

“All That Noise, and All That Sound:” Tonal Ambiguity and Melodic-Harmonic
Disconnect in the Music of Coldplay

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“All That Noise, and All That Sound:” Tonal Ambiguity and Melodic-Harmonic
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ABSTRACT

Within the music of Coldplay there often exists a disconnect between the melody (vocal line) and the harmony (chord pattern/structure). It is often difficult to discern any tonal center (key) within a given song. In several of the songs I have selected for analysis, the melodies, when isolated from the harmonic patterns, suggest tonal centers at odds with the chords. Because of its often stratified pitch organization, Coldplay's music is sometimes in two keys simultaneously. Exploring the disconnect between melody and harmony, I will show how that can lead to tonal ambiguity in the sense that there is no one key governing an entire song. Rather, these songs often exemplify sectional centricity, where one or more pitches act as a tonal center in one section of a song.

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Chapter 1: Introduction

Coldplay is a popular British rock band formed in the late 1990s, active through the 2000s and into the present. They have released six studio albums to date and are the recipients of numerous awards including the Brit Awards and Grammy Awards. In 2009 *Rolling Stone* readers ranked Coldplay number four in their list of "Top Artists of the '00s." In addition, the band is noted for their charity work with groups such as Oxfam and Amnesty International.

Coldplay's music combines elements of Rock, Blues, Brit-pop, and Pop music. While some of their later albums feature electronic effects and they add string parts to many songs, the main instrumentation is typically acoustic and/or electric guitar, bass guitar, piano, drums, and vocals. Because of the aural traditions of this style of music, written notation is not employed; they compose and perform the music by ear. As such, I will be using a variety of chord symbols and charts to explain the formal structures and phrases, as well as traditional notation for the vocal lines and other melodic parts within a song. All of the musical examples provided are my own transcriptions. To help differentiate between harmonies and specific note names, I will use uppercase letters followed by major or minor when referring to harmonies or key/tonal centers (A major, B minor, etc.) and only uppercase letters when referring to specific pitches. I will also use chord symbols common in popular music and jazz lead-sheets; e.g., Cm7 represents a C minor triad with a minor seventh, and D7 represents a D major triad with a minor seventh.

I aim to demonstrate that within the music of Coldplay there often exists a disconnect between the melody (vocal line) and the harmony (chord pattern/structure). Furthermore, it is often difficult to discern any tonal center (key) within a given song. These tonal ambiguities and melodic harmonic disconnects are not limited to the music of Coldplay¹ but serve as an example of current trends within the world of Rock/Pop music.² In his article, “The Melodic-Harmonic ‘Divorce’ in Rock,” David Temperley uses the term “divorce,” coined by Allan Moore, to explain the incidents where the melody and the harmony function independently of one another. His approach looks at specific circumstances where this occurs on a small scale: for example, where non-chord-tones do not resolve by step in short passages of a song. Building on his analysis, I will show how this idea can function in a broader sense. I call this feature a melodic and harmonic disconnect to distinguish it from the “divorce” of a small scale approach. In several of the songs I have selected, the melodies, when isolated from the harmonic patterns, suggest specific tonal centers at odds with the chords. Unlike the divorce discussed by Temperley, which occurs in specific ways and at specific times, the disconnect governs large sections of a song. Temperley calls this a *stratified* pitch organization, where the melody and harmony are operating within different frameworks.³ Furthermore, he describes the tension created when a unified melodic-harmonic model is suspended, perhaps as a way of expressing a specific idea in the lyrics. Because of its

¹ Tonal ambiguity has a long history in common-practice tonal music; See “Organic Structure and the Song Cycle: Another Look at Schumann’s ‘Dichterliebe,’” by David Neumeyer. Also, “Dissolving Monotony: Expressive Modulation in Two Works by C.P.E. Bach,” by Haley Beverburg Reale, especially her discussion on the tonal ambiguity in the *Heilig* for Double Choir.

² Haley Beverburg Reale’s discussion of “Extraordinary Machine” by Fiona Apple. Of note is her discussion on the double-tonic complex at work throughout the song.

³ David Temperley, “The Melodic-Harmonic ‘Divorce’ in Rock,” *Popular Music* 26/2 (2007): 326.

often stratified pitch organization, Coldplay's music is sometimes in two keys simultaneously. The songs selected for this analysis exemplify the tendency to have a melody centered in one tonal area while the harmonic foundation is rooted in another. This disconnect is certainly a factor contributing to the tonal ambiguity of some songs, but is by no means the only factor.

