist's Imprint: The Metric Structure of a Country Song," in *Country Music Annual 2000*, ed. Charles K. Wolfe and James E. Akenson. (Lexington, KY: The University Press of Kentucky, 2000), 112-40.
[22] Rothstein, *Phrase Rhythm*, 64.
[23] Ibid., 65.

morphological unit."[24] The interaction of melodic and harmonic activity within the four-measure unit is the foundational component of approach to phrase structure and segmentation of popular music.

Melodic Activity, Harmonic Motion, and Cadences

Common-practice definitions of "phrase" are heavily reliant on harmonic activity. For example, Rothstein states phrases represent a "directed motion in time from one tonal entity to another… *If there is no tonal motion, there is no phrase*."[25] The requirement of tonal motion for a phrase is grounded in Schenkerian theory; specifically, the unfolding of the tonic triad, which requires a dominant harmony (V) to support scale-degree 2 on the way to scale-degree 1 over tonic (I). The combination of goal-directed melodic and harmonic motion results in phrases always ending with a cadence. Rothstein uses the term phrase-rhythm to disambiguate his conception of phrase from other definitions of "phrasing," and uses it to discuss the interaction of phrase structure with hypermeter.

William Caplin also relies heavily on harmony in his approach to form in Classical music. His three formal functions–prolongational, sequential, and cadential–are all defined harmonically.[26] He identifies prototypical phrase structures, particularly the sentence and period, based on conventional melodic and harmonic procedures characteristic of Classical-period music. I adapt significant portions of Caplin's approach to analyzing phrase structure in contemporary popular music, but because it is a different genre and time period, some of his techniques and classifications are incompatiable, particularly as it relates to harmonic paradigms. For example, he uses the term *conventional* to describe characteristic melodic and harmonic counterpoint found at cadences and cadence-like locations.[27] The cadential progression associated with the conventional ending is I^6-ii^6-V-I.[28] This progression does not mark the end of phrases in the vast majority of popular music.

While the harmonic paradigms may not directly transfer to popular music, the melodic patterns found in periods and sentences do. Caplin defines sentence and period in opposition to

[24] Stephenson, *What to Listen for*, 7.
[25] Rothstein, *Phrase Rhythm*, 5. (Emphasis in the original)
[26] Caplin, *Classical Form,* 24-31.
[27] Caplin, "Classical Cadence," 81.
[28] Caplin, *Classical Form*, 26-27.

each other based on the arrangement of subphrase groupings. In a sentence, the repetition occurs immediately between the first and second subphrases of the presentation phrase.[29] In a period, the repetition is not immediate, but is instead delayed by intervening contrasting material. The antecedent phrase consists of the basic idea, followed by a contrasting idea leading to a weak cadence. The basic idea is then repeated as the start of the consequent phrase; an intervening, contrasting subphrase and cadence must appear for the repetition to mark a periodic structure.[30] In summary, a sentence is marked by immediate repetition within a phrase, and a period is marked by repetition between phrases which is mediated by intervening material. The placement and repetition of subphrases is critical to my approach to defining phrase structure in popular music.

Sentences. Caplin presents three categories of repetition of the basic idea in his definition of sentences: exact, statement-response, and sequential. In exact repetition, the harmony remains the same for both statements of the basic idea. The melodic activity may be ornamented or slightly modified, but remains fundamentally the same. Statement-response repetition is also marked by harmonic relationships: the first basic idea is supported by tonic, and the second by dominant, though I – V, V – I relationships are also common. In this type of repetition, the melody is modified to appropriately fit the change in the underlying harmony. Sequential repetition occurs when both the harmony and the melody are transposed to a different scale degree.[31]

All three types of basic idea repetition can be found in popular music. Exact repetition is common, with allowances for slight rhythmic or ornamental changes that do not alter the underlying melodic structure. Sequential repetition involves transposing the subphrase to begin on a different scale degree. For transposed subphrases, the contour and rhythmic activity must remain nearly exact to qualify as a repetition rather than a contrasting subphrase, but the pitches may be altered to better correspond to the changed harmony. Statement-response repetition is the catch-all category of basic idea repetition, and can be invoked when an obvious short-short-long paradigm is present, but when the second basic idea is less obviously related to the first. A

[29] Caplin, *Classical Form*, 37. Caplin does not view phrases as having to end with cadences, allowing him to call the repeated basic ideas a *phrase* despite the lack of cadential closure.
[30] Ibid., 49.
[31] Ibid., 39

common popular practice statement-response pattern inverts the contour of the initial basic idea while maintaining the rhythmic profile.

Caplin defines the function of the continuation phrase as destabilizing the prevailing phrase-structural, harmonic, and rhythmic elements of the presentation phrase to lead to a suitable cadence. The is accomplished primarily through fragmentation, acceleration of harmonic rhythm, increase in surface rhythmic activity, and sequential harmonies.[32] The continuation phrase is not always easily divided into component subphrases, but the length is typically at least as long as the combined length of the two basic ideas.

Matthew BaileyShea addresses sentence structure as well, showing the variety of structures sentences may take that do not precisely fit the Beethoven op. 2, no. 1 model used frequently as the prototypical example in textbooks.[33] He summarizes the essential characteristics of a sentence as, "the short/short/long proportion and an ordered sequence of formal functions—presentation, continuation, and cadential."[34] He argues that the definition is sufficiently vague enough to necessitate the use of the Beethoven example, thus prejudicing it as the model against which all other sentences are compared. He describes four specific sentential constructions: 1) dissolving third statement, 2) sentential continuation (the Beethoven model), 3) AABA design, and 4) *Fortspinnungtypus*.[35] The four types implicate different arrangements of subphrases in the continuation phrase. The *Fortspinnungtypus* is one continuous idea marked by sequential activity that is difficult to separate into component subphrases. AABA design, with the BA serving as the continuation phrase, divides into two subphrases based on the reappearance of the basic idea (A). The sentential continuation retains the short/short/long configuration one rhythmic level lower than the sentence as a whole, producing three subphrases. The dissolving third statement begins as an appearance of a subphrase like the previous iterations, but gives way to fragmentation to create the "long" duration required for the continuation phrase.[36] The dissolving third statement and sentential continuation types are the most common of BaileyShea's paradigms in popular music. I do not adopt his *Fortspinnungtypus*

[32] Caplin, *Classical Form*, 41
[33] Matthew BaileyShea, "Beyond the Beethoven Model: Sentence Types and Limits," *Current Musicology* 77 (Spring, 2004): 5.
[34] Ibid., 7.
[35] Ibid., 27.
[36] Ibid., 27. Fig. 1. This figure provides a good summary of BaileyShea's sentence types.

because melodic/harmonic sequences as a continuation phrase are rare in popular music. The AABA sentence is highly irregular, but the related AABC pattern consisting of four subphrases is common.[37]

Mark Richards addresses sentence and period structures in his approach to defining film music themes.[38] His classification of phrase structures is highly nuanced, and is based on comparison of component subphrases. In addition to sentences and periods, he identifies related structures he calls *clause* and *composite*. He also posits three forms of the four different structures–basic, developing, and hybrid–resulting in twelve categories of phrase structures. His Example 1, which shows his phrase classifications, is reproduced below as Figure 2.2.[39] While I will not be as nuanced as Richards, I adopt his approach, which relies on comparison of the component subphrases.

Sentences are easy to recognize in popular music even without the specific subtypes just discussed; the short-short-long characteristic remains the most recognizable feature of sentence paradigms. The immediate restatement of a subphrase (whether exactly the same or not), especially when separated by a short rhythmic break, generally signals the beginning of a sentence or sentence-like structure. The appearance of a long continuation phrase confirms the sentence structure.

The "sentence" label has been appropriated to formal units larger than a phrase in popular music, specifically the AABA and AABC song forms, by Jay Summach and Drew Nobile.[40] This reflects the complex issue of identifying formal levels in popular music analysis, a topic I will address at the end of this chapter. Despite some formal similarities, I disagree with the application of a phrase structure descriptor to a complete formal module unless it truly is a single phrase-level sentence. I will only use the sentence label to describe phrase-level structures.

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[37] For this discussion I retained BaileyShea's use of capital letters as shown in his article. As a subphrase representation, the pattern would most likely appear as xxyz. This pattern reflects a motion towards continual difference.

[38] Mark Richards, "Film Music Themes: Analysis and Corpus Study." *Music Theory Online* 22, no. 1 (2016).

[39] Ibid., Example 1.

[40] Summach, "Prechorus." Drew F. Nobile, "Form and Voice Leading in Early Beatles Songs." *Music Theory Online* 17, No. 3 (Oct. 2011).

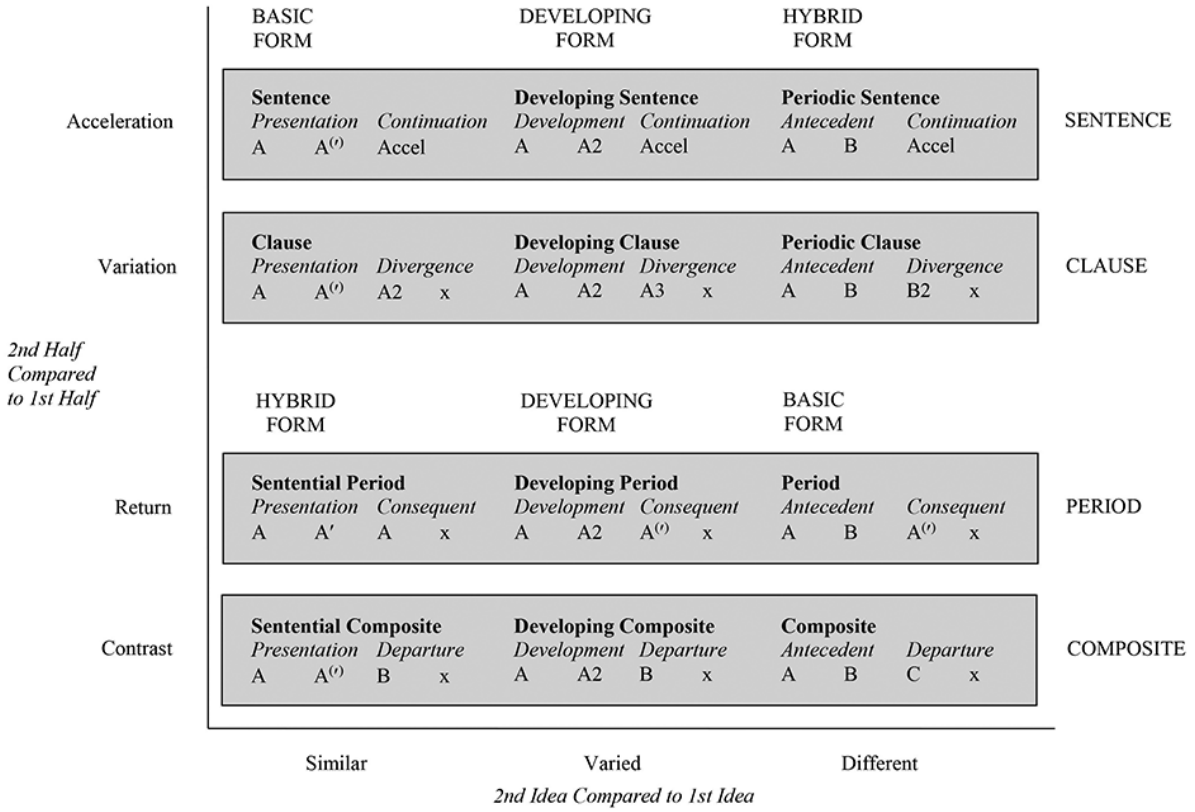

Figure 2.2: Mark Richards's Example 1 from "Film Music Themes: Analysis and Corpus Study."

Periods. Caplin's period is an eight-measure grouping of two phrases: the antecedent and the consequent. The phrases are related by the shared basic idea beginning each phrase, and the relative strengths of the cadences. The first phrase must end with a weak cadence, and the second with a stronger cadence, typically a perfect authentic cadence. Each phrase consists of a basic idea and a contrasting idea. The contrasting nature of the contrasting idea is marked by its harmonic content (which must produce a cadence) and distinct motivic material.[41]

Some terminological baggage is maintained by adopting the term "period" for popular music. One of the defining characteristics of the period is the relationship of cadential strength between the antecedent and consequent. "Antecedent" and "consequent" thus have a cadential connotation as well as a temporal ordering. I will ignore the cadential expectation of the two phrases and use the terms antecedent and consequent primarily as a descriptor of temporal

[41] Caplin, *Classical Form*, 49.

ordering rather than cadential strength.[42] This becomes particularly relevant when the cadential strength between two phrases is inverted, what Stephenson calls an anti-period.[43] I treat both the period and the anti-period as similar processes because in both cases the greatest degree of difference is retained for the final subphrase.

Goal-directed harmonic motion is not always found in popular music, which complicates phrase segmentation based on harmonic paradigms. Popular music scholars wrestle with this problem by proposing different methods of phrase segmentation, sometimes resulting in conflicting criteria between scholars. Stephenson defines a phrase as "a unified melodic or harmonic motion; also a group of measures held together by such a motion. A phrase typically lasts no longer than five measures."[44] In Stephenson's definition, "phrase" is melodic *or* harmonic motion, meaning that harmonies or a melody alone can create phrases. Additionally, the phrase is inclusive of the metric space occupied by the melody and/or the harmony. While this definition does not clearly articulate what constitutes "unified melodic motion," the general approach of his book unifies vocal phrases by motion and rest. "The division of these units is normally marked by a cadence—in the literal sense of the word: a falling off of melodic motion or of rhythmic energy, or in simpler terms, a long last note."[45] As such, Stephenson's system of classifying phrase structure uses the ratio of *melodic motion* to *melodic rest*.[46] By this

[42] Rothstein, *Phrase Rhythm*, 18. Rothstein limits the term *antecedent* to a phrase ending with a half cadence, and the *consequent* to the parallel phrase ending with an authentic cadence. He uses *fore-phrase* and *after-phrase* to reference any other pair of related phrases that are not periodic by his definition.

[43] Stephenson, *What to Listen for*, 111. The term "anti-period" can be interpreted as having a negative connotation, a point I am sensitive to given my stated purpose of engaging the syntax of popular music on its own terms. Anti-periods are highly uncommon in common-practice, but normal in popular music, and I do not want the terminology to implicate the structure is irregular or abnormal. I have considered other terms, particularly the term "open period" suggested by my committee, but all present theoretical complications given the multitude of cadential arrangements found in popular music. I retain the term "anti-period" for now, but intend to offer a more neutral term in the future.

[44] Ibid., 238.

[45] Stephenson, *What to Listen for*, 3.

[46] Ibid., 2. He does this to avoid the conceptual difficulty of identifying a beat level. While he acknowledges the prominence of the backbeat, he does not use it as an absolute reference. As such, two of his phrase-rhythm paradigms can be functionally equivalent, namely the 2:2 and 1:1.

classification, any type of vocal activity to inactivity signals a cadential point and the end of a phrase.

Allan Moore's definition of phrase is "a segment of melody formed from one or more motifs, its end normally coinciding with the taking of breath (whether actual or nominal)."[47] His definition is simultaneously generative, created from motifs, and bound by the physical need of singers to breathe.

Phrase definition is a fundamental component of Neal's dissertation; it is the second of four elements (poetic narrative, phrase structure, meter and hypermeter, and performance) contributing to her theory of song structure.[48] Her definition of phrase is very nuanced:

> Melodic phrase structure…is determined by the linear directed motion of the tune, leading to a melodic cadence, supported by elements of harmonic rhythm and those pitch- and rhythmic-attack events that determine meter. In determining the melodic phrase structure, these analyses consider the role of tonal function within melodies, the impact of motivic repetition, and the connectivity of a melodic line, drawing on the definition of a *musical phrase as a single musical idea expressed in a single breath*. A musical idea is considered here to be that elusive notion of a melodic phrase based on an initiation of melody with harmonic support, a body of the idea, and a perceptible conclusion of that idea, arriving at a melodic cadence and supported by a harmonic resting place (not necessarily a complete harmonic cadence in the conventional tonal definition).[49]

The breadth of her criteria is helpful, and emphasizes the challenge of defining phrase in any style. Her definition highlights meter, harmonic rhythm, and melodic cadence, but her definition still places significant emphasis on a phrase being bound by the performer's breath.

In contrast to the above scholars, Robin Attas abandons the requirement of a single breath in delineating phrase boundaries. She states: "I define a phrase in popular music as a musical unit with goal-directed motion towards a clear conclusion, created through manipulation of text, harmony, rhythm, and melodic contour."[50] She draws on Rothstein's concept of tonal-motion and goal-directedness in defining phrase, but recognizes the difficulties with both concepts in popular music. She argues that goal-directed motion can be produced through: 1) functional

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[47] Moore, *Rock,* 225.
[48] Neal, "Song Structure Determinants," iv.
[49] Neal, "Song Structure Determinants," 42. (emphases are mine)
[50] Robin Attas, "Sarah Setting the Terms: Defining Phrase in Popular Music." *Music Theory Online* 17, no. 3 (2011), [6].

harmonic progressions in the accompaniment; 2) melodic contour, both phrase-length descents to scale-degree 1 and small-scale stepwise descents at the ends of melodic units; 3) longer rhythmic durations at the ends of melodic units; and 4) lyrics, particularly rhyme scheme.[51]

Phrase definitions posited by Stephenson, Moore, Neal, and Attas all highlight musical features that may occur at phrase boundaries. However, the application of their definitions can produce conflicting segmentations, particularly because their criteria can often be found throughout a phrase, not just at the end. It is telling that in Neal's definition, a key component, the "musical idea," is an "elusive notion." The goals of my approach to defining phrase boundaries are simplicity and consistency. A phrase in popular music scholarship should not be an elusive notion.

Methodology

The primary parameter I use in defining phrase boundaries in popular music is melodic repetition. Melodic activity is highly patterned, and it is easy to classify successive subphrases as same or different. Phrase boundaries are identified by patterns of departure (difference) and return (same) in the subphrases comprising a formal unit. A complete phrase consists of at least two different subphrases; the second subphrase must be different from the initial subphrase. Exact repetition of a subphrase after intervening contrasting material signals the end of one phrase and the onset of a new phrase. Lyrical completion, rhyme schemes, normative hypermetric length, goal-directed motion, and long last notes are all characteristics of a phrase, but they do not reach the same defining standard as melodic repetition.

My approach to phrase segmentation differs distinctly from other scholars in that it does not rely on functional harmonic progressions or goal-directed melodic motion. Instead, it relies on the same/different principle in comparing successive subphrases. Subphrases are short melodic ideas, usually one or two measures, and are typically identified by vocal breath, longer durations, immediate melodic repetition, or gaps in melodic activity. These criteria overlap significantly with some of the criteria identified by other scholars in segmenting complete phrases, and highlights the potential for ambiguity in applying their methodologies.

[51] Attas, "Sarah Setting the Terms," [34]

To demonstrate my same/different methodology and subphrase segmentation, consider the terminal climax of "A Rush of Blood to the Head," shown in Figure 2.3. The first subphrase, x, spans roughly one measure, and its ending is marked by vocal rest and immediate repetition of the pattern in the second measure. While the two iterations are not exactly the same, I label them both as x because the primary melodic content and contour remain the same. Syncopation and rhythmic variation are incredibly common, meaning I often ignore slight pattern changes that do not alter the fundamental character of a subphrase. However, pitch alteration is significant, as evidenced by the final two subphrases of the first line. The rhythmic activity is identical in y and y′, but the changed pitch material makes the second subphrase a modified version of the first. For the first line, the pattern of subphrases is same-same-different-more different. The second line follows the same pattern, but the final subphrase is now even more different than the final subphrase of the first line. The new pattern x, x, y, z reflects this change.

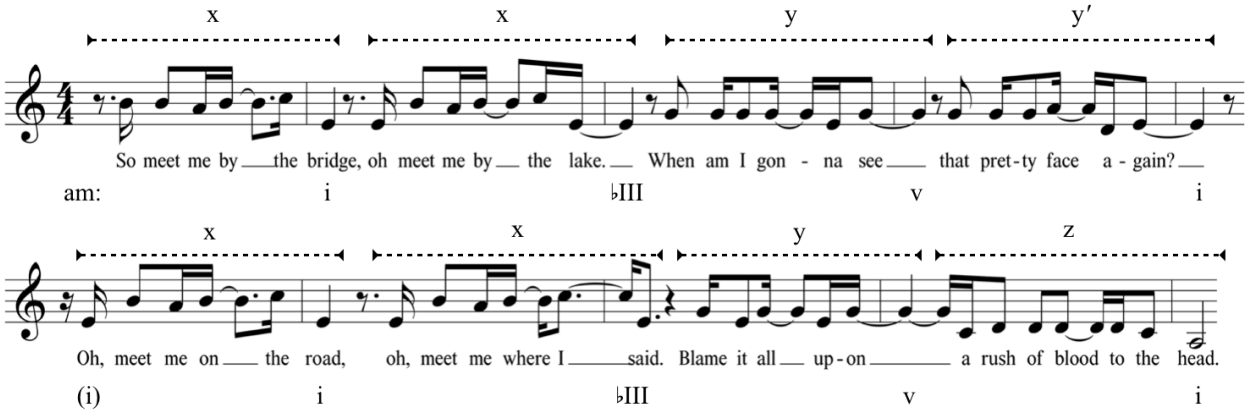


Figure 2.3: Terminal climax of "A Rush of Blood to the Head," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 10, 5:00 – 5:29)

The complete excerpt forms a period, with each line a single phrase. The succession of subphrases in each line reflects a progressive move away from the initial subphrase. The return of subphrase x in the second line after the departure of the first signals the completion of the first phrase and the start of the second. The first phrase ends with scale-degree 5 over tonic harmony, and the second ends with scale-degree 1 over tonic, creating periodic relationship between the two phrases. The phrase diagram for the terminal climax of "A Rush of Blood to the Head" is provided in Figure 2.4.

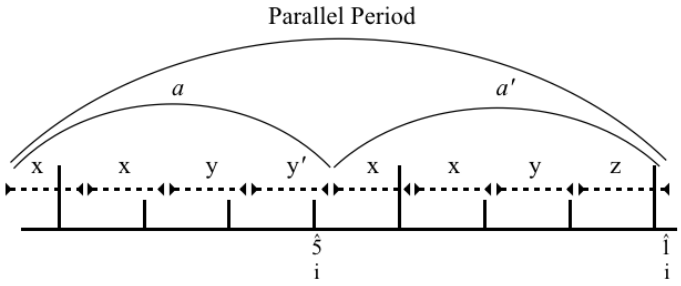


Figure 2.4: Phrase diagram for the terminal climax of "A Rush of Blood to the Head," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 10, 5:00 – 5:29)

Formal Levels

Patterns of same/different occur at multiple levels of form simultaneously; subphrases, groups of subphrases, phrases, groups of phrases, and formal units are all subject to patterning. Recognizing the formal level is an important analytical consideration, particularly as it relates to phrase segmentation. When analyzing, it is possible to work from the bottom up, starting with subphrases, or from the top down, starting with complete formal units.

Bottom-up Approach

To demonstrate the different levels of form, consider the subphrase patterning of "A Rush of Blood to the Head," as shown in Figure 2.5. The lowest level of segmentation is eight subphrases, which are divided into two groups of four by the return of the x subphrase. The pairs of related ideas can be grouped together to form a higher pattern of subphrase segmentation, xy and xy′.

Although not necessary, the higher level of subphrase patterning can more clearly reflect some aspects of phrase construction. Only two contrasting subphrases are required to form a phrase, and the larger grouping more closely aligns with the binary requirement. Additionally, the comparison of the second half of each phrase is made simpler (y vs. y′), more clearly representing the periodic nature of the two phrases. The downside of the larger grouping is that it hides the sentential character of the subphrase patterning. The pairs of subphrases combine to form a pair of phrases: *a* and *a′*. The two phrases together form a period at the level of the formal unit, in this case, the terminal climax of the song.

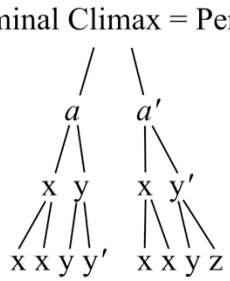


Figure 2.5: Formal levels in the chorus of "A Rush of Blood to the Head," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 10, 5:00 – 5:29)

The strophe of "King of the Road," shown in Figure 2.6, provides an interesting comparison to "A Rush of Blood to the Head" because the nesting of formal levels is different.

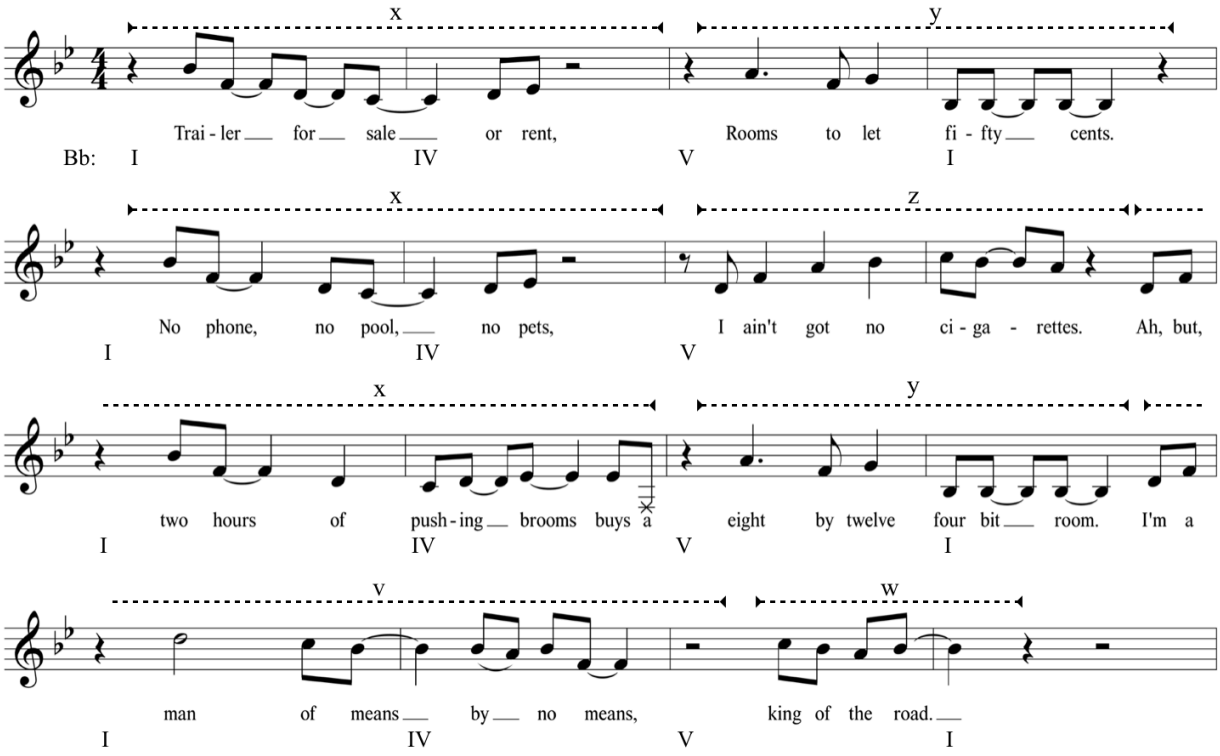


Figure 2.6: Strophe from "King of the Road," performed by Roger Miller. (*King of the Road*, 1965, Single, 0:08 – 0:40)

The first line divides into two contrasting subphrases, xy. The exact return of subphrase x in the second line signals a new phrase, one that ends differently than the first. The first phrase (xy) ends with scale-degree 1 over tonic harmony, and the second phrase (xz) with scale-degree 7 over dominant harmony, resulting in an anti-periodic relationship between the two phrases. Another exact return of subphrase x begins in the third line, signaling the start of another phrase, a phrase which ends like the first with subphrase y. The final line is completely new, presenting a pair of progressively different subphrases.

The diagram in Figure 2.7 shows the comparison of formal levels between "King of the Road" and "A Rush of Blood to the Head." The pattern of same-different-same-more different is periodic, and in "A Rush of Blood to the Head," only occurs at the higher subphrase level. This paradigm occurs on two different formal levels in "King of the Road," resulting in two levels of phrases; *aa′ ab*, and the higher level *AA′*.

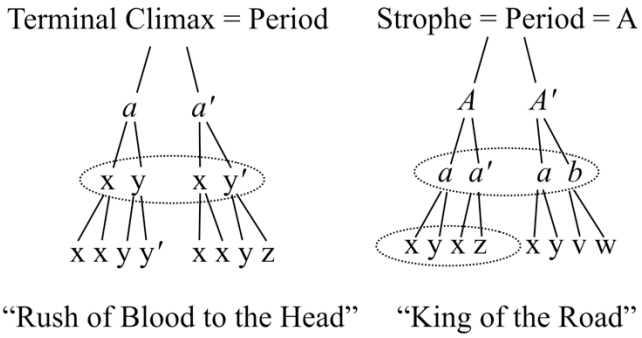


Figure 2.7: Comparison of formal levels between the terminal climax of "A Rush of Blood to the Head" and the strophe of "King of the Road."

An important theoretical consideration is highlighted in this example. Two complete phrases with unrelated melodic material (i.e. *a* and *b*) tend to disassociate formally; there is no melodic reason to group two melodically unrelated phrases together. However, in the "King of the Road" strophe, phrase *b* can be grouped with *a* because of the same-different-same-more different paradigm. If the previous *aa′* succession had not set up the possibility and expectation of a periodic structure, *b* would not group with *a* to form a large consequent, *A′*. Furthermore, it would be illogical to even segment the final four subphrases as two separate phrases. The subphrase succession xyvw represents progressive difference, a paradigm that should result in

grouping the four subphrases together as one phrase, not two. Again, the higher level of periodic construction informs the segmentation of the subphrase level, and the grouping at higher levels.

Multiple levels of phrase segmentation in common-practice music are abnormal, but they do occur with double periods. In a double-period there are four complete phrases, but the first two group as a large antecedent, and final two as a large consequent. The result is a large periodic structure, with the antecedent and consequent both consisting of two nested phrases. An example from popular music, the chorus of "White Shadows," is shown in Figure 2.8, and the phrase diagram in Figure 2.9.

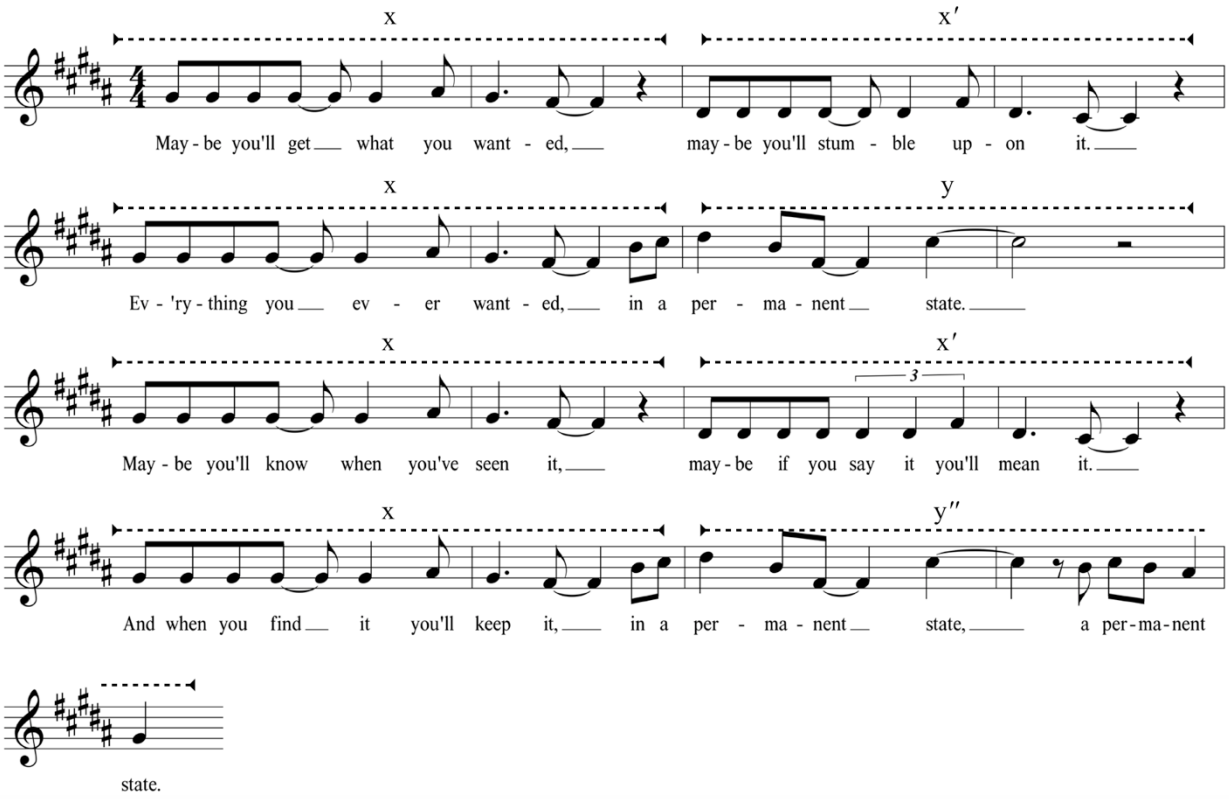


Figure 2.8: Chorus of "White Shadows," performed by Coldplay. (*X&Y*, 2005, Track 10, 2:04 – 2:34)

In "White Shadows," the same-different-same-more different pattern occurs within each quartet of subphrases (xx′xy) and the first level of phrases (*aa′aa″*). In both cases, the pattern creates a periodic relationship one level higher. The first xx′xy pattern creates a pair of related phrases, *aa′*. The two phrases are periodic in that there is a departure and return, but the final

melodic and harmonic alignment is the same, resulting in *modified repeated phrases*. The second cluster of xx′xy′ subphrases creates a true period, *aa′*. The higher level period is created by the antecedent *A* and consequent *A′*, and contains the appropriate weak-to-strong cadential relationship.

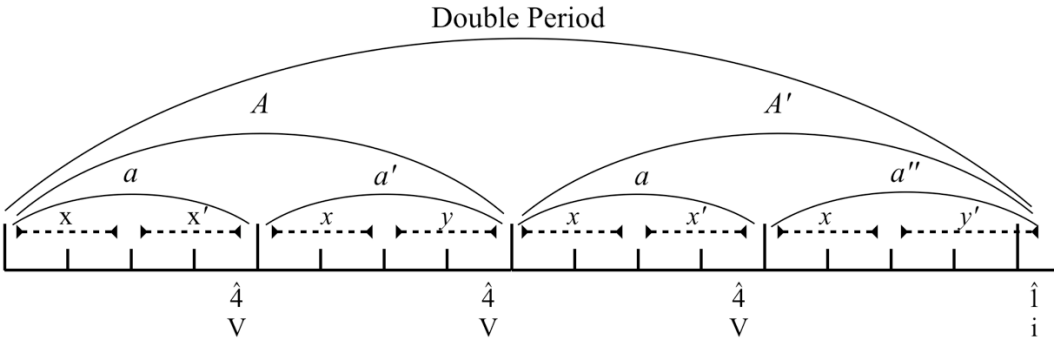


Figure 2.9: Phrase diagram of the chorus of "White Shadows," performed by Coldplay. (*X&Y*, 2005, Track 10, 2:04 – 2:34)

Top-Down Approach

The previous discussion identified formal divisions and levels beginning with subphrases, the smallest level of segmentation, and working to complete sections. It is also possible to begin with the formal unit and work down to the subphrase level. In general, identifying formal units is straightforward, and most scholarship on popular-music form addresses identification of the larger units. Even then, my methodology can inform segmentation of dependent units such as prechoruses and postchoruses based on melodic patterning. The common divisions of large formal units are provided in Figure 2.10

Table 2.1: Common divisions of large formal units.

1	2	3	4	Ambiguous 1, 2, or 4
a	*aa*	*aab*	*aaba*	xxxy
	aa′	*abb*	*aabc*	*aaaa′*
	AA′			
	*ab**			

Division into 1, 2, 3, and 4 Phrases. A complete formal unit must be at least one phrase, meaning the smallest division of a formal unit is a single phrase. The standalone phrase as a complete formal unit is most commonly found in four-measure prechoruses. Verses, choruses, and bridges tend to divide into two or more phrases or phrase groupings. The tripartite division is most commonly found in blues or blues-based songs consisting of three distinct phrases, although it can also be found in non-blues songs. Division into four phrases is characteristic of what Walter Everett calls the SRDC pattern.[52] Everett developed the label, which stands for statement-restatement-departure-conclusion, to describe 32-bar song form and the rock songs related to it. He specifically mentions the two paradigmatic four-phrase patterns provided in Figure 2.10, *aaba* and *aabc*, but also states the SRDC pattern can be found on multiple formal levels. In my methodology, *aaba* and *aabc* represent two different formal processes. The *aaba* pattern (same-same-different-same) represents departure and return, and tends to only happen at the phrase level and above. In contrast, the *aabc* pattern (same-same-different-more different) represents continued departure towards the point of furthest remove. This pattern occurs at the subphrase, phrase, and formal unit levels. A detailed discussion of the interaction of the SRDC paradigm, phrase structure, and formal levels can be found at the end of Ch. 3.

The same-same-different-same pattern is abnormal at the subphrase level (xxyx) because of the immediacy of the repetition. A return of material (subphrase x) immediately after contrasting material (subphrase y) signals a return and the start of a new phrase, not the completion of an old one. Return of previously heard material after intervening material is expected with phrases and formal units, not with subphrases.

As evidenced by the double period from the chorus of "White Shadows" (Figure 2.8) a formal unit can be divided into four phrases that are not *aaba* or *aabc* patterns, however, the larger grouping of phrases is still binary. For example, in "White Shadows" the higher binary grouping is *AA′*. A repeated period would form the pattern *aa′aa′*, which can be grouped as a higher level *AA*, but it is better to understand it as a repetition of a pattern. The division of a unit into four phrases reflects a pattern that cannot be grouped into a binary division without omitting distinguishing characteristics from the succession of phrases. The one possible exception is *aaaa*, where it is unclear whether it is better to recognize the pattern as a repetition of repeated phrases

[52] Everett, *The Foundations of Rock*, 140.

(*aa*), or a fourfold repetition of a single phrase (*a*). In any interpretation, the phrase level is clearly distinguishable by the large-scale repetition of the phrase, *a*.

The Ambiguous Category. The "ambiguous" category of top-down patterning allows for multiple interpretations of phrase segmentation. This category contains the pattern same-same-same-different, which I refer to as a threefold repetition. In Figure 2.10, the repeated subphrases are underlined to highlight the repetition patterns. In the periodic structure, the repeated subphrase is in the third position, marking a return after the departure of subphrase y. In the sentence, there is immediate repetition of subphrase x without intervening material. Threefold repetitions have the repetition pattern of both sentences and periods, blurring whether an excerpt is more appropriately sentential (one phrase), periodic (two phrases), or four phrases.

Period:	x	y	x	y'
Sentence:	x	x	y	(variable)
Threefold:	x	x	x	y

Figure 2.10: Subphrase repetition patterns of threefold repetitions.

In musical examples containing a threefold repetition, it can be difficult to ascertain the appropriate formal level. Attention must be given to lyrics, harmonic progressions, timbre, and other aspects of production to support a particular segmentation.

The chorus of Mumford and Sons' "After the Storm" (Figure 2.11) demonstrates the problem identifying the formal level in excerpts with a threefold repetition. In the example, four different levels are shown (the numbers shown are for clarity of discussion and do not refer to the numbers of units proposed with each segmentation). The smallest level, level 4, divides the excerpt into 8 subphrases. The final subphrase, y′, is rhythmically altered to complete the chorus on scale-degree 1, rather than continuing the pattern presented in the previous three iterations. At this level, x and y group together as a single phrase, resulting in four complete phrases (level 2), *aaaa′*. This grouping, same-same-same-different, can be interpreted as weakly periodic or sentential because the repetition of *a* in the second and third positions in the pattern. In the periodic segmentation, the first two *a* phrases group as antecedent *A*, followed by the grouping

aa′, forming the consequent *A′*. The weakness of this interpretation is that there is no specific melodic or harmonic event that marks the end of *A* (the second *a* phrase) as concluding because there is no difference between it and the preceding and following *a* phrases.

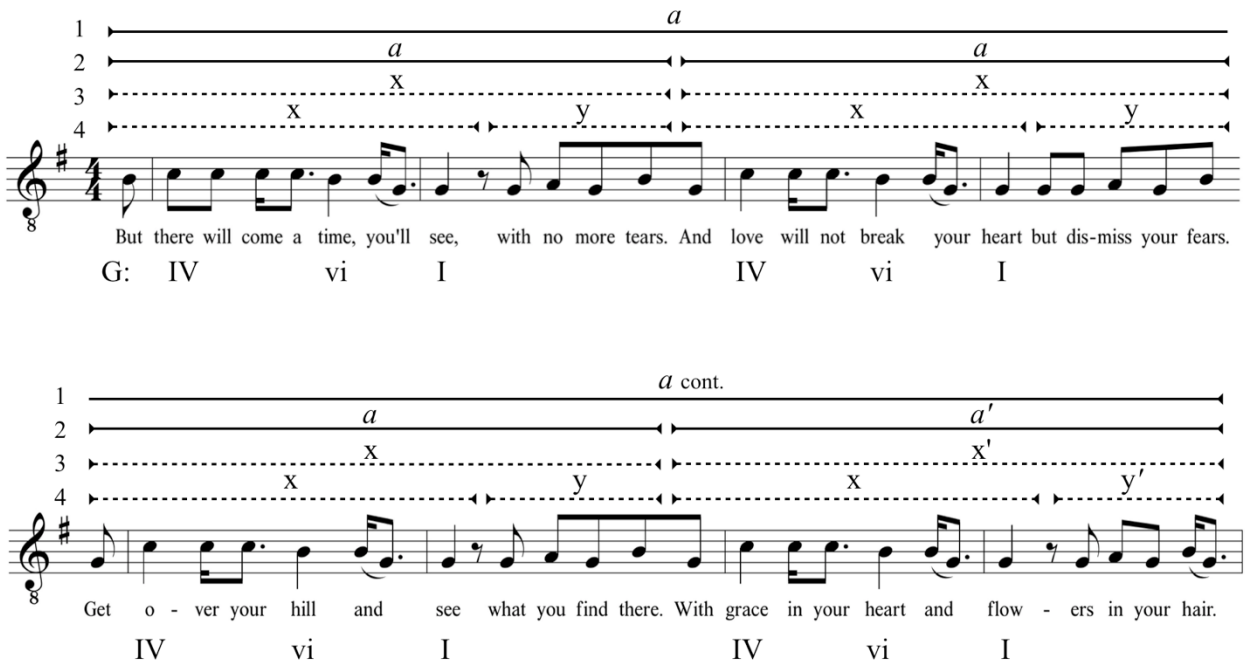


Figure 2.11: Chorus of "After the Storm," performed by Mumford and Sons. (*Sigh No More*, 2010, Track 12, 1:18 - 1:43)

The sentential grouping divides the excerpt into four segments, but does not clarify the formal level; the chorus can be interpreted as a single phrase or four phrases. Level 3 shows each two measure unit as a compound subphrase, resulting in the pattern xxxx′. The final subphrase marks the end of the formal process, creating one complete phrase, *a* (level 1). Alternatively, the compound subphrase on level 3 could be interpreted as a complete phrase, *a*, resulting in a pattern of four phrases, *aaaa′*. Despite having the same pattern as the periodic interpretation, the sentential grouping does not divide the pattern in half (*AA′*), but rather views the chorus as a single motion towards the final difference presented in the last phrase.

In the absence of melodic and harmonic elements that clarify the formal level, secondary parameters can be used to support an interpretation. Lyrics can be the most useful secondary parameter, but even they can produce various segmentations based on the specific lyrical criteria invoked. In "After the Storm," a periodic interpretation can be justified by identifying the rhyme

scheme present in each notated line. The antecedent phrase would then be four measures long, and supported by the subphrase rhymes of "tears" and "fears." The consequent would also be four measures, and contain a rhyme between "there" and "hair."

Alternatively, a four-phrase segmentation is supported by taking each grammatical sentence as a complete phrase. As four phrases, the rhyme exists between phrases rather than inside each phrase. The punctuation provided in Figure 2.11 comes from the printed lyrics in the Piano/Vocal/Guitar songbook for the album.[53] The problem with phrase segmentation based on punctuation is that punctuation is not explicitly heard, therefore it cannot be a reliable auditory indicator of phrase division.

The final possible segmentation is that the chorus is one complete phrase. Rather than segmenting sentences based on punctuation or rhyme, the lyrics can be interpreted as expressing one sustained idea through the eight measures of music. The first two measures express the certainty of a future ("there will come a time") which is described in the third and fourth ("love will not break your heart"). The fifth and sixth implore the listener to strive for that future time ("get over your hill"), with "hill" either colloquially expressing age or referencing a specific impediment in the listener's life that must be overcome. The goal of the striving is to achieve the "grace" and beauty ("flowers") promised in the seventh and eighth measures.

My approach based on melodic repetition allows insightful analytical interpretation of musical excerpts such as "After the Storm," despite the ambiguity in formal level. In fact, I argue that this ambiguity is a significant component of the chorus, and is highlighted by the melodic activity. The vocal break does not coincide with the melodic repetition, blurring the boundary between repeated two-measure units. The continuity unites the lyrical and melodic ideas into one larger idea, even with the repetition at two- or four-measure units. The smaller segments remain salient through rhyme, but the complete lyrical idea is emphasized by the obscuring of the formal divisions.

Another example of threefold repetition is the terminal climax of "Birds," shown in Figure 2.13.[54] For this example, I prefer a periodic segmentation with the antecedent as the first

[53] Mumford and Sons, *Sigh No More: Piano/Vocal/Guitar* (Hal Leonard, 2011), 83-88.

[54] The backbeat is not the metric reference for Figure 2.12. I hear the drums as articulating a double-time feel, meaning there are twice as many backbeats per notated measure (4) than normally expected (2). Although not required, the harmonic rhythm and vocal patterning align with the slower metric pulse, supporting the slower tempo as the "real" pulse.

two lines and the consequent as the second two lines (*AA'*). The first two lines are explicitly united lyrically with the repetition of "won't you" from the end of the first into the beginning of the second. The third and fourth lines then unite as the consequent, with an abbreviated ending marking the difference to conclude the formal process. The periodic phrase labels are capitalized because I view each individual line as a phrase, resulting in a lower level *aaaa'*.

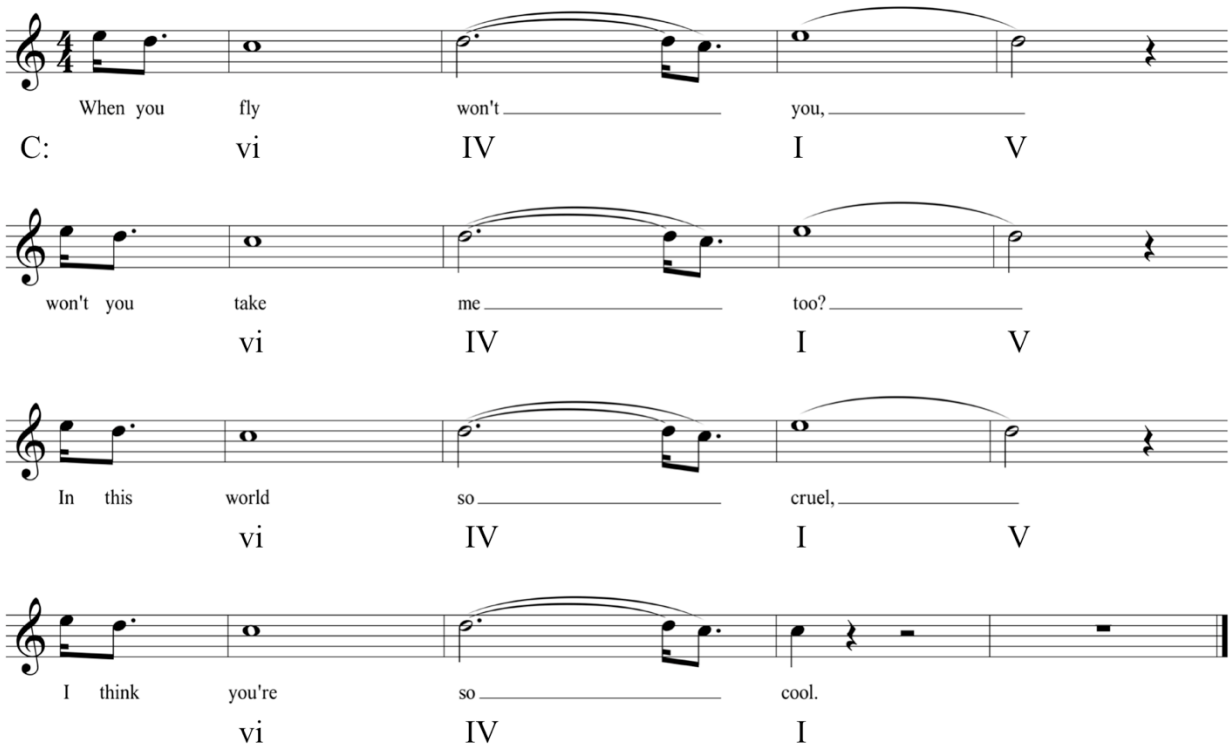


Figure 2.12: Terminal Climax of "Birds," performed by Coldplay. (*A Head Full of Dreams*, Track 2, 3:16 – 3:49)

I interpret the lower level *aaaa'* primarily due to the absolute length in seconds of each line. This point relates to de Clercq's argument for absolute time as a criterion for determining measure length.[55] As I stated before, I do not rely on his methodology for determining measure length (although my "half-time" interpretation for this example is supported by his methodology), rather, I think there is an element of absolute time associated with phrase lengths. The length is associated with the absolute-time duration of normative eight-measure phrases in

[55] De Clercq, "Measuring a Measure."

common-practice music or four-measure phrases in popular music, as there needs to be a certain amount of time for the melodic and harmonic processes to complete. Phrase lengths in popular music can be significantly shorter, but when a musical passage begins to reach a certain time duration, it starts to feel like it could or should be a complete phrase. As notated, the measures in the terminal climax of "Birds" are very close to de Clercq's ideal two-second measure length, meaning each line is close to the idealized duration of a four-measure phrase in popular music. The duration of each line, combined with the presence of melodic activity in each measure, and the four-chord loop also aligning with the unit, allows me to hear each line as a complete phrase without undermining the larger periodicity of the lyrics, or the larger unity of module as a single melodic process.

There are some threefold repetitions where interpreting each repeated unit as a complete phrase is not possible, such as the chorus of "Paradise," shown in Figure 2.13.

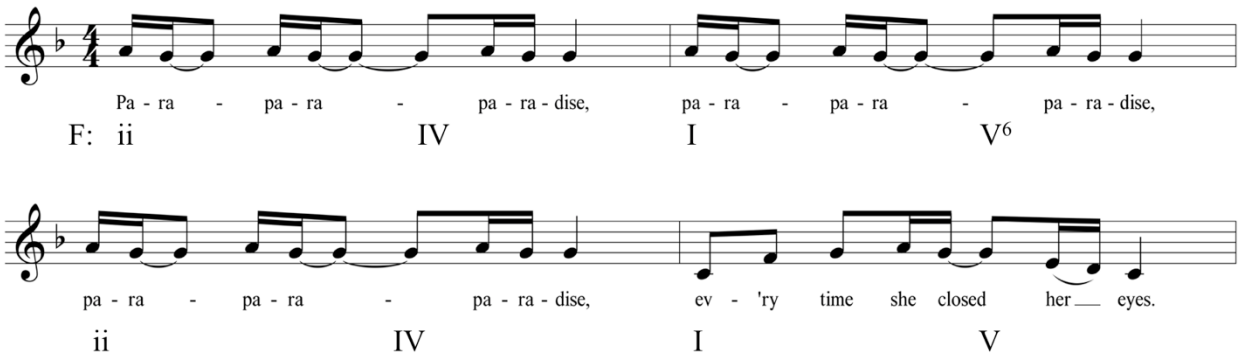


Figure 2.13: Chorus of "Paradise," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 3, 1:15 – 1:29).

There are multiple musical parameters that undermine the interpretation of four complete phrases. The excerpt is approximately fourteen seconds long, and each repeated segment (one measure) is roughly 3.5 second long. In contrast to the terminal climax of "Birds," this duration does not feel long enough to articulate a complete phrase. The sense of incompleteness of the single unit is reinforced by the threefold repetition of the same word with the same melody, while the fourth measure provides the necessary lyrical and melodic material to articulate a complete phrase. If each one-measure unit is a phrase, the final "phrase" is completely different than the previous three, and would not associate formally with them. My preferred segmentation

of this excerpt is a single phrase, although a weak periodic reading is also possible. The periodic interpretation is supported by the return of the harmonic loop in the third measure, and the motion to a root position dominant in the fourth measure as compared to the inverted dominant in the second.

Patterns of Large Formal Units

Up to this point, I have been considering patterns of same/different at levels below the formal unit. There are also patterns involving repetition of formal units that are conceptually similar to some of the patterns discussed with subphrases, phrases, and groups of phrases. The similarity relates primarily to the concept of departure and return found in the *aaba* paradigm, and the motion to a concluding difference found in the *aabc* paradigm.

John Covach has identified one large-scale replication of the same-same-different-same pattern as a compound AABA form.[56] The typical deployment of the pattern involves a verse-chorus pair acting as the large A, and a contrasting bridge as B. The complete form with labels is shown in Figure 2.14.

A	Verse
	Chorus
A	Verse
	Chorus
B	Bridge
A	(Verse)
	Chorus

Figure 2.14: Compound AABA form diagram.

In this formal paradigm, the B section is consistently shorter than the A section, while in *aaba*, the *b* and *a* phrases are usually the same length. The large A consists of two complete modules while the B is only one and, therefore, usually half as long. The A section can be enlarged further with the addition of pre- and post-choruses, making the size difference even

[56] John Covach, "Form in Rock Music: A Primer." in *Engaging Music*, ed. Deborah Stein. (Oxford University Press, 2004), 74.

more dramatic. The reason the large formal paradigm remains a relevant comparison to *aaba* is the relationship of departure and return found in both levels. In the *aaba* and AABA forms, the contrasting section sets up the expectation for a return. As presented in the form chart above, the final return of A does not have to be exact or complete; only the chorus is necessary to create a sense of return.

Motion to a final difference is found in the phrase pattern *aabc*, and is encountered at the large formal level with the appearance of the terminal climax. Figure 2.15 shows two typical deployments of a terminal climax, one with a bridge and one without. The motion to final difference at the level of the formal module is more conceptual than the phrase-level *aabc* pattern because the typical layout of a song with a terminal climax does not align exactly with the layout of the *aabc* pattern. The AABAC pattern places an intervening A module between the B and C, and in a terminally climactic song with no bridge, the pattern involves only two formal units, not three.[57]

A	Verse	A	Verse
	Chorus		Chorus
A	Verse	A	Verse
	Chorus		Chorus
B	Bridge	B	Terminal Climax
A	(Verse)		
	Chorus		
C	Terminal Climax		

Figure 2.15: Formal paradigms for songs with terminal climaxes.

Conclusion

This chapter presents my methodology of phrase segmentation in popular music, which derives from common-practice analytical techniques. As I have argued, common-practice harmonic paradigms are not the primary factor in popular music, and therefore should not be relied upon to produce logical or consistent phrase segmentations. Instead, patterns of

[57] Alternatively, it can be considered three if the verse and chorus are treated as separate formal units. The pattern then becomes ABABC.

same/different can be used to identify beginnings and endings of melodic processes, and these patterns associate with traditional phrase paradigms such as sentences and periods. The patterns of same/different occur on multiple formal levels, so careful analytical consideration must be paid to appropriately determine the formal level of an excerpt. Chapter 3 applies my methodology of phrase segmentation to a variety of popular music to demonstrate its wide applicability.

CHAPTER 3

APPLYING THE SAME/DIFFERENT METHODOLOGY: EXAMPLES OF PHRASES AND PHRASE GROUPINGS

Introduction

Applying my methodology of phrase segmentation based on patterns of same/different to popular music yields categories of paradigmatic subphrase and phrase constructions. Many of these paradigms relate to common-practice norms, particularly sentences and periods, but there are additional categories that do not. This chapter presents examples of the categories of phrases and phrase groupings beginning with single phrases and working up to complete formal units. As explained in the previous chapter, I do not rely on harmonic activity to define phrase boundaries, and instead rely almost entirely on melodic activity. Harmony is explicitly tied to phrase paradigms in common-practice music, but I do not carry the harmonic elements of those paradigms into my analysis of popular music. The common exception is periodic structures where the concluding harmonies of the component phrases can inform the classification of the grouping. Even then, the concluding melodic scale degree is often enough to provide a periodic label without reference to the supporting harmony.

Phrase Structure Examples

Single Phrases

Phrases Consisting of Two Subphrases. The simplest phrases are made of a pair of contrasting subphrases: xx′ or xy. The xx′ pattern can occur as a completion of an incomplete subphrase, or a modification of an initial subphrase. Figure 3.1 shows an example of completion of an incomplete subphrase in the chorus of "The Hardest Part." This example can be interpreted as two separate phrases because the start of the second line sounds like a return of the musical idea presented in the first line. The sense of return is magnified by repetition with the same harmony in the same hypermetric location. However, there has been no melodic departure, meaning the initial melodic idea cannot serve as a complete independent phrase. The second line completes the initial melodic thought. This paradigm represents a restart, not a departure and return. The two subphrases together function together as a complete phrase.