Using Guy Capuzzo's work on sectional tonality and sectional centricity, I will further explore the disconnect between melody and harmony and show how that disconnect can lead to tonal ambiguity in the sense that there is no one key governing the entire song. Capuzzo makes a distinction between sectional tonality and sectional centricity. The former occurs when a section of a song (verse, chorus, bridge, etc.) projects a key distinct from the other sections. Thus, all sections are tonal, but there is no central tonality.⁴ Sectional centricity, however, occurs where, "the pitch-class content of each section is distinct, with one or more pitch-classes acting as a center/s in each section."⁵ This means that within a particular section of a song, one or more pitches can act as the tonal center in that particular section. As Capuzzo explains, sectional centricity makes it difficult to locate a tonal center across sections. This is exactly the case in many of Coldplay's songs.

As the backbone of my approach, Ken Stephenson's *What to Listen for in Rock* will serve two main purposes: it gives me a model for analyzing the songs of Coldplay in a methodical way and an approach that focuses on what *is* happening in the music and not what *ought* to be happening. Loosely following the outline of chapters in Stephenson's

⁴ Guy Capuzzo, "Sectional Tonality and Sectional Centricity in Rock Music," *Music Theory Spectrum* 31/1 (2009): 158.

⁵ *Ibid.*, 158.

book, I will examine each song's phrase rhythm, key and mode, cadences, harmonic palette, harmonic succession, and finally, form. Of specific interest are his chapters on identifying key centers, and his methodology for doing so. While the harmonic pattern can give a strong indication of what key the song is in, this is by no means definitive. Other factors need to be considered, such as the structure of the melody, on what pitches the melody begins and ends, pitch range, and pitch content within the melody. While it may not always be possible to discern a concrete key for a particular song (or section of a song) these criteria offer a good starting point.⁶

I will also use John Covach's writings on form as a rubric to create formal diagrams of each selection. All of the pieces are in the verse-chorus format, as outlined by Covach in "Form in Rock Music: a Primer."⁷

Also useful to my endeavor is Trevor De Clercq and David Temperley's "A Corpus Analysis of Rock Harmony," which helps to establish harmonic norms within the genre. The patterns they found in the data they collected will help to highlight any conflicts with regard to tonal center. For example, they found that IV is the second most frequently used chord (after I).⁸ Further data "suggests that IV is [a] particularly favoured way of approaching or leaving the tonic."⁹ Because of the ambiguities in Coldplay's music, this information could be useful in determining key centers.

In "Making Sense of Rock's Tonal Systems," Walter Everett posits that there is no one shared behavior with regard to tonality in rock music. Rather, there are a myriad

⁶ Ken Stephenson, *What to Listen for in Rock* (New Haven: Yale University Press, 2002), 35-37.

⁷ John Covach, "Form in Rock Music: a Primer," in *Engaging Music: Essays in Music Analysis*, ed. by Deborah Stein (New York and Oxford: Oxford University Press, 2004), 65-76.

⁸ Trevor De Clercq and David Temperley, "A Corpus Analysis of Rock Harmony," *Popular Music* 30/1 (2011): 60.

⁹ *Ibid.*, 61-62.

of approaches to harmony, scales and modes, and voice leading. While some of his assertions conflict with the other authors', Everett's discussion of the double-plagal cadence offers some insight into modality and tonality. The double-plagal cadence is often analyzed as bVII-IV-I, or two successive moves down by P4. Everett states that, "this sequence established neither scale nor tonal center, so no mode can be suggested."¹⁰ His argument is that sequences of descending P5 or P4 (such as the double-plagal cadence) do not necessarily suggest a key and do not require a modal basis but should be heard as chromatic functions. I would argue that they serve as a way to obscure any definitive sense of key in a song. As Everett claims, these patterns could theoretically continue indefinitely, and have no inherent key area in and of themselves. However, this does not take into account what the melody is doing, where in the phrase or song this is occurring, and what, harmonically, precedes and follows such a pattern: all things which might give some functionality to this pattern.