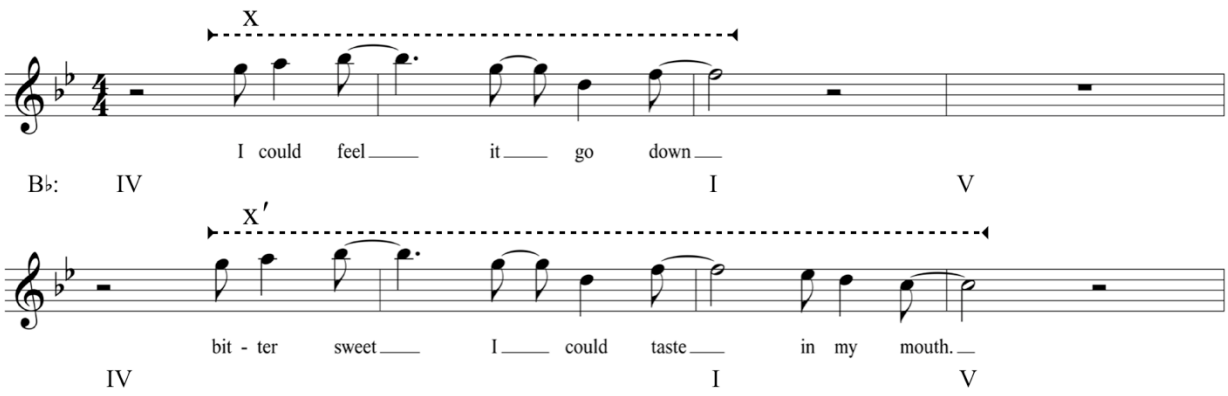


Figure 3.1: First phrase of the chorus of the "Hardest Part," performed by Coldplay. (*X&Y*, 2005, Track 10, 0:47 – 1:03).

Figure 3.2 shows an example of the other xx′ paradigm, modification of an initial subphrase, in the verse of "Paradise."

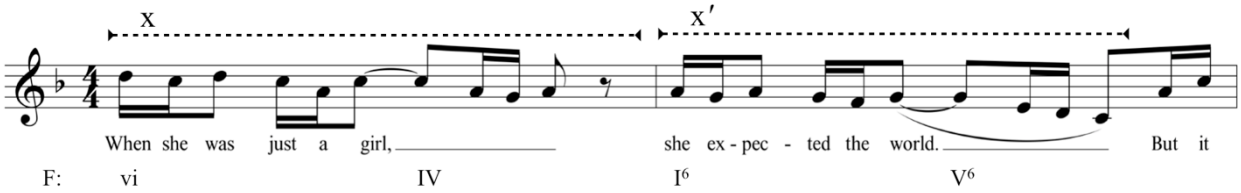


Figure 3.2: First phrase of the verse of "Paradise," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 3, 1:01 – 1:08).

In this example, the second subphrase (x′) has a similar melodic and rhythmic contour to the first subphrase (x), but the melodic content is different. The shift in melodic pitches allows the second subphrase to serve as departure from the first. The return of subphrase x in the next line (not shown) confirms the phrase structure.

Phrases composed of two contrasting subphrases (xy) are also common. Figure 3.3, the first phrase of the chorus of "The Scientist," shows a normative four-measure phrase with contrasting subphrases. The second subphrase (y) is rhythmically similar to the first (x), but significantly different in contour and pitch content, marking it as contrasting.

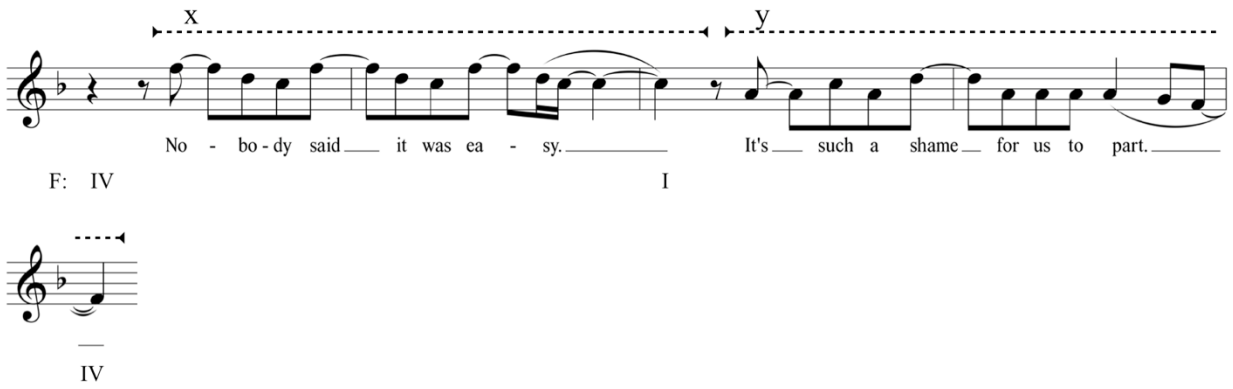


Figure 3.3: First phrase of the chorus of "The Scientist," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 4, 1:18 – 1:31).

A longer example, from the verse of "Cemeteries of London," is presented in Figure 3.4. When there are only two distinct subphrases, it is possible for the lengths to be slightly unequal. Most subphrases are of equal length.

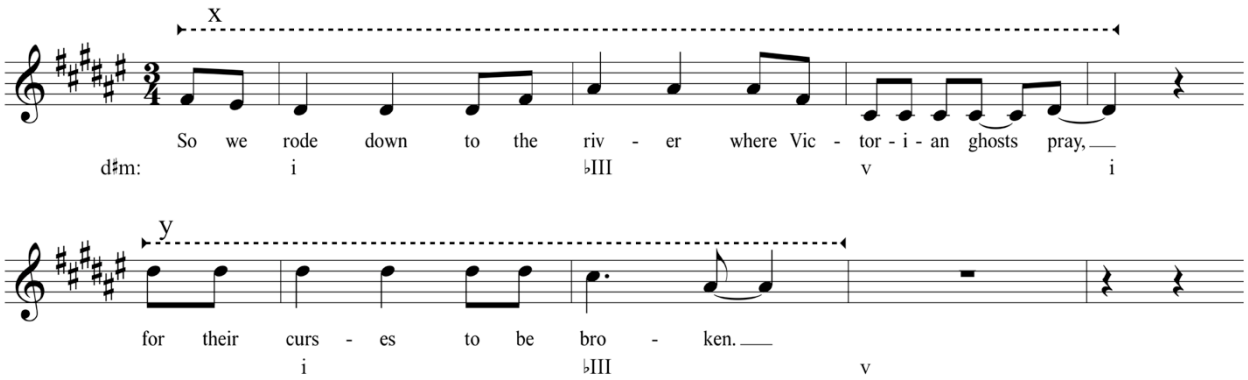


Figure 3.4: First phrase of the verse of "Cemeteries of London," performed by Coldplay. (*Viva la Vida*, 2008, Track 2, 0:46 – 0:58).

Phrases Consisting of Three Subphrases. Most divisions of a phrase into three component subphrases invoke the sentential paradigm short-short-long, or the reverse, long-short-short. Caplin's labels the pair of short subphrases the *presentation phrase*, and the longer subphrase the *continuation phrase*. I do not retain these labels because I treat them as subphrases, not phrases, and the ordering is sometimes inverted. If the long subphrase begins the melodic process, it does not make sense to label it as a continuation. Typically, the long subphrase occupies the same metrical space as the combined short subphrases. For example, in a

four-measure phrase, the short subphrases would occupy one measure each, and the long subphrase two measures. I am careful to distinguish the metrical space occupied by these subphrases from the actual melodic activity, because the melodic activity does not always fill the entire metric duration.

Two of the four types of sentence paradigms defined by Matthew BaileyShea–dissolving 3rd statement and sentential continuation–appear frequently in popular music.[1] A representative example of the dissolving 3rd type, from the B section of "Charlie Brown," is shown in Figure 3.5. The third subphrase begins like the first two, but diverges after the initial melodic idea. Each of the x subphrases occupies roughly four beats, while the x′ subphrase occupies eight. In this case, the melodic activity aligns closely with the metric duration.

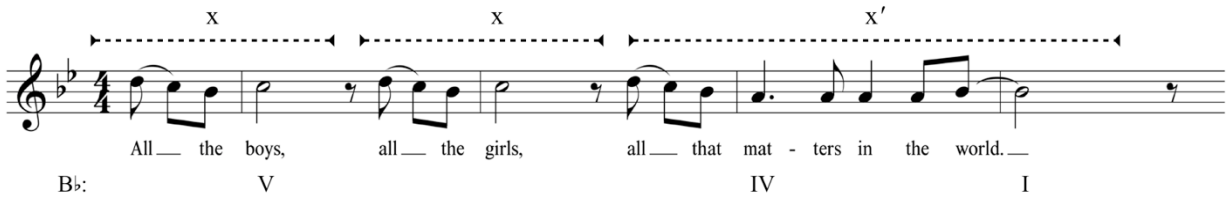


Figure 3.5: First phrase of the B section of "Charlie Brown," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 4, 2:29 – 2:36).

In a sentential continuation, the long subphrase is structured in a miniature short-short-long paradigm, and may develop old material or present new melodic material. In the bridge of "Us Against the World," shown in Figure 3.6, new melodic material is presented with "just erodes us in the rain." This new idea is repeated and fragmented, creating a lower-level short-short-long structure in the long subphrase. The long subphrase of the chorus of "Teenagers" (Figure 3.7), performed by My Chemical Romance, develops the eighth-note rhythmic gesture from the repeated x subphrases.

[1] BaileyShea, "Sentence Types," 27. A more detailed summary of BaileyShea's sentence types is given in Ch. 2 of this dissertation. I retain BaileyShea's sentential *continuation* label because it is his term for defining the pattern, and in cases where it appears, the long subphrase is in the third position like common-practice paradigms.

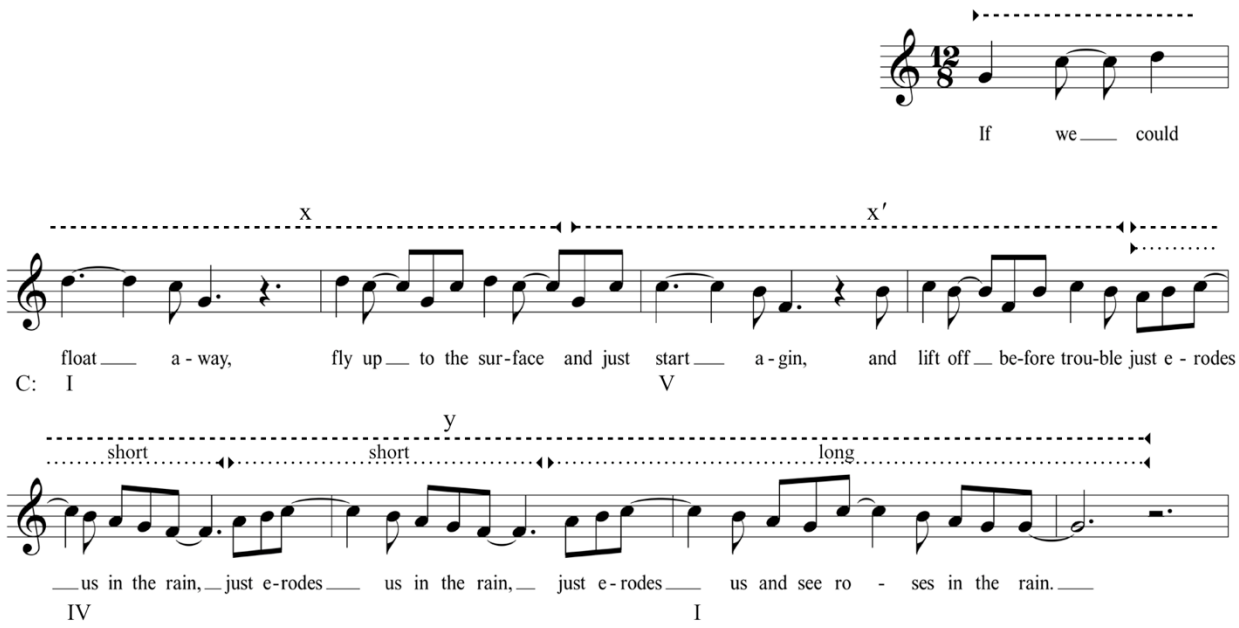


Figure 3.6: Bridge of "Us Against the World," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 5, 2:10 – 2:37).

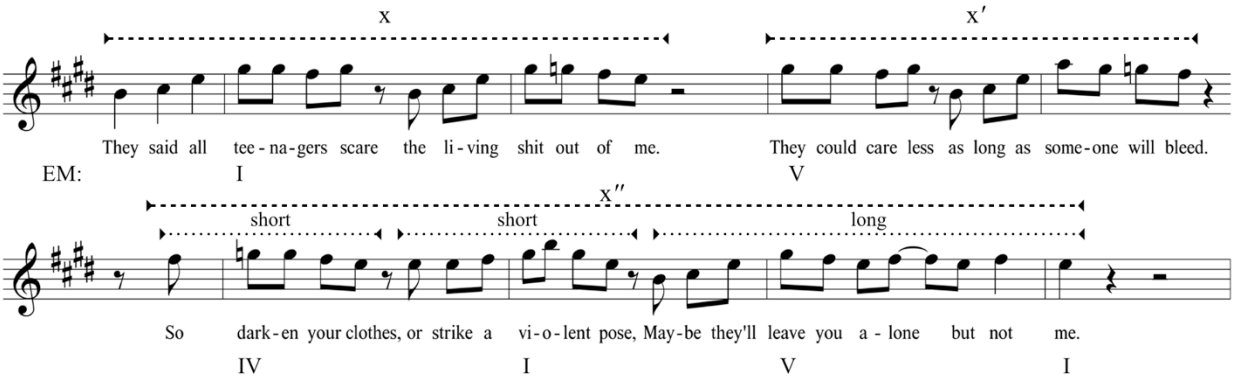


Figure 3.7: Chorus of "Teenagers," performed by My Chemical Romance. (*The Black Parade*, 2006, Track 11, 0:34 – 0:51).

In the chorus of Girls Generation's "I Got a Boy," (Figure 3.8) the start of the x′ subphrase is exactly like the previous x subphrases, allowing the possibility of a dissolving 3rd statement label. However, the continuation fragments subphrase x, making sentential continuation the more appropriate label.[2]

[2] Girls Generation is a K-Pop group. The lyrics presented in the example are Romanized versions of the Korean. As is typical of many K-Pop songs, English lyrics are deployed throughout to appeal to a larger cultural demographic.

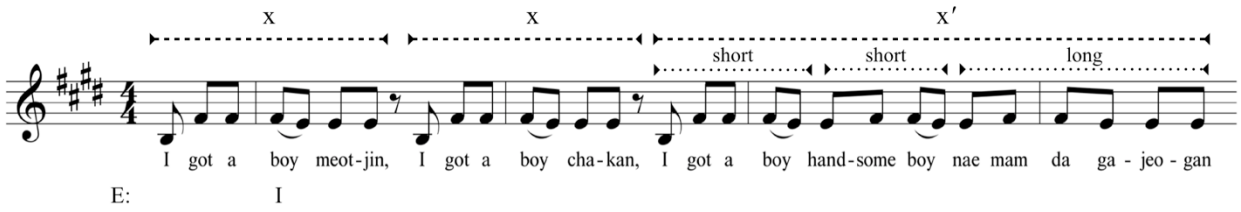


Figure 3.8: First phrase of "I Got a Boy," performed by Girls Generation. (*I Got a Boy*, 2013, Track 1, 1:40 – 1:47).

Sentences can also be purely short-short-long without a specific melodic or rhythmic association between the short and long subphrases, which means they do not align directly with BaileyShea's models. Figure 3.9 shows a generic long continuation in the bridge of "Fix You." The dotted-eighth-sixteenth rhythm is present in both the short and long subphrases, but there is no specific association between the two halves that warrants a dissolving 3rd statement or sentential continuation label.

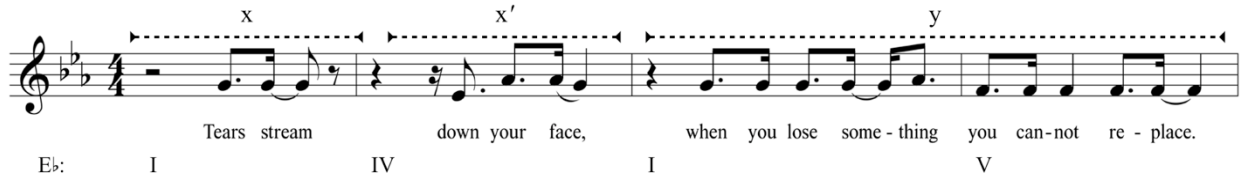


Figure 3.9: First phrase of the bridge of "Fix You," performed by Coldplay. (*X&Y*, 2005, Track 4, 3:29 – 3:43)

The short-short-long pattern can also be reversed to a long-short-short pattern, producing a reverse sentence. Figure 3.10, the chorus of "Another's Arms," shows a typical deployment of this pattern.

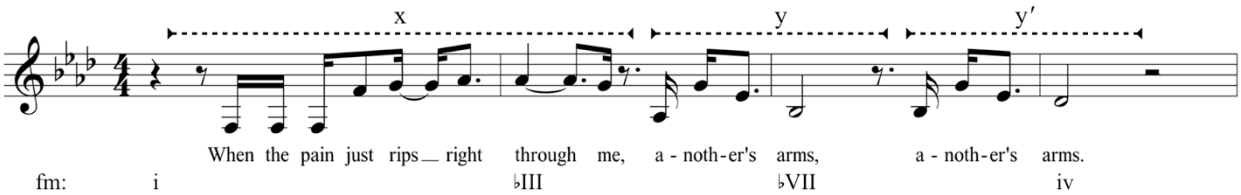


Figure 3.10: First phrase of the chorus of "Another's Arms." (*Ghost Stories*, 2014, Track 6, 1:13 – 1:25)

The repetition of the short subphrase does not have to be exact, as demonstrated by the modified repetition of the y subphrase in Figure 3.10. An exact repetition is seen in Figure 3.11, the chorus of The Weeknd's "Can't Feel My Face."

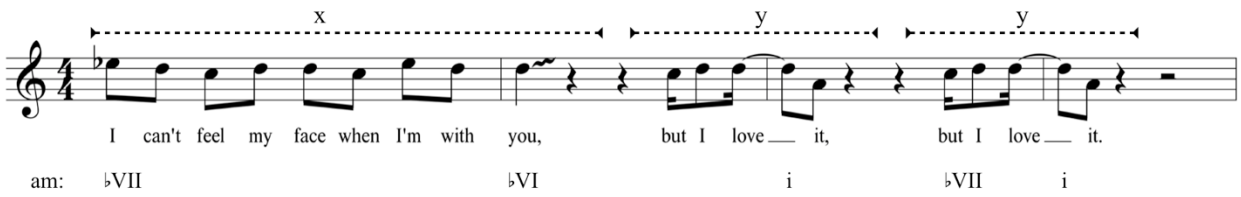
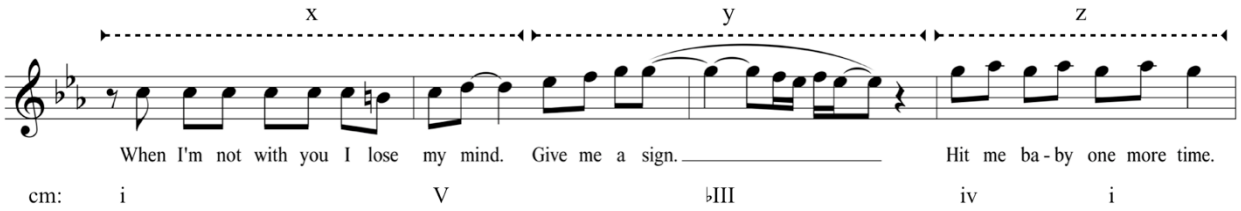


Figure 3.11: First phrase of the chorus of "Can't Feel My Face," performed by The Weeknd. (*Beauty Behind the Madness*, 2015, Track 7, 0:44 – 0:53)

Most phrases consisting of three subphrases are sentential, producing two equal halves if the short subphrases are combine into one long subphrase. Non-sentential phrases consisting of three subphrases are also possible, but significantly less common than sentential groupings. When three-subphrase phrases do occur, they tend to appear as the final phrase of a periodic, *aaba*, or *aabc* structure, where the third subphrase creates an altered and/or more conclusive ending. Figure 3.12 is the final phrase of the chorus of Britney Spears's "…Baby One More Time," and the final subphrase, z, contains the title of the song. The appearance of the new subphrase highlights the title lyrics and serves to conclusively end the chorus.



Example 3:12: Final phrase of the chorus of "…Baby One More Time," performed by Britney Spears. (*Baby One More Time*, 1999, Track 1, 0:52 – 1:03)

Phrases Consisting of Four Subphrases. Four-subphrase phrases can be sentential or non-sentential. In sentential subphrases, the second subphrase is a repetition of the first, and instead of a single, long subphrase to complete the pattern, the long subphrase is divided into two distinct subphrases. A four-subphrase sentence is shown in Figure 3.13, the terminal climax of

"A Rush of Blood to the Head." The third and fourth subphrases are divisible as separate subphrases because of the clear melodic and rhythmic repetition between them. The two are not exactly the same, however, allowing the second to be identified as different than the first, and complying with the sentential paradigm of motion towards continual difference.

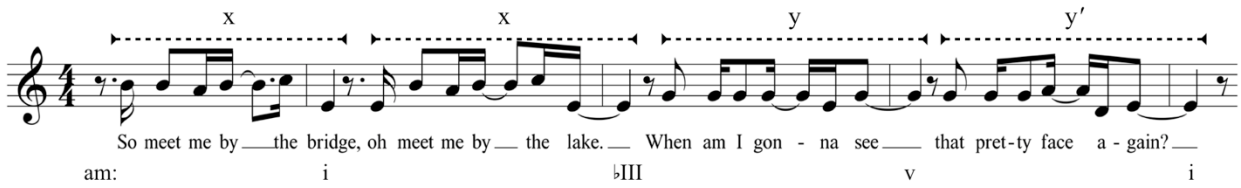


Figure 3.13: First phrase of the terminal climax of "A Rush of Blood to the Head," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 10, 5:00 – 5:14)

Another example is the chorus of Rihanna's "Umbrella," shown in Figure 3.14. The second x subphrase is identified as the same as the first because the melodic contour is the same even though there are more notes for the additional words. The third and fourth subphrases have a similar beginning to the first, but the end of each becomes progressively more divergent from the melodic pattern, allowing them to be identified as different.

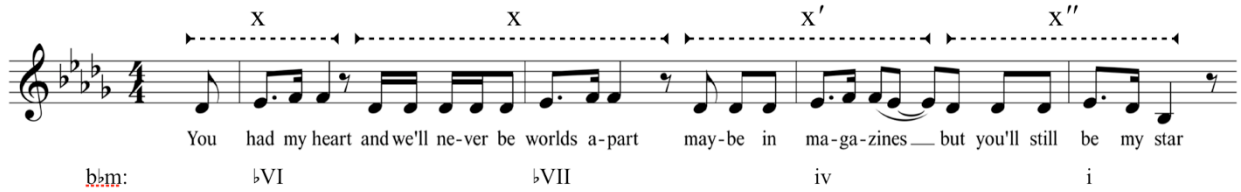


Figure 3.14: First phrase of the chorus of "Umbrella," performed by Rihanna. (*Good Girl Gone Bad,* 2007, Track 1, 0:32 – 0:42)

Non-sentential phrases comprised of four subphrases cannot have an exact repetition of the first subphrase. A common paradigm is to repeat the second subphrase, creating an xyyz subphrase pattern. A clear example of this arrangement is the verse of "Lost!," shown in Figure 3.15, realized in the example as xyyy′.

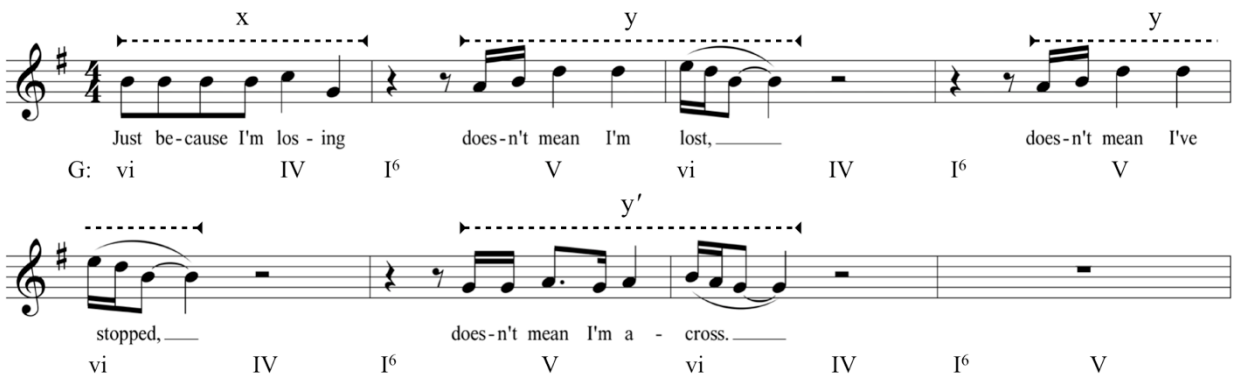


Figure 3.15: First phrase of the verse of "Lost!," performed by Coldplay. (*X&Y*, 2005, Track 4, 0:11 – 0:33)

Another example, the chorus of "Up&Up," is shown in Figure 3.16. Unlike "Lost!," the second subphrase is not repeated exactly; the harmonic support has changed, but the melodic material remains unchanged. In this example, the patterning represents a progressively greater movement away from the initial melodic idea, although the change from the second to third subphrase is minimized by the retention of the same melodic material despite the change in harmony.

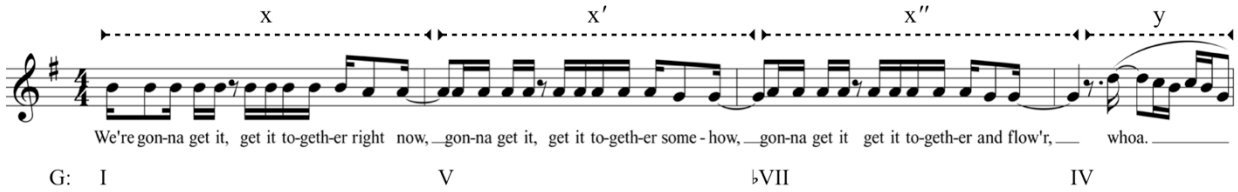


Figure 3.16: First phrase of the chorus of "Up&Up," performed by Coldplay. (*A Head Full of Dreams*, 2015, Track 11, 1:10 – 1:22)

Phrases Consisting of a Single Subphrase. In my methodology, a phrase consists of at least two different subphrases. However, there are examples where segmentation based on lyrical breaks or pauses is impossible due to unbroken musical activity. One example, the terminal climax of "Birds," was discussed at the end of Ch. 2 as an example of ambiguity in formal levels created by threefold repetition of a musical unit. A single phrase is reproduced in Figure 3.17.

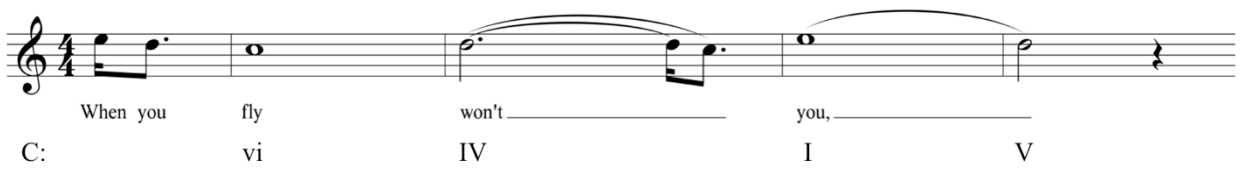


Figure 3.17: First phrase of the terminal climax of "Birds," performed by Coldplay. (*A Head Full of Dreams*, 2015, Track 2, 3:15 – 3:25)

In Chris Martin's performance, there is no breath or lyrical break preceding the rest at the end of the line. I propose this unit as a complete phrase because the absolute time is sufficiently long to serve as a phrase, there is melodic and lyrical activity for the duration of the hypermeasure, and the complete chord loop coincides with the melodic unit. The example is complicated because there is very little to support a segmentation into component subphrases, particularly subphrases of relatively equal length. The strongest argument is for the dotted-eighth not to serve as a marker of phrase division, but the second iteration is not stressed in any way; it is the melismatic extension of "won't." The note C on the dotted-eighth is properly consonant with the subdominant harmony (IV), but is not the resolution of an upper-neighbor dissonance created by the D. Instead, the C is ornamental, serving to propel the melody up to E, completing the linear motion from the C starting on "fly" in the first complete measure.

Figure 3.17 illustrates the importance of melodic patterning inside the hypermetric grid. The downbeat of the third measure, the third hyperbeat, is an important point in the metrical patterning. Typical subphrases complete prior to the third measure, but if they extend over this point, it is often because they started after the downbeat of the first measure, or a second subphrase follows and aims for the next hypermetric downbeat. In this example, neither is true. The melody is exceptionally long for a single unit, spanning past the normal subphrase divider created by the strong the third hyperbeat. It is the length of the phrase in comparison to normal subphrase length and patterning that allows me to hear this continuous melodic activity as a single phrase even though it does not meet my requirement of consisting of two distinct subphrases.

The verse of The Chainsmoker's "Setting Fires" (Figure 3.18) provides another example of a single continuous phrase. Unlike "Birds," the verse of "Setting Fires" has two distinct melodic components that allow for division even if the melodic activity is unbroken by vocal pause or breath. The final word of the phrase, "feel," is set with a lower neighbor figure that

contrasts with the repeated dotted-eighth pattern that comprises the main melodic idea of the phrase. The lower neighbor is primarily an ornamentation of the last pitch, but it marks the final word as conclusive, especially in contrast to the beginning of the phrase. I hesitate to divide the phrase into subphrases because it contradicts my preference for dividing subphrases based on vocal breaks. There is no break in the excerpt, and the neighboring gesture is less a separate melodic unit as it is an ornamentation of the concluding pitch. The ornamentation does extend the melodic activity into the third hyperbeat, strengthening my preference to hear the entire melodic unit as a complete phrase.

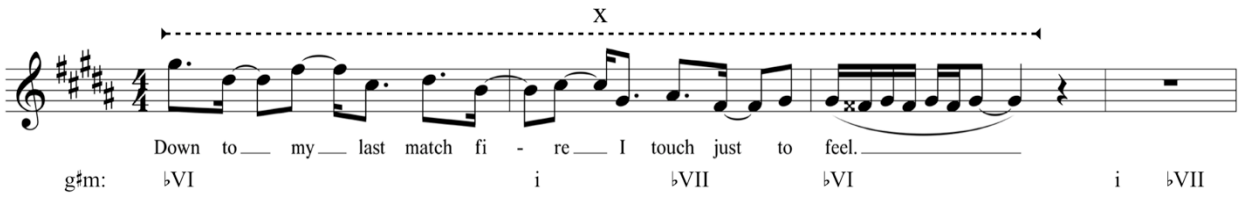


Figure 3.18: First phrase of the verse of "Setting Fires," performed by The Chainsmokers and XYLØ. (*Collage EP*, 2016, Track 1, 0:18 – 0:37)

Pairs of Phrases

Repetition of phrases is incredibly common in popular music, and this section describes and provides examples of the different types of phrase groupings that occur with pairs of phrases. With repetition comes the possibility of periodic phrase constructions, meaning comparisons of phrase endings must be made to identify stronger and weaker closure. Cadences and closure will be addressed at length in Ch. 4, but melodic conventions from common-practice music can be used to classify closure for the current examples. Melodic endings on scale-degrees 1 and 3 are generally conclusive and strong, deriving from authentic cadences, with scale-degree 1 producing a stronger close than scale-degree 3. Melodic endings on scale-degrees 7 and 2 are inconclusive, and relate to half cadences. Scale-degree 5 remains ambiguous on its own, but the supporting harmony, usually tonic or dominant, will serve to confirm whether it functions as conclusive or inconclusive.

Repeated Phrases. Exact repetition of a complete phrase is very common in popular music. Conceptually, repeated phrases are represented by the subphrase pattern *xyxy*, with *xx′xx′*

being a common realization. The first verse of "Paradise," shown in Figure 3.19, is an excellent example of the *xx′xx′* type. The first phrase of this verse was shown in Figure 3.2 as an example of a single *xx′* phrase, but it is now joined with its repetition. There are slight alterations made to the second phrase, but the changes do not fundamentally alter the melodic material in the repetition. The modifications are two extra notes and words added to the beginning of the subphrases in the second phrase: "But it" and "so she." Both phrases end identically, an important consideration in identifying the pair as repeated phrases. A phrase diagram for the verse of "Paradise" is shown in Figure 3.20.

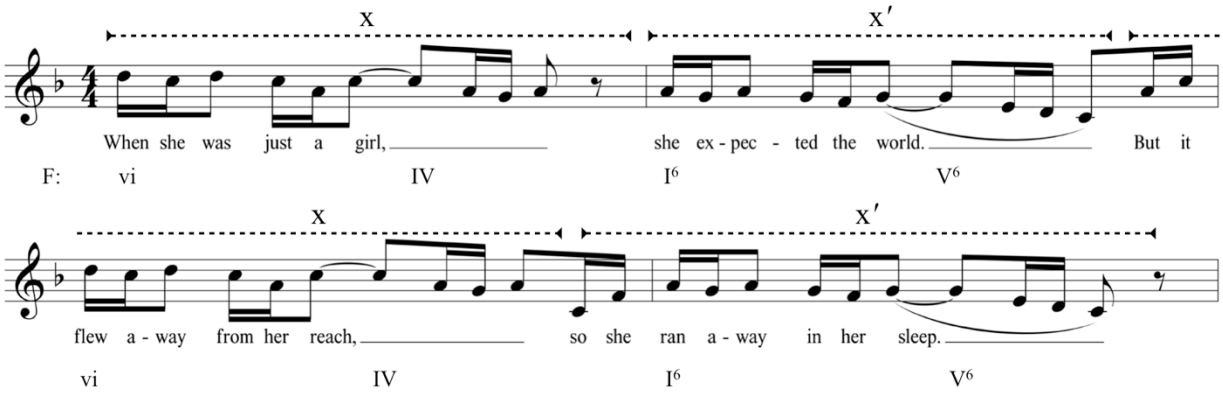


Figure 3.19: Repeated phrases in the verse of "Paradise," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 3, 1:01 – 1:15)

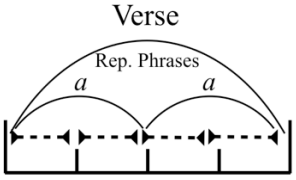


Figure 3.20: Phrase diagram for the verse of "Paradise," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 3, 1:01 – 1:15)

Another example of repeated phrases, this time with contrasting subphrases, is the chorus of Toto's "Hold the Line," shown in Figure 3.21. Untexted vocals are always an interpretive problem because it is unclear if they are part of the melodic and lyrical process, or just vocal filler added by the singer. In this case, it does not affect the resulting interpretation because the "oh, oh, oh," segment is repeated exactly in both phrases. I have included it as possible

segmentation in the analytical overlay, but the fundamental lyrical pattern consists of two contrasting subphrases, xy, which are repeated exactly to produce a repeated phrase. The phrase diagram for the chorus is provided in Figure 3.22

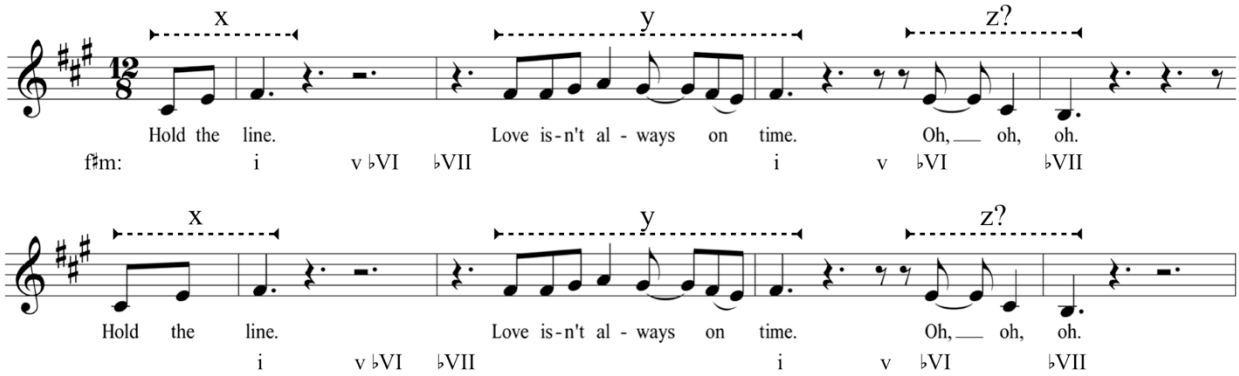


Figure 3.21: Repeated Phrases in the chorus of "Hold the Line," performed by Toto. (*Toto*, 1978, Track 9, 0:44 – 1:04)

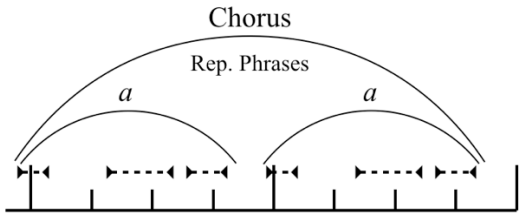


Figure 3.22: Phrase diagram for the chorus of "Hold the Line," performed by Toto. (*Toto*, 1978, Track 9, 0:44 – 1:04)

Periods. The difference between repeated phrases and periods is the relationship of closure between the two phrases. In the period, the second phrase must achieve a stronger close than the first. As stated above, common-practice approaches to melodic closure apply to these examples.

Some musical element must change between phrase statements for the second phrase to achieve a stronger close than the first. This change commonly occurs in one of three ways: 1) the melody and/or harmony changes, but the metric placement remains the same; 2) the phrase is extended to place the melodic close over a different harmony with no metric or hypermetric alteration; or 3) the melody and/or harmonies are modified, and a hypermetric disruption occurs.

Periodic structures can be produced with other modifications, but these three types are by far the most common.

The antecedent phrase of the terminal climax of "A Rush of Blood to the Head" was already considered in Figure 3.13 for its sentential construction. The consequent is also sentential, but concludes with with scale-degree 1 in the melody rather than scale-degree 5. Both conclude over the tonic harmony, but scale-degree 1 produces a more conclusive close than scale-degree 5, allowing for a periodic interpretation. The periodic construction is created by altering the melodic content of the final subphrase, subphrase z. There are no changes in meter, hypermeter, or harmony to achieve a stronger close. The phrase diagram for this excerpt is shown in Figure 3.24.

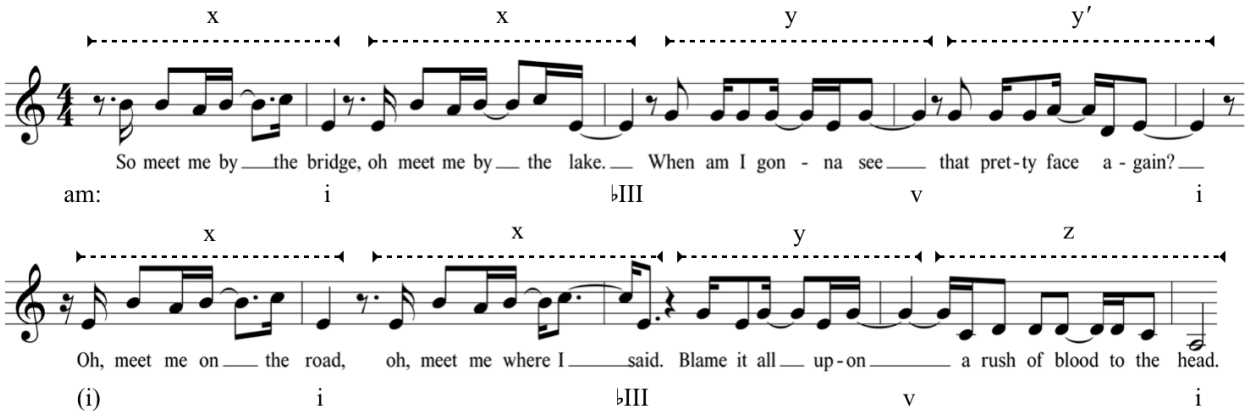
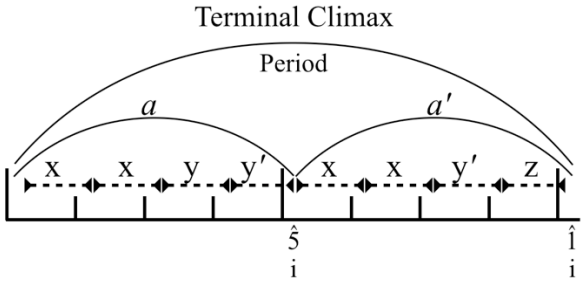


Figure 3.23: Period in the terminal climax of "A Rush of Blood to the Head," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 10, 5:00 – 5:14)



Example 3:24: Phrase diagram for the terminal climax of "A Rush of Blood to the Head," performed by Coldplay. (*A Rush of Blood to the Head*, Track 10, 5:00 – 5:14)

A similar process is found in the chorus of Redbone's "Come and Get Your Love," shown in Figure 3.25. Each subphrase begins with the same melodic and lyrical content, but the tail of each is altered to provide contrast between each iteration. What I have labeled as subphrase x is not a complete phrase because it does not consist of two contrasting subphrases, and is too short on its own to be a complete phrase. The pairing of subphrase x with the modified repetition x′ creates the complete phrase. The end of the antcedent phrase slides up to scale-degree 3 over the tonic harmony in subphrase x′, while the consequent phrase does not have a tail, ending conclusively on scale-degree 1 with subphrase, x″. The altered ending produces the necessary stronger close to interpret a periodic structure for the chorus. A phrase diagram for the chorus is shown in Figure 3.26.

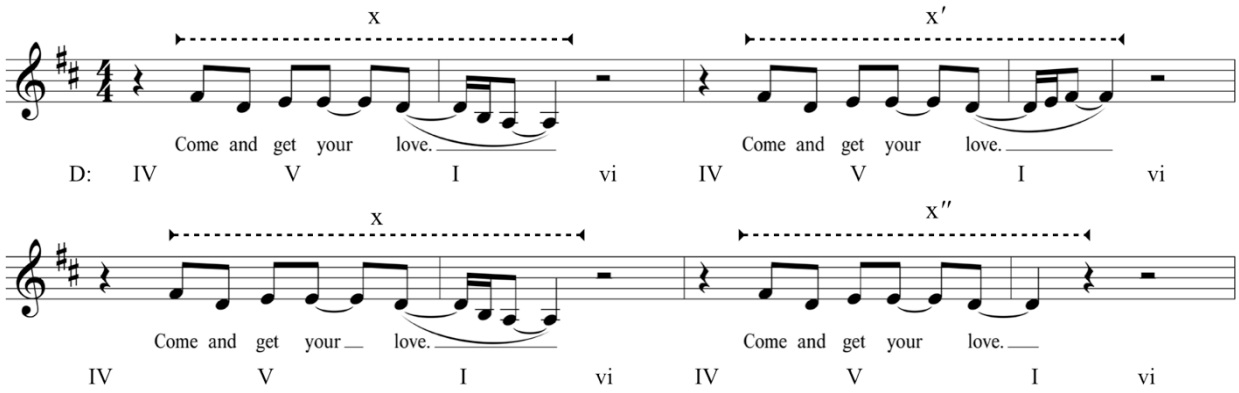


Figure 3.25: Period in the chorus of "Come and Get Your Love," performed by Redbone. (*Wovoka*, 1973, Track 5 1:20 - 1:37)

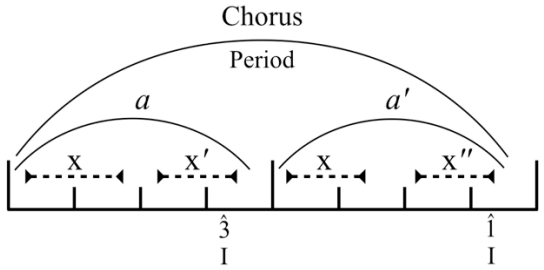


Figure 3.26: Phrase diagram for the chorus of "Come and Get Your Love," performed by Redbone. (*Wovoka*, 1973, Track 5 1:20 - 1:37)

The second type of period is possible due to the prevalence of chord loops. Given a melody and chord loop of equal length, the same type of closure will always occur over multiple

iterations unless some musical parameter is changed. Rather than alter the chord loop, the melody of the consequent phrase is extended past the equivalent metric point of closure from the antecedent. A common technique is extending a phrase that ends on hyperbeat 3 or 4 to instead end on the ensuing hyperbeat 1.[3] In chord loops initiating with a tonic harmony, the chord loop may be retained. Alternatively, an instrumental link beginning with a tonic harmony may support the melodic closure. In that case, the melodic close overlaps with the onset of the link.[4] Moving the melodic close to the hypermetric downbeat also strengthens the closure by moving it to the stronger hypermetric location.

The chorus of "Up&Up," shown in Figure 3.27, provides a representative example of extending the consequent phrase to achieve a stronger close.

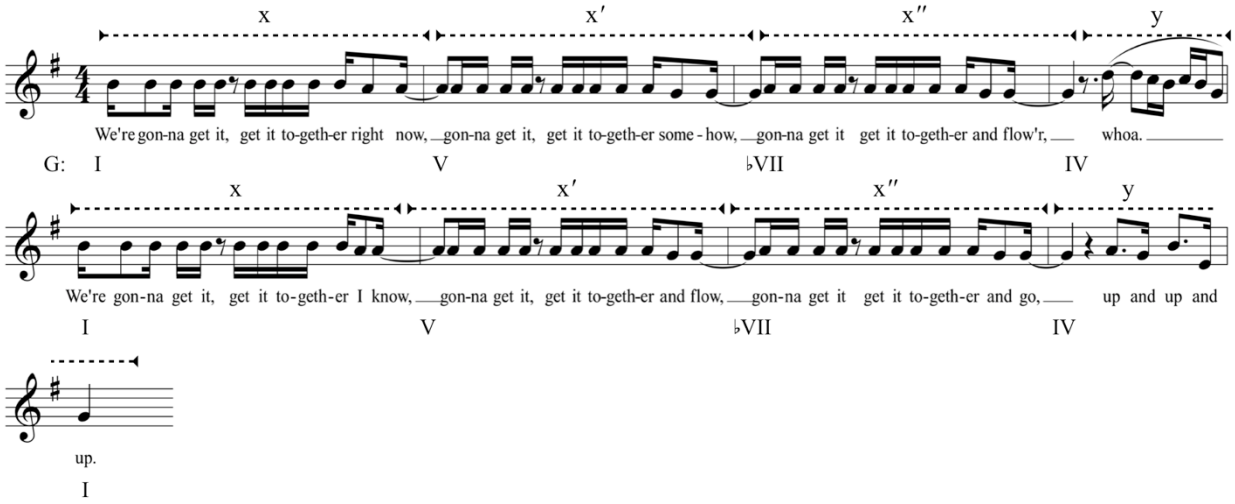


Figure 3.27: Period in the chorus of "Up&Up," performed by Coldplay. (*A Head Full of Dreams*, 2015, Track 11, 1:10 – 1:34)

The antecedent phrase ends in the fourth measure, subphrase y, with scale-degree 1 over the subdominant harmony (IV). The phrase ends in the fourth measure, and does not overlap into the next hypermetric loop because the consequent phrase begins on the downbeat of the fifth measure. In the consequent, the addition of the title lyric, "up and up and up," explicitly extends into the next measure, arriving on scale-degree 1 over the tonic harmony (I) that begins the chord

[3] This is similar to Stephenson's Extension-Overlap Model; *What to Listen for*, 9-13.
[4] Rothstein, *Phrase Rhythm*, 44.

loop. The first phrase reaches a partial close because the melodic conclusion on tonic does not align with the tonic harmony. The second phrase reaches as a stronger close because the melodic extension and overlap allows the melody to conclude with a simultaneous alignment of melodic and harmonic tonic.

Another option to extend the consequent phrase is to significantly alter the ending. The antecedent phrase of the chorus of "The Hardest Part" was used to show a complete phrase created through completion of an incomplete subphrase (see Figure 3.1). The consequent phrase is treated differently; rather than repeating and modifying the initial subphrase, new material is introduced to complete the phrase (Figure 3.28).

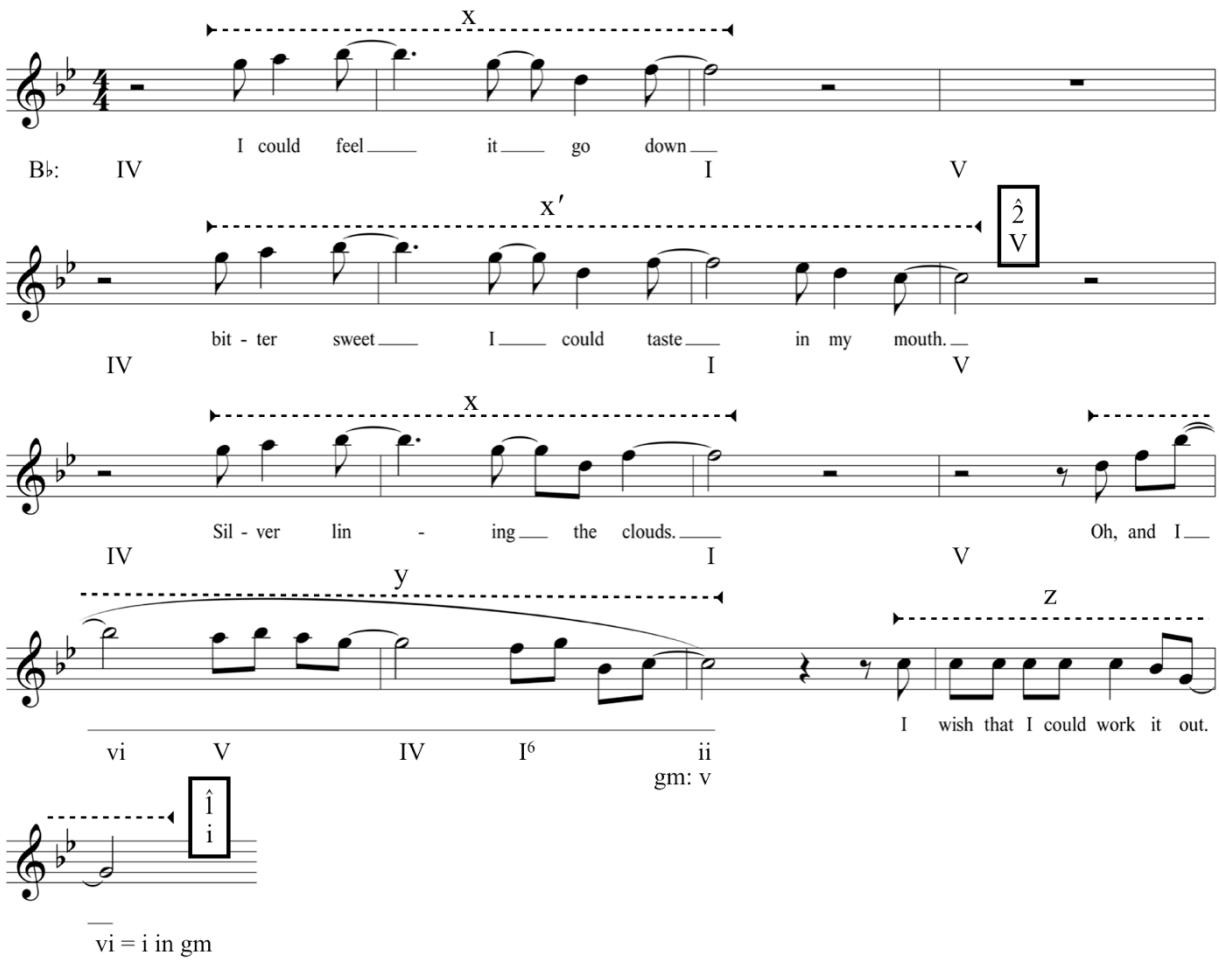


Figure 3.28: Period in the chorus of "The Hardest Part," performed by Coldplay. (*X&Y*, 2005, Track 5, 0:47 – 1:20)

The new material simultaneously extends the phrase to achieve a stronger close, and modulates back to the G minor tonality found in the rest of the song. The antecedent concludes on the fourth hyperbeat with scale-degree $\hat{2}$ over V in B-flat major, but the consequent phrase extends to the downbeat of the following hypermeasure with scale-degree 1 over tonic (i) in G minor. The modulating consequent could have completed on the fourth hyperbeat like the antecedent, but instead it overlaps into the link, which shares the same chord progression as the verse (G minor: i – bVI – bIII – v). If the harmonic loop of the chorus was retained (B-flat: IV – I – V), the extension of the phrase to the hypermetric downbeat would not have produced a convincingly stronger close because the supporting harmony would have been the subdominant (IV). By modulating back to the G minor loop, the melody and harmony both arrive on the G minor tonic simultaneously.

I have analyzed the new material as three subphrases, xyz, because of the gap in lyrical activity even though subphrases y and z are related lyrically through the repeated "I." Even though they are lyrically related, they accomplish two different goals in the phrase process. The melismatic subphrase y creates metrical balance with the antecedent by standing in for the replaced subphrase x′, while subphrase z creates the melodic close and overlap into the hypermetric downbeat. Subphrase z could appear immediately after subphrase x (omitting subphrase y) without causing a metric disruption, but the balance of the two phrases would be broken. The importance of subphrase y is highlighted in the second iteration of the chorus (2:05 – 2:44) because it is repeated prior to completing with subphrase z. The consequent, phrase *a′*, is an example of a non-sentential phrase consisting of three subphrases where the final subphrase conclusively ends the formal pattern. Phrase diagrams for the first and second iterations of the chorus are shown in Figure 3.29.

In the third option for creating periodic structures, a hypermetric disruption occurs because of significant changes in the melody or harmony. The expansion by repetition in the second chorus of "The Hardest Part" is related to this type, but a hypermetric reinterpretation was not necessary. The expansion by repetition created another hypermeasure, but the fundamental four-measure grouping was maintained. Hypermetric reinterpretations can be caused by internal repetition similar to "The Hardest Part," or eliding the end of a phrase with the next formal unit. The disruption of the underlying metrical patterning strengthens the sense of closure associated with this type.

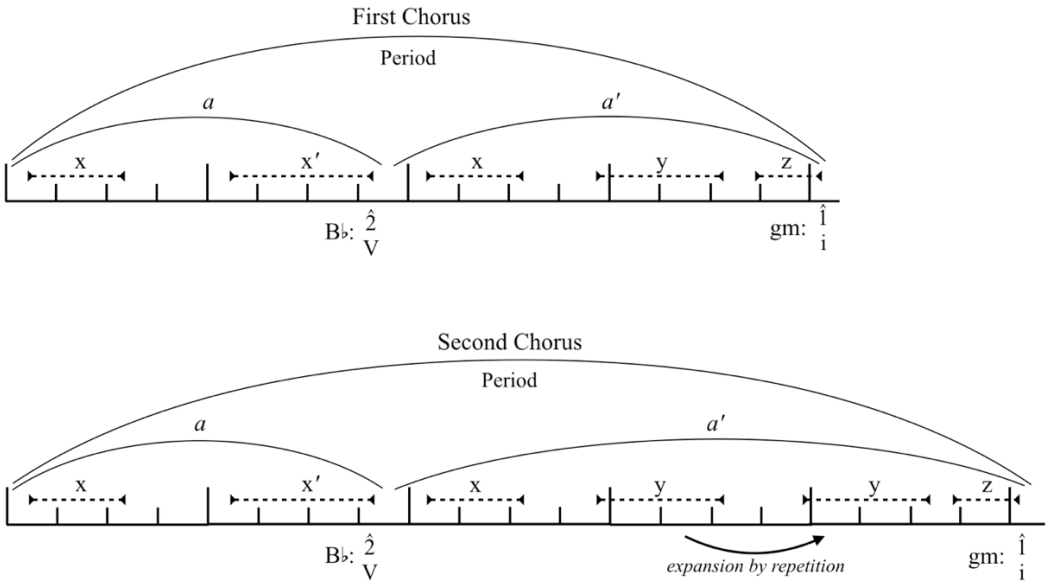


Figure 3.29: Phrase diagrams for the first and second choruses of "The Hardest Part," performed by Coldplay. (*X&Y*, 2005, Track 5, 0:47 – 1:20, 2:05 – 2:44).

In the verse of "Talk" (Figure 3.30) a hypermetric disruption is created through the repetition of the end of a subphrase. The antecedent phrase is eight measure long, ending with scale-degree 2 over bVII in G minor. The consequent phrase is a literal restatement of this material, but with the addition of two measures. The added measures are a modified restatement of the final two bars of the consequent phrase. The two harmonies, E-flat major and F major, are repeated along with the lyrics "I want to talk to you." In the restatement, the word "you" is melismatically extended to end with scale-degree 1 over the tonic harmony, G minor. By restating the two measures, the consequent phrase achieves a stronger close than the antecedent phrase, resulting in a periodic phrase structure.

The phrase diagram of the verse, Figure 3.31, illustrates the repetition and disruption. The antecedent phrase, *a*, ends on the fourth hyperbeat of the second hypermeasure. The corresponding location in the consequent phrase, *a′,* should produce the same close, but the repetition denies final closure. To illustrate the retrospective reinterpretation, an open circle is placed on the end of subphrase x′ rather than the triangle, and the repeated material (x″) is identified as a continuation of the previous subphrase by the lack of an initiating triangle. The extended subphrase is now parenthetically identified as x″ because the repetition of part of subphrase x′ alters the exactness of the repetition.

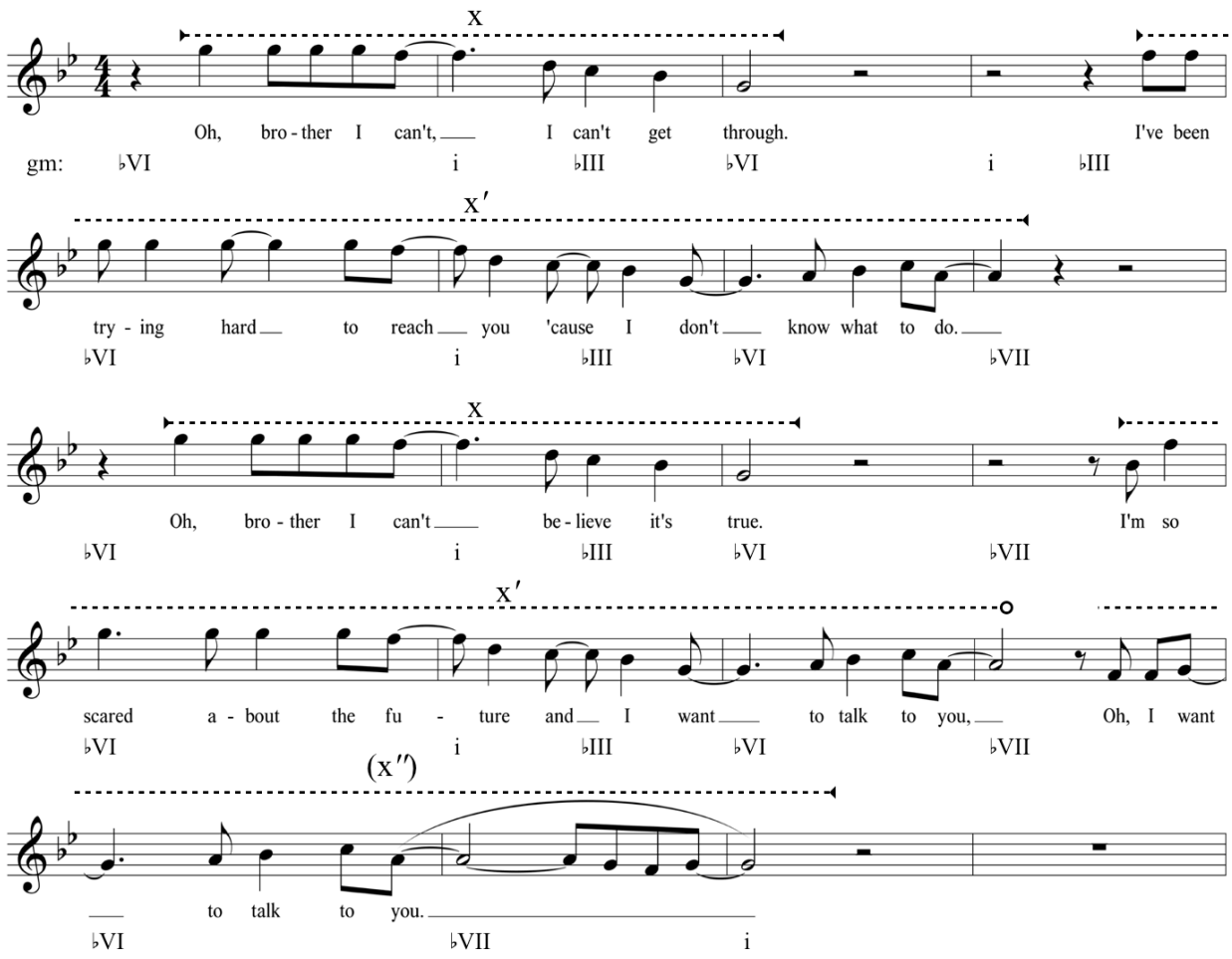


Figure 3.30: Period created through repetition in the verse of "Talk," performed by Coldplay. (*X&Y*, 2005, Track 5, 0:35 – 1:15)

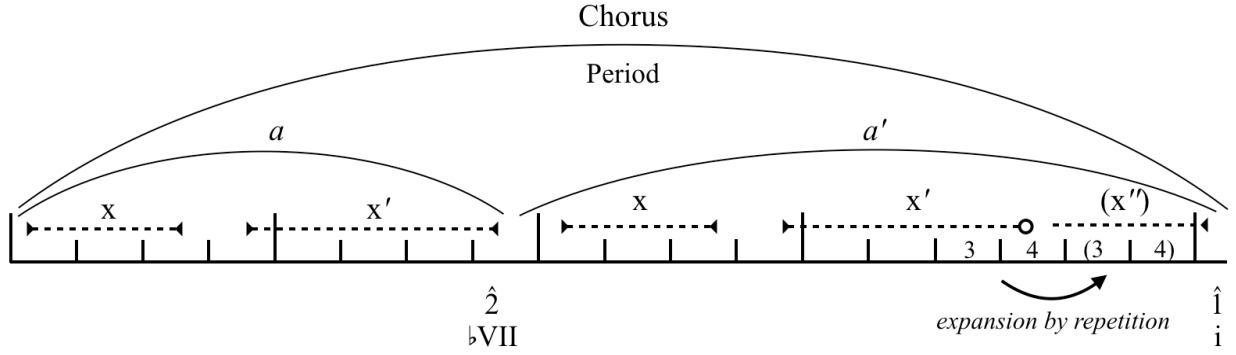


Figure 3.31: Phrase diagram of the verse of "Talk," performed by Coldplay. (*X&Y*, 2005, Track 5, 0:35 – 1:15)

Subphrase x′ should conceptually extend through the (x″), uniting them both as a true x″. The x′ and (x″) are visually separated to show that x′ appeared exactly like the antecedent phrase, that the melodic material following x′ is derived from it, and to clarify the location and amount of material repeated by (x″). This is in contrast to the representation of repetition in the second chorus of "The Hardest Part" in Figure 3.29. There, subphrase y is repeated as a complete unit in the same hypermetric location. Subphrase y is not altered or partially repeated, and the hypermetric patterning is not disrupted, therefore it is not necessary to show a special relationship between the two iterations of subphrase y. Additionally, subphrase z serves to extend and produce the final close, not subphrase y. In "Talk," the closure is created through repetition of part of the subphrase x′, necessitating the visual representation of how the stronger close is achieved.

The other new visual elements in the phrase diagram of "Talk" are the hypermetric counts placed in the grid below the subphrases. The numbers represent the hyperbeats, and are generally omitted because the patterning of four measures per hypermeasure is normal and undisturbed. In examples where there is a hypermetric disruption, hyperbeats are added to clarify which beats are repeated or omitted, and parentheses are placed around the repeated hyperbeat numbers. The short and tall vertical lines showing the hypermetric patterning are also altered to show the new hypermetric downbeat which, in this example, occurs following the repeated hyperbeats 3 and 4. The tonic arrival at the end of (x″) overlaps into the start of the four-measure link, a length which confirms it as its own complete hypermeasure. The rhetorical strength of the close at the end of the verse is strengthened by the hypermetric alteration in two ways. First, the shift from hypermetric four to the following hypermetric downbeat places the close in a stronger hypermetric location. Second, this arrival is delayed through repetition, adding rhetorical weight to the close when it finally is achieved.

In addition to repeating part of a phrase, new material may be added to extend a phrase and reach a stronger close, such as in the chorus of "The Scientist" (Figure 3.32). The antecedent phrase ends in the fourth measure with scale-degree 1 over IV in F Major. In the consequent, additional measures introduce a new melodic unit supported by dominant harmony (V), and concludes with scale-degree 1 over the tonic harmony (I), creating a periodic relationship between the two phrases. Like "Talk," the resolution in the "The Scientist" overlaps with the start of a four-measure link, meaning the resolution overlaps into the hypermetric downbeat.

Unlike "Talk," there is no clear sense of repetition of hyperbeats. Instead, I interpret the extension as a prolongation of the fourth hyperbeat, a prolongation which is released with the melodic conclusion and overlap into the following link. The added measures once again disrupt the hypermeter, strengthening the sense of closure achieved at the end of the chorus.

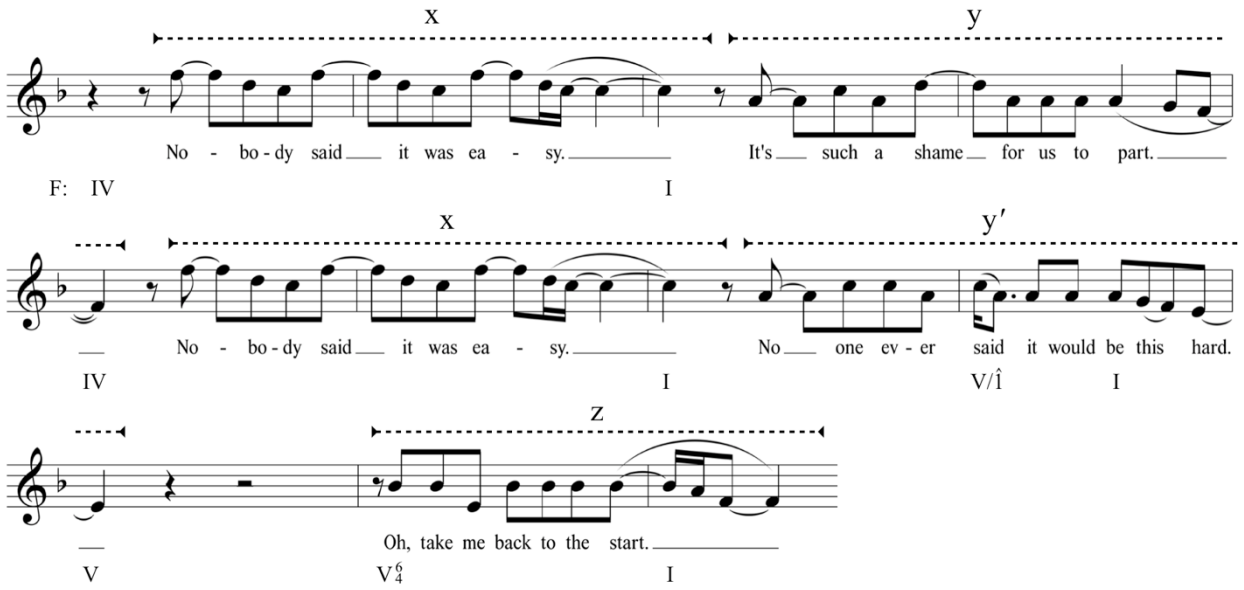


Figure 3.32: Period created through extension in the chorus of "The Scientist," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 4, 1:18 – 1:53)

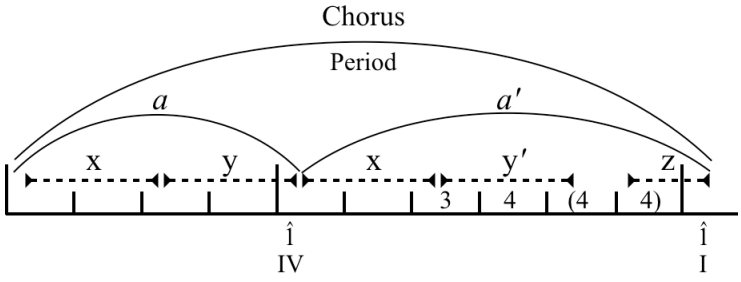


Figure 3.33: Phrase diagram of the chorus of "The Scientist," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 4, 1:18 – 1:53)

Another common type of hypermetric disruption in periodic structures is the elision of the end of the consequent phrase with the following module, usually a textless link. Neal has identified this as a common type of alteration at cadential points in country music, and argues it is the result of the prominence of strong-beat cadences in popular music. She uses the chorus of

Reba McEntire's "Little Rock," reproduced with my annotations in Figure 3.34, to illustrate the technique.[5] The antecedent phrase ends in the seventh measure with a melismatic slide from scale-degrees 3 to 5 ("got") over a tonic harmony. In the eighth measure, the fourth hyperbeat, a dominant harmony prepares the entrance of the consequent phrase, producing a pair of four-beat hypermeasures. The consequent ends in the correlated metric location as the antecedent ("little rock"), the seventh measure and third hyperbeat, but instead of turning around with an extra bar of dominant resulting in a four-beat hypermeasure, the resolution elides into the link following the chorus. The fourth hyperbeat is omitted entirely, and the seventh measure of the consequent phrase is both hyperbeat 3 and 1.

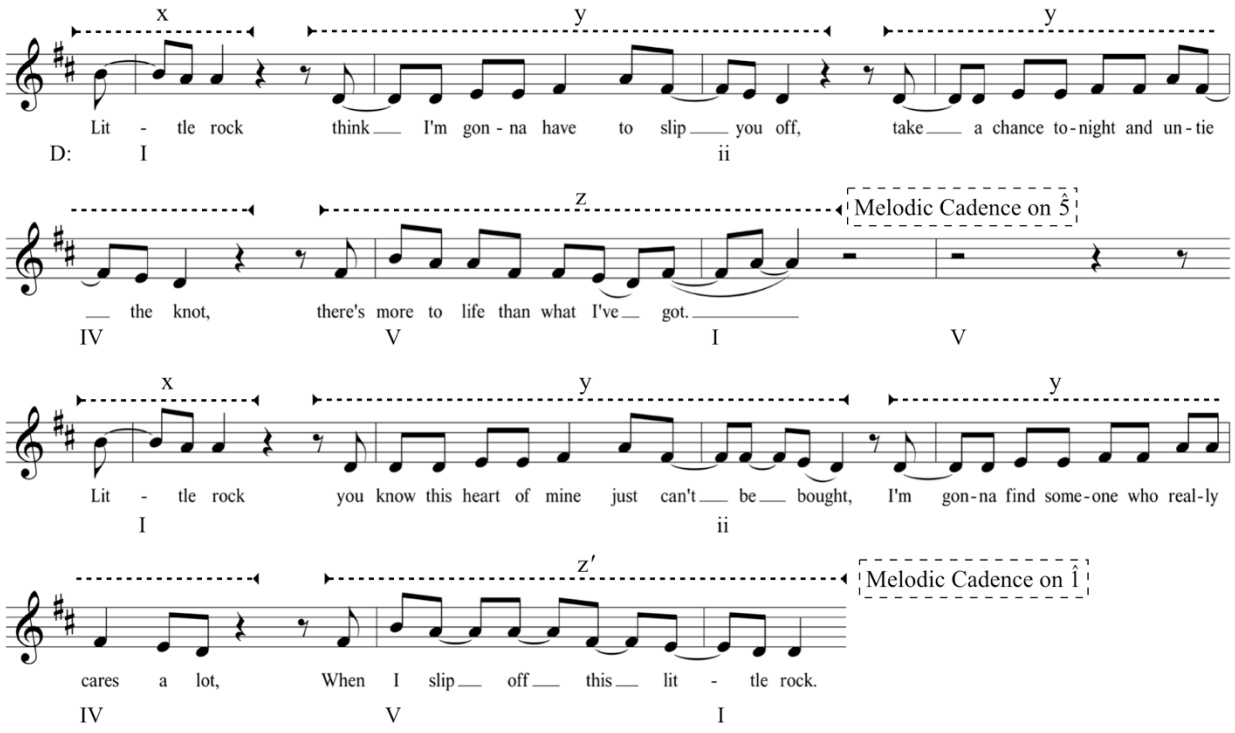


Figure 3.34: Chorus of "Little Rock," performed by Reba McEntire. (*Whoever's In New England, 1986*, Track 6, 0:36 - 1:01)

In the phrase diagram (Figure 3.35) for "Little Rock," the reinterpreted measure is shown as 3 = 1. This reflects the elision and hypermetric reinterpretation caused by the conclusion of

[5] Jocelyn Neal, "Songwriter's Signature, Artist's Imprint: The Metric Structure of a Country Song," in *Country Music Annual 2000*, ed. Charles K. Wolfe and James E. Akenson. (Lexington, KY: The University Press of Kentucky, 2000), 112-40.

the consequent phrase. Eliding hyperbeats 3 and 1 is common and possible because of two related points. First, as both Neal and Stephenson observe, melodic cadences on strong hyperbeats are common in popular music, especially in contrast to the primarily weak-hyperbeat cadences found in common-practice music.[6] Weak-hyperbeat cadences are still prevalent in popular music, meaning popular music abounds with melodic cadences on hyperbeats 1, 3, and 4. Cadences on hyperbeat 2 are rare, meaning 1 and 3 are the only pair of cadential points that can readily substitute for one another. Second, because hyperbeats 1 and 3 are both strong, reinterpreting 3 as 1 retains the metric patterning of strong-weak beats.

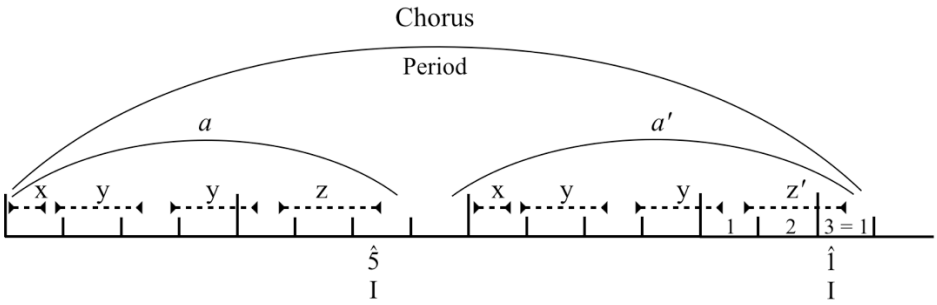


Figure 3.35: Phrase diagram for the chorus of "Little Rock," performed by Reba McEntire. (*Whoever's In New England, 1986*, Track 6, 0:36 - 1:01)

An elision of hyperbeat 4 with hyperbeat 1 can be seen in the terminal climax of "A Rush of Blood to the Head," which was used as the first example of my phrase segmentation, Figure 2.3 from Chapter Two. The phrase diagram is reproduced below as Figure 3.36, but with additional information relevant to this discussion. The antecedent phrase begins with a 2.5-beat pickup into the metrical downbeat of the terminal climax, and is shown by the phrase slurs beginning prior to the extended line representing the hypermetric downbeat. Each subphrase completes on the downbeat of a measure, meaning the phrase pattern is slightly displaced from the metric grouping, and the entire phrase ends on the downbeat of the fourth measure. The instrumental texture of the terminal climax is maintained in the fourth measure because the consequent phrase begins immediately with an anacrusis into the next hypermeasure.

[6] Neal, "Songwriter's Signature," 117, and Stephenson, *What to Listen for*, 5-6.

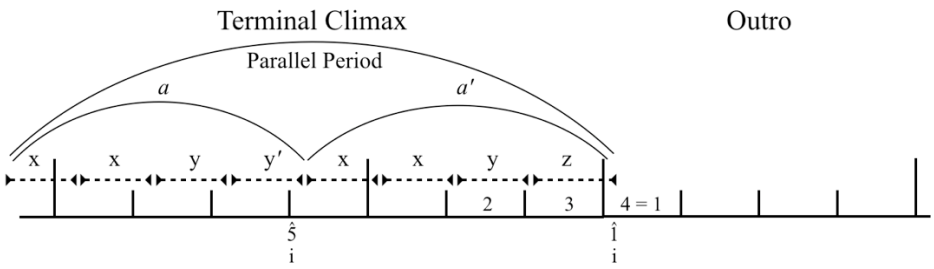


Figure 3.36: Phrase diagram of the terminal climax of "A Rush of Blood to the Head," performed by Coldplay. (*A Rush of Blood to the Head*, Track 10, 5:00 – 5:29)

In contrast, the final bar of the consequent does not retain the texture. The voice, bass, and drums are dropped after the downbeat, leaving only the guitar and organ. This drastic shift in texture signals the completion of the unit and reinterprets the weak-hyperbeat ending instead as a strong-hyperbeat ending: 4=1. The shift from weak- to strong-hyperbeat cadence does undermine the alternation of strong and weak beats, but because the song is primarily a song as compared to a dance track, the change is not disruptive. Additionally, the change occurs at the end of the song leading into the outro, lessening the importance any metric disruption the reinterpretation causes.

Anti-Periods. Anti-periods are structured in the same way as traditional periods, but the relationship of cadential strength is reversed; the second cadence is weaker than the first. I retain the labels antecedent and consequent to describe temporal ordering, and recognize that the relationship of cadential strength attached to those labels is no longer applicable in my methodology. Periods and anti-periods follow the same melodic process, same-different-same-more different, but the final difference moves to a point of less closure than the first by altering the final melodic pitch, harmonic support, or both.

The chorus of "Warning Sign" (Figure 3.37) provides an example of an anti-period; the antecedent phrase ends with scale-degree 3 over the tonic harmony (I), and the consequent ends with scale-degree 2 over an inverted dominant (V^6). The melodic and harmonic material is fundamentally the same between the two phrases, but the consequent's lyrical activity is extended to end over the dominant rather than the tonic harmony. I am assigning cadential strength based on the interaction of melody and harmony, therefore the presence of the inverted dominant following subphrase y of the antecedent phrase does not alter the imperfect close; closure is measured by the melodic and harmonic alignment at the conclusion of the vocal line. This allows for a change of cadential strength in the consequent when the melody extends to the

dominant harmony rather than completing prior to its arrival. The phrase diagram for the chorus is shown in Figure 3.38.

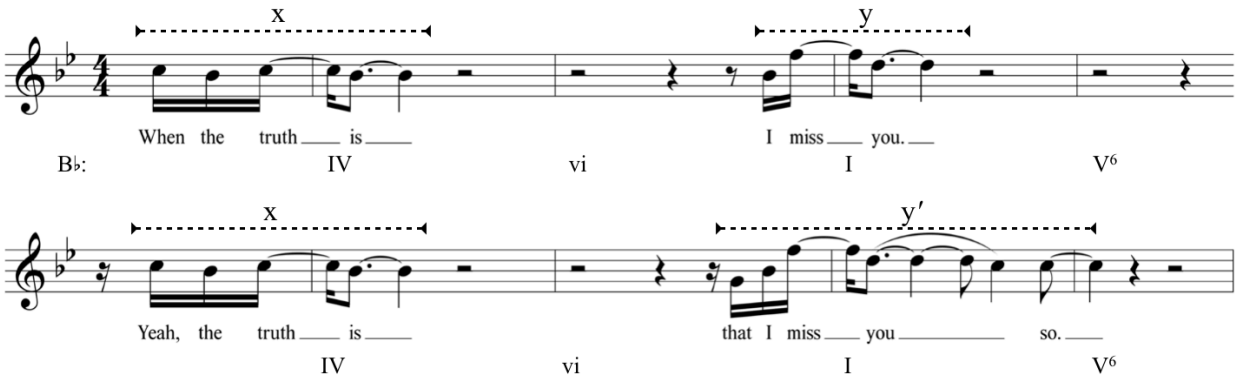


Figure 3.37: Anti-period in the chorus of "Warning Sign," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 8, 1:39 – 2:06)

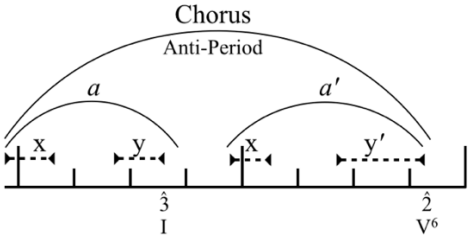


Figure 3.38: Phrase diagram of the chorus of "Warning Sign," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 8, 1:39 – 2:06)

The end of the bridge of Evanescence's "Call Me When You're Sober" (Figure 3.39) demonstrates another anti-period, this time with a change in melody and harmony to achieve the open cadence. The antecedent ends in the fourth measure with a complete close on scale-degree 1 over the tonic harmony (i). The consequent presents a different concluding subphrase, and the harmonic rhythm is altered to place the dominant harmony (V) in the final measure. The two changes together result in the bridge concluding with scale-degree 5 over the dominant (V), producing a weaker closer in the consequent phrase. The phrase diagram for "Call Me When You're Sober is provided in Figure 3.40.

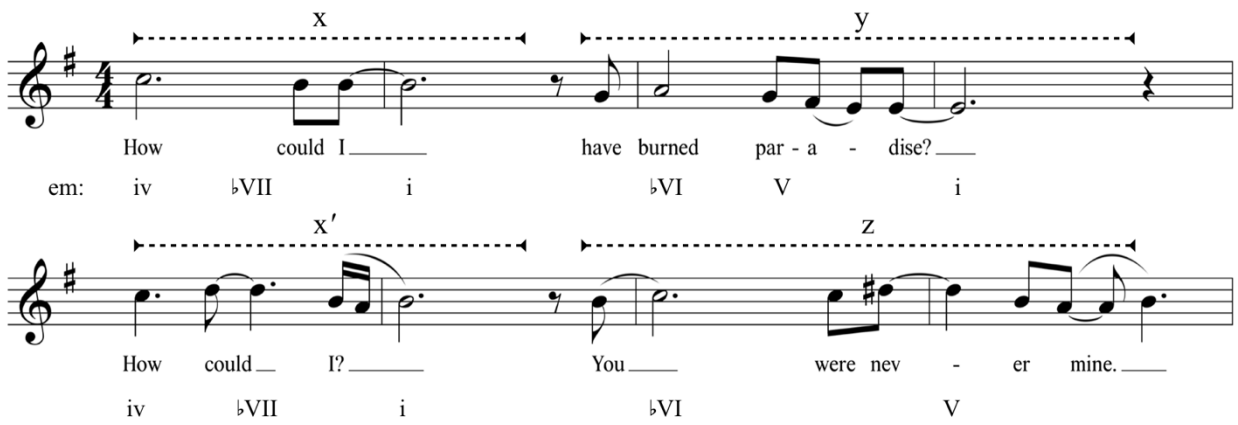


Figure 3.39: End of the bridge of "Call Me When You're Sober," performed by Evanescence. (*The Open Door*, Track 2, 2:46 – 3:07)

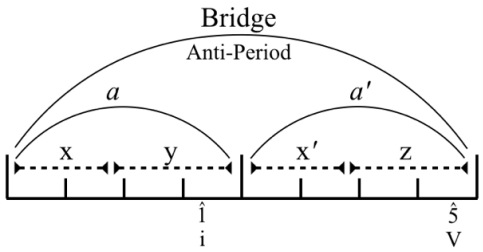


Figure 3.40: Phrase diagram of the end of the bridge of "Call Me When You're Sober," performed by Evanescence. (*The Open Door*, Track 2, 2:46 – 3:07)

Modified Repeated Phrases. Modified repeated phrases blur the boundary between repeated phrases and periods because the second phrase is melodically or harmonically different than the first, but the concluding melodic and harmonic alignment remains the same between phrases. The alteration of the consequent to produce an altered close plays with the paradigm necessary for creating a period but without producing an altered cadence. The alteration makes the second phrase sound more conclusive (by invoking the period paradigm), but it remains a repeated phrase because the cadence is not altered.

Figure 3.41 shows a modified repeated phrase in the bridge of "Fix You." The antecedent phrase, a sentence, ends with scale-degree 2 over V in E-flat major. The consequent begins the same as the antecedent but modifies the subsequent subphrases. The expectation for a periodic design is created, but the concluding melodic/harmonic alignment remains scale-degree 2 over V, meaning no change in cadential strength has been achieved. The phrase diagram for the excerpt is provided in Figure 3.42.

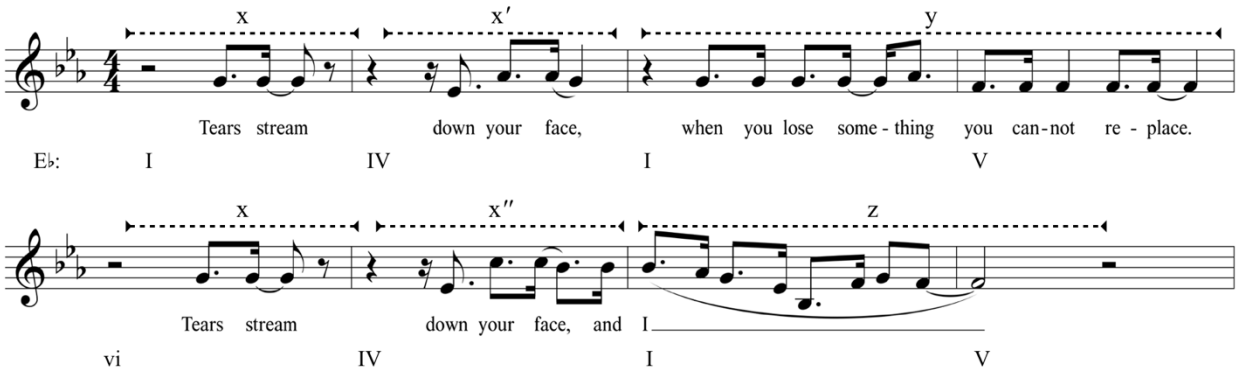


Figure 3.41: Modified repeated phrases in the first half of the bridge of "Fix You," performed by Coldplay. (*X&Y*, 2005, Track 4, 3:29 - 3:57)

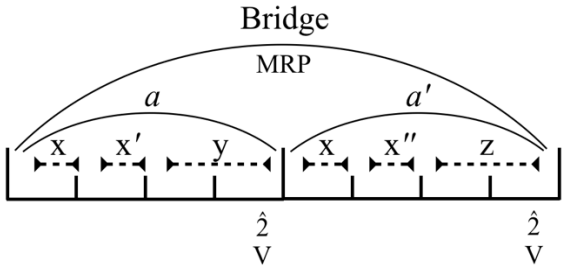


Figure 3.42: Phrase diagram for the first half of the bridge of "Fix You," performed by Coldplay. (*X&Y*, 2005, Track 4, 3:29 - 3:57)

Another example of repeated modified phrases is the verse of Rihanna's "Umbrella," shown in Figure 3.43. The first phrase of this verse was used previously (Figure 3.14) to demonstrate a sentential phrase made of four distinct subphrases. The change in melodic activity between the third and fourth subphrases creates the modified repetition between the phrases. In the second phrase, the melody moves down to C4 ("need me there") rather than up to F4 like the first phrase ("magazines"). The final subphrase continues the alteration, repeating C4 ("with you I'll") rather than D-flat4 ("but you'll still") prior to moving to scale-degree 1 to complete the phrase. The most striking difference between the two phrases is the lack of C4 in the first phrase compared with its prominence at the conclusion of the second phrase. The phrase is not periodic because the concluding melodic/harmonic alignment is scale-degree 1 over the tonic harmony (i), necessitating the modified repeated phrase label. A phrase diagram for the excerpt is provided in Figure 3.44.

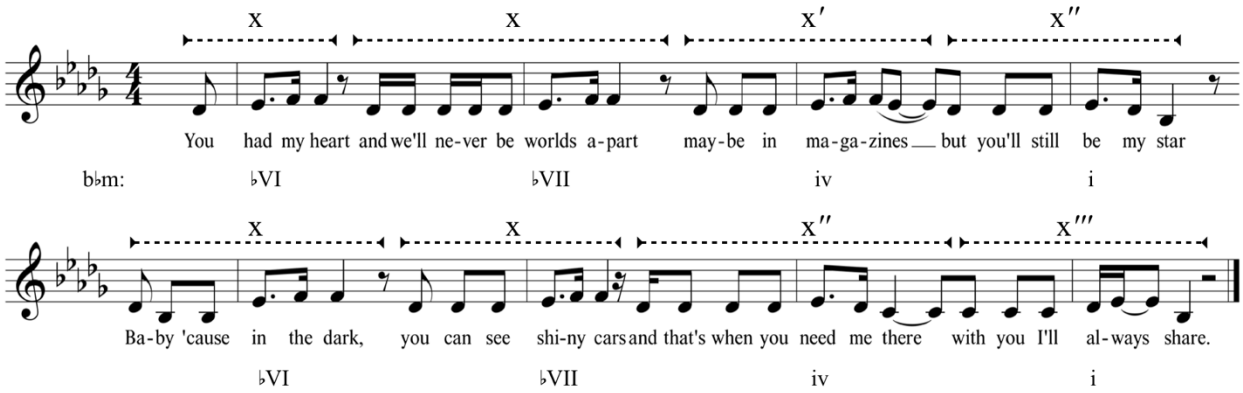


Figure 3.43: Repeated modified phrases in the verse of "Umbrella," performed by Rihanna. (*Good Girl Gone Bad*, 2007, Track 1, 0:32 – 0:54)

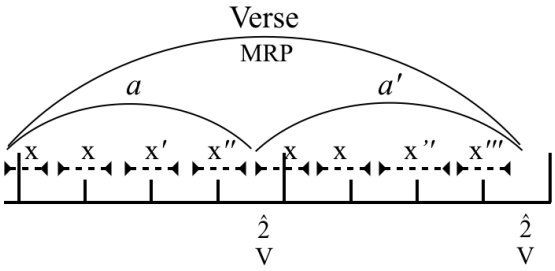


Figure 3.44: Phrase diagram of the verse of "Umbrella," performed by Rihanna. (*Good Girl Gone Bad*, 2007, Track 1, 0:32 – 0:54)

Groups of Three Phrases

aab. Groupings of three phrases are prevalent in blues and blues-derived songs, but less frequent outside that idiom. Though he does not commit to identifying them as phrases, Jay Summach also posits the aab pattern is typically found in blues forms. He states, "The non-blues, three-part strophe typically follows an **aa'b** pattern in which **a** and **a'** present contrasting lyrics over a related harmonic progression, and **b** is a tail refrain.[7] In my methodology, the *aa* phrases typically form repeated or modified repeated phrases, and the *b* appears as a refrain. The *aa* phrases are typically not periodic to emphasize the closure created by the contrasting refrain. An example is the verse of "What If," shown in Figure 3.45.

[7] Summach, "Form in Top-20 Rock," 24. Bold is in the original to clearly distinguish formal structures from the word "a."

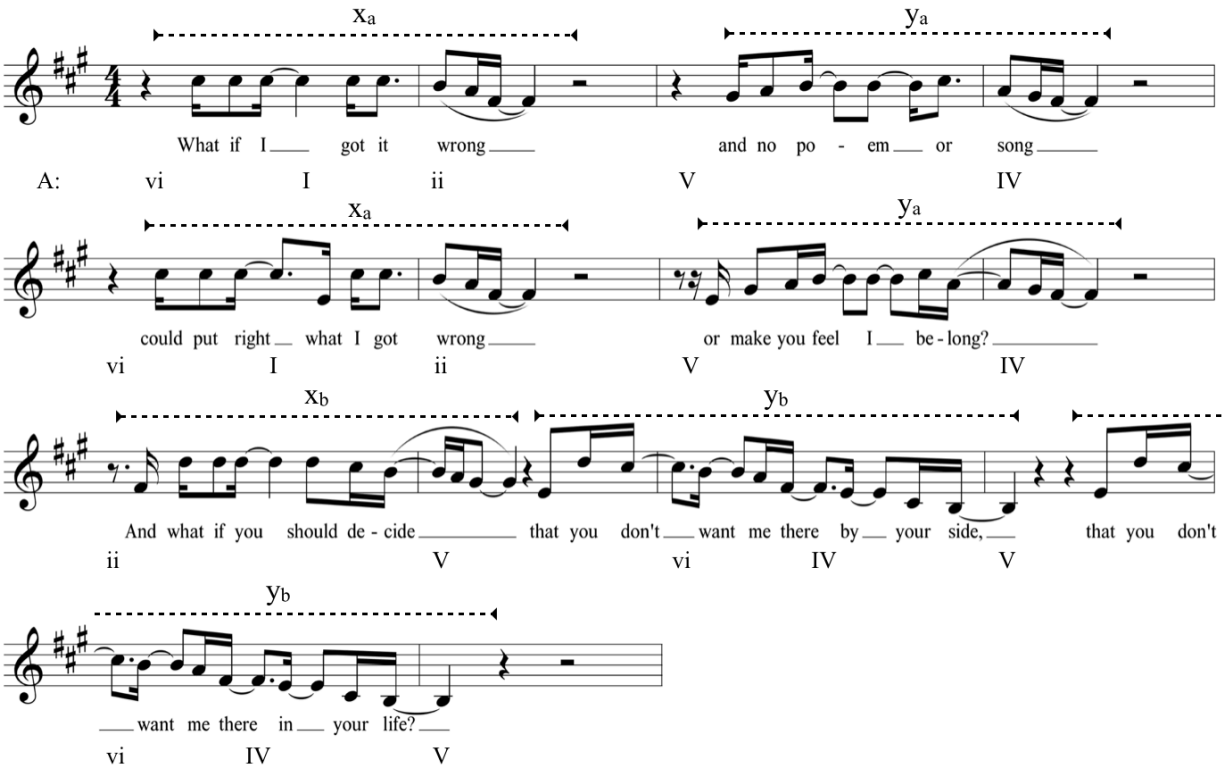


Figure 3.45: Three-phrase group in the verse of "What If," performed by Coldplay. (*X&Y*, 2005, Track 2, 0:52 – 1:45)

The first two lines form the expected pair of repeated phrases, *aa*, with each consisting of two contrasting subphrases. The *b* phrase is also two subphrases, but the second, subphrase y, is repeated, creating a phrase expansion through repetition (See Figure 3.46).

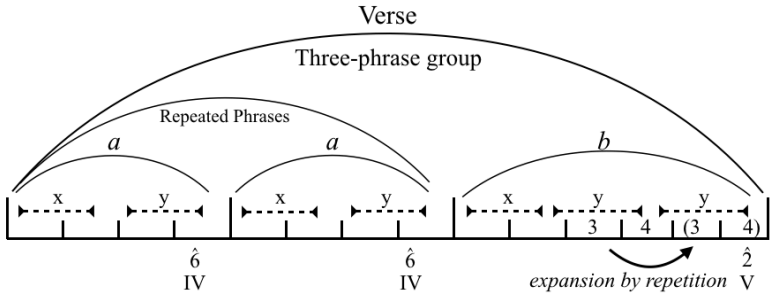


Figure 3.46: Phrase diagram for the verse of "What If," performed by Coldplay. (*X&Y*, 2005, Track 2, 0:52 – 1:45)

Another example of the *aab* pattern is found in the chorus of The Decemberists's "Shankill Butchers," shown in Figure 3.47.

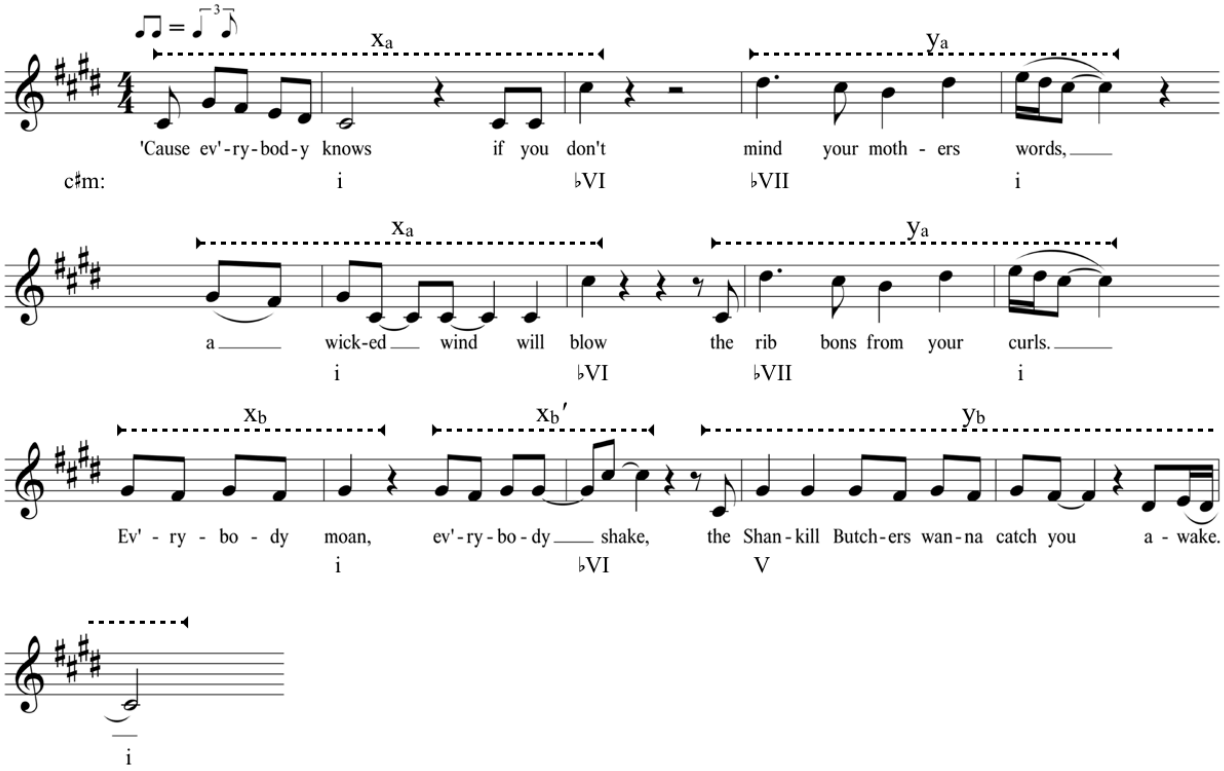


Figure 3.47: Chorus of "Shankill Butchers," performed by The Decemberists. (*The Crane Wife*, 2006, Track 7, 0:36 – 1:14)

In this example, *aa′* are repeated modified phrases. Subphrase x_a is altered in the second line, but subphrase y is not. The alteration of subphrase x does not undermine the sense of repetition, particularly when the C-sharp is reached in the first complete measure ("wicked"), followed by the octave leap ("will blow"). The *b* phrase is sentential, and overlaps into the ensuing four-measure link. The phrase diagram for the excerpt is shown in Figure 3.48.

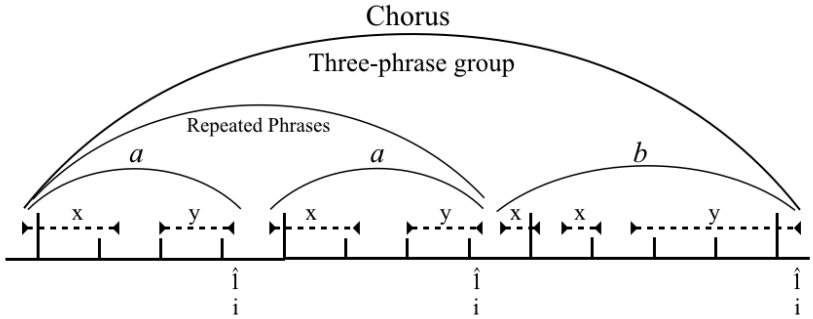


Figure 3.48: Phrase diagram for the chorus of "Shankill Butchers," performed by The Decemberists. (*The Crane Wife*, 2006, Track 7, 0:36 – 1:14)

Blues. The traditional harmonic pattern and formal designations for the 12-bar blues are provided in Figure 3.49.

a	| I	| I	| I	| I |
a	| IV	| IV	| I	| I |
b	| V	| IV	| I	| I |

Figure 3.49: The typical 12-bar blues progression.

The letters of the aab pattern represent the melodic and lyrical pattern found in each four measure segment of the 12-bar blues. The paradigmatic harmonic succession corresponds with the aab division, but the lyrics and melodic patterning are generally not altered by the changed harmonies in the repeated aa segments. Using my methodology, each letter of the aab paradigm is a complete phrase, resulting in an *aab* phrase group. It is standard for the melodic activity in each line to be broken into at least two subphrases, with the second being different from the first in some regard. The return of a melodic subphrase after contrasting material meets my definition of phrase, which is why I argue the blues is typically a three-phrase pattern.

Not all scholars agree with my attribution of phrases in the standard blues form. Jeff Titon recognizes the typical melodic division of the phrases in his analysis of downhome country blues songs, and incorporates the division into his theoretical reductions of blues families. Titon's Figure 76, which show his four blues families, is reproduced below as my Figure 3.50.[8] The division of the *a* phrases into two parts is represented by an eighth rest between the two segments of melodic activity (labeled "a,c" and "b,d") in the left half of the figure, labeled Lines 1 and 2. Titon states the third line, my *b* phrase, is also commonly divided into two pieces, but that the division is less consistently found than in the first two lines. This is represented in his figure by a parenthetical rest between the "e" and "f" melodic segments in the right half of the table, labeled Line 3.

[8] Jeff Todd Titon, *Early Downhome Blues: A Musical and Cultural Analysis* (University of North Carolina Press, 1994), 163.

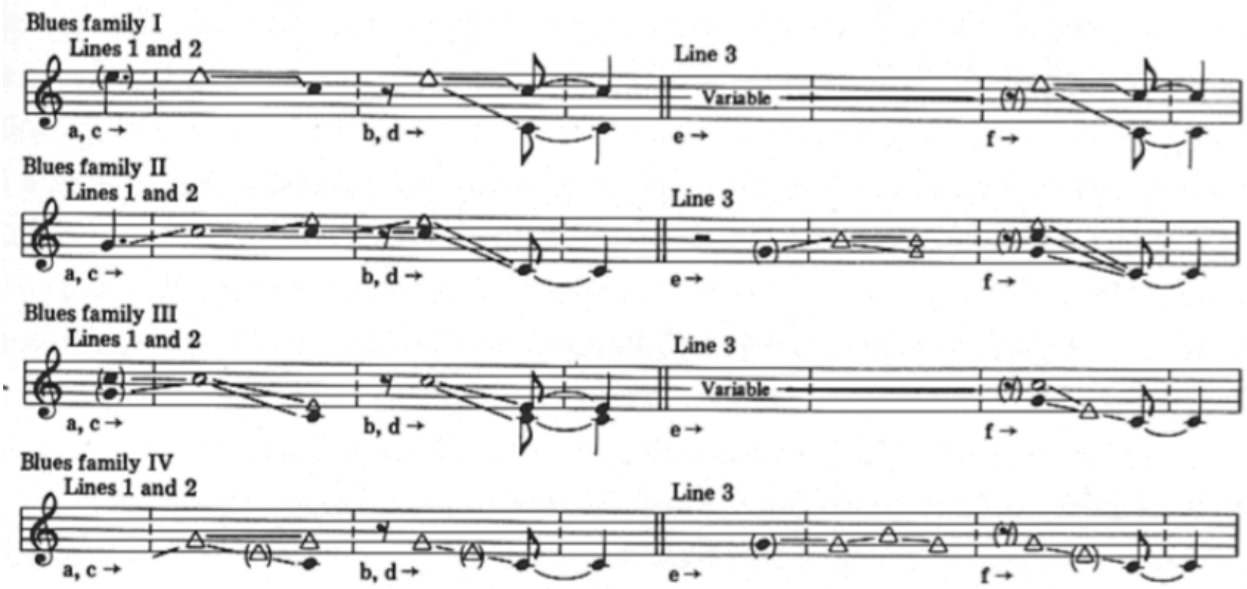


Figure 3.50: Titon's Figure 76: Models of the four blues families.

Titon explicitly refers to each lettered segment (a through f in the diagram) as a melodic phrase.[9] In Titon's methodology, a typical 12-bar blues pattern consists of six phrases in contrast to my three. It is unclear whether his definition of phrase corresponds directly with mine, but I present it to show that our interpretation of phrase lengths differs.

Michael Taft, studying primarily the lyrical and grammatical content of the blues, argues that each line of the blues contains at least one complete semantic predication. A semantic predication is the "complete thought" expressed by a sentence, but the predication "may also take the form of an adverbial, adjectival, prepositional, or noun phrase."[10] He also recognizes the binary division of each line, a division creating two predications per line, resulting in two phrases per four-bar segment of the blues.[11] Not every line of the blues contains two semantic predications, but there is always at least one. Taft's semantic methodology parses the blues into at least three, but usually five or six complete phrases in the 12-bar blues.

My preference for dividing the blues into three phrases is also in contrast with some music theory textbooks. For example, Clendinning and Marvin posit in *The Musician's Guide to*

[9] Titon, *Early Downhome Blues*, 142. "The units resulting from these line divisions can be regarded as musical phrases."
[10] Michael Taft, *The Blues Lyric Formula* (New York: Routledge, 2006), 33-34. Titon cites Geoffrey Leech (*Semantics*, Hamondsworth: Penguin Books, 1974) in defining predication.
[11] Ibid., 35.

Theory and Analysis that the blues consists of three subphrases, with each subphrase corresponding to each 4-bar segment of the 12-bar pattern. Their argument follows common-practice harmonic paradigms for defining phrases and cadences, with the authors stating "the only conclusive close [occurs] when tonic returns in measures 11-12."[12] My methodology relies on melodic repetition instead of harmonic paradigms, which accounts for the difference in our phrase segmentations.

I typically interpret the 12-bar blues as a three-phrase period following the pattern antecedent-antecedent-consequent. From a common-practice perspective, the true cadence cannot occur until the appearance of the dominant harmony in the final line. Also, the first line typically has no harmonic motion, meaning there is no possibility of cadential closure without harmonic change. Both arguments carry theoretical and analytical expectations from common-practice music into pop/rock music. While my research borrows liberally from common-practice analytical methodologies, I do attempt to distinguish when popular music operates differently from common-practice music. In this case, and others like it, I believe the melodic activity alone signals phrase completion.[13] Harmonic support is still important, but in most cases there is no explicit counterpoint or harmonic prolongation that governs phrase structure.

Despite my reluctance to invoke counterpoint or prolongation, harmony plays an important role in my approach to analysis. Even in the blues pattern, the harmonic pattern contributes to the sense that the final line completes the overall structure based on my methodology of identifying patterns of same-different. The first line is entirely tonic harmony, while the second introduces the subdominant, marking it as different than the first. The introduction of the dominant in the final line signals the greatest harmonic departure, and is generally accompanied by entirely new lyrical and melodic material. The final four bars contain the greatest difference within the 12-bar unit, and serve to conclude the pattern. The contrast provided by the new melodic and harmonic material creates a stronger sense of completion than the repeated *a* phrases. Despite not aligning with the conclusion of the melodic activity, the

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[12] Jane Piper Clendinning and Elizabeth West Marvin, *The Musician's Guide to Theory and Analysis, 3nd ed.* (New York: WW Norton & Company, 2016), 604.

[13] Drew Nobile makes a similar argument for melodies carrying structural weight over chord loops in "Counterpoint in Rock," 189-203 (see particularly pp. 193-197 concerning "loop divorce"). When harmony does not provide functional support, like I argue it does not for most popular music, the melody alone can signal phrase and closure (cadential) boundaries.

appearance of the dominant harmony signals that the larger phrase structure paradigm is completing, allowing for the periodic interpretation. In general, melodic and harmonic difference within patterns signals important events; the greater the difference, the more important the event.

The following examples support my argument for dividing the blues paradigm into three complete phrases. I begin with the standard 12-bar blues, and then show how my methodology applies to alterations of the paradigm. The first strophe of "I'm Tore Down," performed by Freddie King (Figure 3.51), is a standard 12-bar blues following the *aab* melodic and harmonic paradigms. Each 4-bar line contains two contrasting subphrases divided by a vocal rest, accompanied by the typical harmonic progression of the 12-bar blues. The second line is an exact melodic repetition of the first, despite the change from tonic to subdominant in the supporting harmony of the first two measures of the second line. Each phrase concludes with the same melodic/harmonic alignment, scale-degree 3 over tonic (I), meaning there is no true change in degree of closure. The sense of stronger completion is primarily attributed to the dominant harmony and contrasting melodic material in the final line.

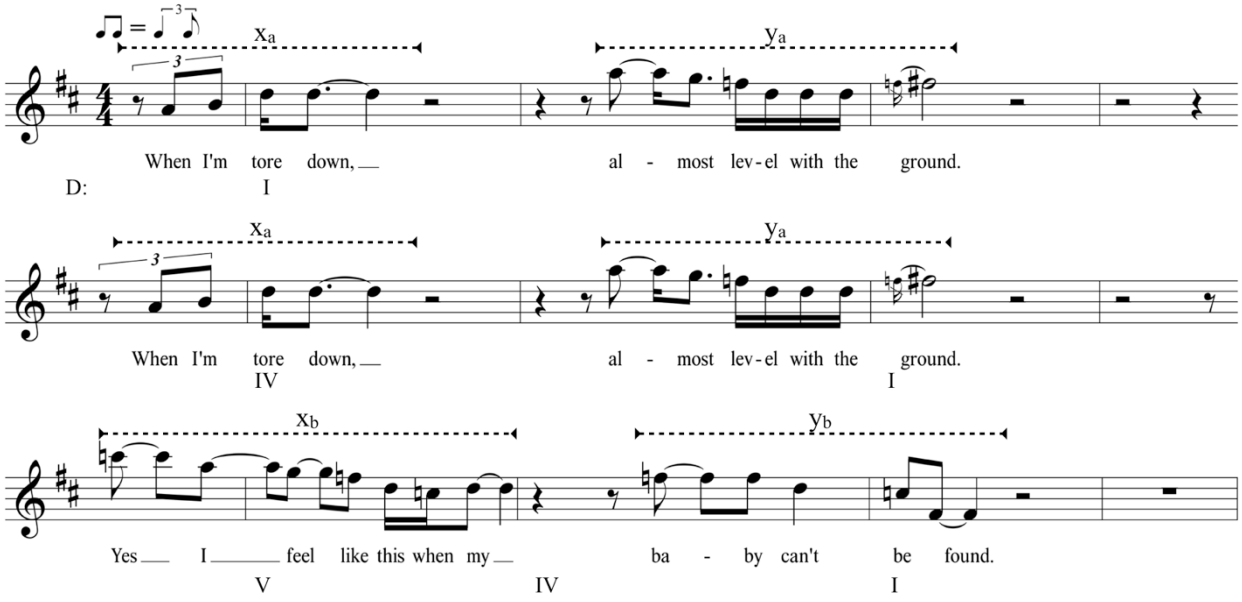

Figure 3.51: First strophe of "I'm Tore Down," performed by Freddie King. (*Getting Ready*, 1971, Track 9, 0:28 – 0:54)

In the second strophe, the first line is replaced with new melodic and lyrical material. There is no repetition of the first line; the new material, labeled phrase *c* and shown in Figure 3.52, appears first, followed by a single iteration of phrase *a*, then the concluding phrase *b*, resulting in a *cab* phrase pattern. I have retained the *a* and *b* phrase labels of the original strophe; the result is the temporal ordering *cab* where *c* appears as the first line of the second strophe, but the third new phrase in the song. The retention of labels facilitates the comparison of Figures 3.51 and 3.53.

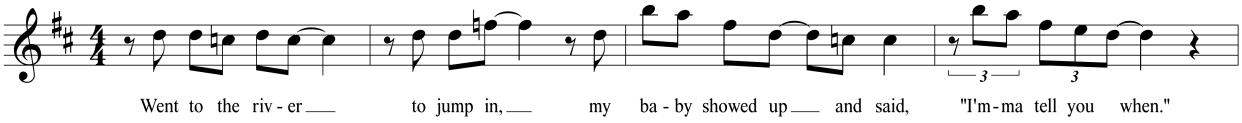

Figure 3.52: New phrase at the beginning of strophe 2 of "I'm Tore Down," performed by Freddie King. (*Getting Ready*, 1971, Track 9, 0:54 – 1:02)

The third strophe expands the pattern even more by adding another new line, a varied repetition of phrase *c* from the second strophe. The complete third strophe is provided in Figure 3.53, and the phrase diagram in Figure 3.54. The new material, subphrases x_c, y_c, x'_c, and z_c, forms a pair of phrases in an anti-periodic relationship; the first phrase ends with scale-degree 5 over tonic (I), equivalent to an imperfect authentic cadence. The second phrase ends with an unstable minor seventh between the melody on scale-degree flat-7 and the tonic harmony (I). The dissonance propels the music into the reiterated *a* and *b* phrases of the original 12-bar pattern which now group as a pair of phrases bound only by their relationship established in the blues paradigm. Overall, the four complete phrases form group as *cc'ab*, which is functionally an *aabc* paradigm with renamed components based on the chronological order of appearance.

I present this example because the substitution and expansion within the 12-bar form supports my argument that each 4-bar segment is a complete phrase. There is a distinction between the larger formal process–the blues–and the smaller phrase processes within the complete formal unit. The replacement of *a* with *c* does not leave the original *aab* an incomplete phrase with an added initial appendage; one phrase is merely substituted for another. The addition of another *c* phrase in the third strophe creates the typical anti-period phrase grouping (*cc'*) before the reappearance of the phrase group *ab*. This example is even more striking because it is not the concluding components that are substituted, but the initiating components. Altering

how a repeated phrase ends is common and does not change the perception that two phrases are related to each other. Altering the beginning of a "repeated" phrase undermines the sense of relationship between two phrases because the identifiable return of material is omitted. Instead, the two phrases might be seen as different, but with the same ending in the form of a refrain. The simpler solution in "I'm Tore Down," and many other blues songs, is to identify each 4-bar segment as a complete, standalone phrase.