While many of Coldplay's songs end with a fade-out (something which Stephenson discusses) there are also instances of a more definitive conclusion. These final cadences are often grand gestures and serve to bring the song to a close while simultaneously leaving it open-ended. In his paper, "The Cadential IV in Rock," Temperley considers the role of the IV chord in large-scale, sectional cadences in rock music. Temperley examines three cadences: the plagal, the grand plagal, and the deceptive IV. While there may be occurrences of these in the music of Coldplay, my focus will be on the final cadence used to end a song. Temperley's article illustrates the

¹⁰ Walt Everett, "Making Sense of Rock's Tonal Systems," *Music Theory Online* 10 (2004): 5, accessed October 2, 2014, http://www.mtosmt.org/issues/mto.04.10.4/mto.04.10.4.w_everett.html.

importance and dominance of the IV chord at crucial moments *within* a piece. I will, using his article as a foundation, show that the IV chord has a special role when used in final cadences. This is especially useful when the song in question is tonally ambiguous, as the final IV can affirm or deny particular readings.

In this study, I examine five songs spanning Coldplay's first three albums. I analyze each song in search of the factors (with special attention to melodic-harmonic disconnect) that lead to tonal ambiguity and discuss how these characteristics inform the band's overall musical language. Furthermore, patterns emerge, both harmonic and melodic, within these songs that can be applied to a wide array of styles and genres to gain a better understanding of current trends in popular music.

Chapter 2: “Speed of Sound” from X&Y

“Speed of Sound” was the first single released from Coldplay’s 2005 album *X&Y*. There are two versions of the song: the radio edit (4’23”) and the album version (4’48”), which will be the subject of this analysis. The form of the song is outlined below using John Covach’s method. “Speed of Sound” uses the verse-chorus form¹¹:

2.1 Form of “Speed of Sound.”

0:00-0:19	Introduction , 8mm. (with pickup), 4 + 4
0:19-0:49	Verse 1 , 16mm., 4 + 4 + 4 + 4
0:49-1:06	Intro. Reprise , 8mm., 4 + 4
1:06-1:37	Verse 2 , 16mm., 4 + 4 + 4 + 4
1:37-1:53	Pre-chorus , 8mm. 4 + 4
1:53-2:09	Chorus , 8mm. + 1m. on G
2:09-2:26	Intro. Reprise , 8mm., 4 + 4
2:26-2:57	Verse 3 , 16mm., 4 + 4 + 4 + 4
2:57-3:13	Pre-chorus , 8mm. 4 + 4
3:13-3:34	Chorus , 8mm. + 3mm. tag f#m7 G G
3:34-3:50	Interlude , 8mm. vamp on D
3:50-4:06	Bridge , 8mm., 4 + 4
4:06-4:48	Chorus , 8mm. + 6mm. tag f#m7 G Gmaj7(9)

¹¹ Covach, “Form in Rock Music,” 71.

verse = || A(sus4) | em7 | | D ||

pre-chorus = || G | A | bm7 | ||

chorus = || G | bm7 | D | G | | bm7 | f#m7 | G ||

bridge = || G | A | bm7 | E7 ||

In *What to Listen for in Rock*. Ken Stephenson outlines an approach to determining the key of a given song. It is based on the assumption that the first chord of the song is the tonic harmony, “unless or until further evidence suggests another interpretation or a change of pitch center.”¹² He refers to the first chord that begins the hypermetrical phrase, and often begins the song, as the initiating harmony. In “Speed of Sound” the initiating harmony is A, and it does begin every hypermetrical phrase in the verse. Stephenson adds that there are other factors within a song that will affirm (or deny) the initiating harmony as tonic. These other factors are, “often melodic features traditionally associated with the identity of a tonic pitch...that is, given two structural pitches a P5 apart, the lower note will normally serve as tonic (or the top note of a structural P4).”¹³ Applying this to “Speed of Sound” we find that the vocal line does imply A as the tonic harmony. However, there is also evidence for D as the tonic.

¹² Ken Stephenson, *What to Listen for in Rock* (New Haven: Yale University Press, 2002), 35.

¹³ *Ibid.*, 35.

2.3 Vocal harmony in Verse 2, second 2a, in “Speed of Sound.”



The vocal harmony is only present for the first hypermeasure of the second verse. It mimics the inner voice of the piano part heard in the beginning of the song, before the melody begins. This descending line could be interpreted as 5-4-3 in the key of D, emphasizing what would be IV in the key of A. And although the initiating harmony is A, the resolution of the G-F#, in both the vocal harmony and piano part, happens at the end of the hypermeasure when the chord progression moves to the D chord. The descending minor third, A-F#, will show up later in the pre-chorus and chorus.