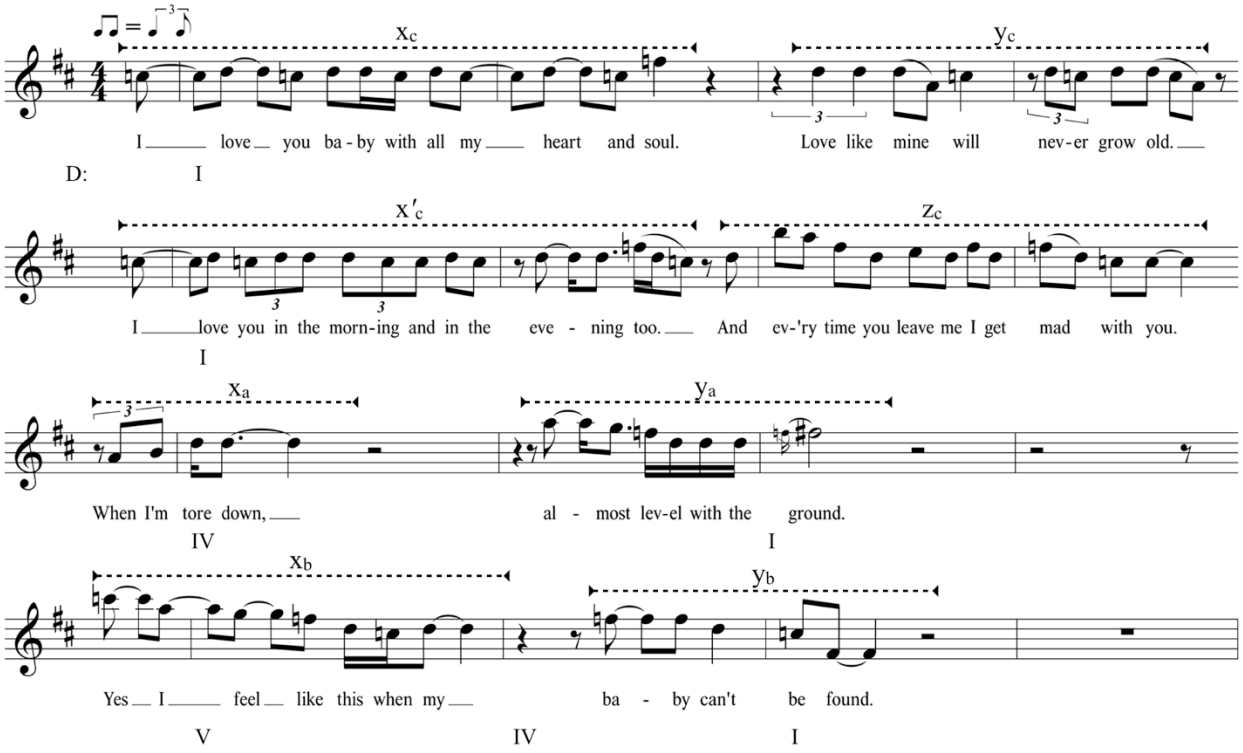

Figure 3.53: Third strophe of "I'm Tore Down," performed by Freddie King. (*Getting Ready*, 1971, Track 9, 1:18 – 1:52)

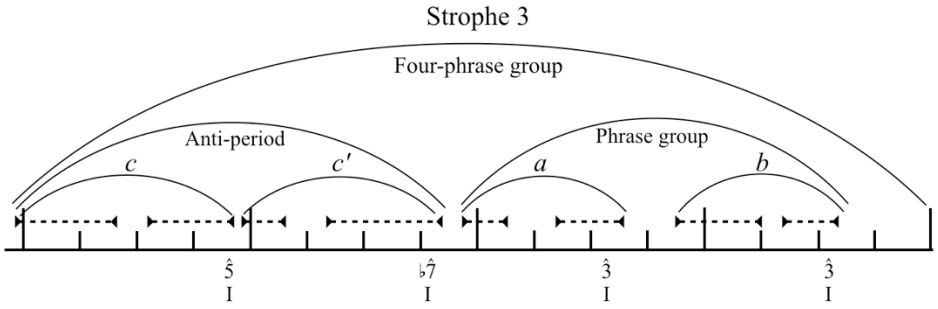

Figure 3.54: Phrase diagram of the third strophe of "I'm Tore Down," performed by Freddie King. (*Getting Ready*, 1971, Track 9, 1:18 – 1:52)

"Mustang Sally" (Figure 3.56) is a song in 24-bar blues form. The duration of the harmonies is proportionally the same as 12-bar blues, but the realized metrical length is doubled. The typical framework for the 24-bar blues is provided in Figure 3.55.

a	| I	| I	| I	| I	| I	| I	| I	| I	|
a	| IV	| IV	| IV	| IV	| I	| I	| I	| I	|
b:	| V	| V	| IV	| IV	| I	| I	| I	| I	|

Figure 3.55: The typical 24-bar blues.

"Mustang Sally" follows the standard deployment of melodic activity in blues songs, with the end of the second subphrase aiming for the tonic harmony halfway through each line. Due to the proportional spacing, the absolute time between lyrical statements is effectively doubled in comparison to the standard 12-bar blues, resulting in large spans of time with no texted melodic activity. The space between each line of the form is roughly seven seconds long, an abnormally large span of time to retain the sense of lyric and melodic incompleteness necessary to have all twenty-four measures be a complete phrase. Due to the large gap, the return of the *a* phrase in the second line feels much more like a repetition than the continuation of a larger phrase process.

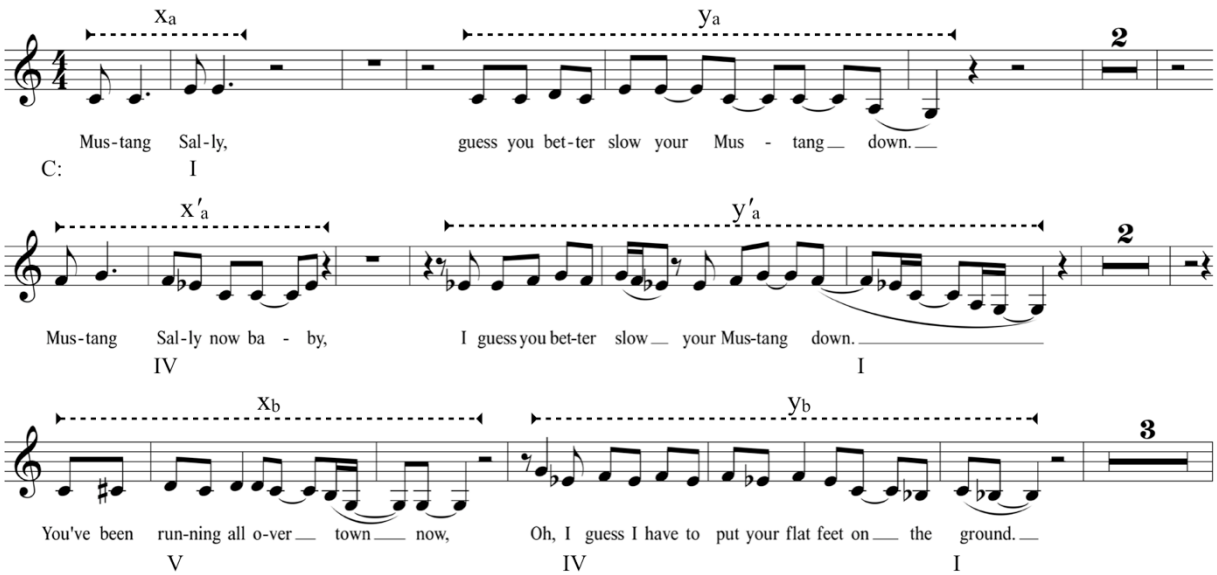

Figure 3.56: Verse of "Mustang Sally," performed by Wilson Pickett. (*Mustang Sally*, Single, 1966, 0:08 – 1:00)

Not all songs employing the 12-bar blues produce three-phrase periods or groups. Figure 3.57 shows the strophe of "Rock Around the Clock" performed by Bill Haley & His Comets. Although the metric and harmonic structure is the blues, the melodic activity does not follow the same patterning as the previous examples; the phrases group as two sentences of different length. The first sentence occurs in the first four measures with subphrases x_a, x_a', and y_a. Subphrase x_a and x_a' form the presentation, and y_a the dissolving third continuation. The onset of the second phrase is recognizable because of the completion of the sentential paradigm in the first line. A lack of a return subphrase x_a denies a repeated phrase, leaving only the possibility of an abnormally continuous phrase structure, or the start of a new phrase. The completion of another sentence pattern confirms the second and third lines as an independent phrase, despite the lack of melodic repetition between the two phrases in the blues strophe. The presentation of the second sentence features two blues-inflected iterations of subphrase x_b, followed by a continuation that fragments and liquidates the melodic and lyric pattern of "we're gonna rock" from subphrase x_b.

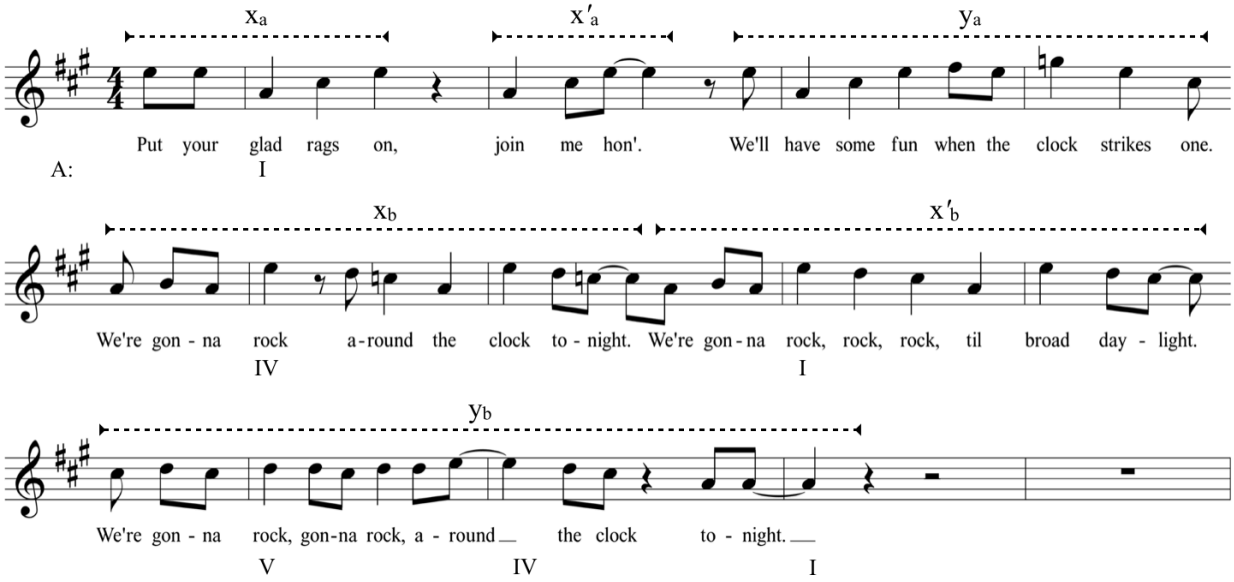

Figure 3.57: Strophe of "Rock Around the Clock," performed by Bill Haley & His Comets. (*Shake, Rattle and Roll*, 1955, Track 5, 0:10 – 0:26)

The phrase diagram for this excerpt is provided in Figure 3.58. I have labeled the entire strophe as a phrase group, although it could be labeled a contrasting period. However, using my methodology, contrasting periods are hermeneutically challenging to support because my phrase

structures are identified primarily by repetition. Contrasting phrases that are explicitly united in a period structure must be bound in paradigmatic formal structures, such as in "Rock Around the Clock." In verse-chorus forms, there is no standard organizational pattern that allows or forces a particular organizational interpretation, meaning melodically unrelated phrases are difficult to explicitly unite as periodic.

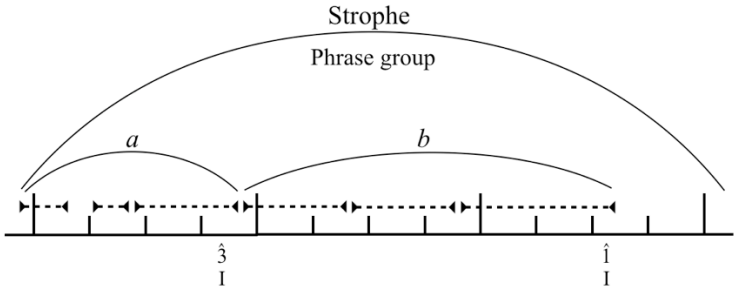

Figure 3.58: Phrase diagram for the strophe of "Rock Around the Clock," performed by Bill Haley & His Comets. (*Shake, Rattle and Roll*, 1955, Track 5, 0:10 – 0:26)

Additionally, Caplin's methodology does not allow contrasting period designations; what would be considered contrasting periods are instead labeled as hybrid types that combine elements of sentences and periods.[14] His identification of the formal components of periods and sentences in hybrid structures–i.e., antecedents, consequents, cadential functions, compound basic ideas, cadences, etc.–is based on both melodic and harmonic paradigms. Since my methodology relies solely on melodic activity and not harmonic paradigms, it is difficult to transfer most of the hybrid designations to my methodology of phrase segmentation in popular music. This makes it difficult to use his methodology to identify contrasting periods/hybrid structures.

Groups of Four Phrases

Repeated Phrase Groups. Repeated phrases are a common phrase structure within a unit, but it is also possible to have a fourfold repetition of the same melodic phrase. In such cases, it is possible to consider the structure as a fourfold repetition of a single phrase (4 x 1), or

[14] Caplin, *Classical Form*, 59.

a single repetition of a pair of repeated phrases (2 x 2). Secondary parameters, particularly timbre and lyrics, influence the interpretation. For example, the verses of Coldplay's "The Scientist" (Figure 3.59) contains four undifferentiated repetitions of the same melodic line set with different text. Therefore, it is more appropriate to consider the verse as a fourfold repetition of a single phrase.

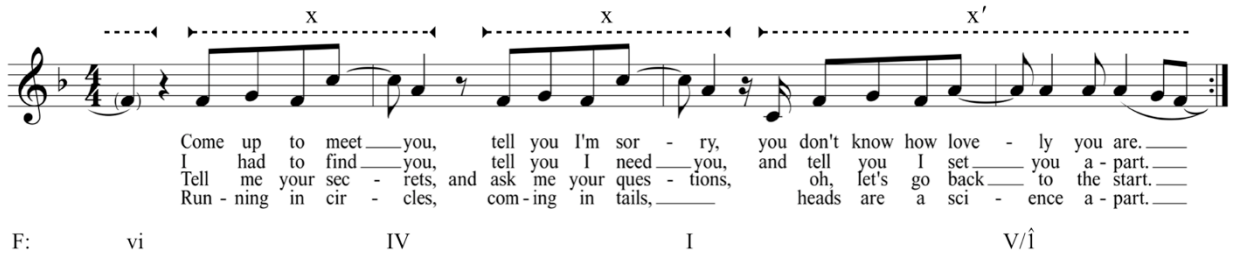

Figure 3.59: First verse of "The Scientist," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 4, 0:26 – 1:18)

In contrast, the verse of Weezer's "Troublemaker" (Figure 3.60) has a significant timbral change starting with the third repetition and continuing through the fourth. The timbral change allows the interpretation of a pair of phrases that are subsequently repeated but with added bass and drums.

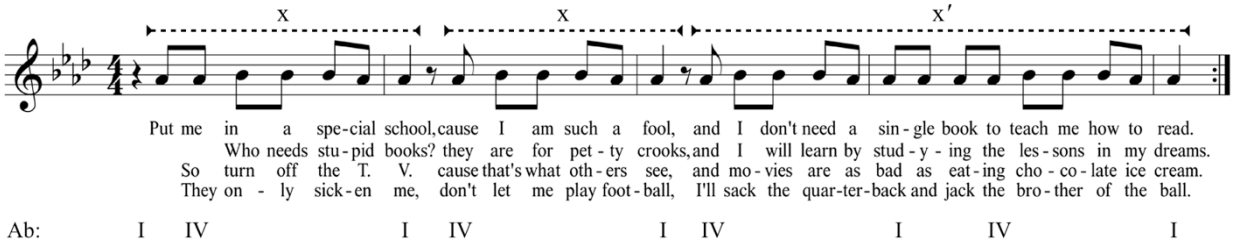

Figure 3.60: First verse of "Troublemaker," performed by Weezer. (*Weezer (Red Album)*, 2008, Track 1, 0:03 – 0:32)

Considering a fourfold repetition of a single phrase as a pair of repeated phrases aligns with the prevalence of binary phrase groupings in popular music. This is also manifest in repeating a pair of modified repeated phrases. The first phrase of the bridge of "Fix You" was previously used in Figure 3.41 as an example of modified repeated phrases. The bridge is actually twice as long,

repeating the pair of phrases and producing repeated phrases at a higher level, shown in the phrase diagram in Figure 3.61. The result is four phrases with the same degree of closure, but a clear higher level of phrase repetition (*AA*) due to the alteration of the *a′* phrase of the lower level.

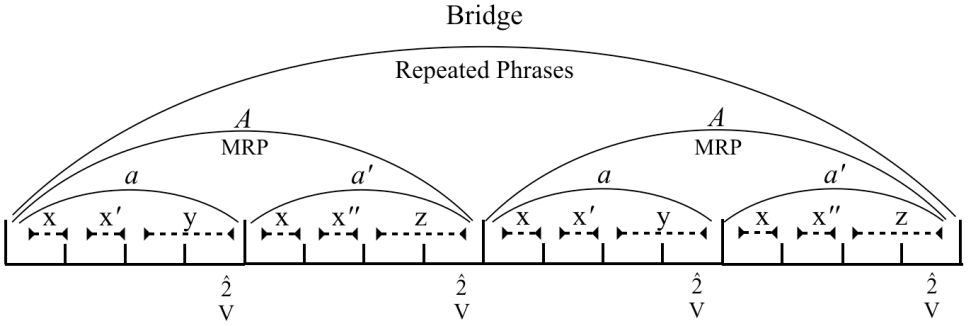

Figure 3.61: Phrase structure of the complete bridge of "Fix You," performed by Coldplay. (*X&Y*, 2005, Track 4, 3:29 – 4:24)

The repetition of a pair of phrases is highlighted lyrically and melodically in the chorus of "Say My Name," performed by Destiny's Child (Figure 3.62). The lyrics of the first two phrases are are repeated in the second two, except for the change of "why the sudden change," to "better say my name" at the conclusion of the second. All four phrases are similar melodically, but there are differences in the second subphrase of each pair that makes the second a modified repetition of the first. In the first phrase, subphrase y ("when no one is around you") consists of a scale and skip around scale-degrees 1, 2, and 3. In the second phrase, the corresponding subphrase ("You actin' kinda shady") now descends from scale-degree 5 to scale-degree 3. There are four singers in Destiny's Child, and throughout the chorus various harmonizations and ad lib vocalizations are added to the texture, and it could be argued this particular modification is attributable to the fluidity of the melodic activity. However, the difference in this subphrase is maintained in the repetition of the pair of phrases, marking it as part of the core melodic pattern that is elaborated by the performers.

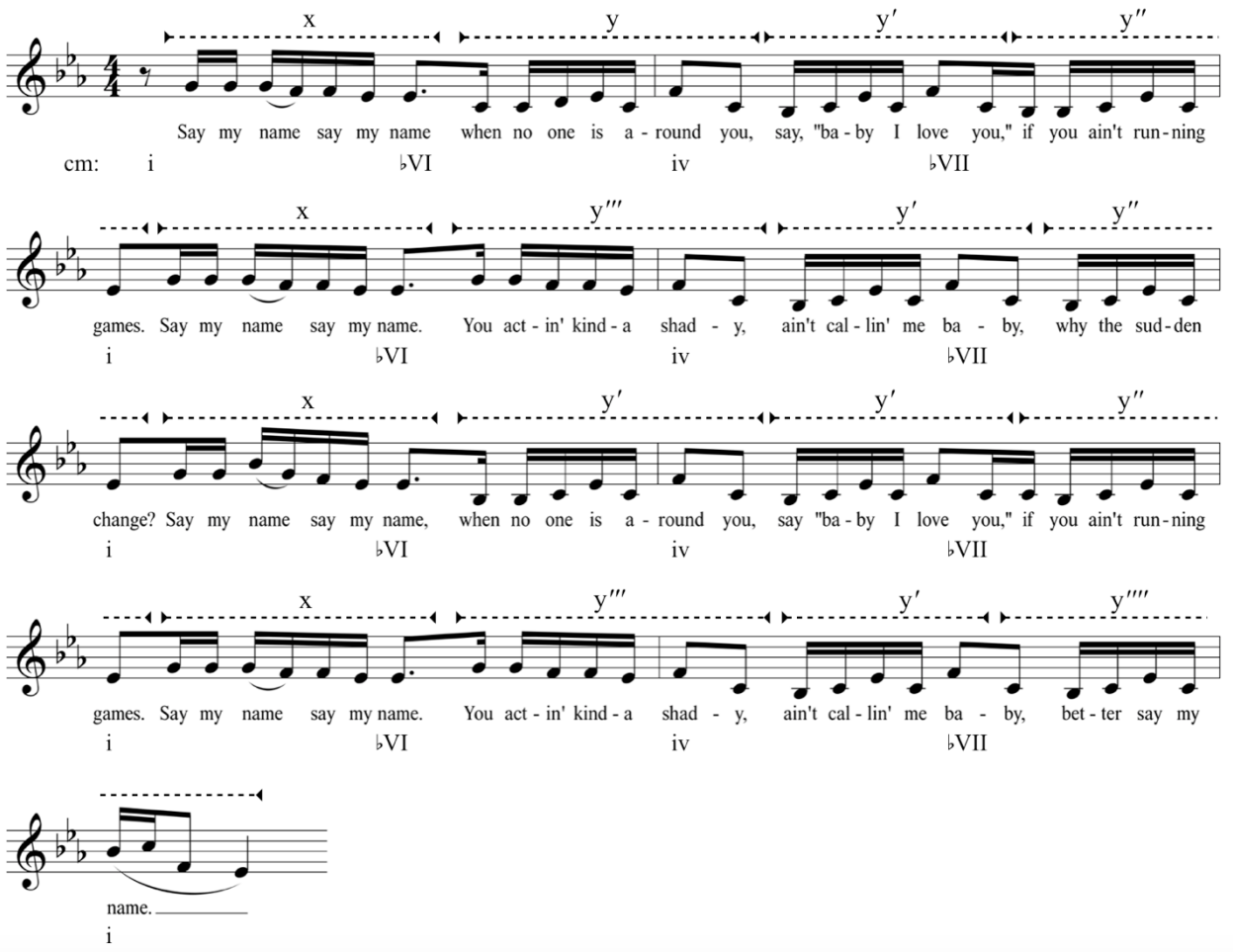

Figure 3.62: Repetition of modified repeated phrases in the chorus of "Say My Name," performed by Destiny's Child. (*The Writing's On the Wall*, 1999, Track 12, 1:11 – 1:39)

Repeated Periods. A repeated period usually does not fall within a single formal unit (verse, chorus, etc.). In cases where a period is repeated, it usually implies repetition of a unit, either a full verse or full chorus. The alteration of a subphrase to produce a stronger close signals completion, implying that a formal unit is finished. For example, in "Fix You," (phrase diagram in Figure 3.63) there is a repeated period that begins the song (0:14 – 1:10).[15] I interpret the repetition of the period as a second verse instead of a long first verse. This interpretation is confirmed later in the song (1:45 – 2:13) when the period is not repeated. This single appearance

[15] An explanation of how scale-degree 1 over the submediant harmony (vi) is a stronger close than scale-degree 2 over the dominant (V) will be given in Chapter 5.

of the period is the third complete verse, not half of the second verse. A repeated verse to start a song is a common paradigm is verse-chorus form.

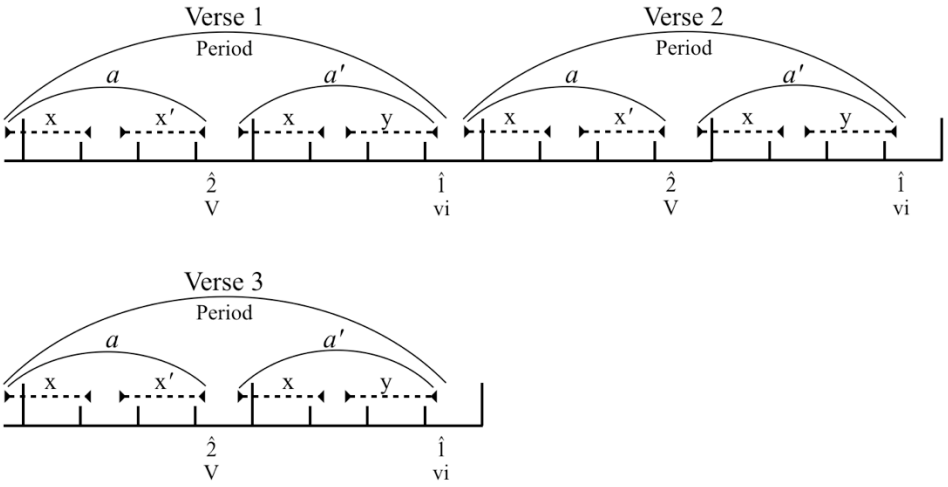

Figure 3.63: Phrase diagram comparison of the verses of "Fix You," performed by Coldplay. (*X&Y*, 2005, Track 4, Verse 1 and 2: 0:14 – 1:10, Verse 3 1:45 – 2:13)

Double Periods. The chorus of "White Shadows" was presented as an example of a double period in the previous chapter in examples 2.8 and 2.9. In a double period there are four phrases, and the periodic label refers to the relationship of the closure between the 2nd and 4th phrases The first two phrases are grouped as a large antecedent, and the second two phrases are grouped as a large consequent; the degree of closure is measured between the large antecedent and consequent.

Just as there are double periods, there are also double anti-periods where the close of the fourth phrase is weaker than the close of the second phrase. The second verse of Coldplay's "Amsterdam" (Figure 3.64) consists of four related phrases, with the first final phrase is the most open of the group. The first phrase ends with the melody ending on scale-degree 1 ("fading") slightly offset from the tonic harmony in the third measure. The second phrase's ending ("control") is modified to overlap into the tonic harmony, producing a slightly stronger close because the end of the phrase explicitly aligns with the tonic harmony. The third phrase ("waited") is like the first, with the melody ending slightly misaligned from the tonic harmony. The final phrase breaks the melodic patterning of the previous phrases, fusing the components of

the x and y subphrases into one extended subphrase that ends on scale-degree $\hat{5}$ ("hole") over the subdominant harmony. The unresolved dissonance of the B-flat melodic note over the A-flat harmony highlights the lack of closure, and the open-endedness is emphasized by a stall in the metric patterning. The pulse is maintained through activity in the piano, but the 4/4 meter is temporarily suspended, delaying the arrival of the chorus. The phrase diagram for the verse is provided in Figure 3.65.

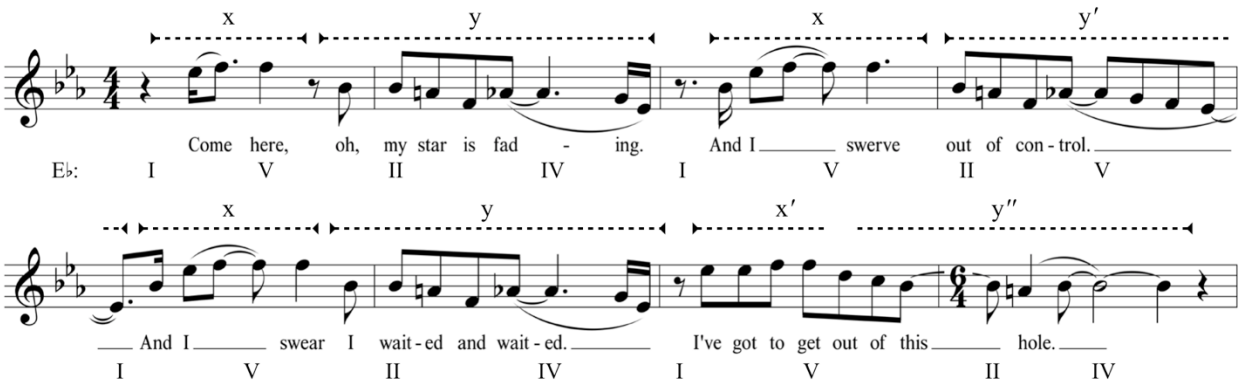

Figure 3.64: Double anti-period in the second verse of "Amsterdam," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 11, 1:21 – 1:49)

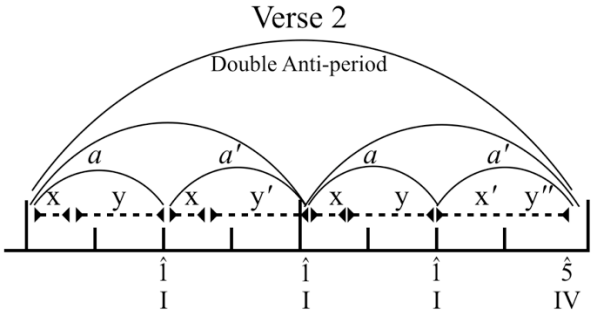

Figure 3.65: Phrase diagram for the second verse of "Amsterdam," performed by Coldplay. (*A Rush of Blood to the Head*, 2002, Track 11, 1:21 – 1:49)

AABA/AABC and SRDC. AABA song form, also known as 32-bar song form, comes from the Tin-Pan Alley tradition.[16] In a typical song, each letter represents an 8-measure unit, usually a complete phrase ending with a cadence. The form was adopted for a considerable

[16] Covach, "Form in Rock," 69.

portion of early rock music, although the length was not necessarily always 32 measures.[17] Walter Everett recognizes AABA form as a specific version of what he labels an SRDC pattern.[18] Everett defines the SRDC as follows:

> This is a four-phrase pattern that we'll refer to as SRDC, as its components always form the functions of Statement—Restatement—Departure—Conclusion. The Restatement phrase may cadence the same as did the first Statement or differently, and in fact the first two phrases may form a periodic subgrouping or an open phrase group. The fourth phrase may recap the opening material, for an *aaba* pattern, or may present new melodic ideas, *aabc*. Often, an SRDC is the basis of a verse with refrain.[19]

In this definition, Everett describes the four different functions as phrases, however, he also acknowledges that the pattern is invoked in larger groupings, "as when a pair of verses leads through a bridge to a third verse that seems to tie together all four sections."[20] The SRDC pattern is a flexible analytical tool that functions similarly to my identification of patterns of same-different; both can be used to analyze spans of music on many formal levels.

In his article on the prechorus, Summach states that modules (complete formal units) divide into two, three, or four parts, which he labels with the bolded letters **a**, **b**, and **c**. For this section I adopt his labeling system to differentiate his labels and terminological associations from mine, and I clearly articulate when my phrase segmentations do not match his labels. Summach's division of formal units into component parts is similar to my methodology, except his labels only define patterns of same-different over equal spans of metric length, whereas mine also implicate phrase and formal relationships. He identifies them as "patterns," and says "they are related to each other, each longer pattern created by adding one new element."[21] The repeated **aa** pattern in one example creates a parallel period, but the **aabc** pattern, to which **bc** has been added to **aa**, creates a sentence. The distinction in his application of labels is crucial because Summach attaches the sentential label to the 4-part division. This 4-part pattern is initially labeled **aa'ba'/c**, but he then equates the pattern with Everett's SRDC paradigm, and

[17] Covach, "Form in Rock," 70-71.
[18] Everett, *The Foundations of Rock*, 143.
[19] Ibid., 140.
[20] Ibid., 141.
[21] Summach, "Prechorus," [9]. See also his Example 8.

uses the **srdc** label thereafter. By attaching the sentential label to the generic SRDC pattern, he can call any SRDC arrangement sentential, which as I have argued, can lead to formal misattributions. He states that both the verse and chorus of "Cathy's Clown," performed by the Everly Brothers, are sentential. Transcriptions of the verse and chorus with my annotations are provided in Figure 3.66 and 3.67.

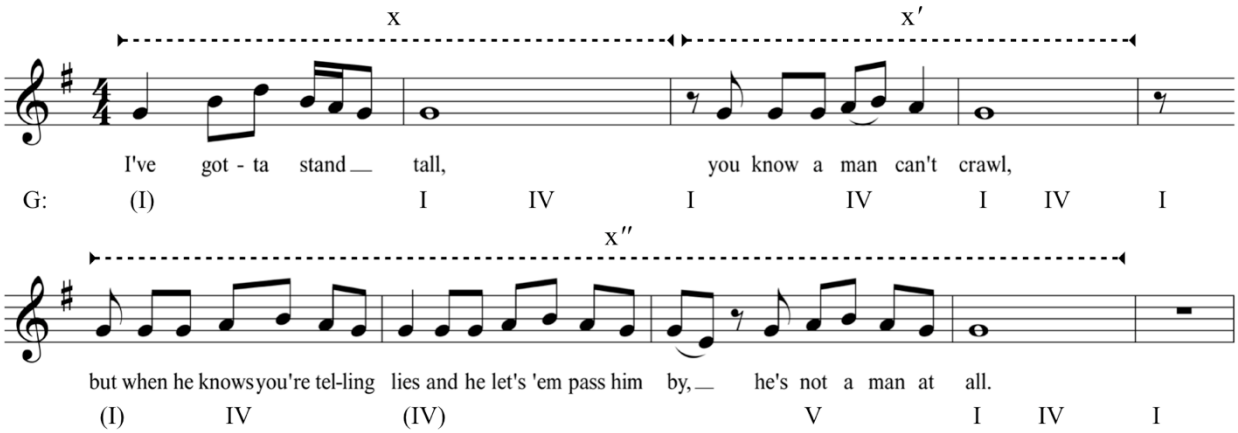

Figure 3.66: Verse of "Cathy's Clown," performed by the Everly Brothers. (*Cathy's Clown*, Single, 1960, 0:39 - 0:55)

The verse of "Cathy's Clown" is a true 8-bar sentence; the first subphrase is modified and repeated (subphrases x and x′), followed by fragmentation and conclusion in the continuation (subphrase x″). There is no repetition of melodic material outside the modified repetition of the initial 2-bar subphrase x. In contrast, the chorus is twice as long and features many repetitions of complete melodic units. The first line divides into two subphrases following the melismatic extension of "love," allowing the line to be interpreted as a single phrase. The phrase interpretation is confirmed by its complete repetition in the second and fourth line. Using my methodology, the chorus does not segment into one sentential phrase, but rather four complete phrases, *aaba*.

Another of Summach's examples is the strophe of "Dream Lover," performed by Bobby Darin. The excerpt, with my annotations, is provided in Figure 3.68. The first phrase cleanly segments into two contrasting subphrases, meeting my definition of a complete phrase. The phrase is then immediately repeated in the second line. The third and fourth lines, which feature no repeated material, combine together into a sentence. As shown in the annotations, the typical

binary repetition is disguised with a smaller fragmentation into four small units. The four small gestures can be combined into a pair of two subphrases (x_b and x_b') based on the similarity of melodic material on the downbeats: two quarter notes for "want" and "girl," and dotted-eighth-sixteenth figures "call," and "own." The continuation consists of the fourth line, subphrase y_b, which like the presentation, can also be divided into smaller subphrases.

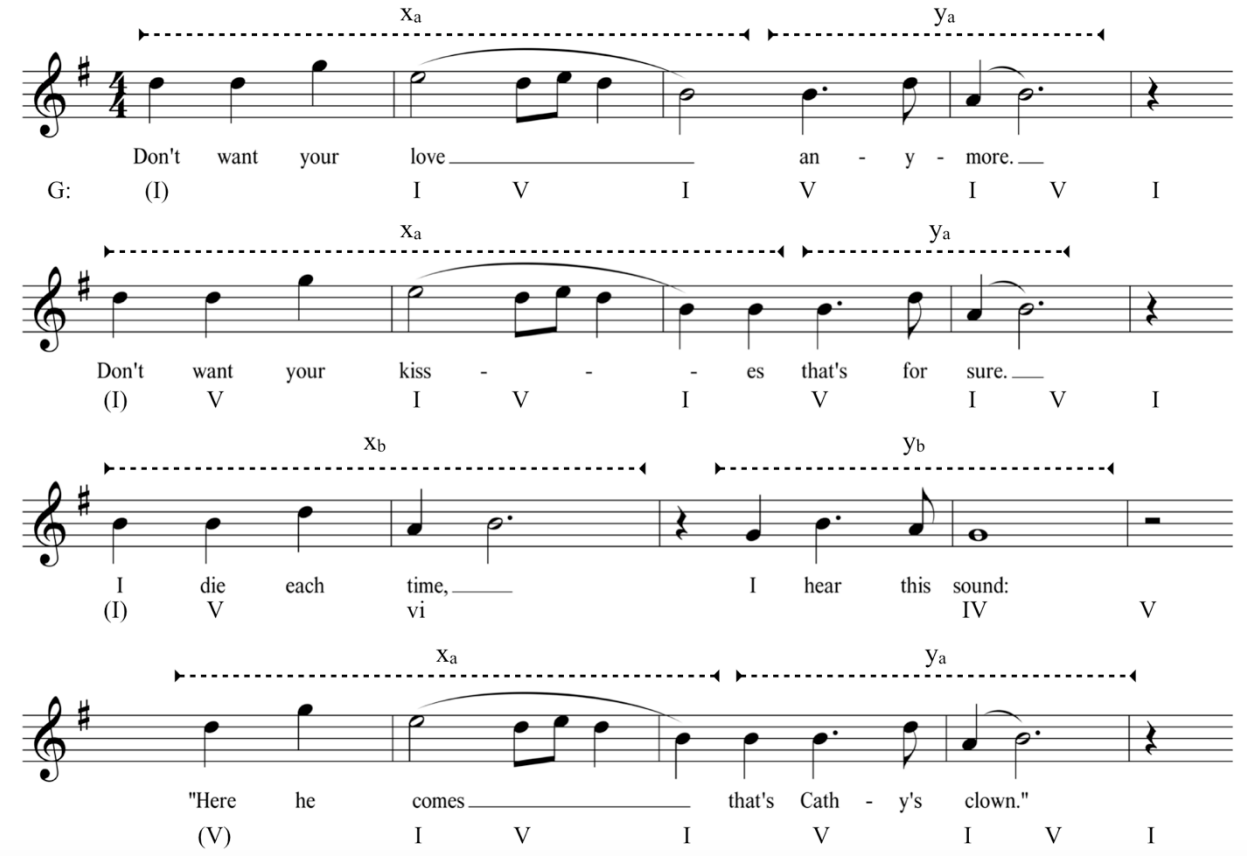

Figure 3.67: Chorus of "Cathy's Clown," performed by the Everly Brothers. (*Cathy's Clown*, Single, 1960, 0:07 - 0:39)

Summach's labeling of the chorus of "Cathy's Clown" is **aaba**, while the strophe of "Dream Lover" would be labeled as **aabc** (Summach labels it SRDC in keeping with his argument). These labels reflect the accepted practice of identifying the melodic components within each equal-spaced span of time with a letter, but the letter designations do not convey phrase relationships between the melodic segments. The letters of the paradigms can be viewed as metric or hypermetric "boxes" that can contain multiple phrase patterns.

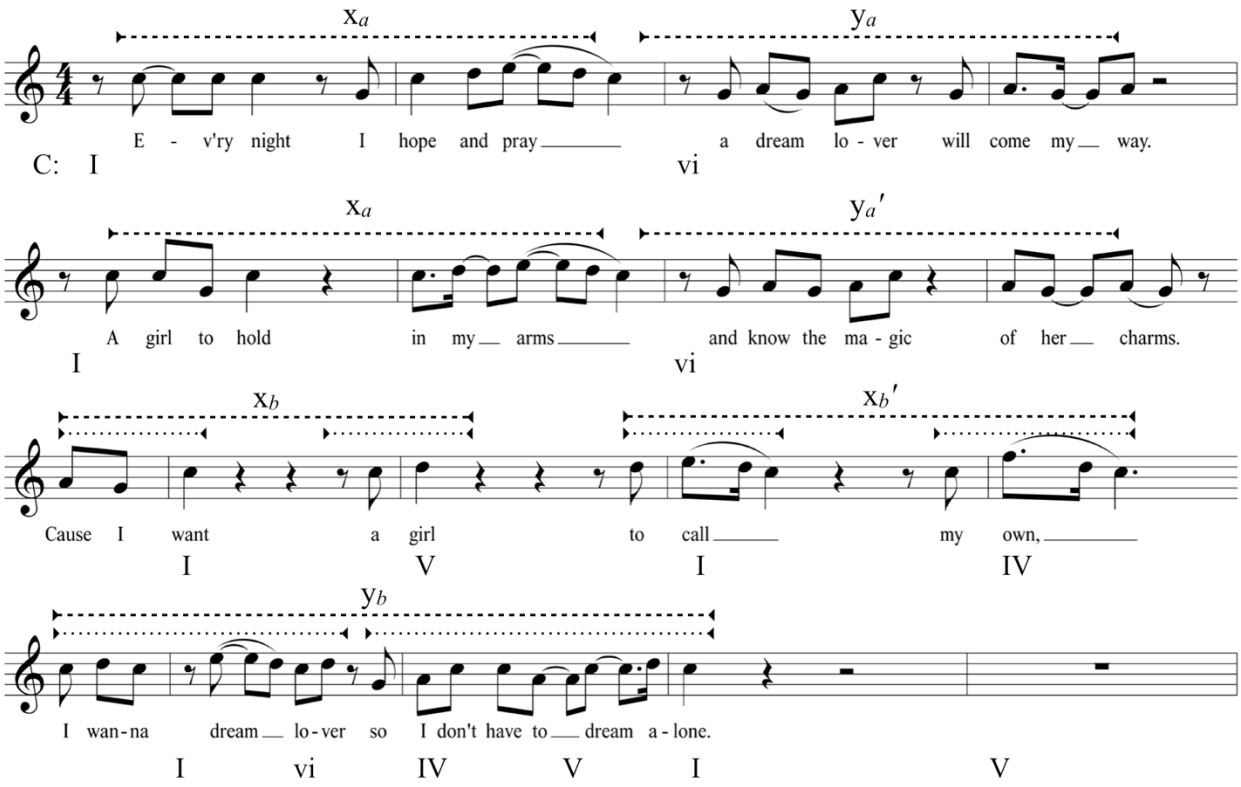

Figure 3.68: Strophe of "Dream Lover," performed by Bobby Darin. (*Dream Lover*, Single, 1959, 0:08 – 0:37)

Figure 3.69 shows the typical phrase segmentations of the **aaba** pattern. The annotations above the hypermetric grid show phrase segmentations according to my methodology, while the bolded letters below the grid show the hypermetric boxes. Commonly, each line of the **aaba** pattern is a complete phrase, meaning the phrase segmentation is *aaba*. In the phrase diagram, each phrase is shown with two contrasting subphrases, although any of the subphrase patterns presented for single phrases earlier in this chapter may appear.

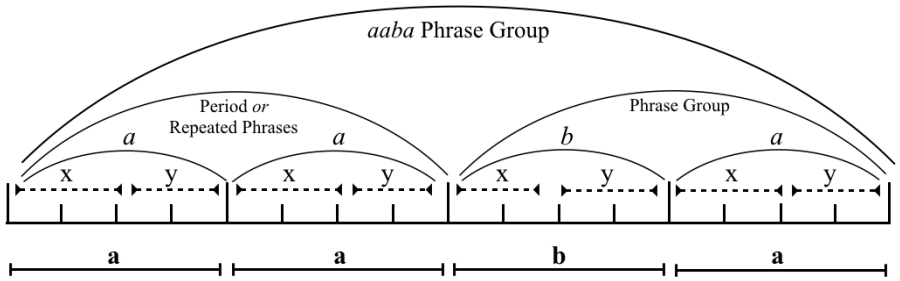

Figure 3.69: Typical phrase segmentation in the **aaba** formal pattern.

The two common phrase segmentations for the **aabc** pattern are shown in Figure 3.70. The *aab* arrangement is more common, especially with the 16-bar version of the **aabc** pattern. Because there is no repetition tying the **c** unit to the **b** unit, it usually unites as a single sentential phrase. The *aab* phrase group reflects the phrase segmentations in the chorus of "Dream Lover" (Figure 3.68).

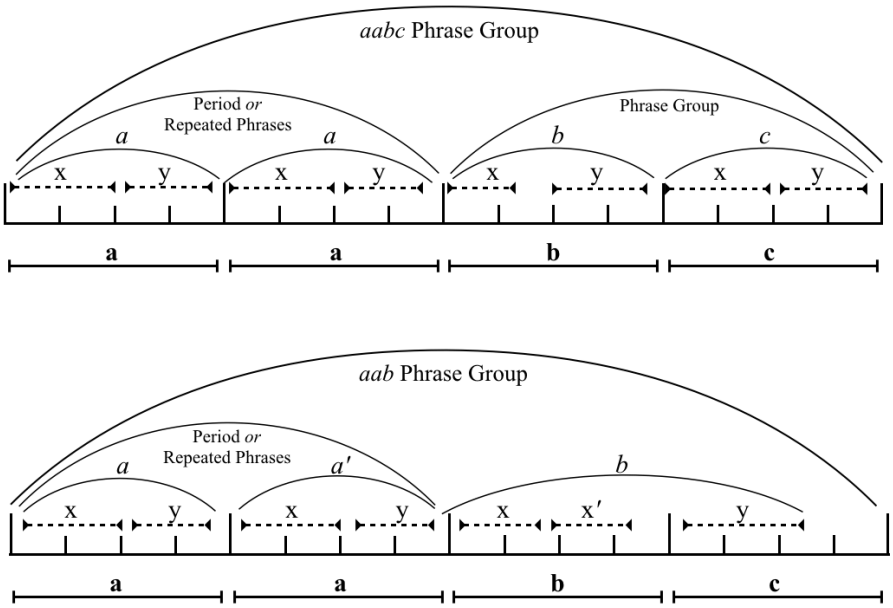

Figure 3.70: Typical phrase segmentations in the **aabc** formal pattern.

The distinction between the *aab* phrase group in **aabc** patterns and the xxyz subphrase pattern is the number of subphrases being repeated. In *aab*, the *a* phrase is composed of at least two subphrases, meaning a group of subphrases are repeated. In xxyz, the repetition is a single subphrase, and is usually only one or two measures long. For example, the **a** line in the strophe of "Dream Lover" (Figure 3.68) is composed of two different subphrases: x_a and y_a. The repetition of **a** in the second line repeats both subphrases, meaning its repeating a phrase, not beginning a phrase process. However, in the verse of "Cathy's Clown" (Figure 3.66), the unit Summach identifies as **a** is only a single subphrase (my subphrase x). Without intervening contrasting material, the repetition signals the start of a sentential process, not the repetition of a phrase.

Nobile also recognizes the similarity of the SRDC paradigm to the common-practice sentence in his article on voice leading in the Beatles, and he supports the comparison by stating the voice leading between the common-practice sentence and the SRDC pattern are almost always "in sync."[22] His primary concern with the SRDC pattern is the harmonic paradigm of the sentence, which he uses to inform his Schenkerian reductions. The paradigm is a tonic prolongation through the S and R, a move away from tonic in the D, and a cadence in the C. Because his focus is harmonic, the associated melodic segmentations of the SRDC pattern sometimes conflict with the segmentations produced by my methodology, as well as the accepted definition of the common-practice sentence.

For example, he uses The Beatles's "A Hard Day's Night" as one of his examples of the SRDC-B form. The transcription of the A of the AABA form is provided in Figure 3.71 with my subphrase annotations as well as Nobile's SRDC segmentations.

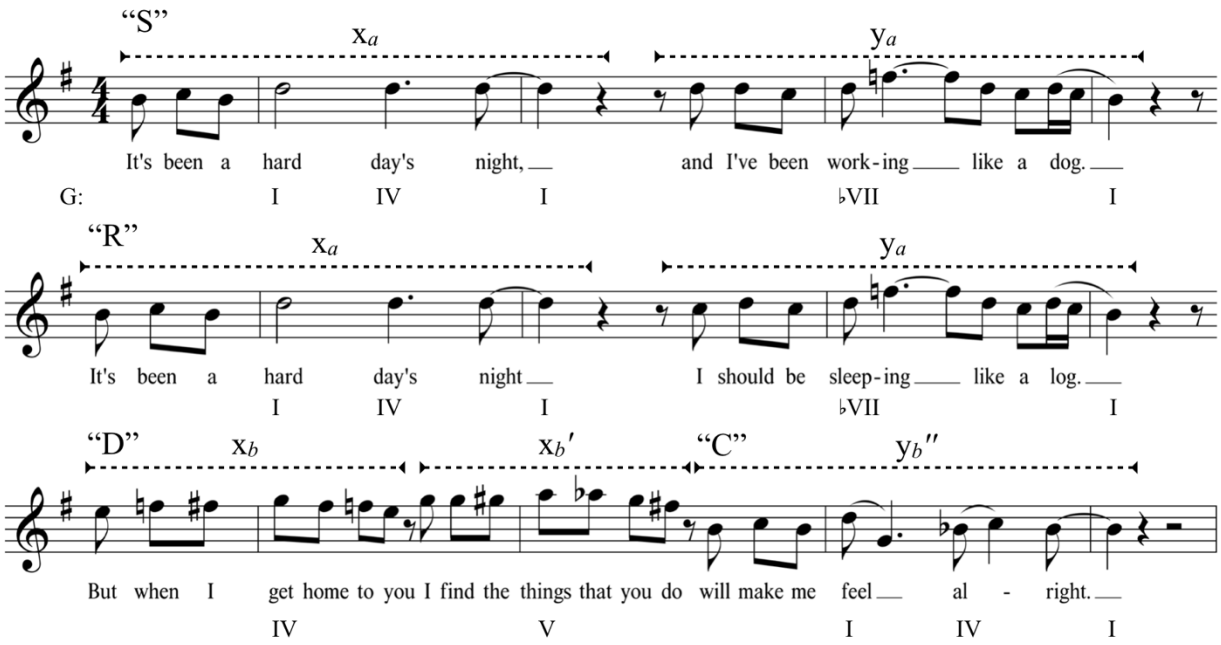

Figure 3.71: A of the AABA in "A Hard Day's Night," performed by the Beatles. (*A Hard Day's Night*, 1964, 0:02 – 0:23)

[22] Drew Nobile, "Form and Voice Leading in Early Beatles Songs." *Music Theory Online* 17, no. 3. (October, 2011): [0.1]

To reiterate: Nobile is borrowing the harmonic paradigm of common-practice sentences because they are a standardized instantiation of the SRDC paradigm. He does not, however, identify all SRDC patterns as "sentences," even though he does transfer the sentential harmonic characteristics. Therefore, when he analyzes the A of "A Hard Day's Night" as SRDC, it does not matter that the ratio of subphrase lengths is the appropriate 1:1:2 ratio characteristic of the sentence paradigm. Importantly, the continuation is not double the length of the initial subphrase, one of the essential elements of sentence structure identified by BaileyShea.[23] As is evidenced in my annotations, I view the structure as a three-phrase group, with the final line being a sentence. My phrase diagram is provided in Figure 3.72.

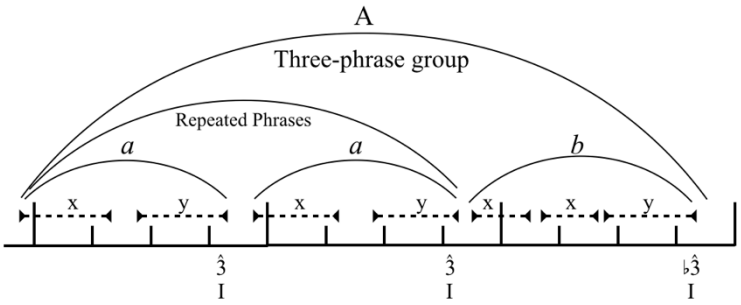

Figure 3.72: Phrase diagram of the A of the AABA in "A Hard Day's Night," performed by the Beatles. (*A Hard Day's Night*, 1964, 0:02 – 0:23)

Both of Summach's **aabc** songs and Nobile's SRDC song have been groupings of three phrases, which does not align with the current discussion of four-phrase groups (they more appropriately belong in the section on three phrases, p. 31). I have grouped the **aabc** with **aaba** patterns because they are both treated similarly as variants of the SRDC pattern. But, when considering the component melodic activity, the two are quite different. The **aaba** pattern represents departure and return, whereas **aabc** represents continuous departure. The disconnect between the hypermetric groupings of four with phrase groupings in three represents the formal tension of the section, and why Summach's ultimate point in his article is correct: the prechorus develops from the continued motion towards difference represented by the **aabc** pattern. When the concluding line, **c**, reaches full independence as a chorus, it is usually a grouping of two or four phrases. Independent phrases in **c**, now a chorus, means **b** and **c** can no longer group as a

[23] BaileyShea, "Sentence Types," 27.

sentence. This leaves the **b** line as an independent phrase, the prechorus. The prechorus typically retains the presentation function of the sentence paradigm, setting the expectation of fulfillment in the continuation, which is now a complete chorus.

Summach's example in his article for the **aabc** pattern developing into verse-prechorus-chorus form is "Runaway," performed by Del Shannon, and reproduced below as Figure 3.73.[24] The formal separation in that song is more evident because the verse and chorus are both sixteen measures long, and the prechorus repeats a four-measure unit, totaling eight measures. The length and large-scale repetition of patterns within each module clearly separate the component parts. In contrast, "Never Gonna Give You Up," performed by Rick Astley (Figure 3.74), is much more closely aligned with the **aabc** pattern. Using Summach's labeling, the pattern is **aabcc**; the excerpt is twenty measures long (only four away from the normative sixteen), and the additional four measures are caused by the repetition of **c**. Given Summach's allowance for extensions and modifications to units, the song could quite easily be a modification of the **aabc** paradigm. What makes "Never Gonna Give You Up" a verse-prechorus-chorus song is the formal separation of **b** (the prechorus) from the repeated **c** (chorus). The repetition of **c** without **b** means that **c** is independent, and must be treated as a separate formal unit.

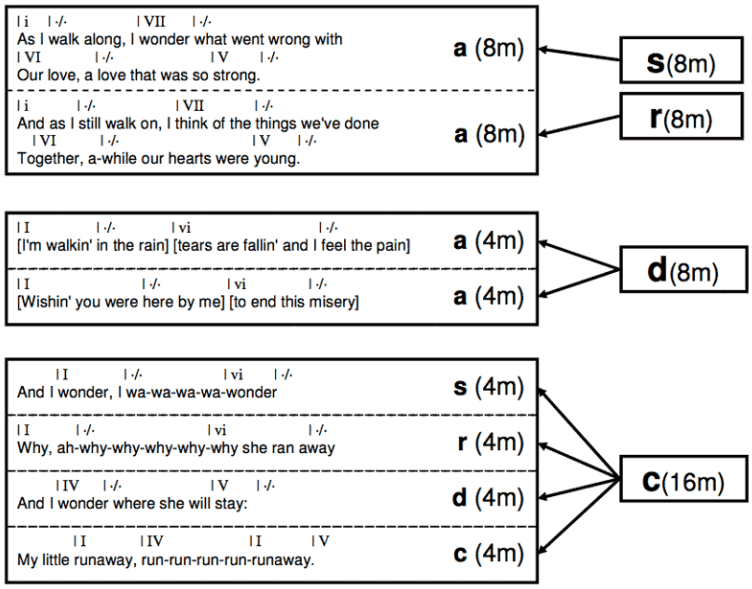

Figure 3.73: Reproduction of Summach's Example 21: "Runaway," performed by Del Shannon. (*Runaway*, 1961, Single, 0:06 – 1:09)

[24] Summach, "Prechorus," [20]. See also his Example 21.

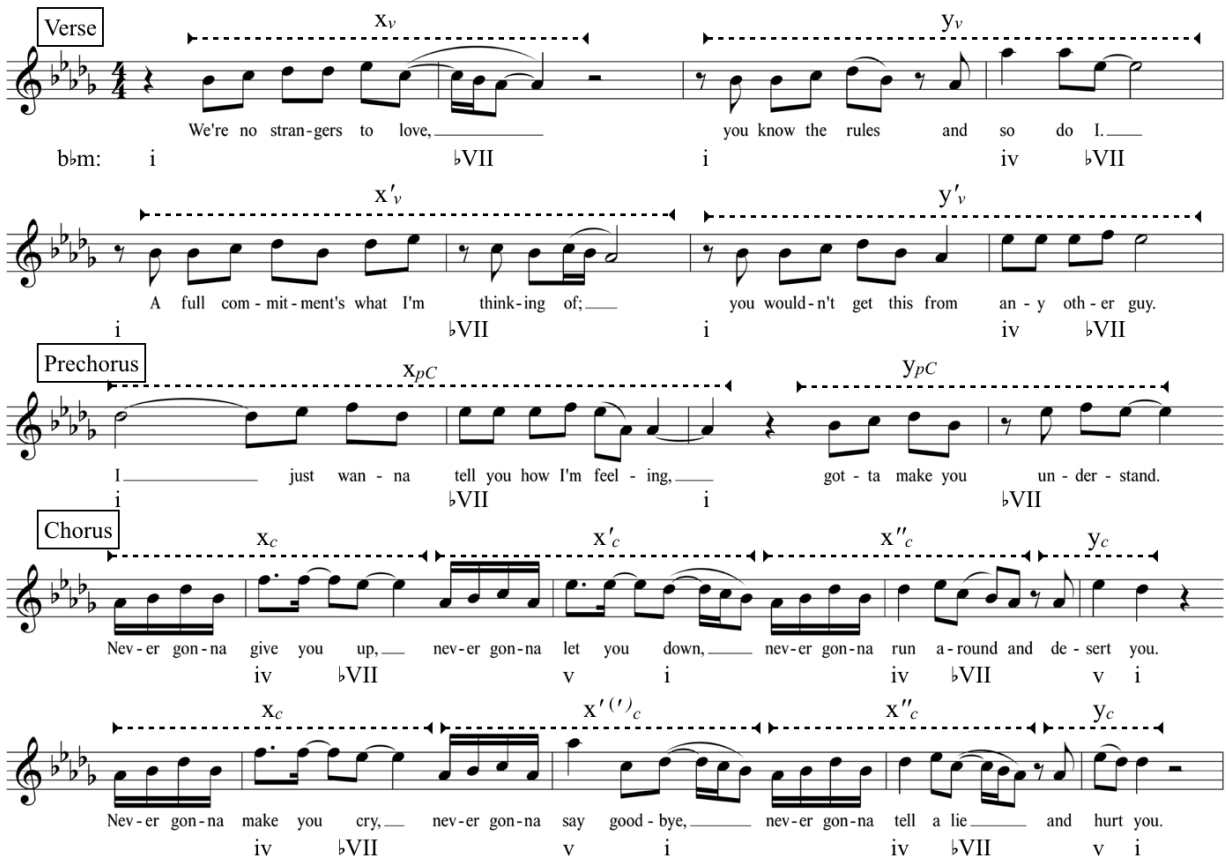

Figure 3.74: Verse-chorus unit of "Never Gonna Give You Up," performed by Rick Astley. (*Whenever You Need Somebody*, 1987, Track 1, 0:18 – 1:00)

The repeated **a** lines set up the possibility of an **aabc** structure, and the contrasting melodic material of **b** continues the possibility, especially because it follows the typical binary division of subphrases common in that part of the form. However, the independence of the **c** lines forces the verse-prechorus-chorus interpretation. The phrase diagram for the excerpt is provided in Figure 3.75.

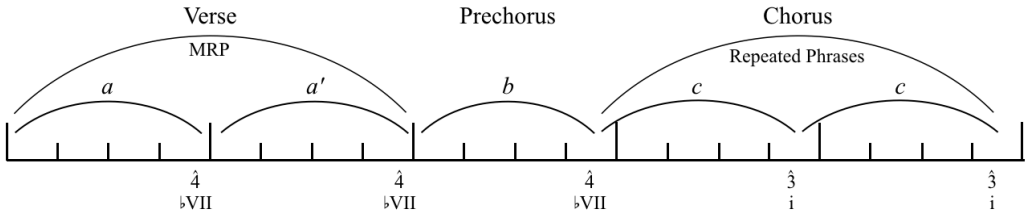

Figure 3.75: Phrase diagram of the verse-chorus unit of "Never Gonna Give You Up," performed by Rick Astley. (*Whenever You Need Somebody*, 1987, Track 1, 0:18 – 1:00)

The distinction between the different phrases of the *aaba* and *aabc* paradigms in Coldplay's output is fairly subtle. For example, the *a* and *b* phrases in the chorus of "Another's Arms" (Figure 3.76) are both structured as reverse sentences, and share highly similar rhythmic patterning. The difference is created by the tessitura of the voice, which begins an octave higher in the *b* phrase, and drops to the original octave with the return of phrase *a*.

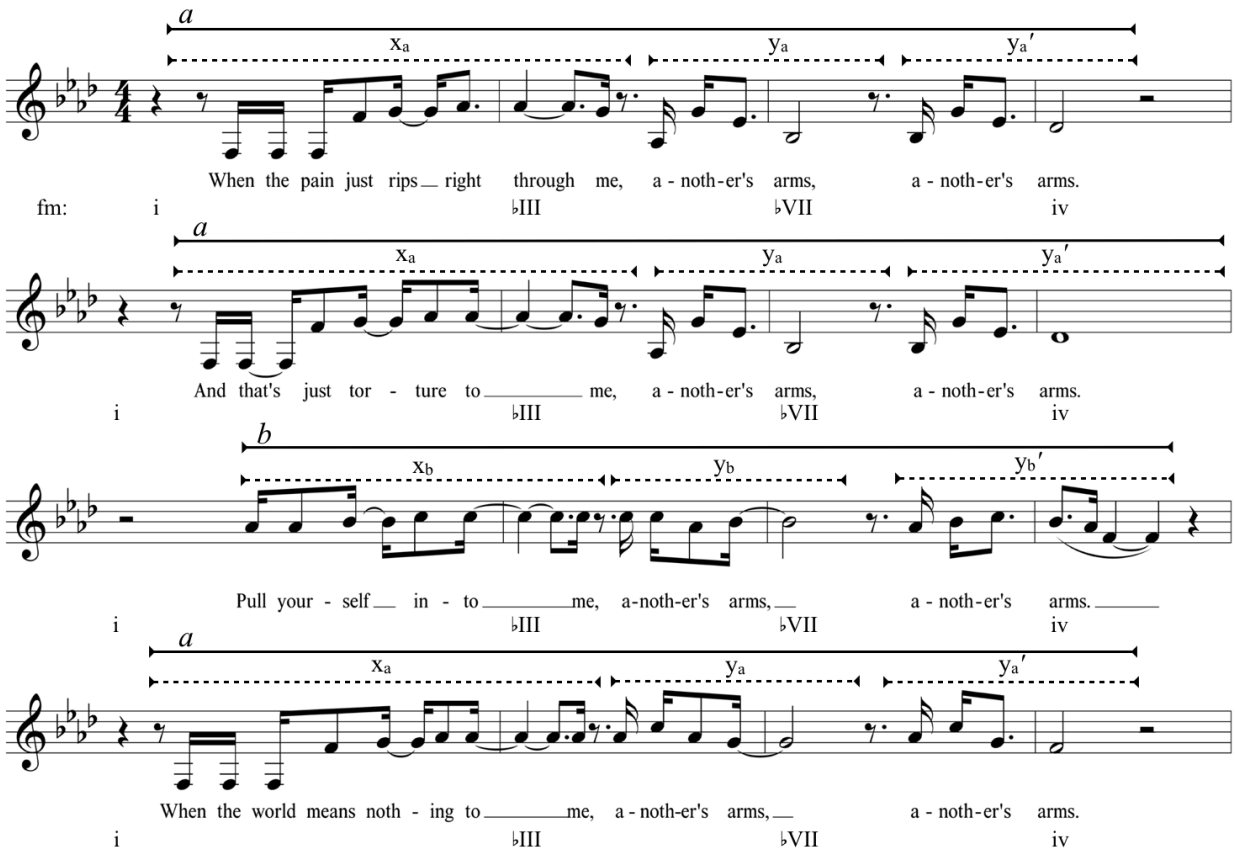

Figure 3.76: *aaba* phrase structure in the chorus of "Another's Arms," performed by Coldplay. (*Ghost Stories*, 2014, Track 6, 1:13 – 1:37)

One of the few *aabc* patterns in Coldplay's output is also subtle, and is best represented as *aaa'b*. It is found in the strophe of "Violet Hill," shown in Figure 3.77. The third phrase is marked as *a′* because it shares the same melody as the first two lines but the harmonic support is different. The final phrase, *b*, is completely new and markedly different from the repeated *a* phrases.

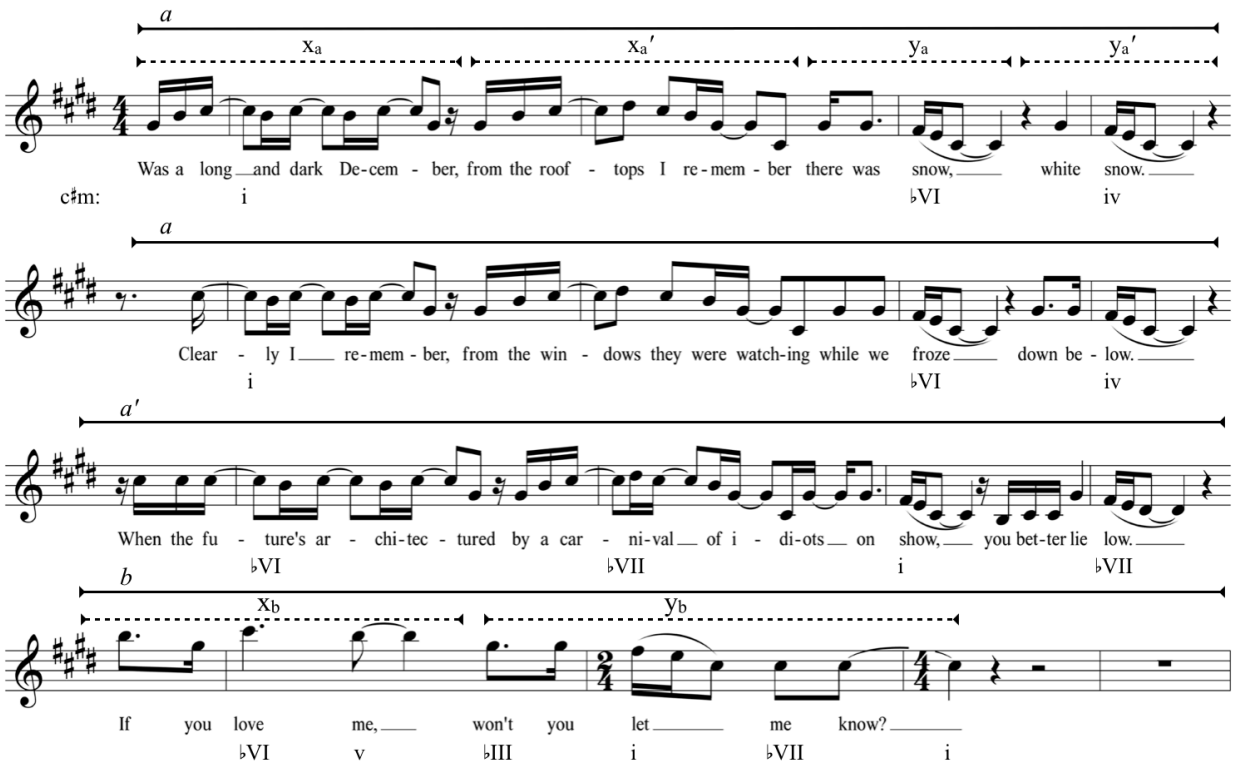

Figure 3.77: *aabc* patterning in the strophe of "Violet Hill," performed by Coldplay. (*Viva la Vida*, 2008, Track 11, 0:35 – 1:23)

Repeated Subphrases

xx. Immediate repetition of a single subphrase generally signals the start of a sentence structure. However, it is possible for the xx subphrase pairing to represent a complete phrase in the absence of any other viable grouping. For example, the chorus of Vampire Weekend's "Campus" (Figure 3.78), consists of the immediate repetition of a single subphrase that is not followed by any contrasting material.

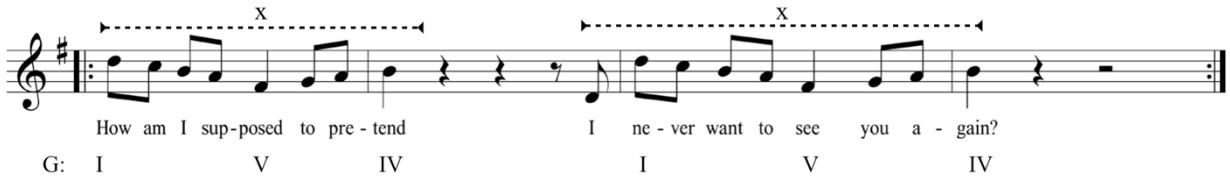

Figure 3.78: Chorus of "Campus," performed by Vampire Weekend. (*Vampire Weekend*, 2008, Track 6, 1:10 – 1:22)

The independence of the xx pairing is confirmed by an exact repeat of the same melodic, harmonic, and lyrical material, creating a pair of repeated phrases. In contrast to all the previous phrase patterns discussed in this chapter, the xx phrase lacks a distinct teleology. The teleology of xyxz and xxyz groupings aims for completion in a final contrasting subphrase; the xx grouping does not because there is no final contrasting subphrase.

xxyy. In dialogue with the xx subphrase pattern and the sentential xxyz subphrase pattern is the xxyy subphrase pattern. The immediate repetition of the first subphrase sets up the expectation of a sentence structure, a structure which is denied by the repetition of the contrasting subphrase. Because the normal behavior of contrasting subphrases is to group together into a single phrase, it is inconsistent to group the xx and yy as separate phrases. Therefore, I group the xxyy pattern as a single phrase. When the xxyy pattern does occur, it repeats as a complete unit, such as in the verse of Coldplay's "Hurts Like Heaven" (Figure 3.79). The verse consists of three iterations of the same xxyy pattern, confirming the entire unit as a single phrase.

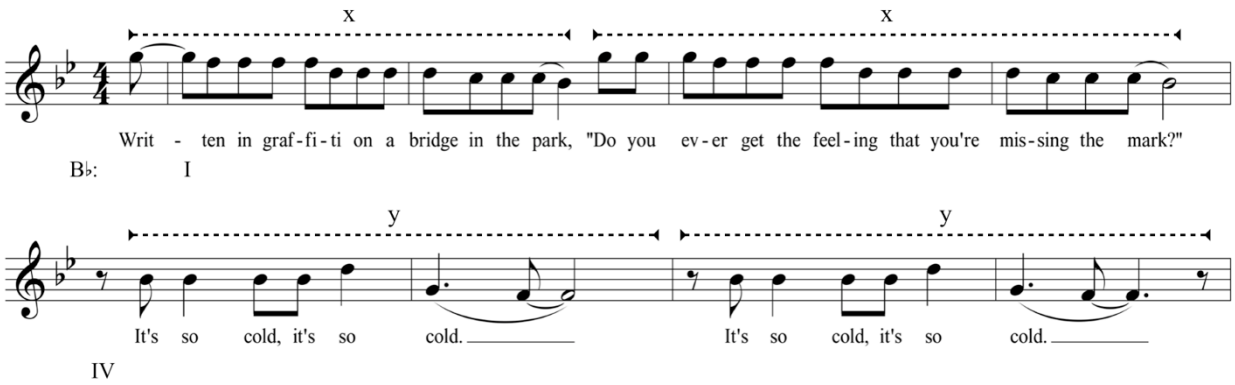

Figure 3.79: Verse of "Hurts Like Heaven," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 2, 0:00 – 0:10)

A similar situation is found in the verse of "Campus," shown in Figure 3.80. The immediate repetition of subphrase x sets up the expectation for a sentence, an expectation partially fulfilled by the appearance of subphrase y, and then denied by the repeat of subphrase y. A lack of melodic teleology is present in each of the formal units of "Campus," but interestingly, the song has a verse, prechorus, chorus, and terminal climax. Despite the lack of goal-

directedness in the individual units, the song as a whole aims for final completion in a final climactic section.

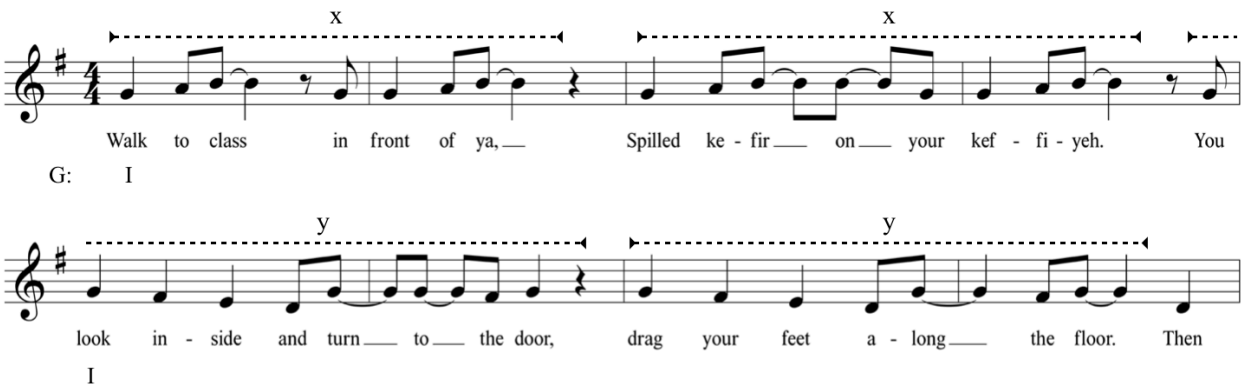

Figure 3.80: Verse of "Campus," performed by Vampire Weekend. (*Vampire Weekend*, 2008, Track 6, 0:53 – 1:05)

Conclusion

The wide variety of artists and songs analyzed in this chapter demonstrates the viability of this analytical methodology for phrase segmentation across the spectrum of popular music. The categories of phrases and phrase groupings in this chapter reflect paradigmatic subphrase and phrase groupings in popular music, and are identified by melodic patterns of same/different. These segmentations do not rely on specific harmonic paradigms, setting my methodology apart from other analytical approaches.

CHAPTER 4

METHODOLOGICAL COMPLICATIONS: ROTATED PHRASES AND COMPETING PARAMETERS

Introduction

In most cases, phrase segmentation based solely on repeated melodic activity is straightforward because harmonic, metric, and lyrical content all coordinate with the melodic patterning. In some cases, phrase segmentation is complicated when one of the other parameters, typically harmonic or lyric content, competes against phrase segmentation based solely on melodic repetition. This chapter begins by exploring two ways lyrical content influences phrase segmentation, ambiguous lyrical membership and rotated phrases, and concludes with a discussion of the influence of harmony and absolute time on phrase segmentation.

Phrase Boundary Ambiguity

Most phrase boundaries are clear, and are usually reinforced by repetition of entire units within a consistent hypermetric grid. However, when the repetition coincides with lyrics that are ambiguous in lyrical membership or contrary to the melodic repetition, the boundary becomes blurry.

For example, in the verses of "Clocks," (Figure 4.1) an eighth-note figure at the end of each four-measure unit has ambiguous membership as the conclusion of one phrase or the anacrusis to the next. In the first verse, either the second phrase ends, or the third phrase begins with the word "singing." As part of the second phrase, "singing" describes how the narrator is begging and pleading. As a member of the third phrase, "singing" describes (somewhat ironically) how he presents the following lyrics. The fourth phrase also ends with "singing," but there is no verse statement that follows it. As a repeated melodic idea, it should attach to the fourth subphrase. This would retrospectively attach the same "singing" gesture to the end of the second phrase rather than the start of the third. However, the words "and the" clearly start the fourth phrase, which contradicts the segmentation for the eighth notes just assigned to the ends of the second and fourth phrases. Alternatively, all three instances could associate with the onset of

the next unit as pickups. With that interpretation, the two eighth notes not only serve as pick-ups to subsequent verse phrases, but also to the following chorus.

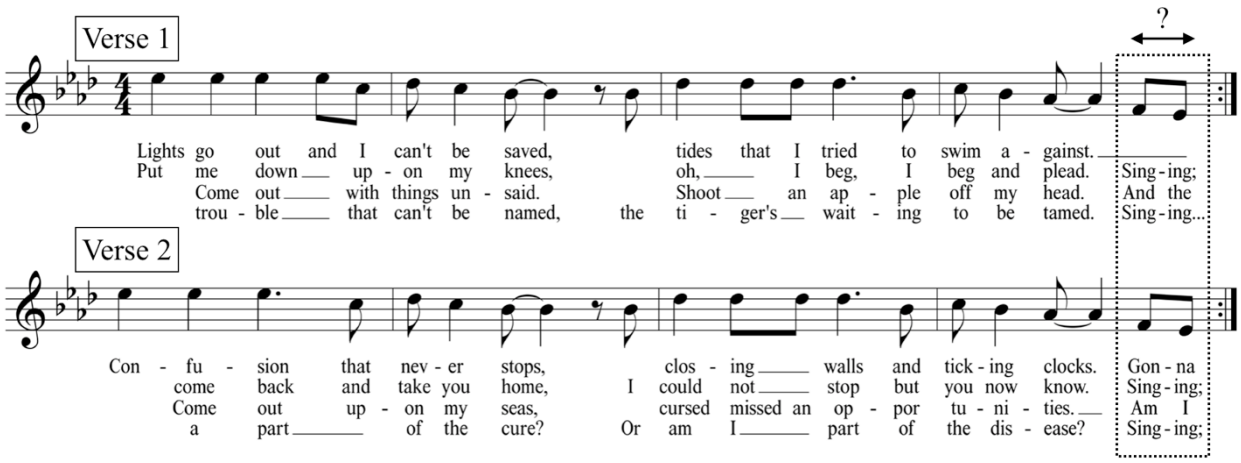

Figure 4.1: Phrase boundary ambiguity in the verses of "Clocks," performed by Coldplay. (*A Rush of Blood to the Head*, Track 5, 0:29 - 0:58 and 1:28 - 1:58)

The lyrics of the second verse in the piano/vocal/guitar score are presented as block lyrics. Even here, the editor has placed lyrics on different lines, assigning the associated eighth notes to different phrases depending on lyrics (Figure 4.2). The melodic repetition should be consistently part of the same formal unit, but in this example, the phrase membership is fluid or ambiguous.

> Confusion that never stops
> Closing walls and ticking clocks
> Gonna come back and take you home
> I could not stop buy you now know, singing…
> Come out upon my seas
> Cursed missed opportunities
> Am I a part of the cure?
> Or am I a part of the disease, singing…

Figure 4.2: Block lyrics of the second verse of "Clocks," performed by Coldplay, as printed in the Piano/Vocal/Guitar songbook. Underlined lyrics correspond to the eighth note figure ending each printed line from Figure 4.1.

Another common location of phrase ambiguity is the boundary between prechoruses and choruses. Figure 4.3 shows the end of the prechorus leading into the chorus from "Something Just Like This," performed by The Chainsmokers and Coldplay. In the notation, the first line is the second phrase of the prechorus. The second line begins the chorus with the hook, "I want something just like this," labeled subphrase w. Importantly, this subphrase occurs primarily in the fourth hyperbeat preceding the chorus, and aims for completion on the hypermetric downbeat with the word "this." The melodic material is entirely new and should easily disassociate from the prechorus preceding it, but the lyrics unite it with the prechorus.

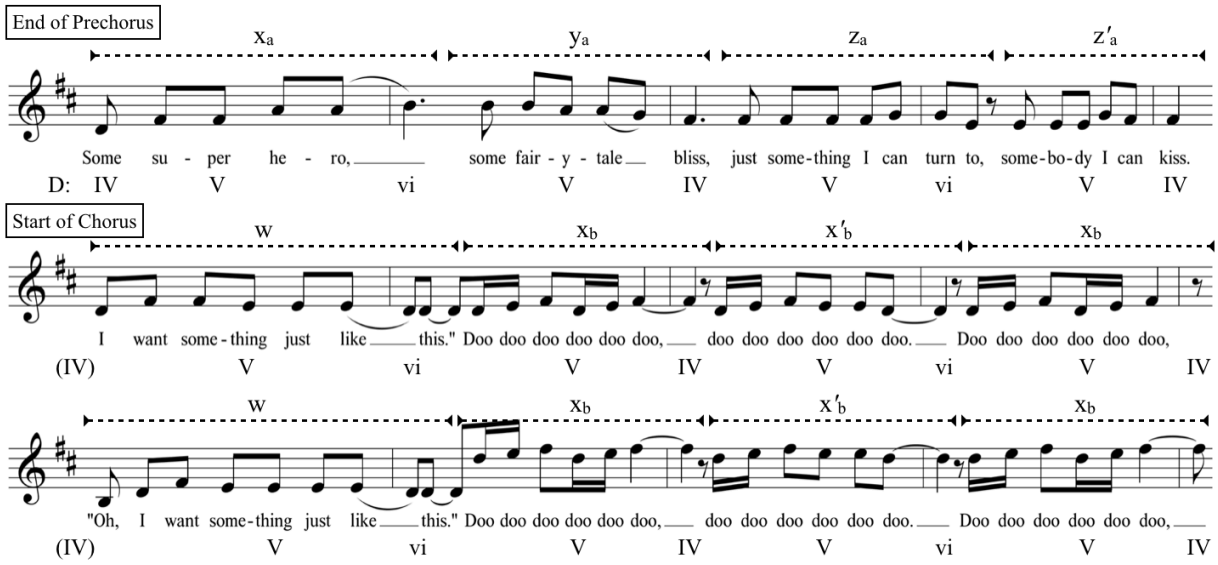

Figure 4.3: End of prechorus and beginning of chorus from "Something Just Like This," performed by The Chainsmokers and Coldplay. (*Something Just Like This*, Single, 2017, 0:34 – 1:05)

The end of the prechorus continues a list from the first phrase describing things the narrator does not want: "*some* superhero, *some* fairytale bliss." The second half of the phrase switches to things the singer does want: "*some*thing I can turn to, *some*body I can kiss." As a result of the repeated word *some*, the hook, "I want *some*thing just like this," is the natural completion of the prechorus, and can be interpreted as an extension and overlap from the prechorus that resolves on the downbeat of the chorus. As an extension and overlap, subphrase w replicates one of the patterns of period construction identified in the previous chapter, strengthening its association as part of the prechorus. Additionally, the overlapping interpretation

completes a motion to scale-degree 1 in the melody, a much more conclusive ending than the dissonant scale-degree 3 over IV that would otherwise end the prechorus ("kiss").

The phrase diagram in Figure 4.4 shows the two possible interpretations of subphrase w. In the top diagram, subphrase w is grouped as the initiating subphrase of the chorus, while in the bottom it is grouped as the culminating subphrase of the prechorus. Subphrase w recurs consistently in the same hypermetric location four times, which complicates its status as part of the prechorus. If subphrase w ends the prechorus, it must group as the ending subphrase of all the repetitions thereafter. The result is a shortened phrase (the parenthetical *b′*) at the end of the chorus that should exactly match the preceding *b′* phrase. If subphrase w has a concluding function, it should also conclude the final phrase of the chorus, which it does not, because the anacrusis to the second verse occupies the corresponding metric and hypermetric location.

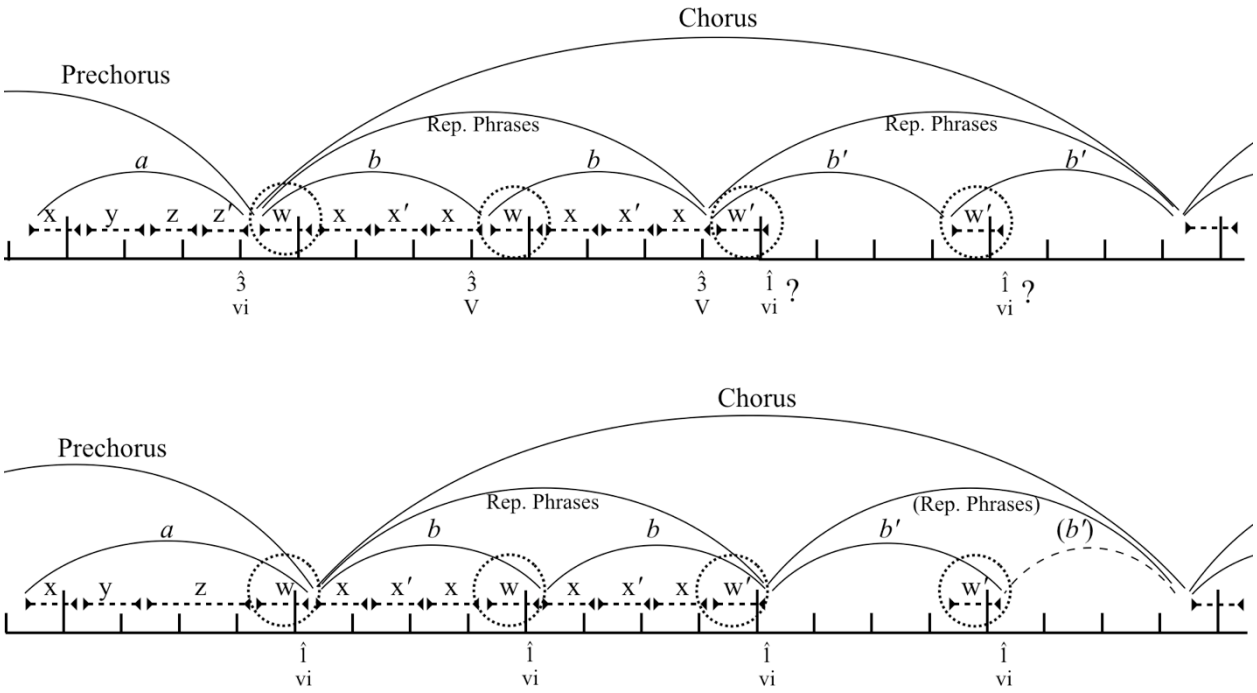

Figure 4.4: Two interpretations of the prechorus and chorus of "Something Just Like This," performed by The Chainsmokers and Coldplay. (*Something Just Like This*, Single, 2017, 0:34 – 1:05)

The more uniform segmentation groups subphrase w as the initiating subphrase of the chorus (the top diagram in Figure 4.4), producing four equal-length phrases that segment

consistently in the hypermetric patterning. This segmentation does produce less convincing closes at the end of the component phrases; the first two *b* phrases end with scale-degree 3 over the dominant (V). When the intervening "doo" lyrics (subphrases x and x′) are omitted in the second pair of phrases, it is possible to interpret subphrase w as the complete phrase, producing a close on scale-degree 1.

The interpretation of the single, one-measure subphrase w as a complete phrase conflicts with my methodology. However, it is becoming increasingly common for choruses to be split into two parts (especially in dance music) where the second half is reduced to an important riff or groove that is punctuated by the hook of the song. Subphrase w has participated in complete phrases prior to the second half of the chorus, and therefore can serve as a representation of the complete phrase in the absence of the additional subphrases.

It is possible to argue that the first two phrases of what I call the chorus of "Something Just Like This," are still functioning as the prechorus, and the chorus proper does not begin until the *b′* phrases. This interpretation is supported by the methodology de Clercq, who argues in his dissertation that the formal parts of popular songs can be defined by their prototypical roles, and that formal blends can occur when sections overlap formal roles.[1] He posits that "cadential quality" is one characteristic aspect of choruses, especially in contrast to verses.[2] The melodic cadential motion of subphrase w is very strong, descending from scale-degree 3 to 1. By removing the internal subphrases, the second half of the chorus can be more cadential by consisting only of the cadential subphrase w. Additionally, the texture of the *b′* phrases is much fuller than the *b* phrases, supporting the argument that the *b′* phrases are more appropriately the true chorus despite having less lyrical content.

The status of subphrase w becomes even more complicated by the end of the song. The subphrase sounds conclusive, despite its more appropriate segmentation as the beginning of phrases. This characteristic does not seem to be lost on Coldplay or the Chainsmokers, who concede to its concluding function at the end of the song. With no returning melodic material following the guitar solo (3:32), the final statement of subphrase w concludes the section (3:51) as the song fades out (Figure 4.5).

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[1] Trevor de Clercq, "Sections and Successions in Successful Songs: A Prototype Approach to Form in Popular Music" (PhD diss., University of Rochester, 2012), 213.
[2] Ibid., 48-49.

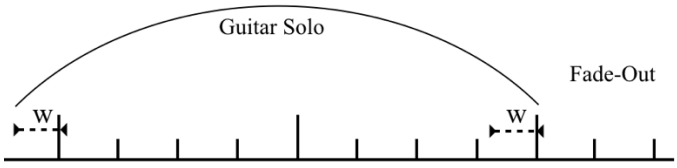

Figure 4.5: Phrase diagram of the guitar solo and outro of "Something Just Like This," performed by The Chainsmokers and Coldplay. (*Something Just Like This*, Single, 2017, 3:32 – 4:07)

Rotated Phrases and Subphrases

Up to this point, melodic and lyrical patterns have consistently aligned with the hypermetric structure. In rotated phrases and subphrases the pattern of lyrical content is displaced from the melodic and hypermetric patterning. The displacement of lyrics from the melodic material is caused when a short, initiating subphrase called the *rotation starter* causes the lyrical phrase to end either too early or too late in comparison to the melodic repetition. The lyrical content of the rotation starter can be an unimportant word that merely occupies the space to create the displacement, the initiating part of a complete lyrical idea, the name of a person or idea that will be subsequently addressed, or an important, declamatory word that topically relates to the ensuing lyrics. Figure 4.6 shows the interaction of the melodic and lyrical material in the two versions of rotated phrases.

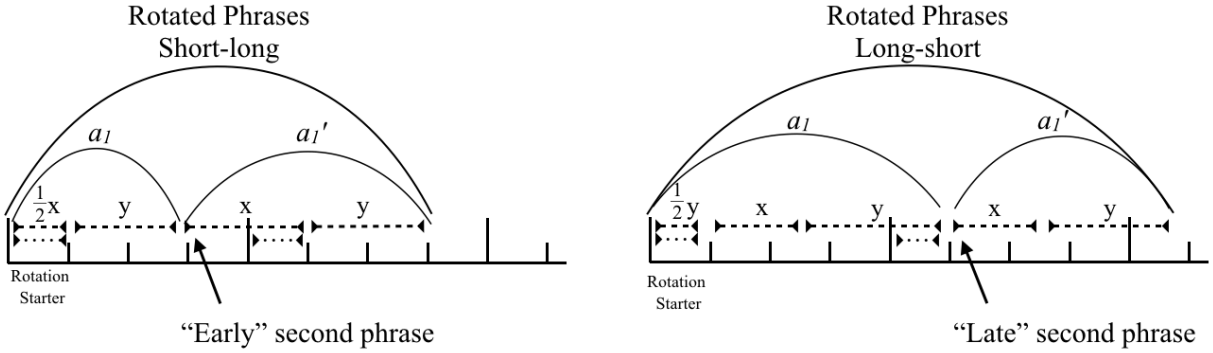

Figure 4.6: Two options for creating misalignment between lyrics and melody in rotated structures.

In the first example of Figure 4.6, the initial subphrase is half of subphrase x, which appears in full later in the group. The lyrical content of the first phrase ends with the completion of subphrase y, but the second phrase begins "early" with the complete version of subphrase x. As a result, the new lyrical phrase begins with new material, and overlaps into the repeated material (the rotation starter) of the second half of subphrase x. The result is a pair of phrases where the onset of the repeated melodic material is obscured by the "early" entrance of new lyrical material; the melodic repetition does not align with the lyric restart, obscuring the boundary between the phrases.

In the second example of Figure 4.6, the rotation starter is the final segment of subphrase y, which appears in full later in the group. The lyrical phrase ends with the full version of subphrase y, which contains the initial melodic material of the rotation starter. As a result, the onset of the repeated melodic material (the rotation starter) is obscured by the incomplete lyrical phrase. The second lyrical phrase begins "late" in comparison to the first phrase.

In both rotated phrase paradigms, the lengths of the component phrases are unequal. Whether the structure is long-short or short-long depends on the interaction of the lyrics with the subphrase repetition. In the short-long paradigm, the first lyrical phrase ends with the second group of melodic activity, the complete subphrase y; the second lyrical phrase begins with the anacrusis into the next hypermeasure. In the long-short paradigm, the first lyrical phrase completes with the third group of melodic activity, and typically overlaps into the next hypermeasure. The short-long paradigm consists of what appears to be 3 ½ subphrases, while the long-short paradigm consists of what appears to be 4 ½ subphrases. In both cases, the half subphrase is a component of a complete subphrase appearing later in the phrase.

In both rotated phrase paradigms, the displacement of lyrical beginnings and endings from melodic beginning and endings has the potential to create perpetual motion. In the short-long paradigm, the second phrase ends lyrically before the melodic repetition completes. If exact melodic repetition is maintained, another subphrase x must appear, necessitating more lyrics. If the added lyrical phrase maintains the same length, it will produce the same potential for a repeated melodic unit after four more measures. A similar situation occurs with the long-short paradigm except the role of the lyrics and melody are reversed. In both cases, the end of one component has the potential to overlap with the beginning of the other component, meaning the rotations could continue forever unless something breaks the pattern. The pattern can be broken

by inserting a lyrical break following the second phrase, altering the end of the second phrase to break the pattern of repetition, or changing the underlying harmonic and metric patterning.

I describe these structures as *rotated* because they can be thought of as interacting with the cyclical patterns of meter and hypermeter. Figure 4.7 shows the rotation of the beginning of the second phrase in comparison to the beginning of the first phrase in rotated structures. The circle represents a four-bar hypermeasure, and the triangles the starting point of each phrase within the hypermetric loop.

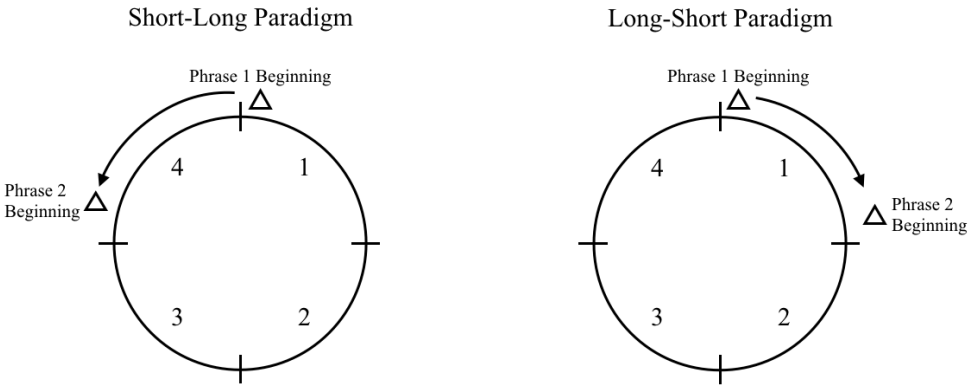

Figure 4.7: Graphic representation of the two rotated phrase paradigms.

Examples of Rotated Phrases

The verses of "Twisted Logic," performed by Coldplay, begin with a prototypical rotation starter. The first pair of phrases of the first verse is provided in Figure 4.8, and the rotation starter is labeled as subphrase ½ x.

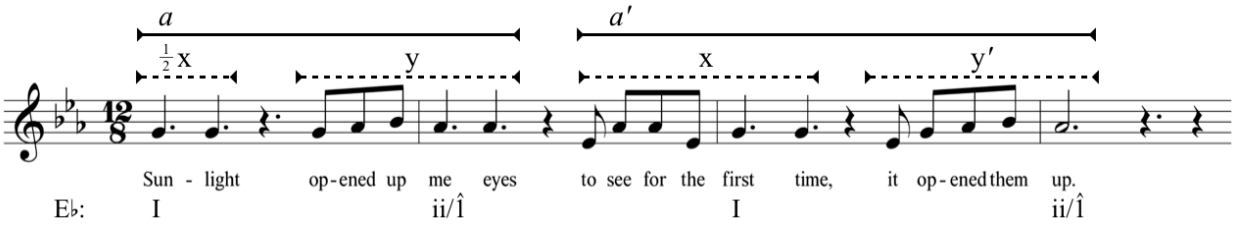

Figure 4.8: First two phrases of the first verse of "Twisted Logic," performed by Coldplay. (*X&Y*, 2005, Track 12, 0:00 – 0:36)

A few characteristics set subphrase ½ x apart as a rotation starter rather than just a typical subphrase. First, it is shorter than all the other subphrases in the first line. Second, it is clearly separated from the following subphrases by a vocal rest. Third, its metric placement is different; all the other subphrases begin as anacruses to metric downbeats, but subphrase ½ x begins on the downbeat. Finally, it is repeated as the second half of the complete subphrase x later in the example.

As shown by the annotations, the two phrases are of unequal length, following the short-long paradigm. Importantly, the phrase segmentation does not align with the onset of the repeated melodic material on the downbeat of the third measure. As is characteristic of rotated phrases, the lyrical content is displaced from the melodic repetition. Using only melodic repetition without reference to the lyrical content, subphrase x must be split in half to start the second phrase. Rotated structures are an exception to my melodically focused segmentation because the lyrical content influences the segmentation into phrases.

Figure 4.9 shows three different interpretations of Example 4.8 as phrase diagrams. The first diagram depicts the actual phrase and subphrase segmentations. The subphrases are grouped in pairs, and the second phrase, *a′*, begins with the onset of subphrase x instead of halfway through it (the more appropriate segmentation based solely on melodic repletion). I group the two phrases as modified repeated phrases because they are related to each other by melodic content even though the exact repetition is obscured by the lyrical displacement.

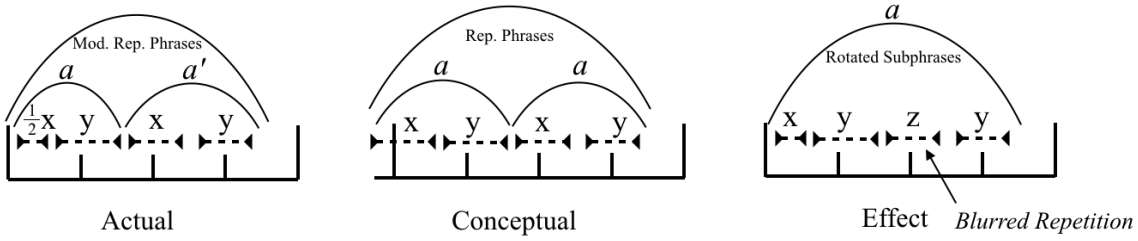

Figure 4.9: Multiple phrase structure interpretations of "Twisted Logic," performed by Coldplay. (*X&Y*, 2005, Track 12, 0:00 – 0:18)

The melodic relationship between the phrases is illustrated in the conceptual diagram in the middle of Figure 4.10; if the rotation starter (subphrase ½ x) were instead a complete iteration of

subphrase x, the two phrases would combine as repeated phrases. Because they are explicitly different in the song, they are considered modified repeated phrases (the label of the left diagram in 4.10).

The final phrase diagram shows the musical effect of the rotated subphrases; the subphrases now represent segments of lyrical activity with no exact repetition between them. As a result, the initial subphrase is now labeled x, and the third as subphrase z to reflect that they are not truly the same. With no repetition between subphrases, the entire excerpt must be interpreted as a single phrase. The exact repetition of the two-measure melodic pattern is obscured because the lyrical content of subphrase z straddles the boundary of the repetitions. The rotation created by the displacement of the lyrics and melody is corrected by the nearly two complete beats of vocal rest at the end of the excerpt, the longest gap in the melody yet heard, which breaks the anacrusis pattern necessary to continue the rotated structure.

The second verse of "Twisted Logic," shown in Example 4.10, extends the rotated phrase paradigm to another level of the form.

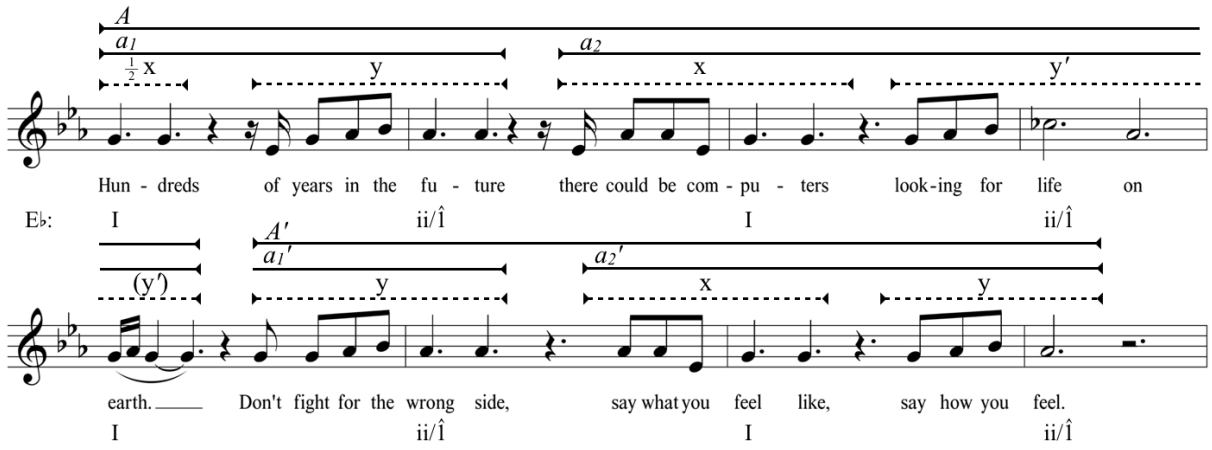

Figure 4.10: Second verse of "Twisted Logic," performed by Coldplay. (*X&Y*, 2005, Track 12, 0:54 – 1:30)

Instead of ending in the fourth measure of the first line like the first verse, phrase a_2 overlaps into the repeated melodic and harmonic material of the second line. The lyrical overlap into the repetition of the complete four-measure unit displaces the beginning of phrase a_1', "Don't fight for the wrong side." Instead of beginning on the downbeat of the fifth measure (the start of the

second line), phrase a_1' begins with an anacrusis to the sixth measure. The larger grouping of phrases (*A* and *A′*) models the long-short rotated phrase paradigm; the first phrase is extended to the next hypermetric downbeat, displacing the start of the second phrase. The two larger phrases form an anti-period, but the exact repetition is obscured by the overlap of phrase *A* into the next hypermeasure.

Two phrase diagrams for the second verse of "Twisted Logic," are provided in Figure 4.11. The first shows the lower level of phrases, while the second shows the higher level of phrase groupings. Phrase a_1' is abnormal in that it consists of only a single subphrase: subphrase y. This is an effect of the rotation at the lower level where the overlap subsumes all of subphrase ½ x into phrase a_2. The higher level grouping, phrases *A* and *A′* both contain the requisite pair of contrasting subphrases, but *A′* contains the uncommon grouping yxy. Again, this grouping is attributable to the rotated structure.

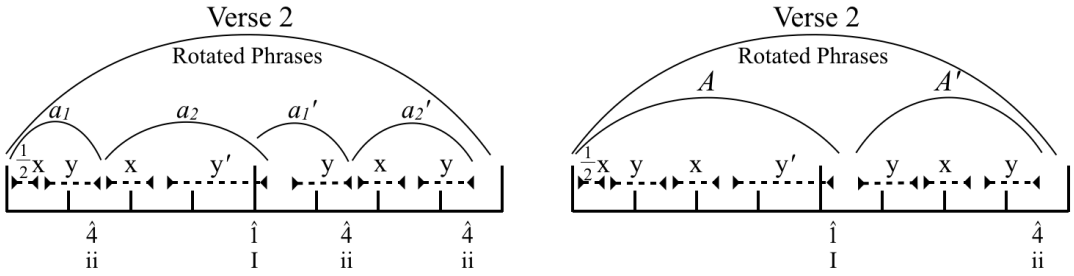

Figure 4.11: Phrase diagrams of the second verse of "Twisted Logic," performed by Coldplay. (*X&Y*, 2005, Track 12, 0:54 – 1:30)

Rotated phrases are in dialogue with periods with extended consequent phrases. In periodic structures, the consequent phrase is extended to the next hypermetric downbeat to produce a stronger close. The end of a period is typically followed by an instrumental link or new formal section, meaning the overlap does not cause formal problems because of the clear distinction in melodic (and sometimes harmonic) material between formal units. Rotated phrases also have unequal phrase lengths, but the formal division is obscured rather than clarified because the end of a phrase leads into repeated melodic material. However, the repeated material is obscured by having the lyrical phrase extend over the onset of the melodic repetition, or by having the lyrical content begin and overlap into the repeated melodic material. The lack of

formal clarity undermines division into two separate phrases, which allows a listener to hear rotated phrases as one larger grouping of phrases rather than two smaller ones.

The chorus of Coldplay's "Lovers in Japan" illustrates two potential characteristics of rotated phrases: first, the possibility of perpetual repetition, and second, a dramatic alteration to the underlying hypermetric, harmonic, and melodic structure to break the perpetual repetition. The notation of the chorus of "Lovers in Japan," (Figure 4.12) is different from the traditional layout to highlight the addition of a hyperbeat at the end of the excerpt.

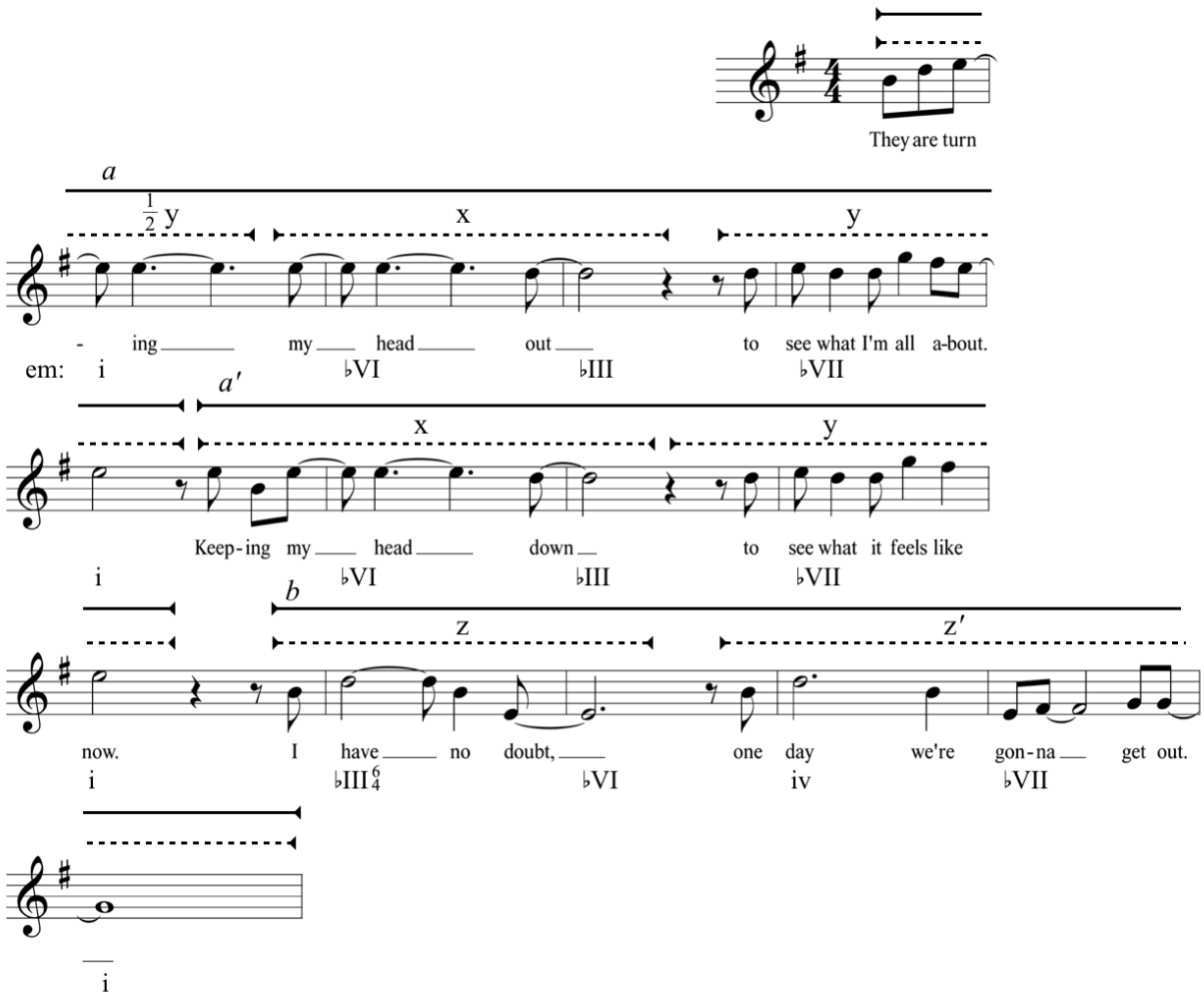

Figure 4.12: Chorus of "Lovers in Japan," performed by Coldplay. (*Prospekt's March*, 2008, Track 7, 1:06 – 1:38)

Each line maintains the quadruple hypermeasure except the fourth, which has an extra measure, with the additional measure extending past the cutoff of the other four-measure hypermeasures. Also, the anacrusis in subphrase ½ y is placed in the previous hypermeasure instead of being placed at the beginning of the second full line to more clearly show the overlap of the phrases into the downbeat of each hypermeasure.

The chorus of "Lovers in Japan" features the long-short rotated phrase paradigm, with the rotation starter as a component segment of the larger subphrase y that overlaps each hypermetric boundary (see the phrase diagram in Figure 4.13). The presence of the rotation starter as a pickup combined with the extension of the phrase into the next hypermeasure creates the long first phrase. When the first phrase ends at the beginning of the third line ("see what I'm all *about*"), the melody has reached the E-natural that appears at the beginning of the melodic unit ("*turning* my head out"). As a result, the melodic unit begins to repeat from the initiating E-natural, producing the second phrase which also ends on hyperbeat one with the same E ("see what it feels like *now*"), and creating the possibility of another phrase that will travel the same melodic path as the first two phrases. The endless repetition is avoided by not repeating the same melody as the first two phrases; instead, new melodic and harmonic material is inserted, breaking the pattern. This material also creates a new measure, disrupting the hypermetric groupings of four. The new phrase, *b*, also overlap into the next hypermetric downbeat, but the overlap elides into an instrumental link, avoiding the possibility of another rotated phrase. As a whole, the *b* phrase represents the potential for dramatic alteration to the melodic, harmonic, and metric patterning to disrupt endless repetition caused by rotated phrases.

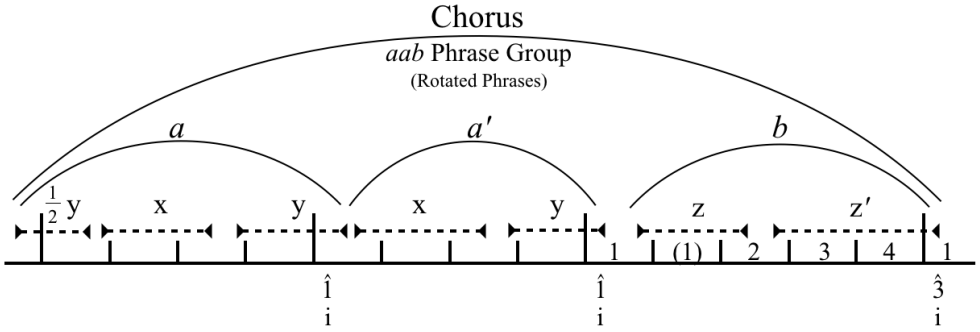

Figure 4.13: Phrase diagram of the chorus of "Lovers in Japan," performed by Coldplay. (*Prospekt's March*, 2008, Track 7, 1:06 – 1:38)

The verse of Coldplay's "Don't Let It Break Your Heart" (Figure 4.14) highlights the place-holding characteristic of the rotation starter. In this example, it is only the single word "and," and its presence occupies most of the first hypermeasure. In terms of phrase structure, it marks the beginning of the verse unit, which would otherwise be interpreted as beginning with the anacrusis to the second notated line. The result is a normative, 16-bar verse that creates a higher level grouping of four hypermeasures.

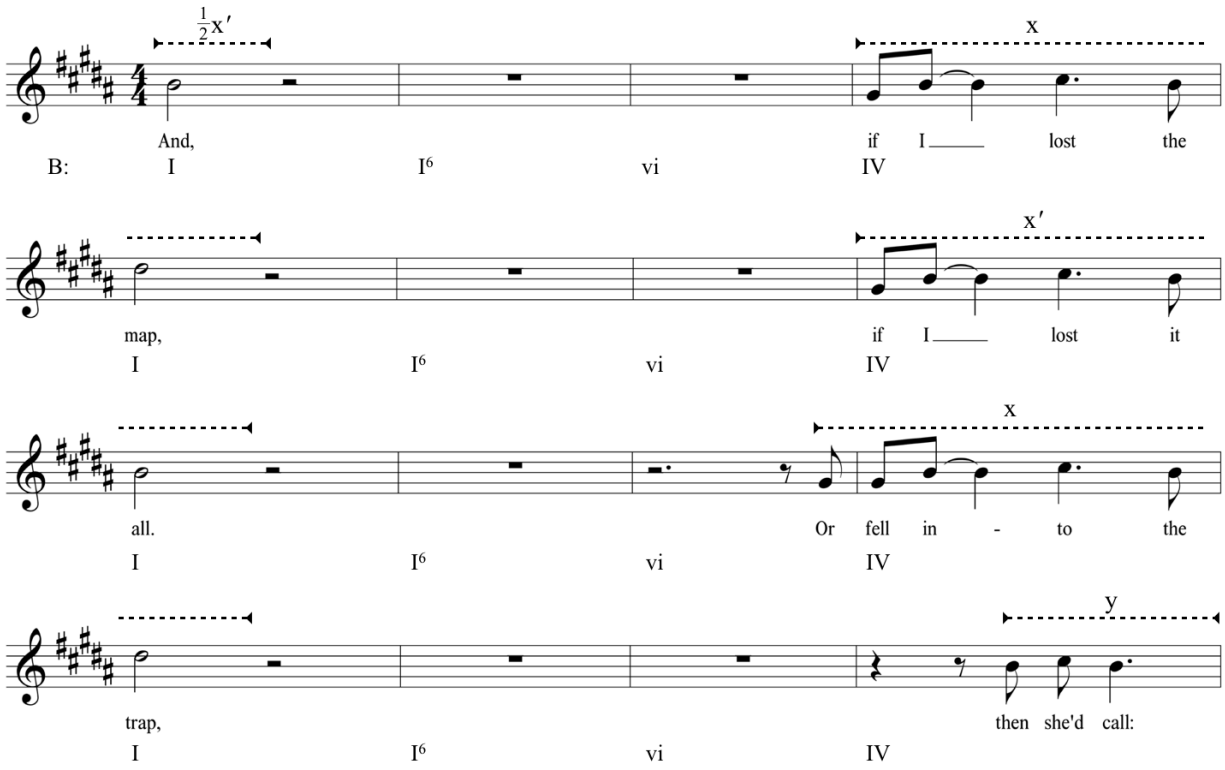

Figure 4.14: First verse of "Don't Let It Break Your Heart, performed by Coldplay. (*Mylo Xyloto*, Track 13, 0:20 – 0:48)

Lyrically, the second phrase also begins with a simple connecting word, "or," but because the lyrical content of the first phrase overlaps into the melodic repetition of the B-natural of the third line, it is placed immediately before the following lyrics, "fell into the trap." Otherwise, "or" could have been set with the B-natural at the beginning of third line, a possibility denied by the rotated phrase structure. The displacement is corrected with a final contrasting subphrase, y, that does not overlap into the next hypermeasure. The phrase diagram for this excerpt is provided in Figure 4.15.