The ambiguity between A and D as structural pitches in the melody affects how we perceive the initial chord progression. Before the voice part begins, we are presented with a piano riff and instrumental introduction. If the initiating harmony is usually perceived to be the tonic harmony (until something better comes along) then A is perceived to be the tonic. The beginning chord progression would then be interpreted:

2.4 Verse chord progression in key of A, in “Speed of Sound.”

A(sus4) em7 em7 D
 A: | I (sus4) | v7 | v7 | IV |

It is also possible that the presence of the descending minor third in an inner voice (moving A-G-F#) changes our perception from the above progression to the following:

2.5 Verse chord progression in key of D, in “Speed of Sound.”

A (sus4) em7 em7 D
D: | V (sus4) | ii7 | ii7 | I |

This interpretation may or may not be perceived initially, but as the vocal melody proceeds, we are likely to perceive the ends of phrases based on lyrical content as much as melodic motion. In the verses, the lyrical phrase ends every four measures, precisely when the harmony lands on D. This coincides with a cadence point in the melody.

Phrase rhythm and harmonic progression can also affect the perception of key. Stephenson writes, “formal units are normally defined in rock by harmonic patterns,”¹⁵ adding that, “it is perhaps better to view [harmonic patterns] as continually leading away from the hypermetrically accented tonic harmony that normally begins each four-measure unit.”¹⁶ This would imply that the end of the harmonic pattern acts as a spring in which the listener is propelled back to the beginning of the pattern, which is repeated again and again. In Ex. 2.4, the IV that ends the hypermetrical unit would serve as an incomplete cadence (a “half plagal” cadence), one that is completed by the I at the beginning of the cycle. However, it is difficult to hear the D chord at the end of the unit as incomplete because the vocal line subverts this expectation. After the melody establishes the A major triad, it continues to float between A and D, settling on A in its fourth measure. At first, this might seem to support a tonal center of A, but it is important to note *when* the melody finally rests as much as it is important to note *where*. The cadence point in the

¹⁵ Ibid., 22.

¹⁶ Ibid., 28.

four-bar hypermeasure happens on the fourth downbeat, which is the D major chord. Rather than launching us back into the harmonic pattern, the melody ends in a position of closure rather than incompleteness. This reverses the typical pattern: instead of each hypermetrical unit ending with an open cadence, it is framed with two potentially strong tonal candidates.

Another possible interpretation is that the D major chord is *functioning* as a dominant chord at the end of the hypermetrical unit. Stephenson defines an open cadence as one that ends on V (half cadence)¹⁷ and leads back to the beginning of the hypermeasure, which usually begins on I. In “Speed of Sound,” however, the D major chord, interpreted as IV, replaces the V chord as the structural dominant. Temperley suggests that, “the IV chord plays an important and complex role in large-scale cadences in rock.”¹⁸ While the verse hypermetrical unit is not a large-scale structure, the prominence of the cadential IV remains.

Syncopation and rhythm within and across the hypermetrical unit can also affect how key centers are perceived. At the beginning of verse 1, the drums play this pattern, which serves as the rhythmic foundation for the whole song.

2.6 Verse drum pattern



¹⁷ Ibid., 54-55.

¹⁸ David Temperley, “The Cadential IV in Rock,” 2.

Although the drum pattern continues throughout the entire song, the introductory piano riff is not heard in conjunction with this pattern until the reprise of the introduction, almost a minute into the song. When these two parts are heard simultaneously, the rhythmic accent on beats two and the end of three emphasize certain pitches.

2.7 Verse drum pattern with accented pitches

When the snare drum hits, the pitches heard strongly emphasize D major: a P4 from A to D, P5 from G to D, and a m6 from F# to D. This is again the motion from A-F#, as in Ex. 2.3. Interestingly, the pitches which occur the most frequently are D and G, and the chord that is heard the most frequently is the em7 chord. In the second and third measure of each hypermeasure in the verse, the em7 chord is heard consecutively. I would argue that the second attack of the em7 chord acts to reset the listener's tonal orientation.

Considering that the initiating harmony is A major (which is likely to be perceived as tonic), the second chord is likely interpreted as v7, as indicated in example 2.4, especially considering the melodic content at that moment. Because there is no harmonic movement between the second and third measures, the next time the chord changes, the movement is more noticeable. This time, the em7 is likely perceived as a ii7 moving to I in D major

because of the strong movement down by step. In addition, the reiteration of the em7 chord occurs on a hypermetrically strong beat, defying the expectation that a harmonic change is imminent. However, there may be a *perceived* harmonic change because of the rhythmic accentuation of G in the third measure. Although there is no explicit G major chord, through syncopation and accentuation, a shift in harmony is suggested in the third measure of the verse, creating implied plagal motion in D major. This, in addition to the “reset” provided by the repetition of the em7 chord, creates a strong pull toward the D major chord at the end of the hypermeasure. If the em7 chord is heard in the third measure of the verse to function in D major rather than A major, the chord progression chart might be revised to read:

2.8 Verse chord progression in A and D

A(sus4) em7 em7 D
 A: | I (sus4) | v7 D: | ii7 (IV) | I |

In either reading, it is important to note that the end of the hypermetrical unit emphasizes IV as the structural dominant, rather than V. If the verse progression does shift tonal centers halfway through, the new tonal center is still functioning as IV in relation to the first half, i.e., D major as tonal center is the subdominant in A major.

The pre-chorus and chorus mark an end to the tonal ambiguity between A and D that characterized the verse. In the chorus sections, D becomes the tonal center, although there are several factors which diminish that position. In the pre-chorus and chorus the initiating harmony is now G, as seen below:

2.11 Chorus vocal line in “Speed of Sound.”



At the same time, tonal ambiguities pervade the melody:

- The P4 A-D in the verse and the P4 D-G in the chorus
- The P5 A-E outlined in the beginning of the verse and the P5 D-A outlined in the beginning of the pre-chorus
- The verse ends with a P4 F#-B while chorus reverses this and ends with a P5 B-F#

It is also worth mentioning that the F# that ends the pre-chorus could act as a leading tone to the G in the melody of the chorus. Incidentally, F# is also the last pitch sounded by the guitar on the last chord of the song, as part of the ascending line D-E-F#.

The strongest evidence for a D-major interpretation of the chorus sections does not occur until the bridge and preceding interlude. The interlude is simply an eight-measure vamp on a D major chord. Occurring right after the chorus, the movement is likely heard as IV-I in D, thereby changing any previous tonal perceptions of the chorus up until that moment. Similarly, in the bridge, the chords are likely perceived in the context of D major because of the prior assertion of that chord.

2.12 Bridge chord progression in “Speed of Sound.”

G A bm7 E7
D: ||: IV | V | vi7 | II7 :||

On secondary dominants in rock, Stephenson has this to say: “Although V/V is probably the most frequent secondary dominant in rock, it is in fact seldom followed by V... It is most often followed by an ascending third to IV...”¹⁹ ²⁰ The E dominant seventh chord in the fourth bar of the bridge follows this model, moving up a third to G major. Interpreting D major as the tonal center of the bridge and chorus is the most logical explanation for this harmonic movement.

As in the verse, the hypermetrical unit in the chorus ends on a dominant-functioning IV, and the melody reflects this. There is a strong presence of the pitch G in the melody and harmony of the chorus sections. In the chorus, G is the top of a structural P4, which naturally gives it more prominence (similar to the pitch D in the verse). The beginning of each hypermetrical unit in the pre-chorus, chorus, and bridge begins with a G major chord. Furthermore, G major is given more time in the chorus than any other harmony and is always the last chord heard in the chorus. Finally, the guitar parts in the chorus help to establish G by floating between the pitches G, A, B, D, and F#, often emphasizing 1-2-5-3 in G major. All of these factors make it difficult to pinpoint only one tonal center that governs any given section of the song.

The verse of “Speed of Sound” can be heard in either A major or D major, with the possibility of a shift from A to D halfway through the hypermetrical unit. The last

¹⁹ Ibid, 114.

²⁰ Stephenson uses V/V merely to identify pitch content, not function; II is used instead throughout this paper. This is to avoid interpreting V/V as needing to resolve in a particular way.

chord of the hypermeasure (D) is perceived as subdominant in relation to the first chord of the hypermeasure (A), indicating IV has a structurally significant place in the progression. Here, IV replaces V as an indicator of cadential activity. The pre-chorus and chorus signal a shift to new tonal centers: The prevalence of GM7 and B minor and the relative scarcity of D major make the chorus sections ambiguous. The D major vamp in the interlude establishes D as the tonal center for the chorus, but this is undermined by the melodic emphasis on G. This is similar to what occurs in the verse, where the melody is disconnected from the underlying harmonic pattern. The structural significance of IV is reiterated in the final cadence, ending with what could be perceived as an unresolved IV chord.