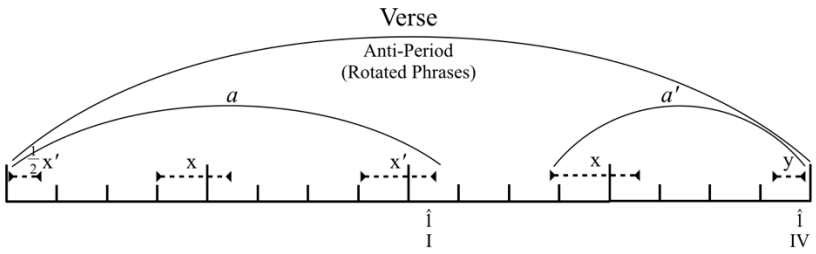

Figure 4.15: Phrase diagram of the first verse of "Don't Let It Break Your Heart, performed by Coldplay. (*Mylo Xyloto*, 2011, Track 13, 0:20 – 0:48)

I initially thought the first word of the song, "and," was merely a filler word that created the rotated phrase structure. As the first word, "and" should have no back-relating content to connect to, is therefore unimportant lyrically, and thus supports my argument that its presence is only necessary to create the rotated phrase structure. However, the word is highly important because it does relate backwards through two songs. Rather than undermining my argument that the word merely creates the rotated phrase structure, the crucial lyrical importance of the word is highlighted by its metric isolation as the rotation starter, causing the listener to question why it is being emphasized.

The song immediately before "Don't Let It Break Your Heart" is the thirty-three second, untexted instrumental interlude, "A Hopeful Transmission." The only other untexted track is the first, "Mylo Xyloto," which serves as an introduction to the entire album. Therefore, "A Hopeful Transmission" is an outlier, and must relate to the surrounding tracks in some way. Preceding "A Hopeful Transmission" is the track "Up in Flames," a breakup song, which begins with the lyrics "So it's over." The lyrics all describe a relationship that has slowly gone "up in flames," and concludes with the question, "can we pour some water on?"

So how do these three tracks relate? Coldplay's songs are highly positive, and it is uncommon to have a "sad" song not balanced by a positive outlook somewhere in the same song or album. In this case, the sad "Up in Flames" is mitigated by the "Hopeful Transmission" that is the entire song "Don't Let It Break Your Heart." The lyrics of the first verse (refer back to Figure 4.13) describe three negative situations, which are addressed by a female voice in the distance: "then she'd call." This voice is the most supportive in the second chorus, which contains the lyrics presented in Figure 4.16.

“When you’re tired of aiming your arrows, still you never hit the mark,
and even in your rains and shadows, still we’re never gonna part,
come on, baby, don’t let it break your heart.”

Figure 4.16: Lyrics of the second chorus of “Don’t Let It Break Your Heart,” performed by Coldplay. (*Mylo Xyloto*, 2011, Track 13, 2:10 – 2:45)

The single word “and” at the beginning of “Don’t Let It Break Your Heart” strengthens the importance of the rotated phrase structure. As a rotation starter, “and” is placed first and separate from the following lyrics, highlighting its linking function to the previous songs, and uniting the three songs into a single narrative arc.

Rotated Subphrases

It is possible to have rotated subphrases without rotated phrases. In the verse of “Savannah,” performed by Relient K (Figure 4.17), the initiating subphrase has all the characteristics of a rotation starter, except that it is not repeated as a component segment of a larger subphrase. It begins in the first measure, is short, is clearly separated from the following subphrases, and is a single word (the name of the addressee of the following lyrics).

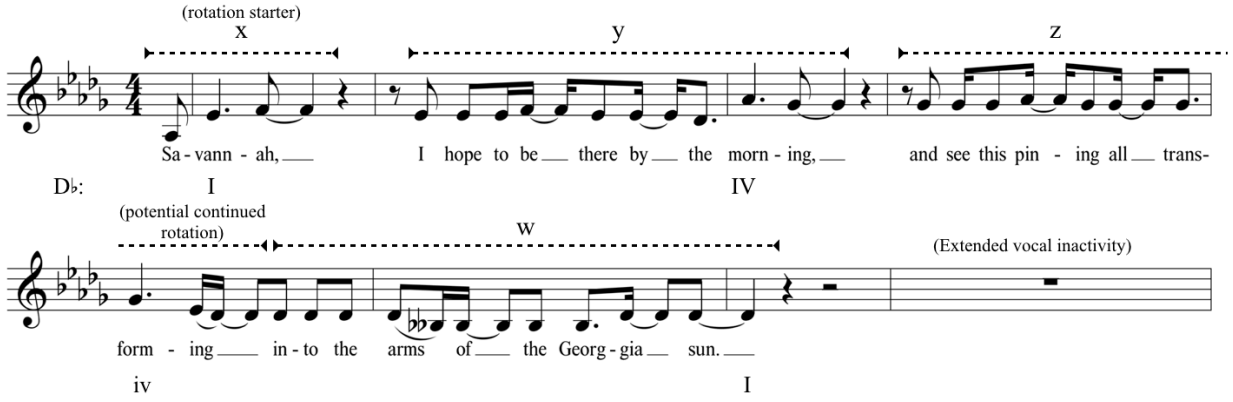

Figure 4.17: Rotated subphrases in the verse of “Savannah,” performed by Relient K. (*Forget and Not Slow Down*, 2009, Track 11, 0:17 – 0:35)

The shortness of the first subphrase sets up the rhythmic patterning necessary for rotated phrases, but ultimately produces only rotated subphrases. The rotated phrase structure is denied twice: first, when subphrase x is not repeated as part of the larger subphrase z, particularly when it

overlaps into the next hypermeasure, and second, by the extended lyrical gap following the completion of subphrase w.

Rotated Patterns in Non-Rotated Phrases

Consider again the subphrase grouping yxy found in the *A′* phrase of the second verse of "Twisted Logic" (Figure 4.11). The same category of subphrase grouping can be found in the verse of "Chasing Cars," shown in Figure 4.18, but there is no explicit rotated phrase structure because of the lack of a rotation starter even though the metric and melodic patterning is appropriate for one. The first subphrase, x, could have been placed as a pickup to the first measure, or in the middle of the first measure, rather than as pickup to the second. The result is a lyrical gap at the start of the hypermeasure that could contain a rotation starter, but does not. Additionally, the section also ends with an extended lyrical gap, another trait associated with rotated phrases because it breaks the potential perpetual motion created by the offset lyrical and melodic repetition. As a result, I consider this structure influenced by rotated patterns, but not truly a pair of rotated phrases. I segment the entire excerpt as a pair of repeated phrases, and account for the irregular repetition of subphrase x based on its association with rotated phrase paradigms.

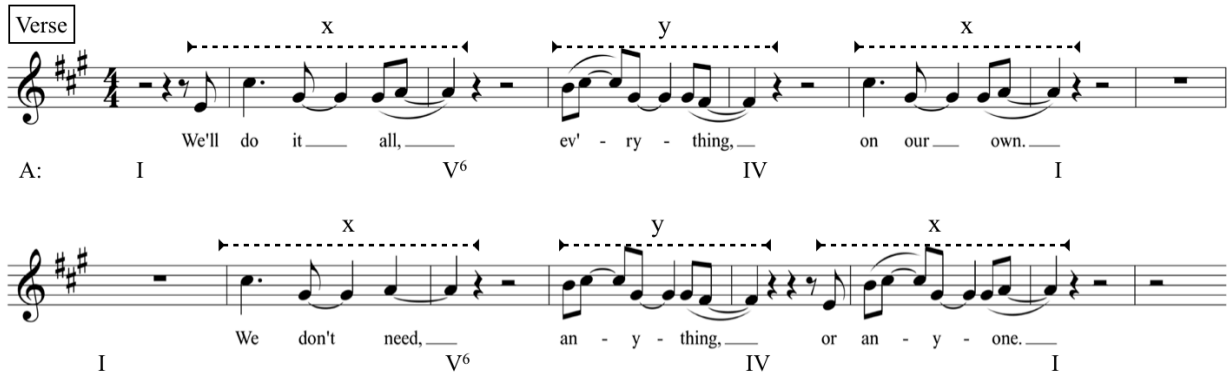

Figure 4.18: Verse of "Chasing Cars," performed by Snow Patrol. (*Eyes Open*, 2006, Track 3, 0:04 – 0:40).

Contradictory Considerations

My phrase segmentation relies on melodic patterning, which is highly effective in situations where functional harmony does not contribute to phrase segmentation, such as when a

song is primarily harmonized by a recurring chord loop. However, there are a great number of songs where harmonic processes influence melodic activity or articulate a goal-directed harmonic progression. In such cases, phrase segmentation by melodic activity alone can produce phrase boundaries that conflict with the harmonic processes. Absolute time considerations can influence whether to group a series of events as a sentence, or a series of phrases in a sentential pattern (*aabc*). And finally, there are some songs where the distinction between period and sentence construction is not maintained in corresponding locations. This calls into question whether the end of the first phrase in a period is truly an important structural consideration, or whether the final cadence is the most important. In all such cases, the analyst should consider which parameters are most influential, and more importantly, what musical effect is created through the contradictory parameters.

Harmonic Considerations

In the verse of "Teenagers" (Figure 4.19) performed by My Chemical Romance, the harmony is not the same between the two iterations of a sentence paradigm. The first phrase is supported primarily by tonic, and ends with a traditional half cadence: scale-degree 2 over dominant (V). The second phrase is also a sentence, but it begins with subdominant (IV) moving to tonic (I). Coming from the dominant of the first phrase, the progression implicates the blues progression, making the second phrase sound like a continuation of the first phrase. The verse ends with an emphatic dominant to tonic harmonic progression, ending conclusively with scale-degree 1 over tonic.

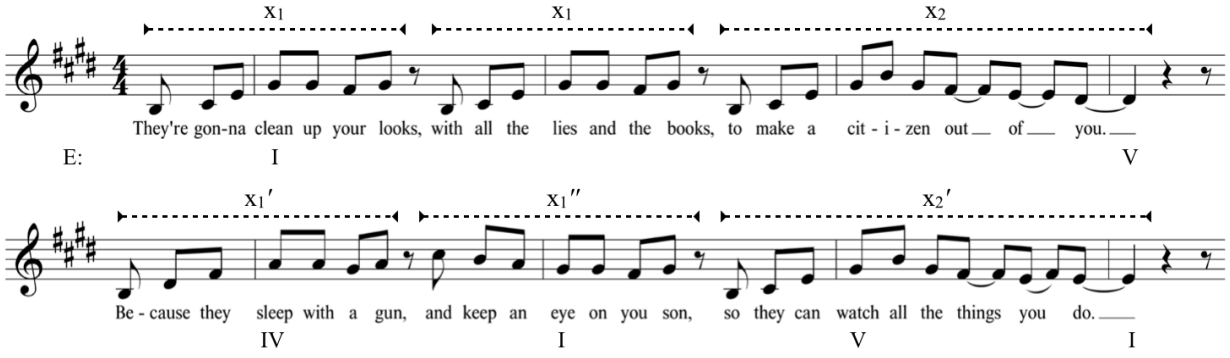

Figure 4.19: The first verse of "Teenagers," performed by My Chemical Romance. (*The Black Parade,* 2006, Track 11, 0:00 – 0:18)

This example fits Caplin's Hybrid 1 phrase structure.[3] The first phrase, despite being sentential, can be considered an antecedent ending with a half cadence. The second phrase has characteristics of the continuation phrase: the harmonic rhythm accelerates, the melody is loosely sequential, and the harmony articulates a traditional authentic cadence. The implication for my methodology is that there is no exact return in the second phrase to form a true periodic structure, and I do not have explicit allowances for phrase relationships without exact return. Nevertheless, I cannot hear these two lines as anything other than related, despite the undermining of the exact repetition by the changed harmony. I label these two phrases a period, but recognize that the consequent phrase contains altered versions of every subphrase, not just the last.

A similar harmonic and melodic situation is present in the verse of "The Mariner's Revenge Song," performed by the Decemberists (Figure 4.20). The first phrase is a sentence, and ends with a half cadence. The second phrase is also a sentence, and maintains the dominant harmony of the first phrase until the resolution to tonic in the final measure. Unlike "Teenagers," there is not a strong melodic similarity between the two phrases. The rhythm is similar, but the contour and pitches are both different, causing me to label the second phrase as *b* rather than *a′*. Despite the change in melodic activity, the two phrases are still highly related, and both are part of the verse – that is, they do not segment apart as *ab* pairings tend to do. The relationship between the phrases is maintained by the paired sentence structures, the unity created by a long-range tonic-dominant-tonic harmonic motion, and the shared lyrical content.

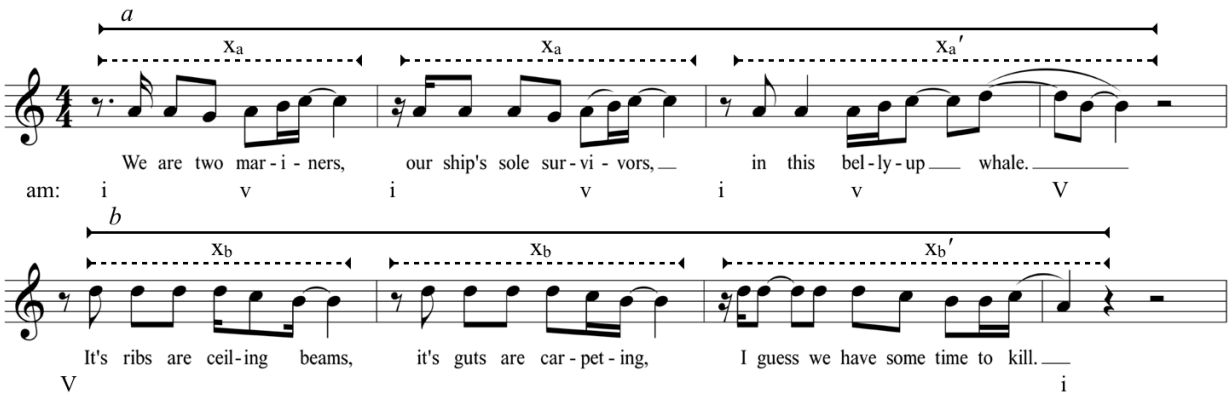

Figure 4.20: First verse of "The Mariner's Revenge Song," performed by The Decemberists. (*Picaresque*, 2005, Track 10, 0:09 – 0:28)

[3] Caplin, *Classical Form*, 59.

Ambiguity in Phrase Segmentation

While the sentence and period may be distinct structures, there is fluidity between the two structures in repeated patterns in the same formal unit, or between corresponding segments of repeated formal units. This situation occurs in the verse of "Which to Bury, Us or the Hatchet?," performed by Relient K, and shown in Figure 4.21. The first phrase is a four-subphrase sentence, harmonized with a variant of the doo-wop progression (i – bVI – iv – bVII – V), and concluding with scale-degree 1 slightly misaligned from the harmonic tonic in the third line. What begins as a modified repetition of phrase *a* changes halfway through with the reappearance of subphrase x′ in the fourth line. Instead of an 8-bar sentence, the final two lines more appropriately group as a periodic structure due to the exact return of subphrase x′. The confounding factor is once again harmonic; the support for subphrase x′ is not the same as its first appearance, weakening the sense of exact return, similar to the examples discussed above.

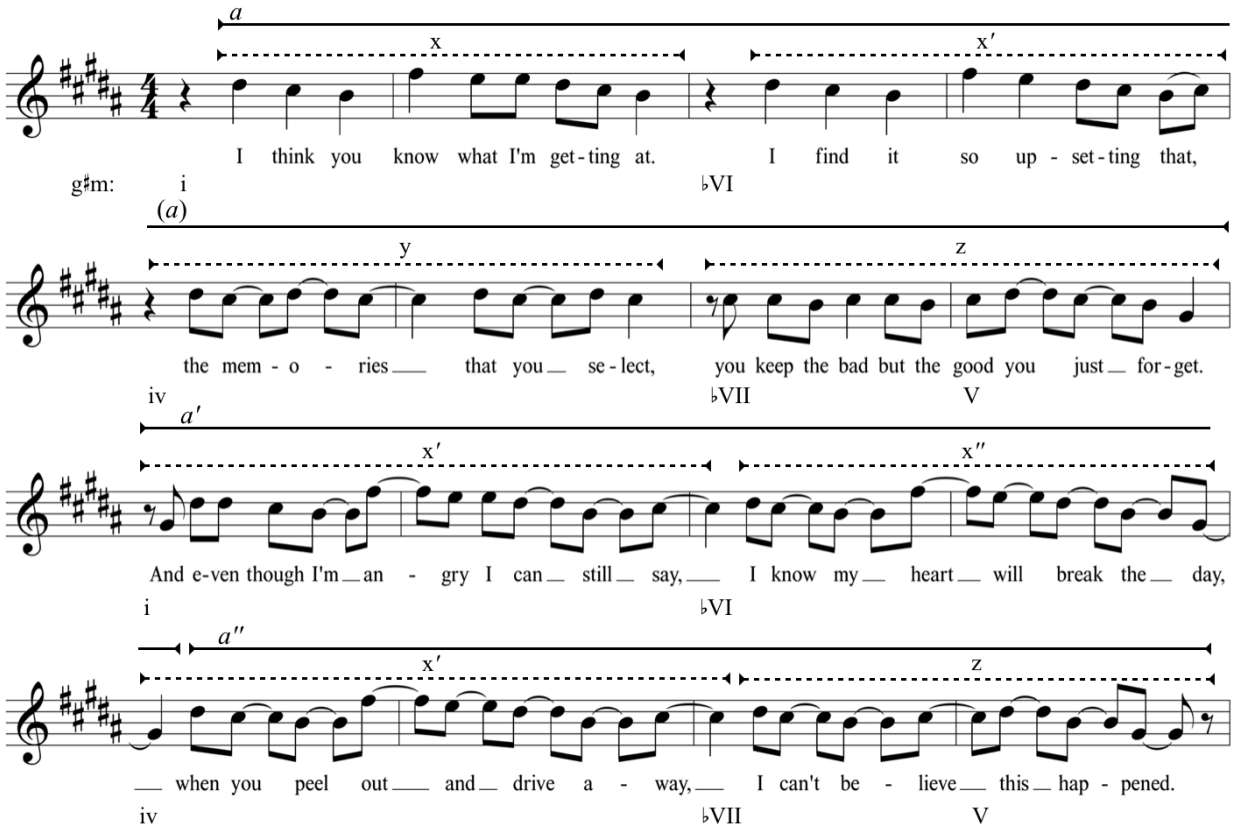

Figure 4.21: First verse of "Which to Bury, Us or the Hatchet?," performed by Relient K. (*Mmhmm*, 2004, Track 8, 0:00 – 0:26)

The quasi-functional doo-wop progression contributes to the longer segmentation by weakening the sense of completion of subphrase x″. Also, the grouping of the first two lines as a single phrase influences the perception of the final two. A repeated structure is expected, and despite not appearing, it contributes to the sense that the final two phrases should group as a single unit.

The phrase diagram of "Which to Bury" is provided in Figure 4.22, and highlights the overlap between the period and sentence structures. The "MRP?" label references whether it is appropriate to group a single phrase, the sentence *a*, with the period consisting of two phrases. If they are grouped, it is a phrase grouping of two different levels, which is inconsistent. The point this raises is whether there is truly a distinction between the sentence and period in terms of closure, a question that will be addressed more fully in the next chapter.

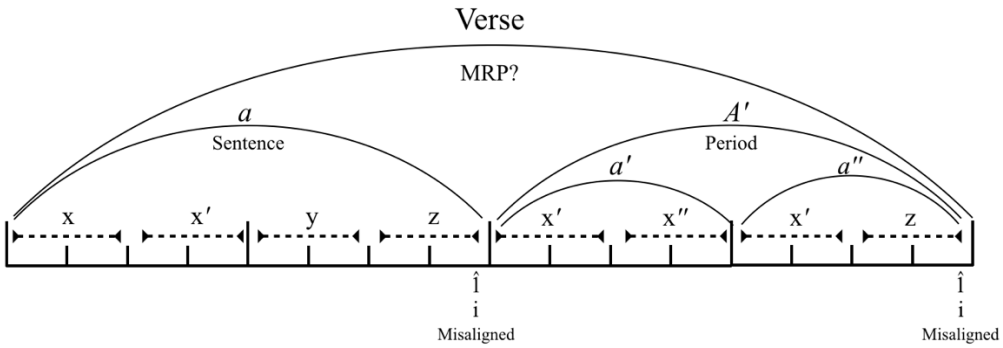

Figure 4.22: Phrase structure diagram for the first verse of "Which to Bury, Us or the Hatchet?," performed by Relient K. (*Mmhmm*, 2004, Track 8, 0:00 – 0:26)

Absolute Time

Absolute time considerations have already been discussed in reference to threefold repetition in Chapter Two, but absolute time can also influence the analysis of the same-same-different-more different pattern. In most cases, the distinction between a sentence (xxyz) and a series of phrases (*aabc*) is determined by how many subphrases are repeated in the same-same pair. In a sentence, x is a single subphrase, meaning only a single subphrase is repeated (xx). In a phrase, *a*, at least two subphrases are repeated (xy or xx′). At faster tempos, a repeated melodic unit may not clearly segment into two distinct subphrases, but it could still be possible to interpret it as a single phrase (see the discussion of single subphrase phrases in Ch. 2). This

ambiguity can produce conflicting segmentations, particularly when the harmony also contributes to a larger grouping.

Consider the two different notations of the strophe of "The Longest Time," performed by Billy Joel, in Figures 4.23 and 4.24.

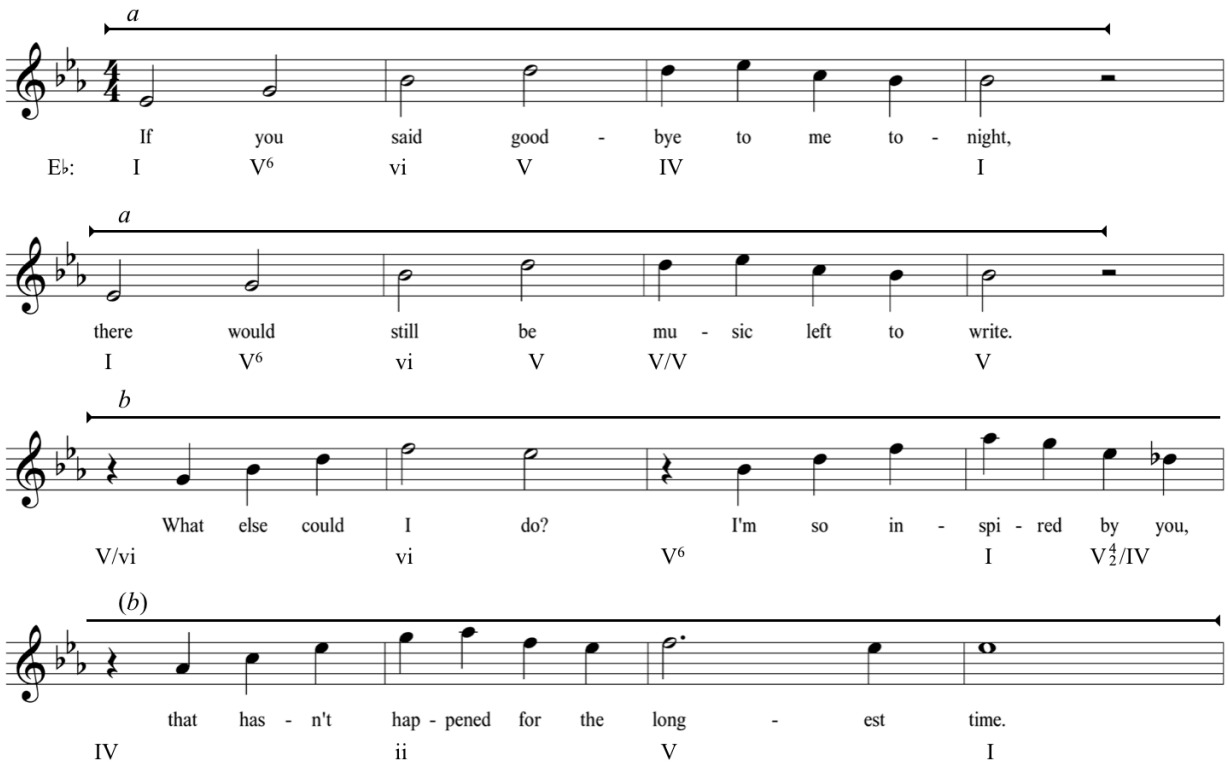

Figure 4.23: 16-bar version of the strophe of "The Longest Time," performed by Billy Joel. (*An Innocent Man*, 1983, Track 3, Verse, 0:12 – 0:35)

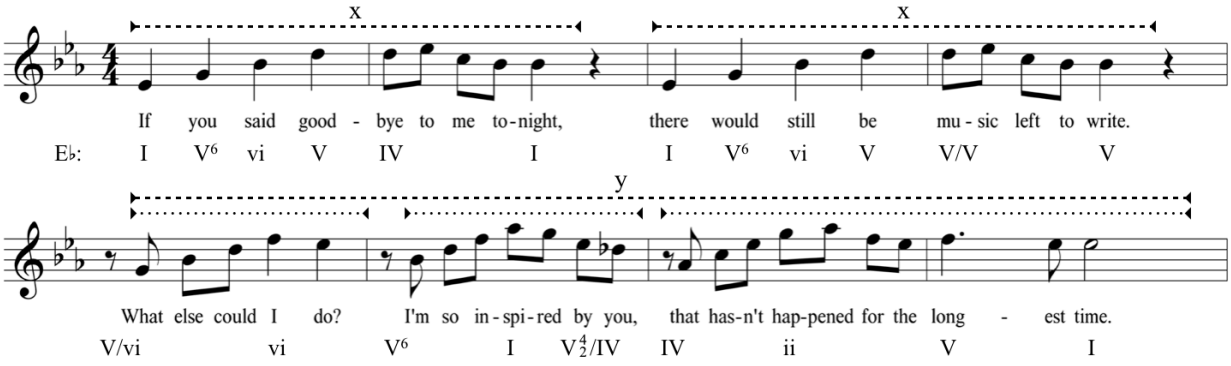

Figure 4.24: 8-bar version of the strophe of "The Longest Time," performed by Billy Joel. (*An Innocent Man*, 1983, Track 3, Verse, 0:12 – 0:35)

In Figure 4.23, the notation reflects the backbeat created by finger snaps, and Figure 4.24 reflects the notation if the snaps are offbeats rather than backbeats. As an eight-measure unit, I am much more inclined to group the strophe as a single sentence (xxy-), but at sixteen measures, I prefer multiple phrases (*aab*). The problem is, the number of printed measures has no influence on the melodic, harmony, and rhythmic activity, by merely reflects an attempt to group and classify the excerpt.

The main critique of the segmentation in Figure 4.23 is the lack of a pair of subphrases needed to create the *a* phrase, which pushes me to the slower tempo (Figure 4.24) because I expect to have at least two subphrases in four measures of music. The notation in Figure 4.24 reflects a common-practice, 8-bar sentence with a sentential continuation. The variety of harmonies present is outside the norm of contemporary popular music as well, reflecting a closer association with common-practice functional harmony and supporting the single phrase interpretation. The main critique of the segmentation is the speed of the excerpt. The entire strophe lasts approximately 23 seconds, meaning each notated measure of Figure 4.23 approximately 1.44 seconds, and the measures in Figure 4.18 approximately 2.87 seconds. The Figure 4.23 notation aligns more closely with de Clercq's two-second idealized measure, meaning it reflects the more appropriate notation given his parameters.[4] However, both durations are quite removed from ideal, and I can hear the excerpt easily at both levels.

The fundamental question is whether the strophe is one phrase or multiple phrases, and there is no clear-cut answer. There are conflicting parameters in absolute tempo, harmony, and phrase segmentation based on melodic repetition, meaning different segmentations favor certain parameters over others.

Conclusion

Not all phrase segmentations based on melodic activity are straightforward. As shown in this chapter, other musical parameters can compete with the melodic patterning to implicate different phrase segmentations or create ambiguous phrase boundaries. The two parameters that most frequently affect melodic segmentation are lyrics and harmony. Lyrics can create ambiguous phrase boundaries when melodic membership is unclear, particularly at the divide

[4] De Clercq, "Measuring a Measure," [2.7].

between formal modules. Lyrical phrases can be displaced from melodic repetition in rotated phrases and subphrases, creating phrases of unequal length and obscuring formal boundaries. Harmonic processes do not always align with melodic patterning, creating ambiguity as to which parameter is more important in defining phrase boundaries. The most common occurrence is when a phrase repeats following the completion of a clear phrase structure such as a sentence, but the harmony is not the same as the first phrase. The melodic repetition is either altered to fit the harmony, undermining the exactness of the repetition, or the melody repeats exactly and the harmony alone undermines the exactness of the repetition. Absolute time can also influence the perception of phrase completion; the question is "has enough time passed to allow for the expression of a complete musical thought?"

The complications in my methodology arise because my method of phrase segmentation differs from common-practice methodology. Common-practice phrases are defined harmonically, while my phrases are defined melodically. When melody and harmony articulate different segmentations, there will be ambiguity. Despite my preference for defining popular music phrases by melody, I am still highly influenced by common-practice harmonic progressions due to my training in the idiom. I have tried to strike a balance between the two parameters when they appear to be in conflict in popular music.

CHAPTER 5

CLASSIFYING CLOSURE IN POPULAR MUSIC

Introduction

At the beginning of his article "The Cadential IV in Rock," David Temperley asks: "Does rock have cadences, and if so, what are they?"[1] The presence of the question illustrates the lack of consensus on cadences in rock and, more broadly, popular music. The lack of consensus stems from conflicting opinions on the presence, importance, and function of counterpoint in popular music, especially as it relates harmonic function. If counterpoint is not present in popular music, then common-practice cadences cannot be applied. If common-practice counterpoint is present but modified, then a reconsideration of cadential attribution is necessary, and accommodations must be made for harmonic and melodic alignments that fall outside common-practice norms. Alternatively, counterpoint may not be the primary factor in determining cadential locations, therefore it is necessary to consider how to appropriately identify and classify closure.

I argue that cadences do exist in popular music, and they can be easily identified using the same-different methodology presented for defining phrase boundaries. Cadences occur at the conclusion of the final subphrase in one of the paradigmatic patterns of subphrase arrangements from the phrase types presented in Chapter 3. With a consistent methodology for identifying phrase boundaries in popular music, I can address the different melodic, harmonic, rhythmic, and metric considerations at play at those boundaries.

I will begin by summarizing past approaches to cadential identification in both common-practice and popular music. The common-practice material is important because it addresses in a great detail many of the implicit associations of cadential attribution. I rely heavily on the work of William Caplin, who has written extensively on cadences and their relationship to Classical form. While not all the specifics of common-practice cadence theory are applicable to popular music, understanding the methodology is important for approaching cadential identification in popular music. I will use the detailed considerations to critique the cadence-identification

[1] David Temperley, "The Cadential IV in Rock," *Music Theory Online*, 17, no. 3 (2011), [1.2].

methodology of other popular music scholars. I will conclude by demonstrating my approach to engaging cadences and closure in popular music.

Previous Approaches to Cadential Identification

Common-Practice Cadential Considerations

Caplin's article on cadences in Classical music aims to limit what is appropriately labeled an authentic or half cadence. One way he limits cadential identification is to specify that cadences can only consist of root position harmonies: authentic cadences must be a root position dominant triad or seventh chord (V^7) resolving to a root position tonic chord (I). Perfect authentic cadences conclude with scale-degree 1 over the tonic chord, and imperfect cadences with scale-degree 3 or 5 over the tonic chord. The half cadence must be a root position dominant triad, and he excludes the dominant seventh or any inversion of the dominant from half cadential status. His argument is that "a more precise and focused conception of cadence will have the heuristic value of sharpening our listening experience and encouraging us to make more subtle distinctions among a wide variety of harmonic, rhythmic, and formal phenomena."[2] His limitations derive from an extensive study of the Classical repertoire, particularly the works of Haydn, Mozart, and Beethoven, and are crucial to his phrase-structural and formal analyses. My methodology for popular music follows a similar approach; I aim to identify and clarify cadential syntax and function based on popular music repertoire.

Caplin also posits that cadences "must end something," a point which he uses to argue the difference between cadential content and cadential function. [3] *Cadential content* is the arrangement of *conventional* melodic and harmonic processes that resemble an authentic cadence, typically root position V to I with a descending step-wise melody. In its simplest definition, *cadential function* is when cadential content ends a formal process, specifically when it occurs at the end of a unit.[4] As such, it is possible for a musical excerpt to have cadential

[2] Caplin, "The Classical Cadence," 52.
[3] Ibid., 56.
[4] Ibid., 81-82. Janet Schmalfeldt also recognizes cadences as a formal function when she states, "a cadence is a type of formal function, one that creates closure." – "Cadential Processes: The Evaded Cadence and the 'One More Time' Technique," *Journal of Musicological Research* 12 (1992): 13.

content without possessing cadential function. For example, a phrase may begin with a root position V to I, but because the progression initiates the phrase, it cannot be a cadence.

Cadential function relates to another key component in Caplin's cadential theorizing: the distinction between syntax and rhetoric. Cadential syntax defines the specific melodic and harmonic configurations present in typical common-practice authentic and half cadences, while cadential rhetoric describes all other musical parameters: rhythm, meter, texture, dynamics, and instrumentation.[5] Rhetoric is commonly referenced to describe the "strength" of a cadence based on the secondary parameters. Caplin argues that rhetorical elements do not interfere with cadential strength based on cadential syntax, and that a rhetorically weak – i.e. soft, thin texture – is just a strong as the same syntactical cadence that is rhetorically strong.

The distinction between stop and end is another point made by Caplin. He cites Blombach's research which shows the high frequency of the descriptors "rest" and "pause" – 49% of textbooks after 1970 – as characteristics of cadences.[6] Caplin is careful to distinguish between formal closure and textural stop. He states, "formal closure may take place in the context of rhythmic/textural continuity, and a break in rhythm and texture may occur at moments that are formally open."[7] I recognize the same distinction between stop and end in identifying cadences in popular music. This is an especially important consideration in popular music due to the continuous textural, harmonic, and rhythmic patterns found in many popular songs.

Other scholars provide relevant viewpoints on cadential functions and processes as well. Poundie Burstein's work with half cadences highlights the ambiguity of the tonally unstable dominant harmony serving as a phrase ending.[8] He cites examples where musical features undermine the syntactical closure created by arrival on the dominant harmony. His research is a helpful reminder of the complexity of identifying the end of phrase-structural processes, even with the relative consistency of voice-leading and formal paradigms in the Classical period. Janet Schmalfeldt elaborates on various types of evaded cadences, and coins the "one more time

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[5] Caplin, "Classical Cadence," 106-7.
[6] Anne Blombach, "Phrase and Cadence: A Study of Terminology and Definition," *Journal of Music Theory Pedagogy* 1, no. 2 (1987): 227. See Table 1
[7] Caplin, "Classical Cadence," 97.
[8] L. Poundie Burstein, "The Half Cadence and Other Such Slippery Events," *Music Theory Spectrum* 36, no.2 (Fall, 2014): 203-27, and "The Half Cadence and Other Analytical Fictions," in *What is a Cadence? Theoretical and Analytical Considerations on the Classical Cadence,* ed. Markus Neuwirth and Pieter Bergé. (Leuven: Leuven University Press, 2015), 85-116.

technique" to describe repetition of musical material to achieve a true authentic cadence.[9] She describes evaded cadences as functioning to delay the end of a complete musical phrase, particularly in secondary themes of sonatas.[10] Her categories of evaded cadence include the traditional deceptive cadence, root position V to vi motion accompanying scale-degrees 2 to 1, as well as various other non-cadential dominant resolutions.

Common-Practice Cadential Considerations Influencing Popular Music Methodology

Caplin's cadential function dependens on harmony, as are his other two formal functions, prolongational and sequential.[11] Reliance on harmonic processes for phrase definition and formal function is typical of common-practice analytical methodology; for both William Rothstein and William Caplin, a phrase is fundamentally a *harmonic* process. Rothstein explicitly relates phrases and their cadences to *Ursatz* replicas, making every phrase the harmonic process of unfolding the tonic triad.[12] Caplin, in defining what a cadence ends, states: "At all times…a definite *harmonic* process is closed, since the harmonies associated with the cadence always bring to some degree of completion a broader harmonic progression beginning prior to the onset of the cadence." This is in contrast to the weaker statement he makes about melodies: "Often we can identify a distinctly *melodic* process closed by cadences, such as when, in the case of a perfect authentic cadence (PAC), a melodic line descends to the tonic scale degree."[13]

In general, scholars have adopted the harmonic approach to cadential identification in popular music, although they all recognize that some of the harmonic and melodic processes do not always align with common-practice norms. Walter Everett retains the primacy of traditional authentic and half cadences in description of cadences in rock music, although he makes allowances for other arrangements due to obvious phrase beginnings marked by large-scale

[9] Schmalfeldt, "Evaded Cadence," 6.
[10] This aligns with Caplin's conception of tight-knit first themes and loose secondary themes, with one of the characteristics of the loose secondary theme being evaded cadences and the resulting phrase expansions (Caplin, *Classical Form*, 17).
[11] Caplin, "Classical Cadence," 69.
[12] Rothstein, *Phrase Rhythm*, 17-18.
[13] Caplin, "Classical Cadence," 56; emphases in the original. This is also paralleled by Schmalfeldt ("Evaded Cadence," p.13) when she refers to cadences as a "specific kind of melodic-harmonic progression."

repetition.[14] His preference for common-practice cadences is best recognized in his description of the typical V-IV-I progression found in the blues. He states, "Actually, what is happening here is a combination of two normal tonal behaviors: V leads to I, but that I is at the same time ornamented by its prior neighboring IV chord. V doesn't lead *to* IV as much as it goes *through* IV. I refer to this as the softened blues cadence, because the IV chord cushions the fall from V to I."[15] His description demonstrates his overt preference for common-practice norms even when a significant corpus of music breaks from the common-practice tradition. A key distinction between my methodology and Everett's is the use of harmonies that are not supporting vocal activity to identify cadences. In Louis Armstrong's performance of "What a Wonderful World," Everett identifies a half cadence in the first phrase based on the harmonic turnaround using the dominant (V). However, the melodic and lyrical completion occurred prior to the turnaround, and ended with scale-degree 3 in the melody over the tonic harmony.[16] My focus in identifying phrase boundaries is melodic, therefore I would identify the completion of the phrase with the tonic harmony, not the dominant. This again highlights the distinction between my melodic focus and the harmonic focus of most popular music scholarship.

Ken Stephenson has two categories of cadence, one rhythmic and the other harmonic. The rhythmically defined cadence occurs when "the melody comes to rest at the end of a textual line on the fourth downbeat of a hypermeasure (or *near* the fourth downbeat…)."[17] This definition rests on the premise that cadences are defined by vocal rest or pause, a criterion that Caplin argues is not necessary for a true cadence. Stephenson's second category is harmonic, and occurs when "the melody comes to rest at the end of a textual line and the accompanying harmony is I or V."[18] Stephenson also wrestles with cadences not being a "unified gesture," where a melodic cadence occurs on hyperbeat three but the harmony continues to change in hyperbeat four. This consideration is similar to my critique of Everett's methodology above, where it is unclear which parameter–melody or harmony–should be given the highest priority. Finally, Stephenson is reluctant to adopt some of the terminology of common-practice cadences,

[14] Everett, *The Foundations of Rock*, 135.
[15] Ibid., 228.
[16] Ibid, 137.
[17] Stephenson, *What to Listen for*, 57. Emphasis in the original.
[18] Ibid., 57.

particularly the "anachronistic" half cadence.[19] He cites the lack of true periodic structures where the half cadence serves as a halfway point in the formal process, as well as the frequency of open-ended structures where the "half cadence" ends a pair of phrases (anti-periods). Instead, he adopts the more generic terms "open" and "closed" to describe melodic and harmonic arrangements similar to common-practice authentic and half cadences, respectively.

In his article on the bVII chord, Allan Moore walks the fine line of distancing himself from Schenkerian approaches to rock music analysis, but invoking aspects of linear analysis in his definition of cadences.[20] He never defines exactly how he determines cadential locations, but in his examples cadential points are located at formal boundaries or before large-scale repetitions inside a single formal unit. His primary argument is that the bVII – I progression is not an aberrant cadence, but intrinsic to the melodic and harmonic syntax of rock.[21] As a result, he identifies a handful of characteristic cadential patterns present in rock that are distinct from common-practice, which are summarized in Figure 5.1.

Aeolian	♭VII - I
Extended Aeolian	♭VI - ♭VII - I
Plagal	IV - I
Extended Plagal	♭VII - IV - I

Figure 5.1: Summary of Moore's cadential patterns in rock.

Temperley expounds on Moore's plagal IV – I cadence, and in doing so deftly addresses some of the challenges of cadential attribution in rock music. He defines cadence as "a musical gesture, defined by melodic, harmonic, or rhythmic characteristics or some combination, used to establish closure and sectional articulation."[22] His definition generalizes a lot of Caplin's criteria for cadential syntax and function, making them broad enough to fit IV – I motion as cadential.

[19] Stephenson, *What to Listen for*, 60.
[20] Allan Moore, "The So-Called 'Flattened Seventh' in Rock." *Popular Music* 14, no. 2 (1995): 185-86.
[21] Ibid., 186.
[22] Temperley, "Cadential IV," [1.1].

What remains crucial is that cadences end a formal unit, and Temperley meets this requirement by limiting his article to "sectional cadences," that is, cadences that end the verse-chorus unit.[23]

Temperley's four types of subdominant cadences are the sectional plagal cadence (specifically the plagal stop cadence), the grand plagal cadence, the deceptive IV, and the tonicized IV.[24] The sectional plagal and grand plagal cadence both describe IV chords that occur as the final harmonic support before the melodic and harmonic resolution to tonic at the end of the chorus, with the resolution usually overlapping into a musical link. The sectional plagal describes a IV chord roughly equivalent to the prevailing harmonic motion, while the grand plagal describes an extended musical passage supported by the subdominant harmony. The deceptive IV is when an expected tonic resolution (usually coming from V, but possibly bVII) is delayed or avoided by a move to IV. The melodic action completes over the subdominant harmony rather than the expected tonic. The tonicized IV is Temperley's name for Moore's extended plagal cadence, bVII – IV – I.

Attempts at Reconciling Popular Practice and Common-Practice.

Nicole Biamonte argues in her article on harmony in rock music that "traditional constructs of scale-degree theory and harmonic functionality…can be usefully modified to address elements of rock music that do not conform to tonal norms."[25] She discusses two of the progressions for Moore's article, the extended Aeolian (now identified as simply Aeolian) and extended plagal (now identified as double plagal), in depth. She shows how these progressions relate contrapuntally to traditional harmonic progressions, and describes how they can have different functions–neighboring, passing, circular, closed, and open–based on musical parameters such as rhythm, hypermeter, texture, consonance, and contour. Her focus throughout is harmonic, but melodic considerations are referenced, particularly as it relates to tonal ambiguity surrounding the double plagal progression.

[23] Temperley, "Cadential IV," [1.2].
[24] Ibid., [1.3].
[25] Nicole Biamonte, "Triadic Modal and Pentatonic Patterns in Rock Music." *Music Theory Spectrum* 32, no. 2 (Fall 2010): 95.

Temperley addresses the textural stratification of melody and harmony in rock music, particularly as it relates to resolution of non-chord tones.[26] He posits the "loose-verse/tight-chorus" model to describe the regular practice of melodic/harmonic stratification in the verses of songs, but coordination in the choruses. Throughout the article, Temperley is primarily concerned with the interaction of the melodic pitches with the harmonic pitches, but he does not discuss harmonic motion or cadences explicitly.

Drew Nobile takes Temperley's concept of melodic/harmonic stratification and applies it to harmonic function and goal-directedness in his article on counterpoint in rock.[27] His goal is to show how common-practice contrapuntal idioms can be interpreted when there is a lack of coordination between melody and harmony. He posits three specific types of divorce: hierarchy, loop, and syntax.[28] In hierarchy divorce, the melody articulates a harmonic prolongation while the supporting chords embellish the prolongation created by the melody. In loop divorce, the melody is solely responsible for articulating the fundamental structure because the chord loop is non-teleological. Syntax divorce when a structural motion occurs but the melody and harmony are incompatible. The example Nobile provides is a scale-degree 2 to 1 cadence where the harmonic support is IV – I.[29] Scale-degree 2 is not consonant with IV, therefore the support is incompatible.

In some cases, Nobile pushes the boundary of interpreting rock syntax to fit common-practice harmonic idioms. His Example 10, the first verse of "Jane Says" (Jane's Addiction, *Nothing Shocking*, 1988, Track 9, 0:10 – 0:59) has no tonic harmony, and the final melodic pitch of the verse is scale-degree 7. Neither the melody or harmony resolve to tonic, yet he interprets a tonic resolution as shown in his Schenkerian reduction, reproduced in Figure 5.2. He states, "The gesture in the verse's final measure, which moves to the leading tone C#, to my ear implies a resolution to D on the ensuing downbeat, making an authentic cadence despite the fact that this tonic note does not literally appear." I disagree with Nobile's interpretation; creating a resolution to fit an analytical model does not accurately reflect the actual musical syntax of a passage.

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[26] David Temperley, "The Melodic-Harmonic 'Divorce' in Rock." *Popular Music* 26, no. 2 (2007): 323-42.
[27] Nobile, "Counterpoint in Rock," 189-203.
[28] Ibid., 189.
[29] Ibid., 189.

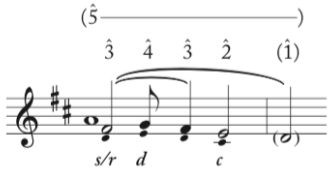

Figure 5.2: Nobile's Schenkerian reduction of the first verse of "Jane Says," performed by Jane's Addiction. (*Nothing Shocking*, 1988, Track 9, 0:10 – 0:59)

Despite my reservations about some of Nobile's analytical interpretations, I agree with the fundamental point that even with the textural stratification common to rock and popular music, the interaction of melody and harmony is still a fundamental musical consideration. Even though Nobile's purposes are different, I support his elevation of melodic activity to prominence in analytical considerations. However, I disagree with the necessity to relate the interaction of melody and harmony in stratified songs to common-practice counterpoint and harmonic prolongation.

Robin Attas's approach to defining phrase boundaries was discussed in chapter 2, but it has implications for identifying closure as well.[30] Part of her definition of phrase is defining how goal-directed motion can be created in the absence of common-practice harmony, arguing that reaching the goal creates the end of a phrase.[31] She also states that more work needs to be done on how cadences can create phrases in popular music, as well as how cadences are classified in the syntax of popular music.[32] My research aims to address both points.

Theoretical Considerations

One of the initial goals that spawned this research was the desire to identify cadences in popular music, especially in the interior of modules, not just at their boundaries. As is evidenced by the discussion in this and previous chapters, cadential identification in popular music is not consistent because harmony is not typically the controlling factor in phrase and cadential articulation. In addition, the popular idiom features harmonic motions that are not typical of common-practice music, meaning that other harmonic progressions–ones paradigmatic to

[30] See Ch. 2, p.25.
[31] Attas, "Sarah Setting the Terms," [6].
[32] Ibid., [36].

popular music–can exhibit cadential syntax. A few of these have already been identified, such as the progressions in Figure 5.1. In general, the strict requirements for cadences in common-practice are greatly loosened in popular music. Some of the typical arrangements such as half and authentic cadences continue to have direct parallels, but other paradigmatic cadences occur as well. This section classifies common melodic and harmonic configurations at cadential points in popular music.

The Same-Different Principle and Cadential Function

Cadences in popular music are not identified by conventional melodic and harmonic patterns (cadential content), but by patterns of melodic activity based on the same-different principle. Phrase endings and their associated cadences are articulated by the concluding "different" subphrase in prototypical arrangement of subphrases. The identification of phrase endings allows for a comparison of the melodic and harmonic alignment at these points. Cadential function is attributed to the final subphrase of a same-different subphrase pattern, not paradigmatic melodic and harmonic progressions. Additionally, cadential syntax is greatly loosened from common-practice norms, meaning that melodic/harmonic alignments with no direct relationship to common-practice cadential paradigms frequently occur.

Formal Levels and Cadential Rhetoric

As I argued in Ch. 2, the patterns of same-different in popular music occur on multiple levels. The hierarchical arrangement of patterns influences the rhetorical strength of the cadences based on the number of levels affected by the change in melodic activity. The more levels affected by the cadence, the more rhetorical weight the cadence receives.

As a representative example, consider the distinction in cadential rhetoric between periods, modified repeated phrases, and repeated phrases as shown in Figure 5.3. [33] Both patterns consist of four subphrases, but the patterns of same-different are not the same between the two categories. In the period and modified repeated phrases, the final subphrase is different, allowing it to influence more levels of structure. The influence is illustrated by the angle and density of the

[33] In the discussion of cadential rhetoric and formal levels, the period groupings can be anti-periods as well.

connecting lines. Difference that affects another level of structure is represented by a solid vertical line that moves straight up the diagram, and similarity that does not affect levels of structure is represented by an angled, dotted line. In short, subphrases that produce difference create vertical lines while subphrases that do not produce angled lines.

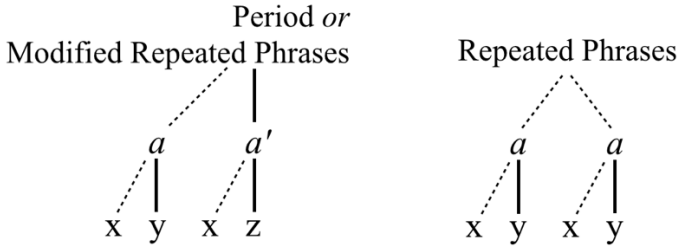

Figure 5.3: Hierarchical arrangement of closure in a period, modified repeated phrases, and repeated phrases.

The diagrams represent cadential rhetoric, that is, the perceived "strength" of the cadences, which is why the period and modified repeated phrases are grouped in the same diagram. In a period or anti-period, the syntax of the cadences is different between the antecedent and consequent phrases, but it is the same in modified repeated phrases. Despite the change in syntax, the rhetoric is the same because both paradigms complete the pattern of two phrases due to the difference in the final subphrase. In contrast, there is no change in rhetorical strength of the cadences between the repeated *aa* phrases because no difference marks the second phrase as different from the first. This paradigm of cadential rhetoric explains the sense of conclusion achieved by the final cadence of a periodic structures.

Threefold repetitions can conflate the paradigm of the rhetorical strength. Conceptually, they should always group as one unit because the only difference appears in the final unit. However, they remain ambiguous in terms of rhetorical closure because secondary parameters such as lyrics and timbre can contribute to alternative groupings. Figure 5.4 shows four paradigmatic realizations of threefold repetitions, two at the phrase level, and two at the subphrase level. The groupings remain equivalent, but at different levels of structure depending on the number of subphrases in each repeated unit.

Consider the subphrase arrangement of the weak period, xxxx′. There is no difference between the second and third iteration of subphrase x, so the only reason to group them is

because of secondary parameters that influence the segmentation, or the generic expectation of periodic structures in popular music. Without a change to mark difference, there is no strength of rhetorical closure. This is represented in the diagram by the vertical dashed line, which shows that the interpreted segmentation influences the higher level, but there is no melodic or harmonic difference that articulates the change in rhetorical strength. This compromise allows the comparison of the melodic and harmonic syntax between the end of the second x to be compared to x′. The discussion of the chorus of "After the Storm" from Chapter 2 (Figure 2.11) highlights many of the considerations concerning segmenting threefold repetitions.

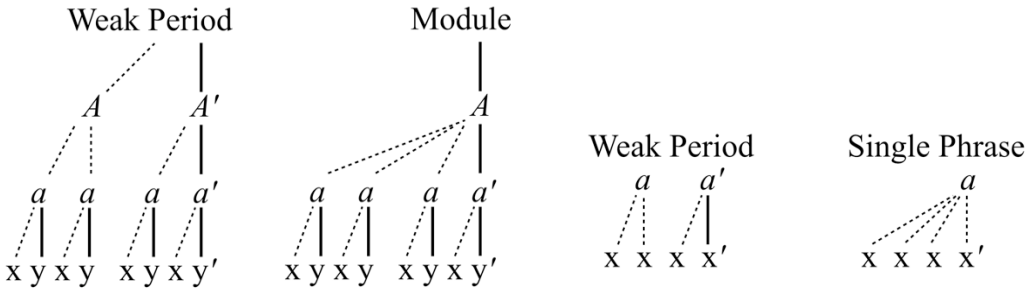

Figure 5.4: Hierarchical arrangement of closure in threefold repetitions.

Cadential Rhetoric in Rotated Phrases

Rotated phrases deny rhetorical closure by overlapping lyrical activity with melodic repetition; it is impossible for the melody to articulate completion if the lyrical activity is continuous past the completion of the final different subphrase of a same-different pattern. This characteristic makes rotated structures sound more continuous than phrases where the lyrics and melodic content are not displaced from each other. When the rhetorical strength of the interior cadences is denied by the rotated structure, the final cadence gains rhetorical weight because it will articulate closure for the entire rotated structure. The final cadence can be given additional rhetorical strength by disruption of the melodic, harmonic, and metric patterning necessary to break the rotated structure. The chorus of "Lovers in Japan" (Figure 4.12) is a characteristic example of rotated phrases denying rhetorical closure until the completion of the final phrase, and the final cadence given extra rhetorical weight by extensive changes to the melodic, harmonic, and hypermetric patterning.

Hypermeter

Usually, difference is created by changing the patterning of melodic and/or harmonic elements of a passage, but disruption of the hypermetric patterning is also possible. A hypermetric disruption usually signals an impending cadence, or a cadence already achieved. When hypermetric reinterpretations are paired with changes in melodic and harmonic patterning at a cadence, the rhetorical strength of that cadence is greatly increased.

Hypermetric alterations have already been discussed in periodic structures (the verse of "Talk," Figure 3.30) and rotated phrases (the chorus of "Lovers in Japan," Figure 4.12). In those cases, the hypermetric disruption signals an impending cadence. Hypermetric disruptions are also created by elision (the chorus of "Little Rock," Figure 3.34), and although coinciding with the point of cadential closure, the hypermetric disruption signals the completion of the cadence.

Another common disruption that signals the completion of a phrase is the addition of one or two measures between phrases in a module, or between one module and the next. The extra measures can give space for the singer to breathe, or allow an overlapped phrase to complete before starting the next formal unit without eliding or overdubbing the vocal tracks. For example, in the chorus of "Hey ya!," performed by OutKast (Figure 5.5), the phrase overlaps into the next hypermetric downbeat. An additional two measures are added before the phrase is repeated, creating an incomplete hypermeasure and necessitating a reinterpretation with the reappearance of subphrase x on the hypermetric downbeat. The 2/4 measure creates an unequal hyperbeat, but it still represents the fourth hyperbeat of the complete hypermeasure.

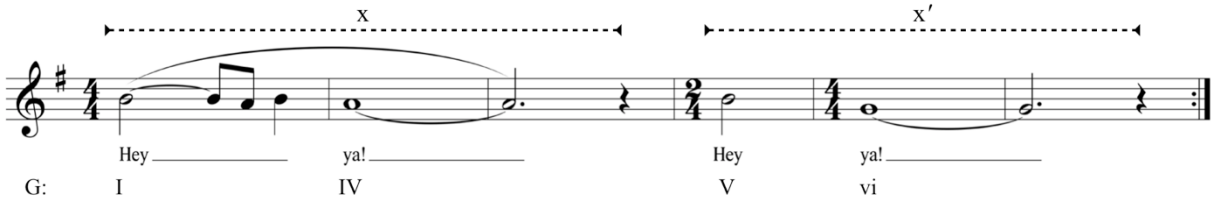

Figure 5.5: Chorus of "Hey Ya!," performed by OutKast. (*Speakerboxxx/The Love Below*, 2003, Disc 2, Track 9, 0:33 – 0:50)

In the phrase diagram for the excerpt, Figure 5.6, the hyperbeats are placed in the corresponding boxes of the hypermetric grid. The x′ subphrase extends into a new hypermeasure,

which begins normally on hyperbeat 1. The reappearance of subphrase x forces the reinterpretation of hyperbeat 1 instead of the expected hyperbeat 3.

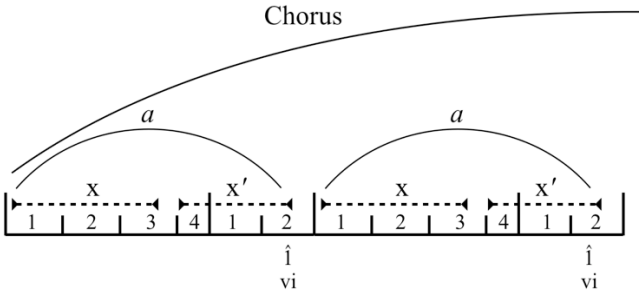

Figure 5.6: Phrase diagram of the chorus of "Hey Ya!," performed by Outkast. (*Speakerboxxx/The Love Below*, 2003, Disc 2, Track 9, 0:33 – 0:50)

The end of the chorus of "Perfect," performed by One Direction (Figure 5.7), has a one measure extension before the return of the verse. The final phrase of the chorus is the consequent of a period which achieves a stronger close by overlapping into the next downbeat. The extra measure is technically unnecessary because the verse melody starts on the second beat of the

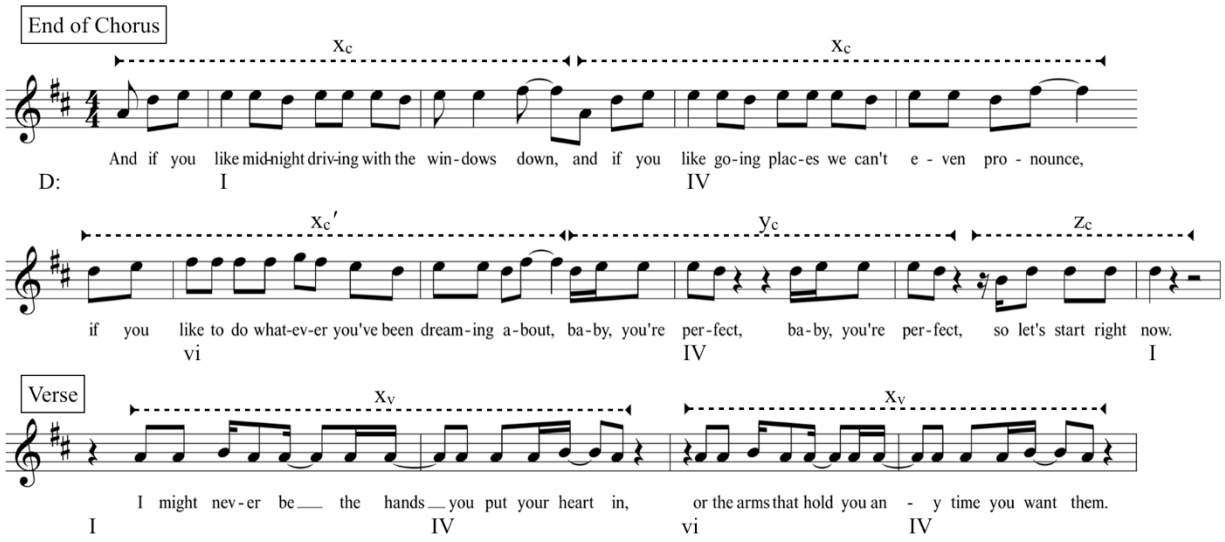

Figure 5.7: End of the chorus and beginning of the verse of "Perfect," performed by One Direction. (*Made in the A.M.*, 2015, Track 3, 1:01 – 1:33)

measure. The chorus could have overlapped into the downbeat without overlapping into the melody of the verse. Instead, an extra measure was inserted to create space between the two formal units, forcing a hypermetric reinterpretation with the onset of the verse, and creating successive downbeats.[34] The phrase diagram for this excerpt is provided in Figure 5.8.

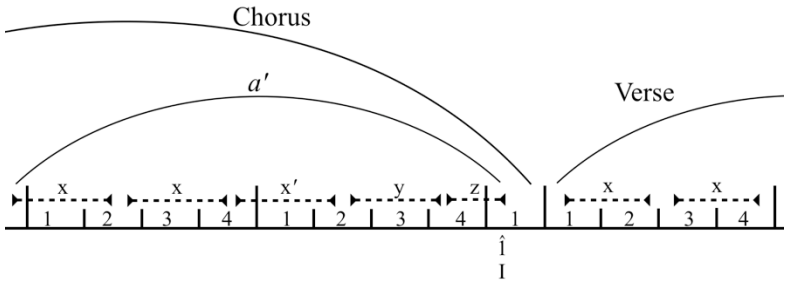

Figure 5.8: Phrase diagram of the end of the chorus and beginning of the verse of "Perfect," performed by One Direction. (*Made in the A.M.*, 2015, Track 3, 1:01 – 1:33)

Cadential Classifications

As I have argued throughout this dissertation, I am not basing my phrase segmentations on harmonic processes. Due to this consideration, I purposely distinguish my cadential labels from common-practice terminology to clarify that my cadences are not functioning in the same way as traditional labels; I do not adopt the "authentic" label for cadences on tonic, and specify the harmony associated with my various half cadences. However, I deliberately keep as many descriptors as coordinated as possible with traditional labels to show the conceptual relationship between similar harmonic and melodic alignments.

Figure 5.9 shows the summary of my cadence types. One of the fundamental differences between my cadential classifications and traditional labels is the lack of requirement for specific penultimate harmonies in full and partial closes; I only consider the final melodic and harmonic alignment at points of cadential articulation: the cadential syntax. As demonstrated by Figure 5.1, there are paradigmatic harmonic successions in popular music that almost articulate a traditional predominant-dominant-tonic functional progression, but even in examples where these progressions occur, the final melodic/harmonic alignment remains the most important.

[34] This matches Rothstein's third option for successive downbeats, *Phrase Rhythm*, 58.

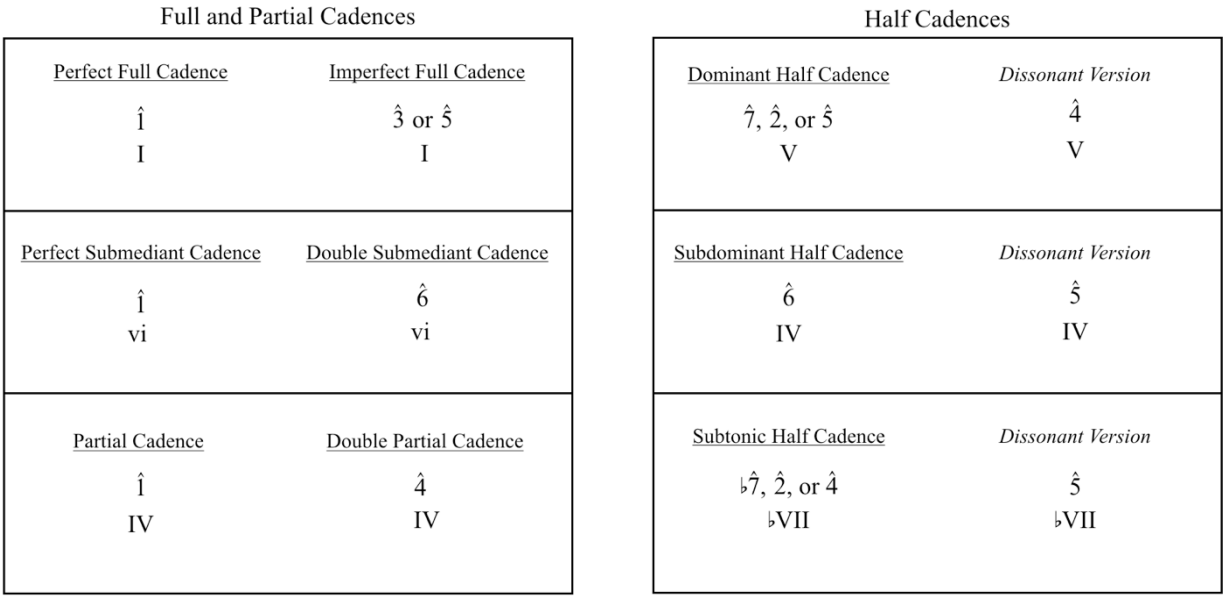

Figure 5.9: Summary of cadence types in popular music.

The syntactical strength of a cadence is still measured by the degree to which a cadence articulates an arrival on tonic, both harmonically and melodically. Reaching a tonic closure in melody and/or harmony produces a stronger close than not ending on a melodic or harmonic tonic. Full cadences are stronger than submediant cadences, which are stronger than partial cadences. In general, any full or partial cadence is stronger than any type of half cadence. The strength of half cadences is usually defined in relation to other half cadences within a single song, not between different songs.[35] Due to my common-practice training, I hear dominant half cadences as stronger (that is, articulating a greater sense of incompleteness) when compared to subdominant or subtonic half cadences in the same song, although that generalization may not be true for all listeners.

Full Cadences

Perfect Full Cadences (PFC). Perfect Full Cadences are derived from from common-practice perfect authentic cadences as it relates to the tonic arrival; the melody ends on scale-degree 1, and is supported by a root position tonic. The perfect full cadence produces the

[35] It is possible to argue for comparing half-cadence strength between songs by the same artist, but even that is not always a clear-cut comparison due to variables of harmonic syntax.

strongest syntactical close. Table 5.1 lists all the examples in the dissertation with full cadences, and are organized first by mode, then by pre-tonic harmony, and then alphabetically by song.

Table 5.1: List of perfect full cadences in this dissertation.

Song	Example	Section	Phrase	Pre-tonic Harmony	Final Harmony
I Got a Boy	3.7	Chorus	*a*	Ø	I
Charlie Brown	3.5	B section	*a*	IV	I
Chasing Cars	4.18	Verse	*a*	IV	I
Don't Let it Break Your Heart	4.14	Verse	*a*	IV	I
Perfect	5.7	Chorus	*a′*	IV	I
Rock Around the Clock	3.57	Strophe	*b*	IV	I
Savannah	4.17	Verse	*a*	iv	I
Troublemaker	3.60	Verse	*a*	IV	I
Up&Up	3.27	Chorus	*a′*	IV	I
Us Against the World	3.6	Bridge	*a*	IV	I
Amsterdam	3.64	Verse	*a*	V	I
Cathy's Clown	3.66	Verse	*a*	V	I
Come and Get Your Love	3.25	Chorus	*a′*	V	I
Dream Lover	3.68	Strophe	*a″*	V	I
Little Rock	3.34	Chorus	*a′*	V	I
Teenagers	3.8	Chorus	*a, a′*	V	I
The Mariner's Revenge Song	4.20	Verse	*b*	V	I
The Scientist	3.32	Chorus	*a′*	V^6_4	I
Can't Feel My Face	3.11	Chorus	*a*	♭VII	i
Shankill Butchers	3.47	Chorus	*a*	♭VII	i
Talk	3.30	Chorus	*a′*	♭VII	i
Violet Hill	3.76	Strophe	*b*	♭VII	i
A Rush of Blood to the Head	3.23	Terminal Climax	*a′*	v	i
Call Me When You're Sober	3.39	Bridge	*a*	V	i
Shankill Butchers	3.47	Chorus	*b*	V	i
The Hardest Part	3.28	Chorus	*a′*	v	i
Umbrella	3.14, 3.43	Chorus	*a, a′*	v	i

I hesitate to draw lengthy conclusions about this limited data set, but it aligns with previous data on harmonic practice in popular music.[36] In addition to the traditional dominant (V) as pre-tonic, the subdominant (IV) and subtonic (bVII) are both represented, and the minor dominant (v) is a viable pre-tonic harmony in the minor mode. The full cadence appears at the ends of choruses and verses as expected, but it appears at the end of two bridges as well.

While not appearing on the chart, other pre-tonic harmonies are found in songs, which is why I do not classify according to the pre-tonic harmony. For example, the phrase in the refrain of "A Whisper" (Figure 5.10) ends with a bVI harmony moving to tonic (i).

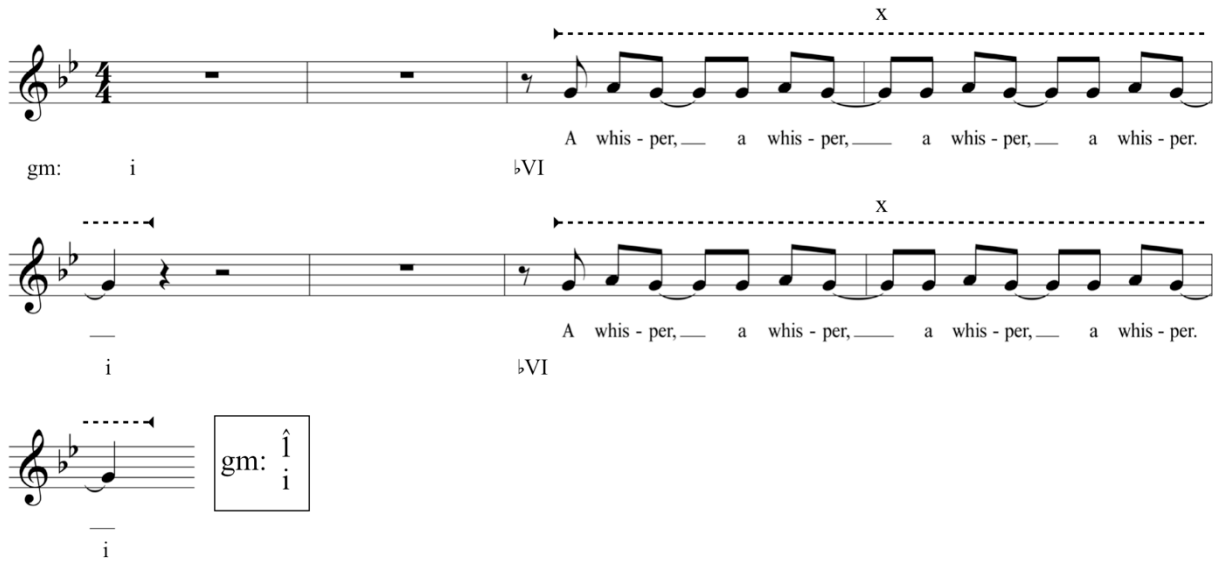

Figure 5.10: The refrain of "A Whisper," performed by Coldplay. (*A Rush of Blood to the Head,* 2002, Track 9, 0:12 – 0:29)

Imperfect Full Cadences (IFC). Imperfect Full Cadences are related to the common-practice imperfect authentic cadence. In this configuration, the melody is on scale-degree 3 or 5 over a tonic harmony, although this category can apply to melodies with scale-degree 1 in the melody over an inverted tonic.[37] But consider "Hymn for the Weekend" which ends on a I6/4. Table 5.2 lists all the examples with IFCs in the dissertation.

[36] Trevor de Clercq and David Temperley, "A Corpus Analysis of Rock Harmony." *Popular Music* 30, no. 1 (2011): 60-62.
[37] de Clercq and Temperley note that inverted harmonies are rare in rock music. Ibid., 66.

Table 5.2: List of imperfect full cadences in this dissertation.

Song	Ex.	Section	Phrase	Pre-tonic Harmony	Final Harmony	Final Melody
A Hard Day's Night	3.71	Strophe	*a*	♭VII	I	3
I'm Tore Down	3.51	Strophe	*a, a′, b*	I	I	3
Twisted Logic	4.10	Verse	*A*	ii	I	3
A Hard Day's Night	3.71	Strophe	*b*	IV	I	♭3
I'm Tore Down	3.53	Strophe	*c, a′, b*	IV	I	5
Mustang Sally	3.56	Verse	*a, a′*	IV	I	5
Cathy's Clown	3.67	Chorus	*a*	V	I	3
Come and Get Your Love	3.25	Chorus	*a*	V	I	3
Little Rock	3.34	Chorus	*a′*	V	I	3
…Baby One More Time	3.12	Chorus	*a′*	iv	i	5
A Rush of Blood to the Head	3.13	Terminal Climax	*a*	v	i	5
Never Gonna Give You Up	3.74	Chorus	*a*	v	i	♭3
Warning Sign	3.37	Chorus	*a*	vi	i	♭3

Half Cadences

I retain the half cadence label because it traditionally represents an open cadence, and in my methodology it describes the incompleteness associated with a lack of melodic or harmonic arrival on tonic. I am not arguing that half cadences in popular music carry formal expectations for creating a periodic structure, but that the melody and harmony did not achieve a tonic close, and they fit one of the expected half cadence paradigms. I will use the more generic term "open cadences" to define other melodic and harmonic alignments, particularly dissonant arrangements not involving the primary harmonies of I, IV, and V.

Common-practice half cadences are limited to root-position dominant triads (at least by Caplin), and therefore the category is quite narrow. Due to the different harmonic syntax of popular music, the subdominant (IV) and subtonic (VII) can serve as half cadences, primarily because they are common pre-tonic harmonies in full cadences.

Dominant Half Cadences. The Dominant Half Cadence (V) is like the common-practice arrangement, although any chord member can serve as the melodic pitch, and the chord is most

often realized as a 7th chord rather than just a triad. The minor dominant (v) can also serve a half-cadential role. Table 5.3 lists the examples in the dissertation that have dominant half cadences.

Table 5.3: List of dominant half cadences in this dissertation.

Song	Example	Section	Phrase	Final Harmony	Final Melody
The Hardest Part	3.1, 3.28	Chorus	*a*	V	2
Paradise	3.2, 3.19	Verse	*a*	V^6	5
Cemeteries of London	3.4	Verse	*a*	v	5
Fix You	3.9, 3.41	Bridge	*a, a′*	V	2
Birds	3.17	Terminal Climax	*a*	V	2
Warning Sign	3.37	Chorus	*a′*	V^6	2
Call Me When You're Sober	3.39	Bridge	*a′*	V	5
What If	3.45	Verse	*b*	V	2
Teenagers	4.19	Verse	*a*	V	7
The Mariner's Revenge Song	4.20	Verse	*a*	V	2

A dissonant and minor version of the dominant half cadence is found in the chorus of "White Shadows" (Figure 5.11). The lack of a leading tone in the minor dominant does not diminish the half-cadential function of the chord, despite the difference from common-practice harmony. Also, each type of half cadence has one dissonant arrangement, but the dominant version is exceptional because the melodic note, scale-degree 4, is also a member of the dominant-seventh chord. Despite being a chord tone, I still group it as a dissonant grouping.

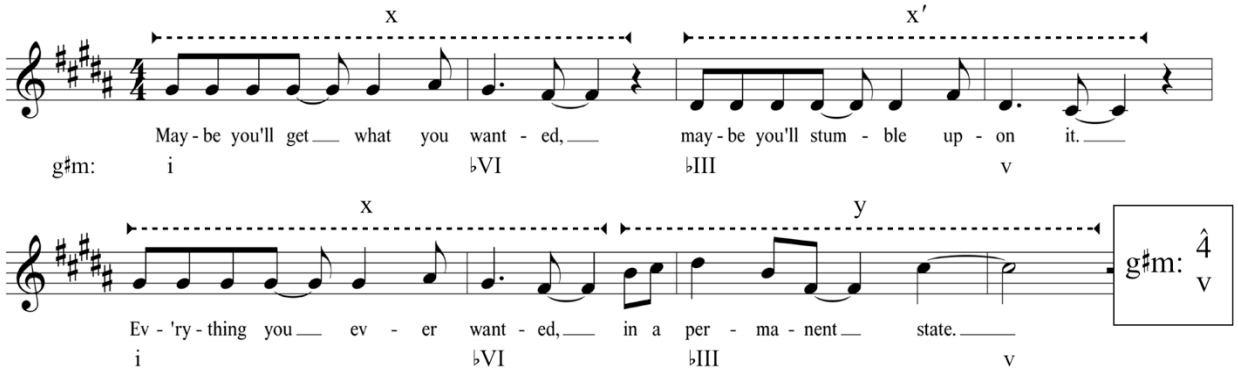

Figure 5.11: Phrase *A* of the chorus of "White Shadows," performed by Coldplay. (*X&Y*, 2005, Track 3, 2:04 – 2:19).

Subdominant Half Cadences. The Subdominant Half Cadence consists of scale-degree 6 over the subdominant (IV). The first two phrases of the verse of "Speed of Sound" are reproduced in Figure 5.12, the second of which ends with a subdominant half cadence. The alignment of scale-degree 6 over the subdominant is confirmed by the repetition of both phrases immediately after this excerpt, with the anacrusis E appearing on beat 4 of the final notated line. Because this E appears before the harmony returns to tonic with the repeat of the first phrase, the alignment of scale-degree 6 over IV must be the cadence of the second phrase.

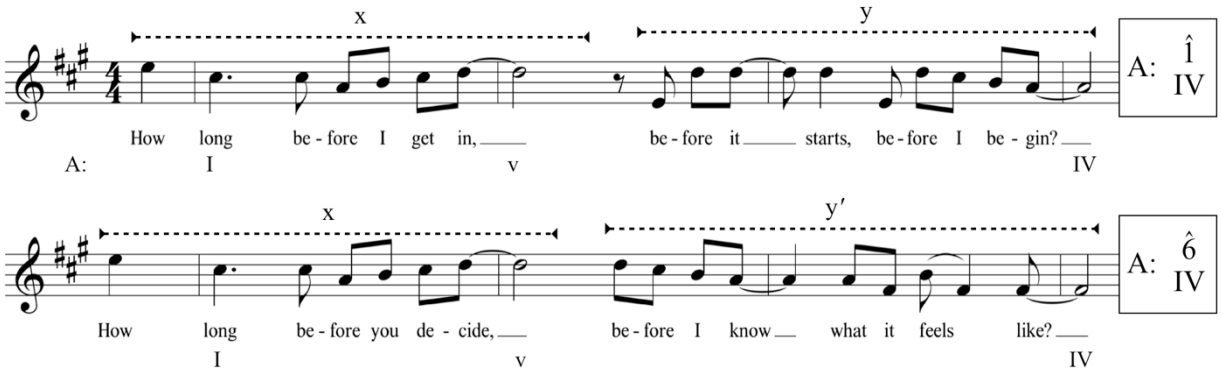

Figure 5.12: Phrases *a* and *a′* of the verse of "Speed of Sound," performed by Coldplay. (*X&Y*, 2005, Track 7, 0:18 – 0:34)

A dissonant version of the subdominant half cadence is found in the verse of "Hurts Like Heaven," Figure 5.13. The list of all examples of subdominant half cadences is provided in Table 5.4.

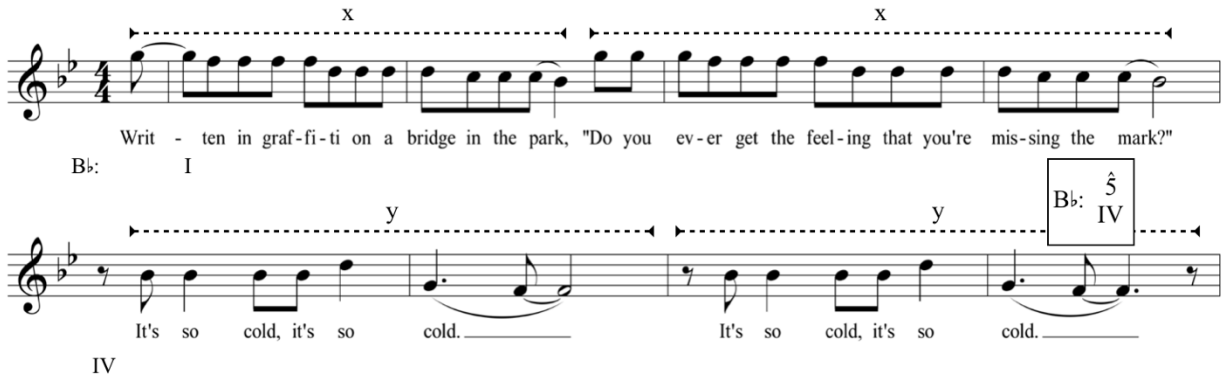

Figure 5.13: First phrase of the verse of "Hurts Like Heaven," performed by Coldplay. (*Mylo Xyloto*, 2011, Track 2, 0:00 – 0:10)

Table 5.4: List of subdominant half cadences in this dissertation.

Song	Example	Section	Phrase	Final Harmony	Final Melody
Anothers Arms	3.1, 3.75	Chorus	*a*	iv	♭6
What If	3.45	Verse	*a*	IV	6
Amsterdam	3.64	Verse	*a′*	IV	5
Hurts Like Heaven	3.78	Verse	*a*	IV	5

Subtonic Half Cadences. Like the dominant half cadence, the subtonic half cadence (bVII) can support any of its constituent scale-degrees: b7, 2, or 4. An example of the b7/bVII version is seen in the verse of "Princess of China," (Figure 5.14) performed by Coldplay and Rihanna. The other examples of the subtonic half cadence are provided in Table 5.5.

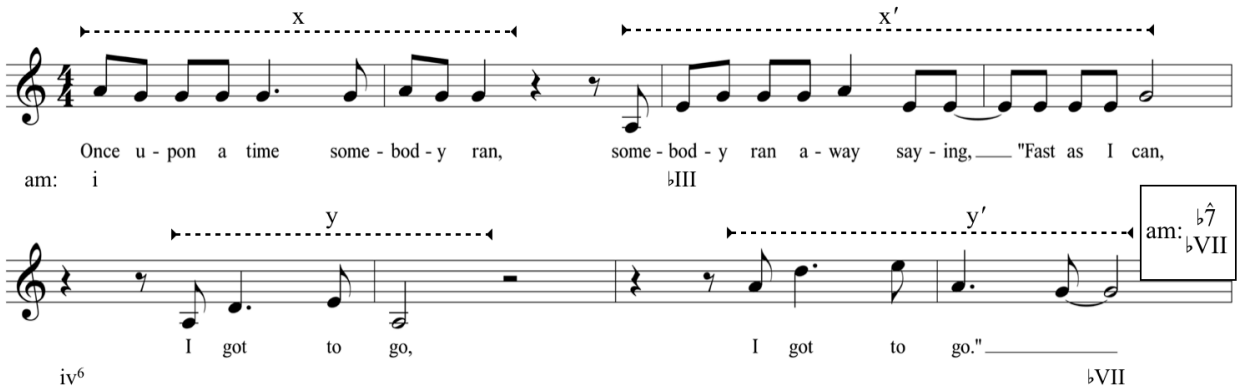

Figure 5.14: First phrase of the verse of "Princes of China," performed by Coldplay and Rihanna. (*Mylo Xyloto*, 2011, Track 10, 0:33 – 0:45)

Table 5.5: List of subtonic half cadences in this dissertation.

Song	Example	Section	Phrase	Final Harmony	Final Melody
Hold the Line	3.21	Chorus	*a*	♭VII	4
Talk	3.3	Verse	*a*	♭VII	2
Never Gonna Give You Up	3.73	Verse, Prechorus	*a*	♭VII	4
Violet Hill	3.76	Strophe	*a′*	♭VII	2

Partial Cadences

The typical arrangement of a partial close is a melodic cadence on scale-degree 1 supported by subdominant (IV). I call this a partial close because the melody reaches a full close, but the harmony does not. The end of "O," (Figure 5.15) performed by Coldplay, provides an example of a partial close ending a piece.

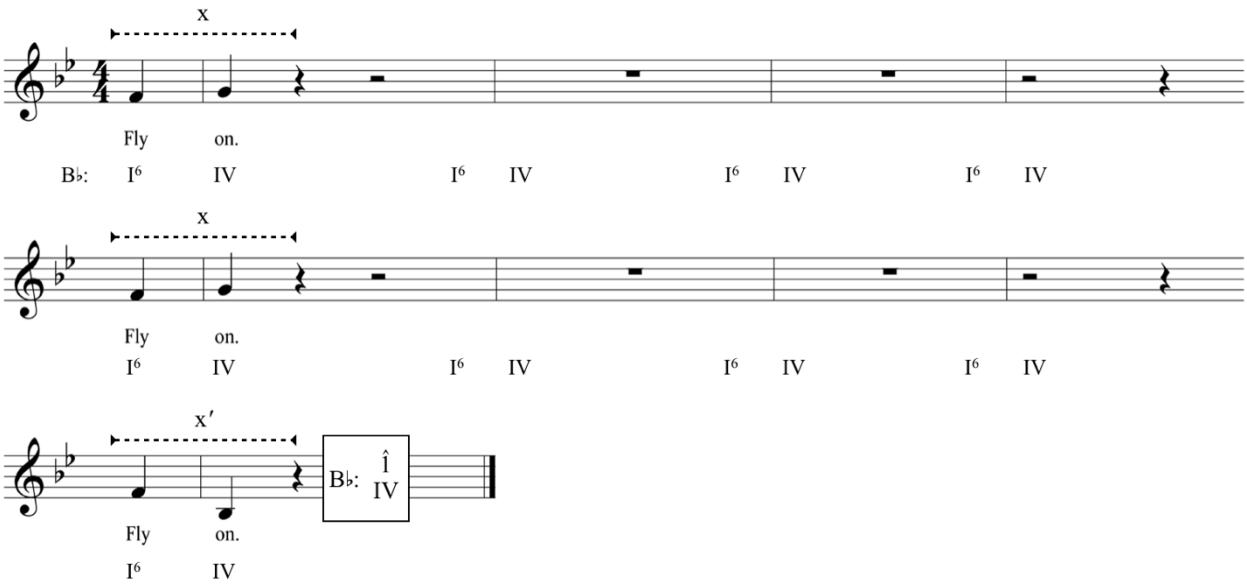

Figure 5.15: Outro of "O," performed by Coldplay. (*Ghost Stories*, 2014, Track 9, 3:23 – 3:42)

Table 5.6 lists the partial cadences found in the examples of this dissertation.

Table 5.6: List of partial cadences in this dissertation.

Song	Example	Section	Phrase	Final Harmony	Final Melody
The Scientist	3.3, 3.32	Chorus	*a*	IV	1
Up&Up	3.16	Chorus	*a*	IV	1
Cathy's Clown	3.67	Chorus	*b*	IV	1
Don't Let It Break Your Heart	4.14	Verse	*a′*	IV	1
Another's Arms	3.75	Chorus	*b, a*	iv	1
Violet Hill	3.76	Strophe	*a*	iv	1
Which to Bury, Us or the Hatchet?	4.21	Verse	*a′*	iv	1

Double Partial Cadences. The prevalence of the partial close in popular music allows a slight modification to the paradigm, resulting in the double partial close, which consists of scale-degree 4 over a subdominant harmony. A double partial close is shown in the chorus of "Ink" (Figure 5.16).

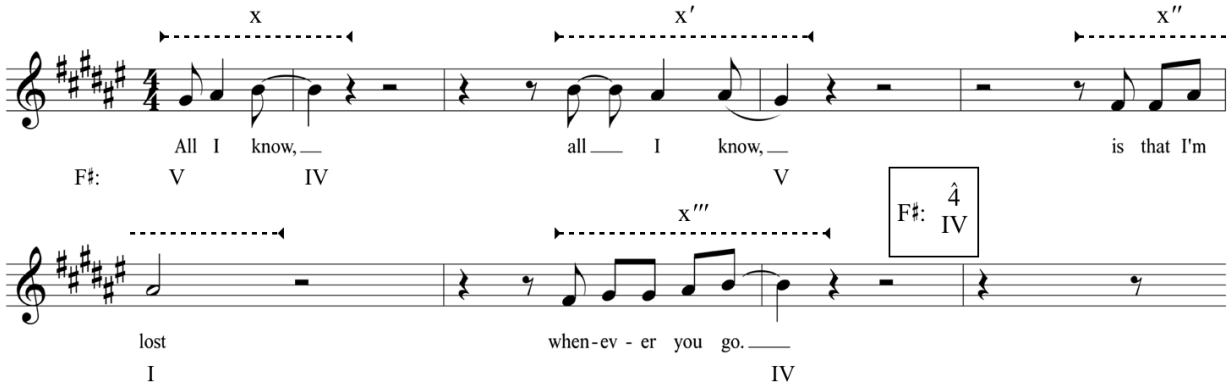

Figure 5.16: First phrase of the chorus of "Ink," performed by Coldplay. (*Ghost Stories,* 2013, Track 3, 1:03 – 1:19)

Deceptive Cadences

Deceptive and evaded cadences are defined syntactically in common-practice music. A deceptive cadence (or progression) is typically a root-position dominant (V) triad or seventh chord that resolves up by step to a submediant harmony (vi), although an inverted subdominant (iv^6) is also possible. Other types of evaded cadences involve undermining the function of the dominant through inversion, or having the melody leap away from a resolution to scale-degree 1. In popular music, deceptive cadences are defined contextually rather than syntactically. As I will argue shortly, melodic completion to scale-degree 1 accompanied by a submediant harmony (vi) is usually not deceptive, but rather a characteristic alignment.

For a cadence to be deceptive in popular music, it must be what David Huron calls a *dynamic surprise*, which "occurs when events do not comply with expectations that been evoked in the course of listening to the work itself."[38] Most evaded cadences involve altering a progression heard previously in a song. For example, the conclusion of "Violet Hill" uses a

[38] David Huron, *Sweet Anticipation: Music and the Psychology of Expectation*. (Cambridge, MA: MIT Press), 2006, 237-8.

different harmonization for the final phrase of the strophe than what was previously used in the body of the song. Figure 5.17 shows both the original line and harmony, as well as the outro of "Violet Hill." In the body of the song, the phrase "won't you let me know?" is harmonized i – bVII – i, but the first iteration of it in the chorus is harmonized i – bVII – bVI. The progression is deceptive not because it lands on the submediant, but because it changes the harmonic support that was heard two times previously in the song. The song ends with Schmalfeldt's "one more time" technique to bring back the original harmonic support and produce a perfect full cadence.

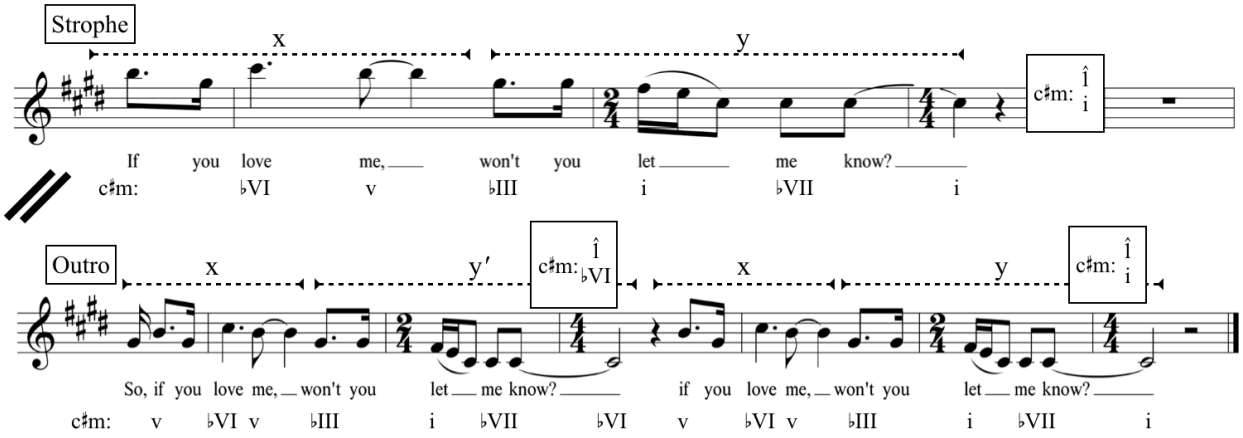

Figure 5.17: Strophe and outro of "Violet Hill," performed by Coldplay. (*Viva la Vida*, 2008, Track 8, 1:13 – 1:24 vs 3:18 – 3:42)

Misaligned Cadences

Misaligned cadences describe instances where the melody ends, but the final melody note is more appropriately supported by a chord that appears later in time. This situation frequently happens with melodic endings on scale-degree 1 anticipating a later tonic, but it can happen with any harmony. The anticipatory melodic note needs to be consonant with the coming harmony to appropriately interpret a misaligned cadence, and the effect is particularly strong when the anticipatory note is dissonant with the chord it occurs over. For example, in the verse of "Cemeteries of London" (Figure 5.18), the melody completes on scale-degree 3 supported by the mediant (bIII) harmony. The note is consonant, but scale-degree 5 is more appropriately aligned with the dominant (v) harmony to produce a normative half cadence. In this instance, I identify the cadence as a misaligned dominant half cadence.

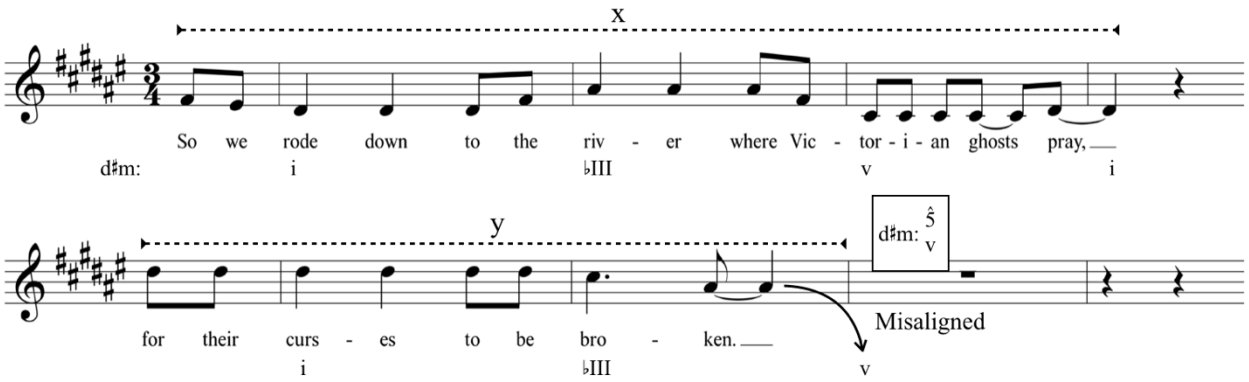

Figure 5.18: Verse of "Cemeteries of London," performed by Coldplay. (*Viva la Vida*, 2008, Track 2, 0:46 – 0:58)

A complicated situation arises when scale-degree 1 appears over a subdominant harmony (IV) that moves to tonic, such as in the outro of "Glass of Water," in Figure 5.19. Scale-degree 1 is consonant with IV, and produces partial close. However, scale-degree 1 over tonic is a stronger close, and it seems appropriate to hear the final melodic scale-degree 1 as anticipating the later harmonic resolution to the tonic harmony.

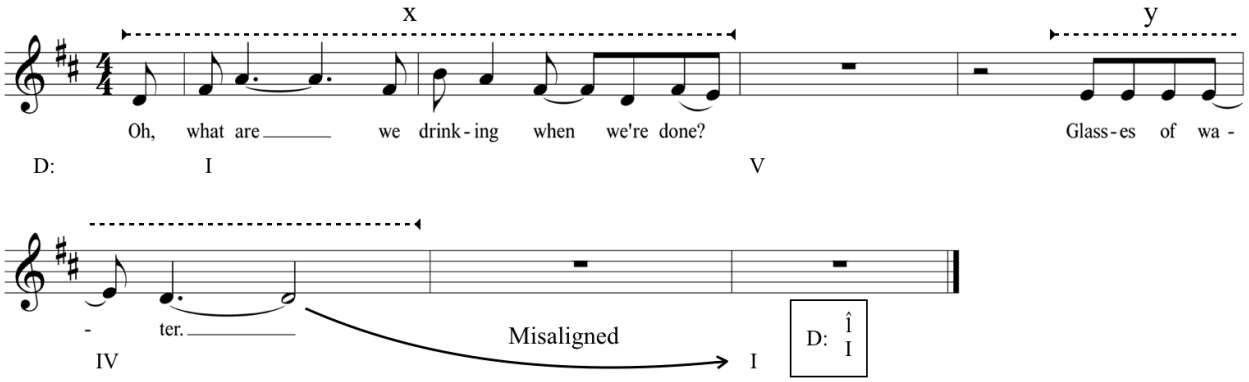

Figure 5.19: Outro of "Glass of Water," performed by Coldplay. (*Prospekt's March*, 2008, Track 3, 4:15 – 4:28)

In all cases of misaligned cadences, there must be melodic space that could be conceptually occupied by the voice over the new harmony, that is, the vocal line could actually be aligned with the harmony without interfering with other vocal activity. If melodic material intercedes before the new harmony is reached, a misaligned cadence cannot be interpreted.

Summary

The cadential syntax of popular music is much richer than common-practice music owing to the greater freedom of harmonic succession. However, there are still consistent melodic and harmonic alignments found across the spectrum of popular music, as evidenced by the diversity of songs that produce cadences that fall into my cadential categories. I have not discussed the submediant cadences, however, because they represent a special complex of melodic and harmonic considerations that require a more detailed exposition than just identifying the melodic and harmonic alignment. That task is taken up in the next section.

Submediant Double-Tonic Complex

Fundamentally, submediant cadences are quite simple; the melody completes on scale-degree 1 or 6 (or sometimes 3), supported by the submediant harmony (vi). However, the situation is more complicated because there needs to be an argument that the piece is still articulating a major key despite a cadence on a harmony that represents the relative minor. I argue that many popular songs articulate a submediant double-tonic complex where the harmonic material is ambiguous enough to allow a major and minor interpretation simultaneously, allowing the melody to fluidly move between the two modalities.

I begin by summarizing the literature on the double-tonic complex in common-practice and popular music, including where the complex is described in popular music scholarship but not explicitly named or identified. I then examine the common harmonic and melodic materials and processes that contribute to articulating a submediant double-tonic complex, and conclude by demonstrating its application in popular songs.

Review of Literature

The discussion of the double-tonic complex must begin with an underlying principle of modern music theory: *monotonality*. Arnold Schoenberg used the term to argue that "there is only *one tonality* in a piece, and every segment formerly considered as another tonality is only a region, a harmonic contrast within that tonality."[39] This is manifest most prominently in

[39] Arnold Schoenberg, *Structural Functions of Harmony* (New York: Norton, 1954), 19. Emphases in the original.

Schenkerian reductions which, among other things, show the relationship of modulations and secondary tonal areas in relation to the overarching tonality of a composition.

Robert Bailey coined the double-tonic complex to describe the conflation of C Major and A Minor in Act 1 of *Tristan and Isolde.* He states:

> "The pairing of A and C of the whole of Act I may well have grown out of the traditional close relationship between A minor and C major, but the double-tonic idea goes well beyond merely beginning in a minor key and concluding in its relative major…The two elements are linked together in such a way that either triad can serve as the local representative of the tonic complex. Within that complex itself, however, one of the the two elements is at any moment in the primary position while the other remains subordinate to it."[40]

In her book on Hugo Wolf's Lieder, Deborah Stein engages different manifestations of the double-tonic complex, and states that "the term 'double tonality' refers to any musical situation where two different tonalities potentially function as governing 'tonic.'"[41] Two of her categories, directional tonality and harmonic substitution, are relevant to the current discussion. In directional tonality, one key is presented initially but is later usurped by another key. A retrospective interpretation relates the initial tonality to the "true" tonality of the final key.[42] The other is *harmonic substitution*, which occurs when a harmony, usually closely related, is substituted for another.[43]

BaileyShea groups the double-tonic complex into three categories: 1) tonal pairing, 2) motivic, and 3) structural, and provides a summary chart, reproduced as Figure 5.20.[44] Different manifestations of the submediant double-tonic complex overlap with components of all three of BaileyShea's categories. The vacillation between the relative major and minor is typical of songs

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[40] Robert Bailey, "An Analytical Study of the Sketches and Drafts," in *Wagner: Prelude and Transfiguration from Tristan and Isolde* (New York: Norton, 1985), 121.
[41] Deborah Stein, *Hugo Wolf's Lieder and Extensions of Tonality* (Ann Arbor, MI: UMI Research Press, 1985), 7.
[42] An example of this is Harold Krebs's "Some Early Examples of Tonal Pairing: Schubert's 'Meeres Stille' and 'Der Wanderer'." In *The Second Practice of Nineteenth-Century Tonality*, ed. William Kinderman and Harald Krebs, 17-33. Lincoln: University of Nebraska Press, 1996.
[43] Stein, *Extensions of Tonality*, 11.
[44] Matthew BaileyShea, "The Hexatonic and Double-Tonic: Wolf's "Christmas Rose"." *Journal of Music Theory* 51, no. 2 (Fall, 2007): 195.

exhibiting the complex (category one), but category two is also common in songs featuring ambiguous chord loops. The third category represents songs where the major mode tonic harmony is never realized, but the melody clearly articulates a major mode orientation. The submediant harmony then serves as a viable support for the major tonic, fusing the two components together as one larger collection.

Category One: Tonal Pairing	A piece consistently vacillates between two keys, usually third related, often with dramatic/associative connotations. This is quite common in nineteenth-century music.
Category Two: DTC (motivic)	The piece exhibits tonal pairing as in category one, but with a crucial addition—the pairing of the two keys acts as an abstract motive, which manifests in a variety of idiosyncratic gestures: one tonic appearing in place of the other; ambiguous passages that could be interpreted in either key; striking, dissonant harmonies generated by the conflation of two different tonic triads, etc. This is somewhat rare in nineteenth-century music.
Category Three: DTC (structural)	A piece exhibits the same features as category two, but in this case the conflation of tonic triads is not simply a motivic possibility—it operates as a prolonged *tonic sonority*, one that contains at least four constituent pitch classes. This is extremely rare in nineteenth-century music; arguably impossible.

Figure 5.20: BaileyShea's Figure 3 from "The Hexatonic and the Double Tonic: Wolf's "Christmas Rose.""

Guy Capuzzo addresses the double-tonic complex in his article on sectional centricity and tonality in rock music, and argues that changes in key between formal sections is a different type of tonality than the monotonality of common-practice music. This reflected most clearly in his summary chart, reproduced as Figure 5.21.[45] The influence of monotonality and Schenkerian reductive analytical techniques is reflected in the chart because Capuzzo stresses how much weight is given to the keys. If the keys are unequal, a monotonal reading posits the subordinate key must be governed by the key with more structural weight. The various authors addressing double tonality and directional tonality consistently argue for the analytical and expressive

[45] Guy Capuzzo, "Sectional Tonality and Sectional Centricity in Rock Music." *Music Theory Spectrum* 31, no. 1 (2009): 159.

insights afforded by not reducing secondary keys to subordinate status, even if they do sometimes offer Schenkerian reductions showing monotonal readings.[46]

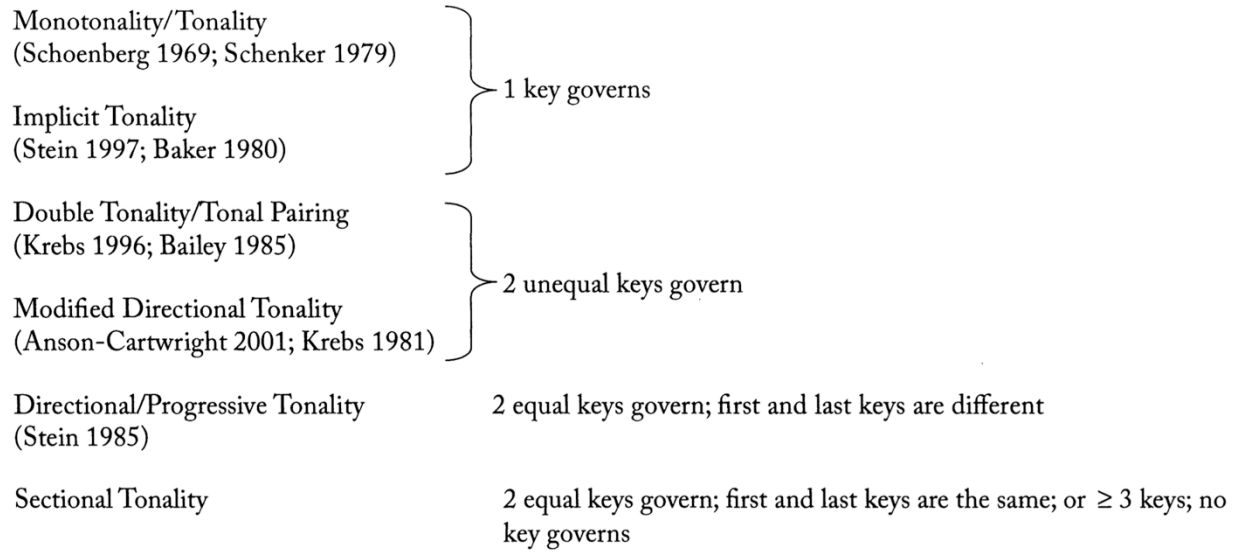

Figure 5.21: Capuzzo's Example 2, "Gauges of Tonality," showing the relationship of different types of tonality.

Capuzzo argues that sectional tonality is different from the other categories because the keys represented by the different formal sections are of equal weight, and that no particular key should be seen as governing the entire song. Capuzzo's considerations are not directly related to my submediant double-tonic complex because it expressly engages two closely related modes, often with the exact same pitch content. As such, I am not arguing for two separate keys, but rather one hybrid mode that expresses two modalities simultaneously.

One of the archetypal realizations of Christopher Doll's "breakout chorus" is directly related to the submediant double-tonic complex, the shift from a minor tonic in the verse to its relative major in the chorus.[47] Songs exhibiting this paradigm articulate one diatonic collection (with allowances made for a possible major dominant in the minor key), but the tonality of the two sections are marked by altering the harmonic progression, emphasizing different harmonies, and changing the melodic content of the vocals. One of the songs he discusses exhibits the

[46] See Krebs's sketches in "Tonal Pairing," 21.
[47] Christopher Doll, "Rockin' Out: Expressive Modulation in Verse-Chorus Form," *Music Theory Online* 17, no. 3 (Oct. 2011): [4].

submediant double-tonic complex, Sarah McLachlan's "Building a Mystery;" this leads to my next section where I discuss manifestations of the complex in scholarly research.

Analytical Discussions of the Submediant Double-Tonic Complex

"Building a Mystery" features the progression bm-G-D-A in both the verse and chorus, which has the potential to be tonally ambiguous. The progression can articulate B minor due to the hypermetrically emphasized B-minor harmony, but also D major because the D-major harmony is on the strong third hyperbeat, and is approached by a descending fourth (IV-I) and left by ascending fifth (I-V). Doll recognizes this ambiguity, and posits that the verse articulates a B-minor tonality because of the emphasis on B in the melody, and that the chorus shifts to D major because B is omitted from the vocal melody. He states that "there is a quality to the start of the chorus that, to my ear, unmistakably evokes the relative-minor-to-major modulatory archetype, of which I consider "Building a Mystery" a mysteriously veiled incarnation."[48] This subtle shift between the relative minor and major is one of the characteristic features of the submediant double-tonic complex.

Timothy Koozin also addresses the tonal ambiguity and shift in tonic in his analysis of "Building a Mystery," and his descriptions of the melodic and harmonic activity reflect the tension between the two tonal centers.[49] He describes the verse's opening F-natural as a blues inflection, but argues the verse is in B minor. If the F is a blues inflection, it is better read as scale-degree 3, which supports a D-major reading, not B minor. He also discusses the ambiguity of the A major harmony because it can be the dominant (V) of D major and the subtonic (bVII) of B minor, allowing him to state: "Choosing to leave the mystery unresolved, the piece end on A Major–a kind of half cadence left hanging."[50] In his unwillingness to support a D-major or B-minor reading, Koozin is passively recognizing that both tonalities are represented simultaneously. In her discussion of "Building a Mystery," Attas is also unwilling to commit to a

[48] Doll, "Expressive Modulations," [11].
[49] Timothy Koozin, "Fumbling Towards Ecstasy: Voice Leading, Tonal Structure, and the Theme of Self-Realization in the Music of Sarah McLachlan," in *Expression in Pop-Rock Music: Critical and Analytical Essays* 2nd ed., edited by Walter Everett. (New York, Routledge), 267-284.
[50] Ibid., 271.

particular tonal reading. She explains that in her diagram of the song structure "scale degrees are not included at the end of each vocal segment, because the circular chord progression used to accompany the entire song does not make a particular tonic chord clear."[51]

The same vi-IV-I-V progression is discussed at length concerning the song "Danza Kudoro" in a chapter of *Song Interpretation in 21st-Century Pop Music*.[52] Despite discussing the ambiguity, they represent the Am-F-C-G progression as vi-IV-I-V rather than i-VI-III-VII, which demonstrates a slight preference for the major mode interpretation. The authors discuss at length the ambiguity created by the progression, and conclude "since there is no harmonic resolution, regardless of tonal centre, the harmonic motion of the song barrels forward, building tension without a tangible release point; an effective tool for any dance song."[53] The interesting counterpoint to this chapter is de Clercq's review, where he critiques the authors's argument that the progression is uncommon. He also defaults to the major vi-IV-I-V interpretation, and does not even discuss the potential ambiguity between C major and A minor.[54]

Everett touches on a few different concepts of the submediant double-tonic complex in *The Foundations of Rock*, while describing some of the harmonic paradigms of rock music. He argues that supertonic (ii) and subdominant (IV) are "functionally interchangeable" because they share two common tones. This relationship is also present between submediant (vi) and tonic (I), allowing him to argue that "vi can alternate with I as an ornament to tonic."[55] His description of this relationship is particularly apt for the double-tonic complex. He states the third relationships "convey a sense of complexity and sensitivity, as if a single overarching harmony can be appreciated as multifaceted in some way."[56]

In Amy MacDonald's "This is the Life," Moore cites a specific harmonic progression that implicates a constant shift between the relative major and minor: i-VI-III-v (the progression is

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[51] Attas, "Sarah Setting the Terms," [25].
[52] Félix Eid, María Emilia Greco, Jakub Kasperski, Andrew Martin, and Edin Mujkanović. "How to Make a Global Dance Hit: Balancing the Exotic with the Familiar in 'Danza Kudoro" by Luceno featuring Don Omar," in *Song Interpretation in 21st-Century Pop Music*, ed. Ralf von Appen, André Doehring, Dietrich Helms, and Allan F. Moore: 231-252.
[53] Ibid., 242.
[54] Trevor de Clercq, "Review of Ralf von Appen, André Doehring, Dietrich Helms, and Allan Moore, eds. *Song Interpretation in 21st-Century Pop Music* (Ashgate, 2015)." *Music Theory Online* 22, no. 1 (2016).
[55] Everett, *The Foundations of Rock*, 219-220.
[56] Ibid., 221.

C#m-A-E-G#m). He argues that it is best heard as "two moves which contradict each other," specifically a IV-I motion tonicizing E, and v-i motion tonicizing G#.[57] The phrase-rhythm consistently aims for a G#-minor as the tonic, meaning the song is less tonally ambiguous the "Building a Mystery," but the progression reflects the potential to implicate both the major and minor tonality simultaneously.

In summary, what I call the submediant double-tonic complex has already been discussed in specific songs by a variety of scholars, but it has not been recognized as a general category of compositional device that is manifest in specific ways. The rest of this chapter aims to clarify the various harmonic contexts that contribute to the complex, and provide additional examples of its realization.

My Approach to the Submediant Double-Tonic Complex (Submediant DTC)

Popular songs articulate a submediant double-tonic complex (Submediant DTC) when the harmonic material is ambiguous enough to allow a major and minor interpretation simultaneously, allowing the melody to fluidly move between the two modalities. There is no explicit hierarchy of the two keys, although typically one modality is pronounced in one parameter, while the other parameter subtly or explicitly articulates the relative modality. My goals in identifying and naming the submediant DTC is to highlight a common device in many popular songs, and to provide a methodology for engaging the musical techniques creating it, and the expressive effects of its deployment.

Theoretical Considerations and Examples

The submediant double-tonic complex is possible due to the prevalence of diatonic melodies and harmonies in popular music. Songs that feature no chromatic harmonies allow a flexibility in tonality, particular in chord loops where the tonic harmony is not explicitly the goal. When used melodically, subcollections of the diatonic collection (hexatonic and pentatonic) can further contribute to the ambiguity of tonality, especially when scale-degree 7 or 4 is omitted, disallowing the possibility of a melodic tritone to clarify tonic. As a result, submediant DTCs are

[57] Allan F. Moore, "So Just What Kind of Life is This? Amy Macdonald's 'This is the Life'" in *Song Interpretation in 21st-Century Pop Music*. Ed. Ralf von Appen, André Doehring, Dietrich Helms, and Allan F. Moore: 163.

most commonly found in songs that are primarily diatonic both harmonically and melodically, and feature a chord loop, either throughout the entire song, or with different loops for different sections. For consistency in analysis between songs, I favor labeling the chord loops of submediant DTCs with Roman numerals reflecting the major mode.[58]

i-vi, iii-vi, V-vi. The simplest articulation of the submediant DTC is the immediate juxtaposition of I and vi. This is a common occurrence in early rock songs, such as in the strophe of "Dream Lover" (Figure 5.22). In the first phrase, the harmony and melody both slide down to A-minor. Because the melodic and harmonic content is different, the second subphrase articulates cadential function and ends with a double-submediant cadence. The repetition of the complete phrase in the next line confirms the phrase and cadential status.

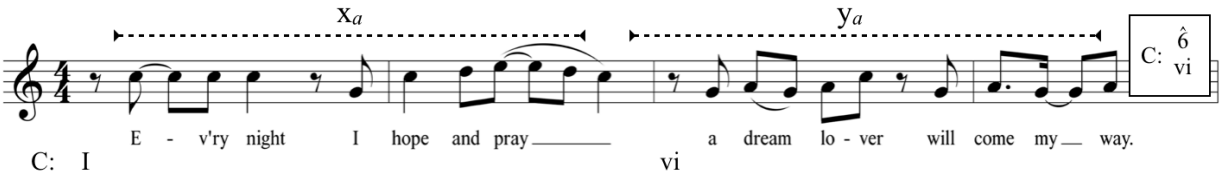

Figure 5.22: First phrase of the strophe of "Dream Lover," performed by Bobby Darin. (*Dream Lover*, Single, 1959, 0:08 – 0:16)

The submediant harmony (vi) is strengthened as harmonic tonic when it is tonicized in one of two ways, both of which were discussed above. The first is the ambiguity of root motion by step with what could be simultaneously V-vi in major or bVII-i in minor. In minor, the stepwise ascent reflects a paradigmatic approach to tonic, and can be associated with PFC cadences. The other tonicization is the relative minor dominant, realized as iii-vi in major, but functionally v-i in minor. Both progressions are seen in the chorus of "Everglow," shown in Figure 5.23.

The chorus and song are both clearly in E Major as evidenced by the prominence of E melodically, and goal-directed melodic motions to it. However, the harmonic succession emphasizes the minor rotation with C-sharp minor harmonies (vi) on the strong hyperbeats, 1 and 3. Additionally, each submediant harmony is approached in one of the two ways described

[58] I tend to hear the harmonies of submediant double-tonic complex songs as articulating the major rotation, even when the song is more strongly oriented to the minor.

above; a stepwise ascent from V, functioning as bVII-i in C-sharp minor, or a leap from iii, functioning as v-i in C#-minor. The musical effect in this instance is to highlight the tension described by the singer. His current situation is not pleasant–metaphorically described as cold–which most likely reflects loneliness or despair rather than physical discomfort. Martin, the primary lyricist of Coldplay, typically associates love with warmth and light. This is evidenced in this song, titled "Everglow," where the singer describes the "light" given by the targeted "you" of the song. This is also reflected in other songs, particularly across the album *Ghost Stories* where love is represented as magic, fire, and a sky full of stars. The C-sharp minor harmony grounds the lyrics in the current state of displeasure, although the overall lyrical trajectory of the song is positive (E Major) as the singer remembers the love of the "you."

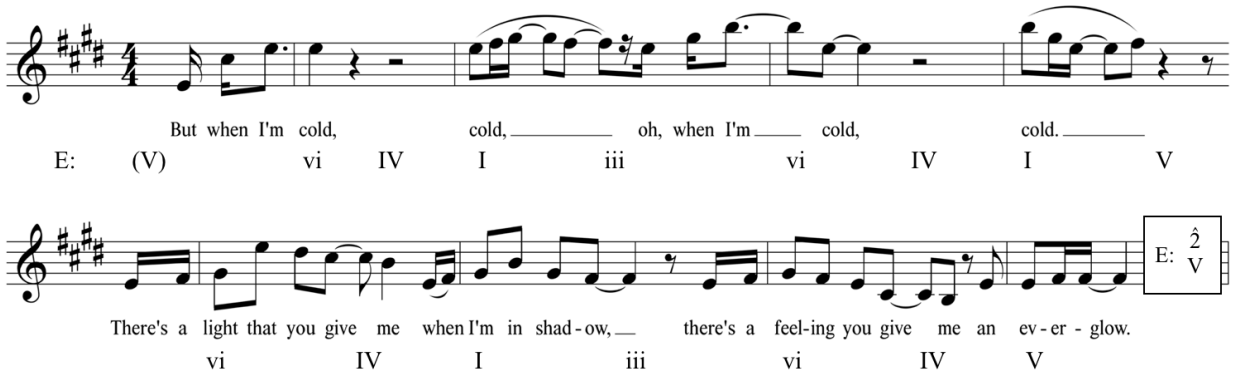

Figure 5.23: First chorus of "Everglow," performed by Coldplay. (*A Head Full of Dreams,* 2015, Track 4, 1:47 – 2:15)

The ending of the song highlights the complexity of the major/minor relationship. Despite the general positive trajectory (there is a full 1/I realization of the chorus in the middle of the song), the ending is much more contemplative and reflective. The outro (Figure 5.24) strips the texture down to just Martin singing and playing the piano, in contrast to the full texture of bass, drums, and guitar immediately preceding the outro. The outro's final subphrase echoes the chorus melodically, and Martin sings, "oh, the light that you left me will everglow." On their own, the lyrics echo the positive trajectory of the song, but the musical setting belies the complexity of the situation. The final word remains unresolved on scale-degree 2 over the dominant. It is possible to interpret the final harmony as the resolution of the dominant (if only harmonically), but even that resolution is not straightforward. The piano/vocal/guitar book lists

the final harmony as a C-sharp minor-seventh chord, which I cannot convince myself is correct because I cannot hear the C-sharp in the bass.[59] I believe the sonority on the recording is an E-major add6 chord, which contains the same pitches, but with the C-sharp in an inner voice rather than the bass. Coldplay also released a single version of "Everglow," which is primarily Martin singing and playing piano. In that version, the final sonority is a tonic (I) sus2 chord.

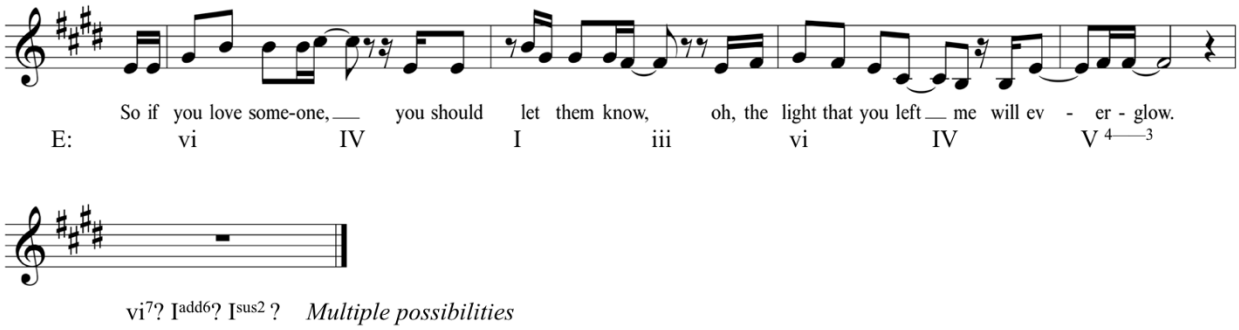

Figure 5.24: Outro of "Everglow," performed by Coldplay. (*A Head Full of Dreams,* 2015, Track 4, 4:22– 4:43)

The different endings all reflect different interpretations of the outro. At this point, it is helpful to consider a little biographical information relating this song to Martin's life. "Everglow" appears on *A Head Full of Dreams*, the first musical output following the "breakup album" *Ghost Stories*, which was recorded and produced immediately following Martin's separation from his wife, Gwyneth Paltrow. Most of the songs on *Ghost Stories* can be read as Martin engaging the complex emotions surrounding that breakup, with him ultimately reaching acceptance, choosing to value the relationship (past and continuing, but in a different form), celebrating what it was, and not dwelling on the negative emotions. In *A Head Full of Dreams*, "Everglow" is the ever-crucial fourth track of the album, continues the emotional reflection of *Ghost Stories*, and even has backing vocals sung by Paltrow.[60] As such, the "you" of the song can be read as Paltrow, and reflects Martin's continued working-out of his emotions towards her. If so, the final line has bizarre implications. Assuming the "you" of the outro remains Paltrow,

[59] Coldplay, *A Head Full of Dreams: Piano/Vocal/Guitar*. Hal Leonard, 2016, 33.
[60] The fourth track on Coldplay albums is typically emotionally complex, and frequently engages with relational issues, particularly broken or complicated relationships. These songs include "Sparks," "The Scientist," "Fix You," "True Love," and of course, "Everglow."

Martin's request is that if Paltrow loves someone else, she needs to tell him that Martin still has some form of enduring love for her. Alternatively, the "you" of the outro can be the generic listener, with Martin's request then being a reminder of the ephemeral period of time one is capable of expressing love to someone else. The final phrase, "the light that you *left* me will everglow" implicates the past tense of the relationship, and serves to warn the listener to act on his or her feelings while it is still possible.

Returning to the pitch content, the simultaneous alignment of the C-sharp and E-major sonorities parallel the emotional and lyrical complexity of the song. As a primarily E-major ending, the song reflects a general acceptance of the end of the relationship, but with the emotional scars and lessons learned that inform future relationships. As a primarily minor ending, the shift focuses to the inability to move on from the relationship (which may be why Martin has another song about Paltrow on this album). As a final point, the single version has the final line in the present tense: "the light that you *give* me…," and ends with a conclusive Esus2 harmony lacking the C-sharp of the added sixth. Perhaps the single, released months after the full album, reflects a greater emotional distance and maturation that alters the way the song should end.

Common Chord Loops with Submediant DTC Characteristics. Certain chord loops have the potential to articulate the submediant DTC more effectively than others. For instance, the doo-wop progression, I-vi-IV-V, is not likely to produce the Submediant DTC because tonic is hypermetrically emphasized, is preceded by the dominant (V) every succession, and the loop aligns with common-practice functional harmony. The immediate juxtaposition of I and vi is present, but other factors prevent the tonal ambiguity necessary to support a DTC. However, rearranging the harmonies produces progressions that characteristically produce a submediant DTC, such as the progression associated with "Building a Mystery," vi-IV-I-V.

Although not extensive, Figure 5.25 shows three families of four-chord loops that commonly produce the submediant DTC. In the first two families, the loop is rotated in different realizations, placing a different chord on the hypermetric downbeat. In the third family, the final two chords are reordered. The potential for producing the submediant DTC remains the same in all iterations of each family, but the melody must interact with the harmony differently in each paradigm to maintain the Complex.

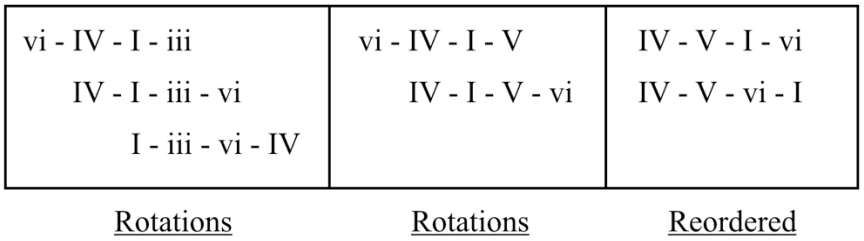

Figure 5.25: Common four-chord loops that can produce the submediant DTC.

Examples

"Everglow," features the first rotation of the vi-IV-I-iii loop, and the submediant DTC is realized mostly in the harmony because of the placement of the submediant (vi) on the hypermetric strong beats. The metric emphasis on vi creates the possibility that the song may be working to expressive the minor mode, but the melody primarily outlines the chord tones of the E major scale, and the strong dominant half cadences and PFCs in E major throughout put the song more on the major side of the submediant DTC.

Adele's "Love in the Dark" emphasizes the minor side of the submediant DTC, and plays with the convention of the minor-to-major breakout chorus. The verse is presented in Figure 5.26, and I have provided two alternative tonal centers in the analysis. In the first line, the loop is shown in C-major, while in the second line it is shown in A-minor. The chords remain the same in both lines (am-C-em-F), but I provide both analyses to show the two possible tonal interpretations of the excerpt. A pertinent aspect of Adele's performance is the tendency to have a slight fall at the end of her vocal phrases, which is represented by the slur from A to G at the end of each line. This consideration is relevant because it subtly changes the melodic orientation from being A focused to implying C, with G as a strong scale-degree 5. The two options for the cadence in C-major are syntactical closes: scale-degree 6 over IV is a subdominant half cadence, and scale-degree 5 over IV is a dissonant subdominant half cadence. The A-minor cadences are less syntactical, although a scale-degree 1 over bVI is not uncommon in minor (it is similar to i-vi in major). It is unclear whether to prefer the A or G at the cadence, although neither choice produces a conclusive close.

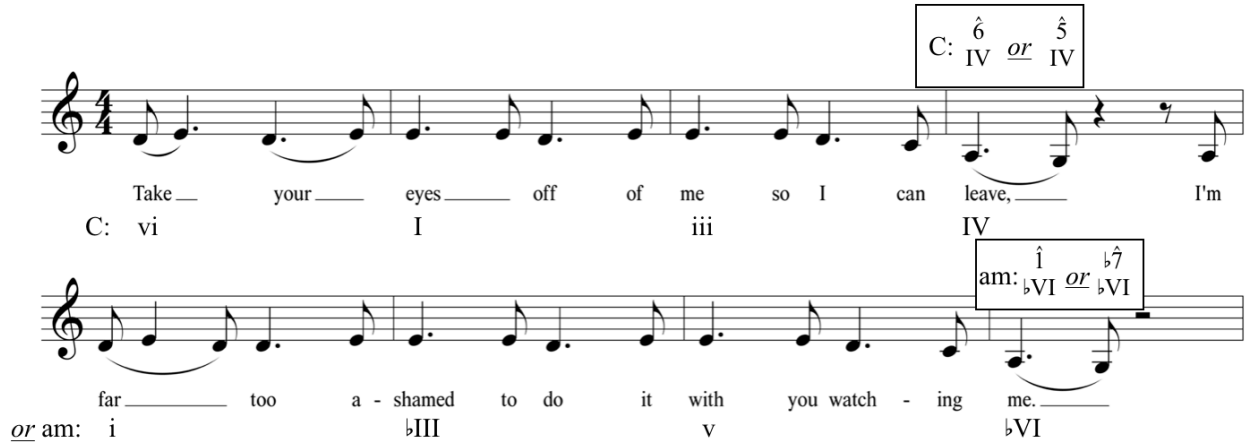

Figure 5.26: First phrase of the verse of "Love in the Dark," performed by Adele. (*25*, 2015, Track 8, 0:19 – 0:36)

The prechorus (Figure 5.27) is more convincingly minor, with A as the final melodic pitch of each line. It still does not produce a convincing close at the end of either phrase, however, with either a subdominant half cadence in major, or a partial close in minor.

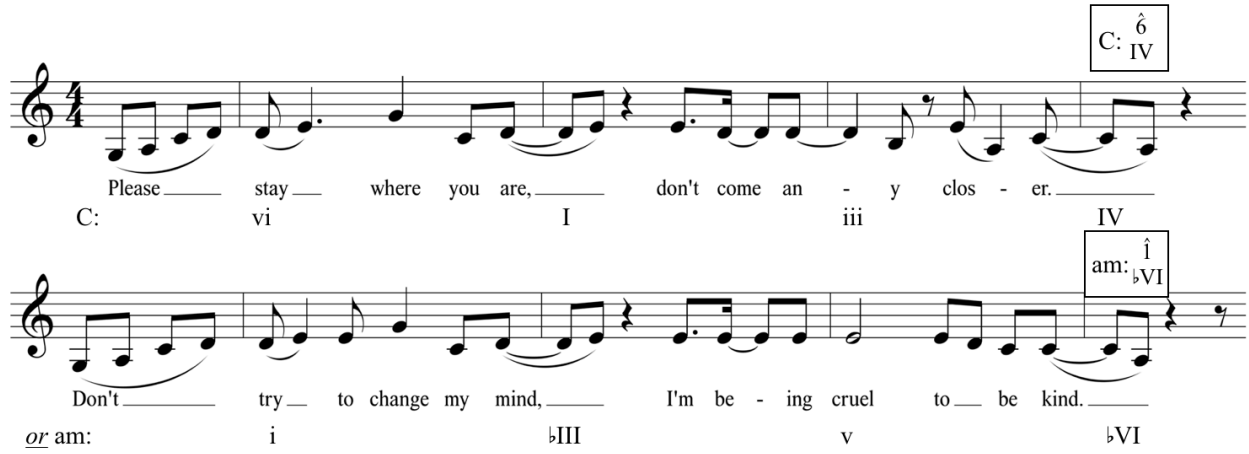

Figure 5.27: Prechorus of "Love in the Dark," performed by Adele. (*25*, 2015, Track 8, 0:53 – 1:10)

In the chorus (Figure 5.28) the melody attempts to modulate to the relative major after the ambivalent expressions of the verse and prechorus. The melody descends strongly from scale-degree 5 to 3, with scale-degree 4 ("you") behaving like the chordal seventh of a dominant seventh chord, but the resolution to scale-degree 3 is frustrated by the submediant harmony. The

progression is not deceptive because it's a paradigmatic progression in popular music, and one of the chord loops commonly found in songs expressing the submediant DTC (IV-V-vi-I). The major mode is strongly expressed in the melody, which has no A, but weakly expressed in the harmony. The C-major chord does not appear until the the fourth measure, misaligned from the melodic resolution of the phrase. In the modified repetition in the second line, the melody is extended, venturing up to a sustained A that is held until the reappearance of the C major harmony, juxtaposing the two pitches and highlighting the tonal duality present in the chorus.

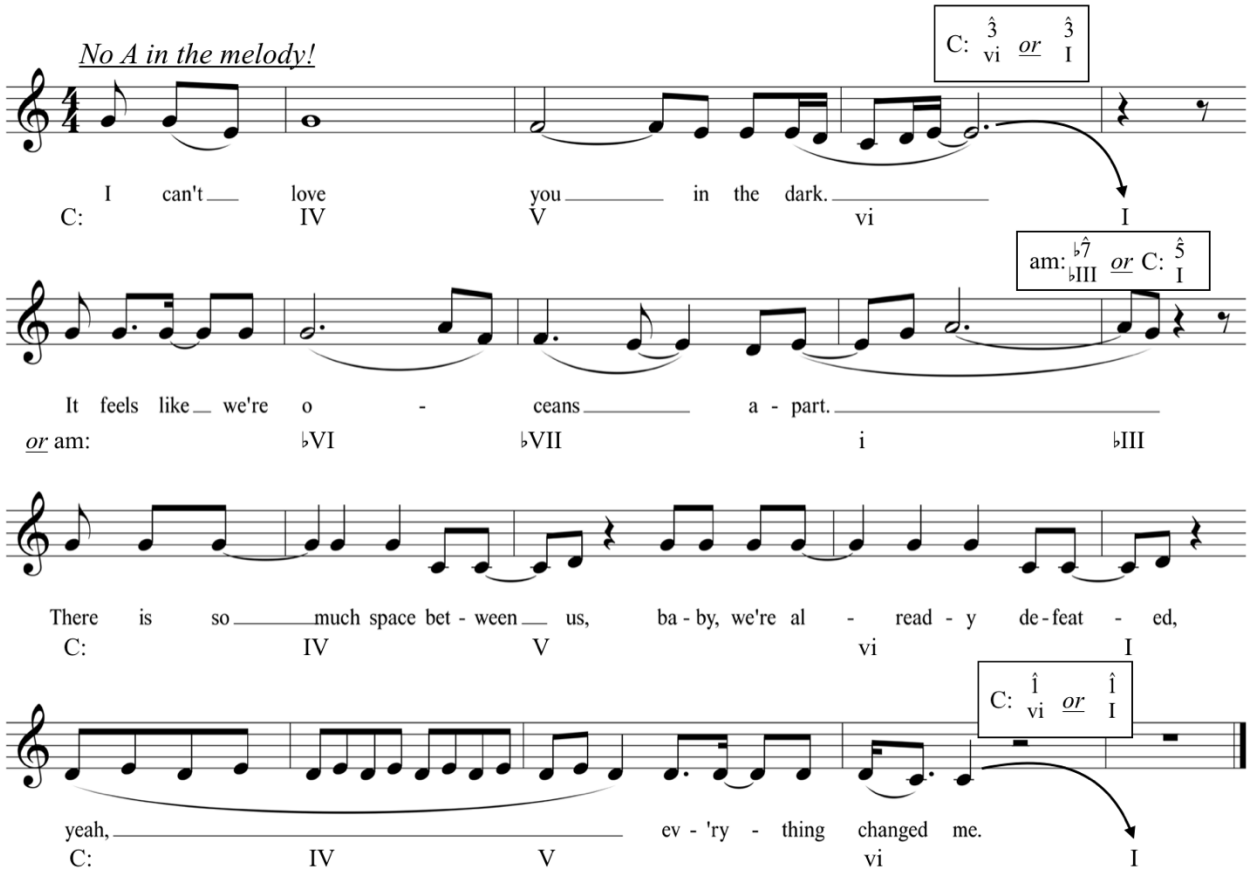

Figure 5.28: Chorus of "Love in the Dark," performed by Adele. (*25*, 2015, Track 8, 1:10 – 1:46)

The third and fourth line strongly express C-major with the perfect fifth between scale-degrees 5 and 1 in the repeated subphrase of the sentence paradigm, and the scale-degree 2 to 1 motion in the concluding subphrase. However, the repeated chord loop continues to be

ambivalent to the melodic activity, and is never altered to more convincingly articulate a strong scale-degree 1 over major tonic (I) cadence.

The song concludes with a chorus statement, followed by a repetition of the final line of the chorus as an outro. This outro is exactly the same as printed above, except the final C-major tonic harmony is omitted, decidedly ending the song with a melodic C over an an A-minor harmony–the prototypical arrangement of the perfect submediant cadence.

The verse of "Wonderland," performed by Taylor Swift (Figure 5.29), reflects the straightforward I-vi motion characteristic of simple manifestations of the submediant DTC, and each phrase of the pair of repeated phrases ends with an imperfect submediant cadence. Despite the harmony sliding to the submediant, the melody continues to articulate primary chord tones of the E-flat tonic (I) harmony.

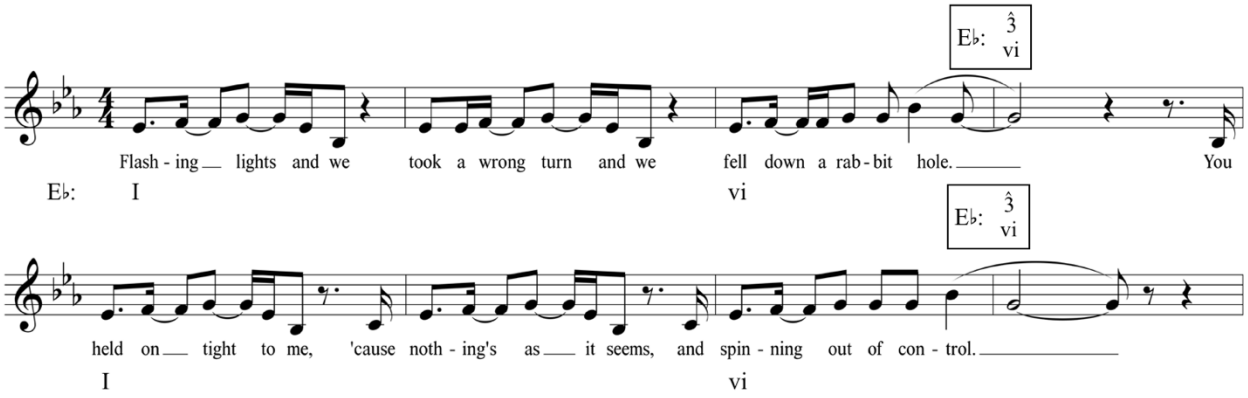

Figure 5.29: Verse of "Wonderland," performed by Taylor Swift. (*1989*, 2014, Track 14, 0:04 – 0:26)

The prechorus produces a deceptively complicated deployment of the submediant DTC. The harmony lacks any explicit tonic (I), but final dominant harmony of each line articulates a traditional dominant half cadence, implying the major rotation. This syntactical close is rhetorically emphasized by the cessation of vocal activity and a temporary pause in harmonic motion. The melody initially begins in the tonality of the submediant, leaping in fifths between the root and fifth of the C-minor submediant harmony, but moves to the E-flat harmony with "green eyes at me" producing the cadential content of a perfect submediant cadence. This "cadence" does not have cadential function though because it is followed by an additional modification of subphrase x leading to the half cadence. The subphrase grouping is sentential,

although the paradigmatic short-short-long pattern is obscured by the lack of melodic activity in the final measure. The syntax of the perfect submediant cadence then aligns with the faux cadence frequently found at the boundary of the presentation and continuation in a common-practice sentence. There, a I-V-V-I motion can appear to articulate a cadence with the return to tonic, but because the phrase process is incomplete it lacks cadential syntax.

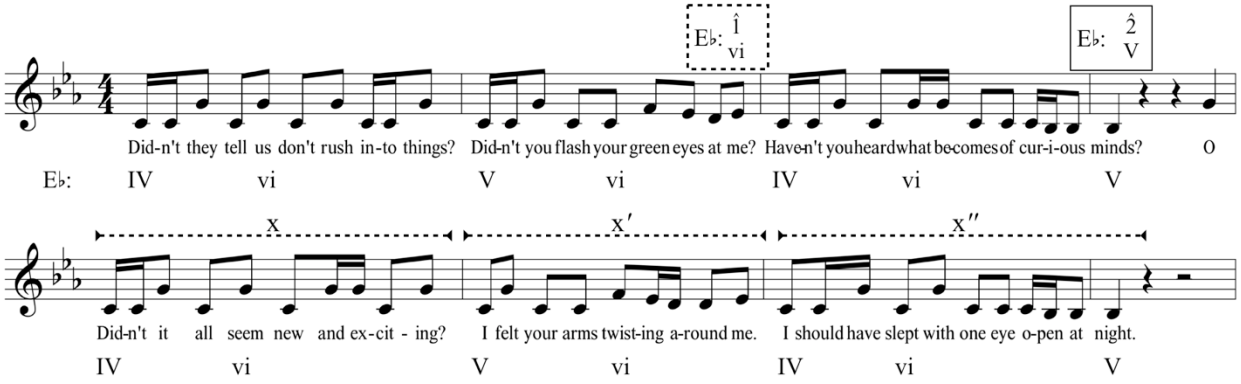

Figure 5.30: Prechorus of "Wonderland," performed by Taylor Swift. (*1989*, 2014, Track 14, 0:26 – 0:47)

The chorus of "Wonderland" (Figure 5.31) features the IV-I-V-vi chord loop, and brings the submediant DTC to the forefront of the musical texture. The "Wonderland" of the song describes a brief, passion-filled romance, and the submediant DTC relates to the contrast between real life and the fantastic and illusory dream world of the ephemeral relationship. The major emphasis reflects Swift's positive associations with the person and/or event, and the minor reflects the reality that it was short-lived and unsustainable. Her statement, "life was never worse, but never better," shows she not only has no regrets of the liaison, but also a nostalgic reminiscence of it; no future relationship seems to reach the same emotional or physical pleasure attained in her brief excursion to Wonderland. The duality of the positive remembrance with the present awareness of its brevity is reflected musically with "we pretended it could last forever," which concludes with a perfect submediant cadence. The melody ends conclusively on the major mode scale-degree 1, but the harmony stays in the reality of the submediant.

The final two phrases of the chorus bring the tension between the major reminiscence and the minor reality to a head. The two phrases both end with the phrase "in Wonderland," and

feature a vocal melisma up from scale-degree 6 to 1. The end of the second phrase overlaps into the hypermetric downbeat like the first, but unlike the first, it creates a hypermetric alteration because because the overlap is not into another formal unit. Instead, the overlap into the final measure of Figure 5.31 creates an extra hyperbeat, delaying the start of the verse by one measure. This extra measure is rhetorically and syntactically crucial because it contains only Swift's vocals; all the backing harmony and rhythmic patterning is dropped, leaving only the melody to articulate which pitch, scale-degree 6 or 1, is the true melodic close of the chorus. Swift is melodically deciding whether she wants to remain in reality on scale-degree 6, or return to the major mode Wonderland of scale-degree 1. She chooses scale-degree 1, but ultimately she is alone there; like the first chorus, all the backing texture drops out for the final cadence, leaving her alone in her dream world.

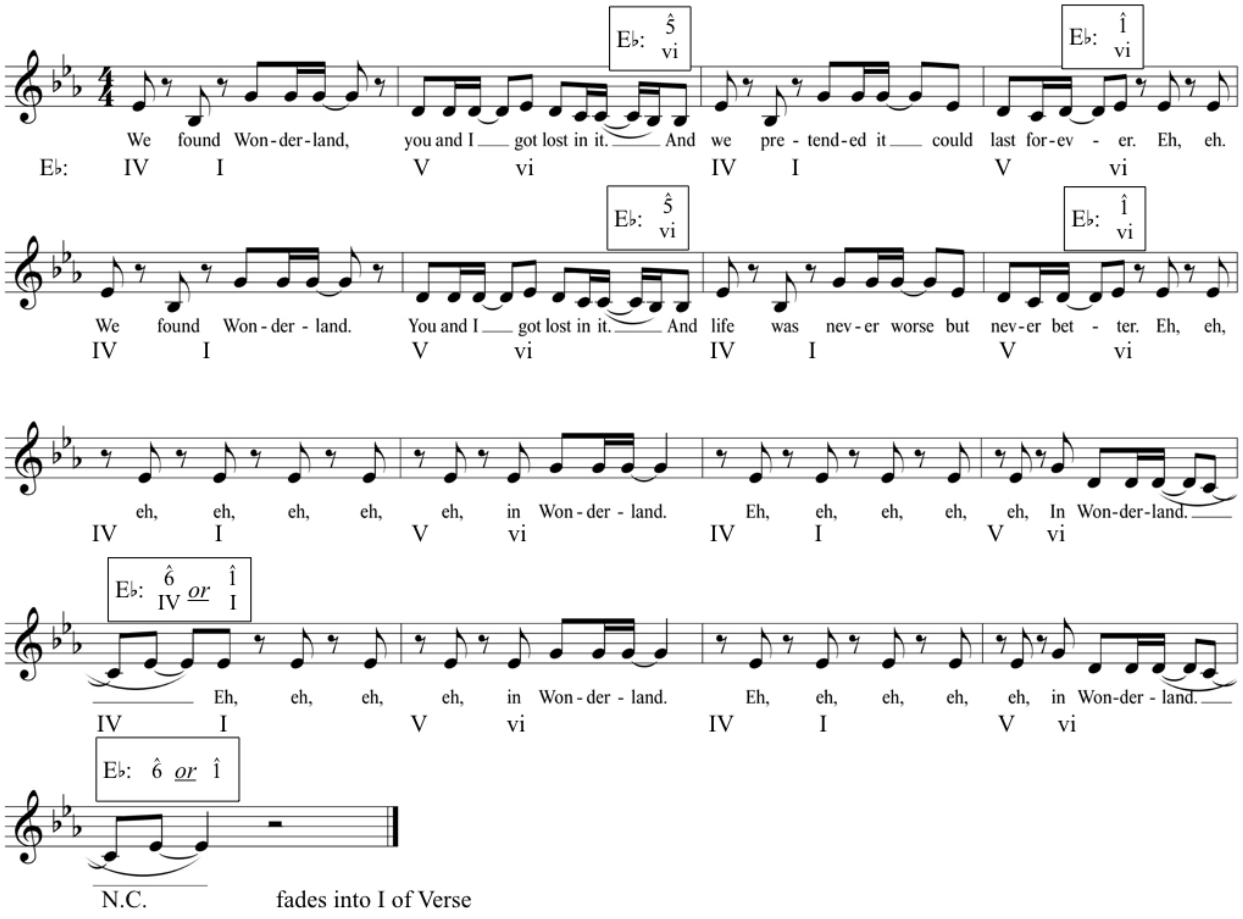

Figure 5.31: Chorus of "Wonderland," performed by Taylor Swift. (*1989*, 2014, Track 14, 0:47 – 1:31)

Conclusion

The expression of closure is an important musical consideration, and its importance is reflected in the wealth of theoretical literature addressing cadences. The application of cadential categories to popular music has been inconsistent due to the diversity of melodic and harmonic syntax in the style, but I argue that closure can still be critically evaluated and discussed. Using my methodology of phrase segmentation, cadences can be consistently and easily identified, allowing study of the different phrase ending events of popular music. Some of the cadential syntax I have identified in this chapter is entirely new, such as the subdominant half cadence and the submediant cadences, and reflects the beginning of research into the different melodic, harmonic and rhythmic paradigms at phrase boundaries. Additionally, by grouping the various manifestations of tonal ambiguity created by relative major-minor key relationships into the submediant double-tonic complex, I hope to allow myself and other scholars a platform for engaging the different ways it is created, sustained, and used for expressive effect.

CHAPTER 6

CONCLUSION

Revisiting "A Day in the Life"

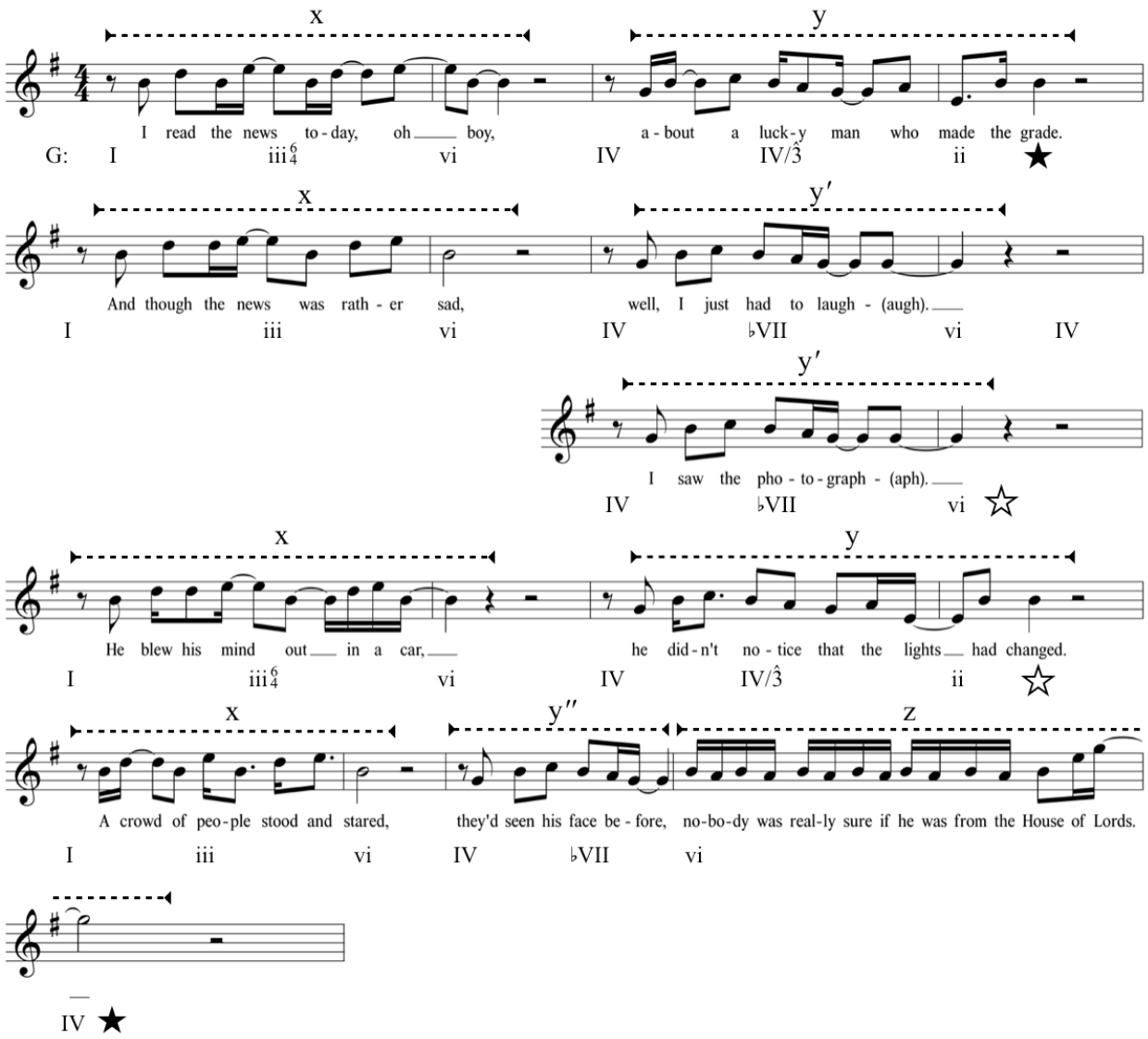

Figure 6.1: Verse of "A Day in the Life," performed by the Beatles. (*Sgt. Pepper's Lonely Heart Club Band*, 1967, Track 13, 0:12 – 1:11)

At the beginning of this dissertation, "A Day in the Life" (Figure 6.1) served to illustrate the need for new or modified analytical tools to satisfactorily address the melodic and harmonic syntax of popular songs. Now, at the conclusion of the dissertation, it also provides an

opportunity to review the analytical tools and considerations I have presented in this research addressing phrase structure, hypermeter, and closure.

Phrase Structure

The main analytical challenge of "A Day in the Life," as described by Everett, is the "maze of cadences so weak they would be considered as phrase endings only because of the succeeding encroachment of recognized recurring phrase beginnings."[1] Everett recognizes phrase endings because of phrase beginnings, that is, repetition occurring after intervening contrasting material, a parameter that meets my definition of phrase. For example, the problematic cadence of the first line is identified as a phrase ending because of the return of subphrase x in the second line, and I interpret the first line as a complete phrase because it consists of two different subphrases, x and y.

There are four phrase beginnings in the excerpt, each one marked by the return of subphrase x after some form of subphrase y (Figure 6.2). The final phrase (*a″*) is marked by the greatest degree of difference with the appearance of subphrase z, an entirely new melodic and lyrical idea that concludes the phrase. The result is two levels of phrase segmentation (*aa′aa″* and *AA′*), creating a double anti-period.

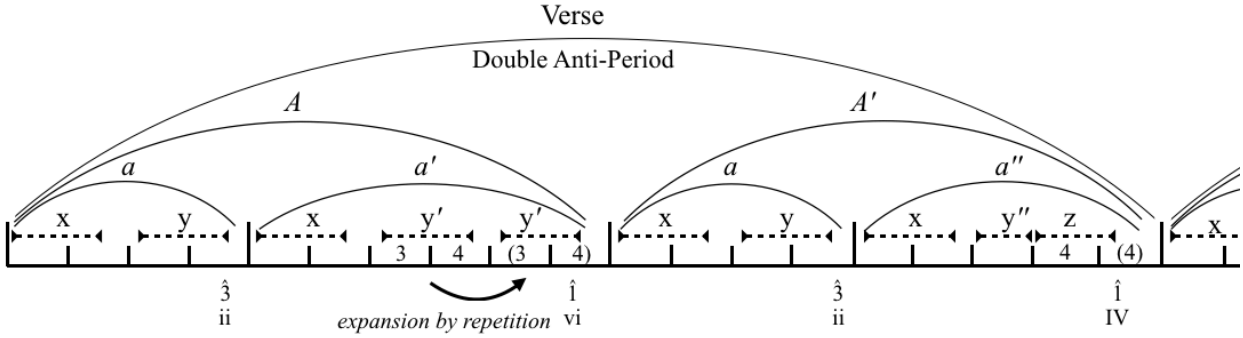

Figure 6.2: Phrase diagram for the verse of "A Day in the Life," performed by the Beatles. (*Sgt. Pepper's Lonely Heart Club Band*, 1967, Track 13, 0:12 – 1:11)

[1] Everett, *The Foundations of Rock,* 135.

Hypermeter

Hypermeter is an incredibly important feature of popular music due to regularly recurring groups of four measures. The verse of "A Day in the Life" disrupts the hypermetric regularity twice, and both disruptions effect the rhetorical strength of closure. The first disruption, at the end of phrase *a′*, is caused by melodic and harmonic repetition and allows for additional lyrical content. This extension creates another degree of difference between *a* and *a′*, highlighting the lower-level periodic structure created between the two phrases. This disruption is echoed in the corresponding location of the fourth phrase (*a″*), but the technique for creating the disruption is different; instead of explicitly repeating one or two measures, there is a composed out deceleration.[2] Where the submediant (vi) and subdominant (IV) harmonies were previously in a single measure of phrase *a′*, they are each given a complete measure in phrase *a″*. The additional measure does not create a hypermetric downbeat, but rather an extension of hyperbeat 4. The phrase following the extension, once again beginning with subphrase x, is a clear hypermetric and phrase beginning. The extension rhetorically emphasizes the end of the lower-level periodic structure and balances the extension of the larger *A* grouping beginning the verse.

Cadences and Closure

Cadences and closure remain important considerations in popular music, but the melodic and harmonic alignments of cadences in popular music vary greatly from traditional, common-practice cadences. In general, my cadential categories (Figure 6.3, originally Figure 5.9) allow for a greater variety of harmonic support for phrase-ending gestures than common-practice cadences, and reflects the greater freedom of harmonic succession in popular music.

There are very few cadences in the verse of "A Day in the Life" that correspond to common-practice cadences. Everett does not mention the scale-degree 1 over submediant (vi) alignment at the end of *a′* as one of the cadences in the "maze" of weak cadences, presumably because the alignment matches his description of the deceptive cadence he just presented.[3] However, according to my cadential classification the cadence is not deceptive, but rather a perfect submediant cadence. The rest of the cadences Everett identifies, scale-degree 3 over ii

[2] Rothstein, *Phrase Rhythm*, 80-87.
[3] Everett, *The Foundations of Rock*, 135.

and scale-degree 1 over IV, are outside his cadential categories. The second configuration matches my partial cadence, and I view it as a syntactically appropriate cadence in rock and popular music.

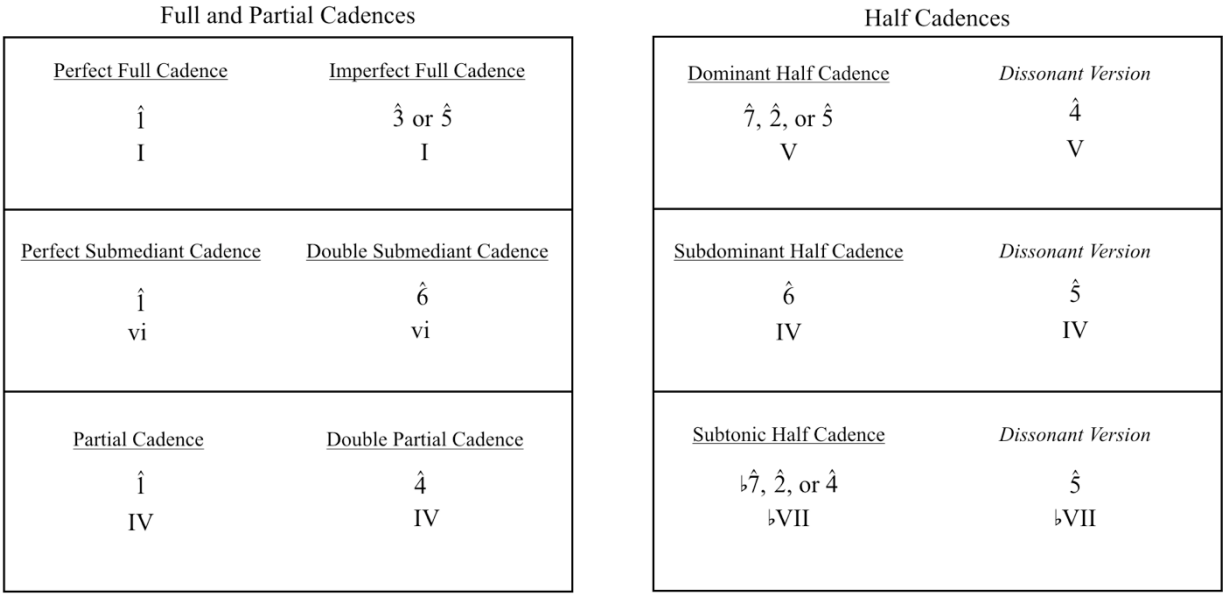

Figure 6.3: Summary of cadence types in popular music (from Figure 5.9).

The remaining alignment, scale-degree 2 over the mediant (iii), has no explicit representation in my cadential categories, but can be accounted for as part of the submediant DTC. Figure 6.4 reproduces the first pair of phrases from the song, but includes the melody of the bass as well. Subphrase x inflects the tonic from major (I) to minor (vi), and subphrase y changes the subdominant from major (IV) to minor (ii). The similar bass melody between the two subphrases unites them as related harmonic gestures, especially in contrast to the following phrase where the bass no longer descends by step and the concluding harmonies are different.

The A-minor harmony of the fourth measure is supertonic (ii) in G-major, but the subdominant (iv) of E-minor. If the song were explicitly in E-minor, the melodic and harmonic alignment ending phrase *a* would be scale-degree 5 over subdominant (iv), the dissonant version of the subdominant half cadence. Here, its realization is obscured by being articulated in the midst of a submediant DTC, where G-major and E-minor are both articulated at various times with varying degrees of strength. The parallel phrase, *a′*, ends with a conventional perfect submediant cadence emphasizing G melodically, but supported by an E-minor (vi) harmony. The

resulting phrase relationship is periodic, with phrase *a* ending with a half cadence and phrase *a′* ending with a full cadence. Both cadences are engaging with the submediant DTC, which explains the abnormal alignment of the scale-degree 3 over supertonic (ii).

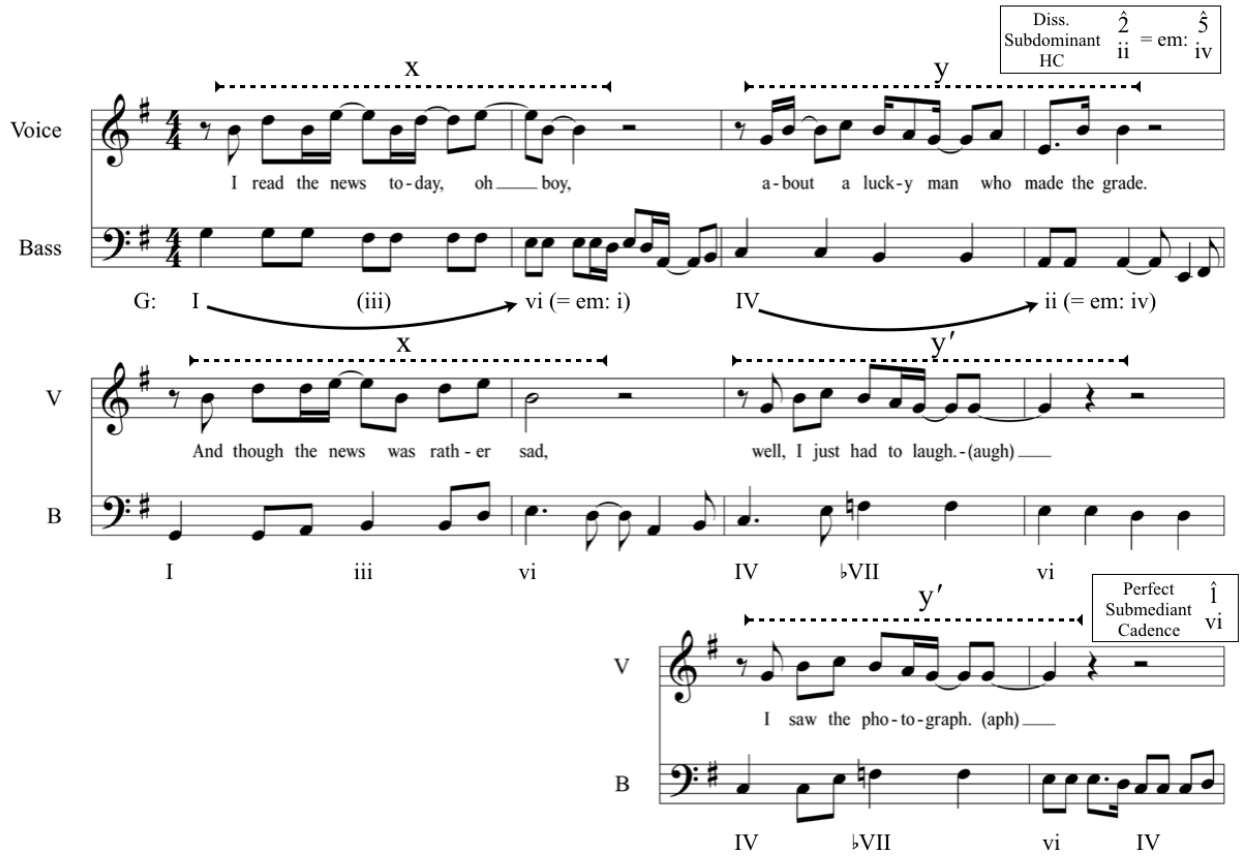

Figure 6.4: First two phrases of "A Day in the Life," performed by the Beatles. (*Sgt. Pepper's Lonely Heart Club Band*, 1967, Track 13, 0:12 – 1:11)

The cadence at the end of the *A′* phrase continues to play with the closure of the whole section, ending melodically and harmonically in G-major with scale-degree 1 over IV, creating a partial close (See Figure 6.2). Because the submediant (vi) is an articulation of tonic in the submediant DTC, the cadence ending the first *A* phrase is stronger because both melody and harmony are articulating a form of tonic, just not precisely the same one. In contrast, the second phrase ends with the melody articulating tonic on scale-degree 1 while the harmony remains on subdominant (IV) which, although producing a consonance with scale-degree 1, does not

represent a harmonic tonic. The resulting phrase configuration is a large-scale anti-period between the *A* and *A′* phrases.

Future Research

More Literature

As mentioned in the introduction, the original corpus for this dissertation was the recorded output of Coldplay, but I expanded the corpus to demonstrate the applicability of my methodology to a wider range of popular music. The expansion was not systematic, and does not reflect the use of predetermined criteria to select songs or artists for inclusion in the research. I still assert my methodology is valid, particularly because finding examples for phrase and cadence types in non-Coldplay songs was not arduous; appropriate examples were very prevalent. For future research, I plan to expand the corpus, borrowing from the selection criteria of other scholars, particularly the use of Billboard charts to produce a manageable but significant corpus of popular music output.[4]

Short Phrases, "The Complete Musical Idea," Formal Levels, and Absolute Time

In my initial phrase classification, I required phrases to be at least four measures long. This helped satisfy my implicit expectation that phrases be long enough to express a "complete musical idea," but the requirement also caused a lot of methodological complications. For example, consider again the first two lines of the chorus of Taylor Swift's "Wonderland" (Figure 6.5). In my current methodology, the first two subphrases, x and y, unite to form a complete phrase. The return of subphrase x in the third measure signals the start of a second phrase, ending with new material to produce a periodic relationship. In my original methodology, the first two measures could not be a complete phrase because they are only two measures, forcing me to interpret the larger grouping of four measures as a single phrase and the two-measure units as compound subphrases. However, there is no *musical* reason to preclude a short phrase, only my *a priori* expectation that phrases need to be a certain length. In "Wonderland," the two-measure

[4] Scholars adopting this approach include de Clercq and Temperley's "Statistical Analysis," Summach's "Form in Top-20 Rock," and Ensign's, "Form in Popular Song, 1990-2009" (PhD diss., University of North Texas, 2015).

unit contains two contrasting subphrases, a complete lyrical idea, and a complete presentation of the chord loop, so what musical reason precludes me from segmenting it as a complete phrase?

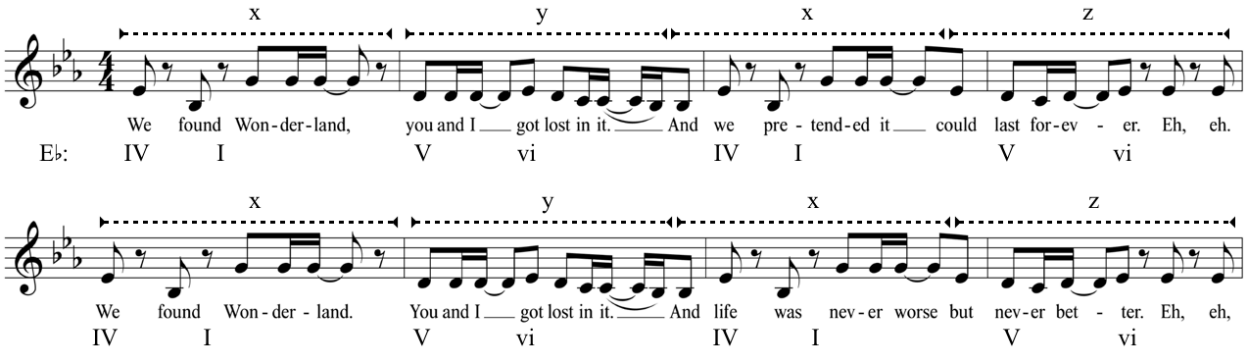

Figure 6.5: First two lines of the chorus of "Wonderland," performed by Taylor Swift. (*1989*, 2014, Track 14, 0:47 – 1:08)

One argument is that subphrase y abuts the return of subphrase x, minimizing the perception of phrase completion until the longer lyrical gap at the end of subphrase z. However, there are many examples with nearly the exact same arrangement of subphrases and no difference in lyrical or vocal rest to support a larger phrase segmentation. Consider the prechorus of "Hymn for the Weekend," performed by Coldplay and Beyoncé, shown in Figure 6.6.

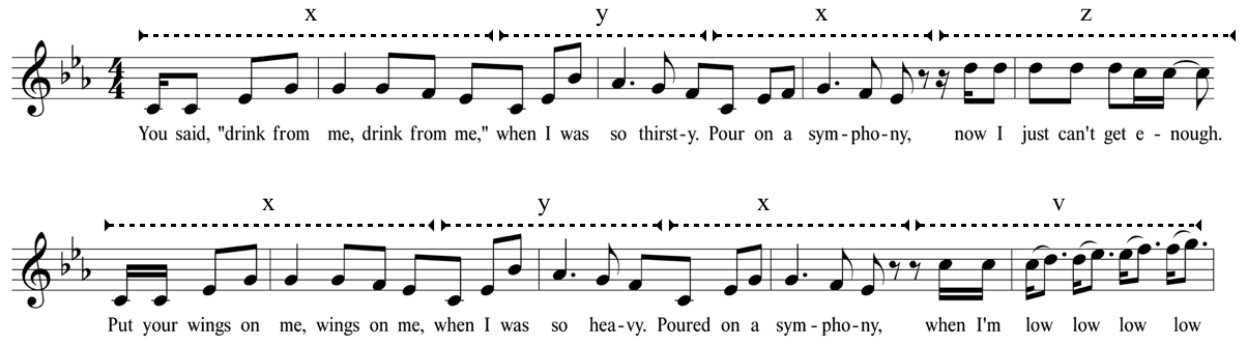

Figure 6.6: Prechorus of "Hymn for the Weekend," performed by Coldplay and Beyoncé. (*A Head Full of Dreams*, 2015, Track 3, 1:24 – 1:46)

Like "Wonderland," "Hymn for the Weekend" features four subphrases per line following the pattern same-different-same-more different. Unlike "Wonderland," this prechorus does not

feature a distinguishable break between the first and second line, meaning there is no vocal or rhythmic reason to argue for a four-measure phrase segmentation over a two-measure one. These two examples illustrate the variety of competing elements at play in supporting the rhetoric of phrase boundaries, all of which represent areas of viable future research, and many of which are present in my current research.

The first topic implicated by the above examples is formal levels, and specifically, my segmentation of some musical excerpts into multiple levels of subphrases and phrases. Both "Wonderland" and "Hymn for the Weekend" can segment into two levels of phrases, one at two measures and the other at four. This flexibility allows me to address the same/different patterns on multiple levels without ignoring the lower level of repetition, but the rhetorical significance of the lower level to the formal process is unclear. As I have argued, the lower level cadences are less rhetorically emphasized because they do not affect the higher levels of structure, and in "Wonderland," the first cadence is mitigated on the surface by the continuous rhythmic activity. The problem of formal level is even more pointed in 16-bar **aaba** and **aabc** forms. Do the individual patterns of repetition (primarily the two **a** segments) articulate an important formal division? Does the periodicity of the two lines become insignificant with the addition of new contrasting material? More specifically, if two **aa** segments are interpreted as repeated phrases, does adding additional contrasting material after them (**bc**) change the perception of the form to a larger level sentence, retroactively turning the repeated phrases into repeated basic ideas?

The problem of formal level is tied to de Clercq's argument for absolute time in defining measure length.[5] My initial definition required a four-measure phrase, but is there an absolute reference for measure length when the music is primarily not notated? If I choose to notate something as four measures rather than two, does it arbitrarily meet my definition, or does the change alter my perception of the music? In describing his choice to notate the chorus of Taylor Swift's "Teardrops on My Guitar" as eight measures rather than four, de Clercq justifies his argument in peculiar way, stating: "the chorus would only be four bars long, which seems far too short for a full-fledged chorus."[6] What is interesting about this argument is that *nothing changes musically*, only the written representation of the chorus. His preference for measure length in

[5] De Clercq, "Measuring a Measure."
[6] Ibid., [3.6].

complete formal units ties directly to my previous requirement of four-measure phrases, and in both cases, an extra-musical expectation is applied to the aural experience.

The interrelated ideas of phrase length and absolute time are worthy of future research. Both issues require gathering more data from a wide variety of songs to compare the different melodic, harmonic, rhythmic, and lyrical processes found between subphrase and phrase repetitions.

Lyrics

Lyrics do not feature prominently in most of my research because I have focused on melodic activity for phrase segmentation, and lyrical segmentation usually aligns with melodic segmentation. The two primary exceptions of lyrical importance are rotated phrases and the lyrical motivations for submediant DTCs. I presented a few of the lyrical paradigms for the rotation starter subphrase, but an expanded corpus may offer subtler classifications of my categories, or more lyrical paradigms.

The three examples used to illustrate the submediant DTC, "Everglow," "Love in the Dark," and "Wonderland," are all songs about problematic relationships. Another song in the dissertation that exhibits the submediant DTC is "Never Gonna Give You Up" (Figure 3.74), and also engages relational issues, but from the perspective of someone seeking a relationship rather than someone in a troubled relationship. Given the prevalence of four-chord loops, particularly the vi-IV-I-V loop, I hypothesize that not all songs using the submediant DTC are about problematic relationships. A non-relational example from Coldplay's output is "Viva la Vida" (*Viva la Vida,* Track 7, 2008), in which the protagonist of the song is a dethroned monarch lamenting his lost power, although the song can be generalized to anyone lamenting a loss of power or prestige. In this example, the retained element is a problematic situation, although it is not explicitly relational. Further research into the submediant DTC could classify the lyrical content of songs, as well as the prevalence of a major or minor center, and/or the trajectory between the two over the course of songs.

The lyrical content of sentential paradigms can also be addressed using a similar methodology to Michael Callahan's exploration of the lyrical content of sentences in the

musicals of the Great American Songbook.[7] Given the prevalence of sentential phrases in popular music, it would be interesting to see if Callahan's *sentential lyric-types* have parallels in popular songs. Additionally, reverse sentences have the possibility of adding new lyric-types that may interact with Callahan's established paradigms. In my cursory review of reverse sentences in my notes, I notice the prevalence of reiterative patterns, particular as they describe emotionally charged lyrics.

Conclusion

The goal of this dissertation is to provide a systematic methodology for addressing phrase segmentation and closure in popular music. Additionally, I aim for simplicity of application and consistency of results. Because contemporary popular music is heavily focused on vocal melodies and lyrics, it is beneficial to use a methodology that privileges melodic activity in classifying formal structures, particularly because popular music is not typically defined by goal-directed harmonic motion. Harmony remains an important musical consideration, which is why harmonic support is part of the cadential classifications, as well as a key component of the submediant double-tonic complex.

This research aims to engage the musical content of popular music on its own terms while drawing on the rich resource of common-practice theoretical methodologies. There are many theoretical concepts and terms that carry into popular practice such as periods, sentences, and cadences; however, the transfer is not always exact, resulting in some concepts that are loosened or expanded, such as the greater variety of harmonic support for half cadences. New categories of phrase structure and cadences are also necessary to accurately describe popular music, specifically rotated phrases, rotated subphrases, and submediant cadences.

This dissertation represents the first step of a longer process of studying, classifying, and presenting the musical syntax of popular music. The methodology has the potential to address the wide spectrum of popular music, and I trust that it will be a useful tool for scholars working in the field of popular music scholarship.

[7] Michael Callahan, "Sentential-Lyric Types in the Great American Songbook," *Music Theory Online* 19, no. 3 (Sept. 2013).

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BIOGRAPHICAL SKETCH

Jeremy Robins completed his Bachelor of Music Education degree at Stetson University in DeLand, Florida, where he won the Stetson Concerto Competition performing *Tableaux de Provence* by Paule Maurice. Following his undergraduate education, he worked at Olympia High School in Orlando for six years where he taught concert bands, marching band, jazz bands, percussion ensembles, class piano, and AP Music Theory. Jeremy entered Florida State's music theory program in 2012, earning his M.M. in 2014 and Ph.D. in 2017.