Chapter 3: “Clocks” from A Rush of Blood to the Head

“Clocks” was the third single released from *A Rush of Blood to the Head*. It remains one of Coldplay’s best-known songs, and has been extensively sampled by other artists. The form of “Clocks” is outlined below:

3.1 Form of “Clocks”

0:00-0:29	Introduction , 16mm., $4a + 4a + 4b + 4b$
0:30-1:00	Verse 1 , 16mm., $4a + 4a + 4a + 4a$
1:00-1:14	Chorus , 8mm., $4a + 4a$
1:14-1:29	Interlude , 8mm., $4b + 4b$
1:29-1:58	Verse 2 , 16mm., $4a + 4a + 4a + 4a$
1:58-2:28	Chorus , 16mm., $4a + 4a + 4a + 4a$
2:28-2:42	Interlude , 8mm., $4b + 4b$
2:43-2:57	Chorus , 8mm., $4b + 4b$
2:57-3:26	Bridge , 16mm., $4c + 4c + 4c + 4mm.$ on Gb
3:26-3:41	Introduction , 8mm., $4a + 4a$
3:41-3:55	Interlude , 8mm., $4b + 4b$
3:56-4:10	Chorus , 8mm., $4b + 4b$
4:10-4:40	Chorus Ext. , 16mm., (8mm. + 8mm. chorus overlap) $4b + 4b + 4b + 4b$
4:40-5:08	Outro (fade out), $4a + 4a + 4a...$

$$a = \parallel \text{Eb} \mid \text{bb} \mid \quad \mid \text{f} \parallel$$

$$b = \parallel \text{Eb} \mid \text{bb} \mid \text{bb}(\text{Db}) \mid \text{f}/\text{Ab} \parallel$$

$$c = \parallel \text{Gb} \mid \quad \mid \text{Db} \mid \text{Ab} \parallel$$

There are many similarities between “Clocks” and “Speed of Sound:”

- the syncopated piano riffs in each song are strikingly similar
- there is a single harmony (minor v) that is repeated across the second and third measures of the hypermetrical unit
- melodic content that helps subvert tonal expectations, i.e., tonal ambiguity between melody and harmony

While the tonal ambiguity in “Speed of Sound” occurred primarily in the verse, in “Clocks” the melodic-harmonic disconnect is obvious throughout the song.

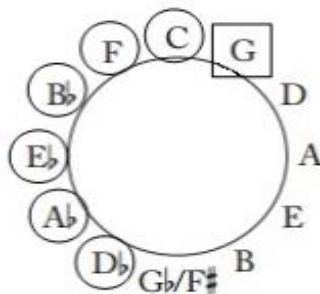
The opening piano riff sets the harmonic pattern for the rest of the song. With the exception of the bridge, there are no harmonic deviations from this initial progression.

Unlike “Speed of Sound,” there is little reason to doubt that the initiating harmony is the tonic:

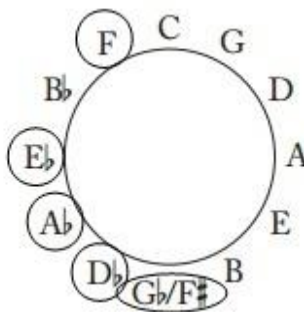
3.2 Verse/chorus chord progression of “Clocks.”

$$\text{Eb:} \parallel \text{I} \mid \text{v} \mid \quad \mid \text{ii} \parallel$$

3.7 Melodic pitch-class content of verse/chorus section of “Clocks.”



3.8 Melodic pitch-class content of bridge section of “Clocks.”



In Ex. 3.7, the melodic pitch G is present in the chorus but not in the verse.

As mentioned earlier, the verse exemplifies a melodic-harmonic disconnect, with the melody in Ab and the harmony in Eb. These two pitches, Eb and Ab, act as pitch centers for the verses. The occurrence of multiple pitch centers within a section can create *centric ambiguity*.²⁵ Two other factors that add to the centric ambiguity of the verse/chorus unit are a secondary piano riff and bass line that occur in the interlude after the chorus. (See progression 4b in Example 3.1.)

²⁵ Ibid., 160.

3.9 Secondary piano riff (2:28) in “Clocks.”



This piano riff emphasizes Ab as a pitch center through repetition on accented beats that mimics the introductory piano riff. As in “Speed of Sound,” there is a descending inner line Eb-Db-C that also helps to establish Ab as the pitch center. This movement is more likely perceived 5-4-3 in Ab, rather than 1-b7-6 in Eb because of the assertion of Ab in the upper voice. Even as the underlying harmony remains in Eb, the secondary piano riff continues the melodic-harmonic disconnect from the verse.

As indicated in Ex. 3.1, there is a slight variation to the harmonic pattern, labeled *b*. This variation is created by a bass line that occurs throughout the song, and, in fact, serves as the basis for the melody in the chorus extension.

3.10 Bass line in “Clocks.”

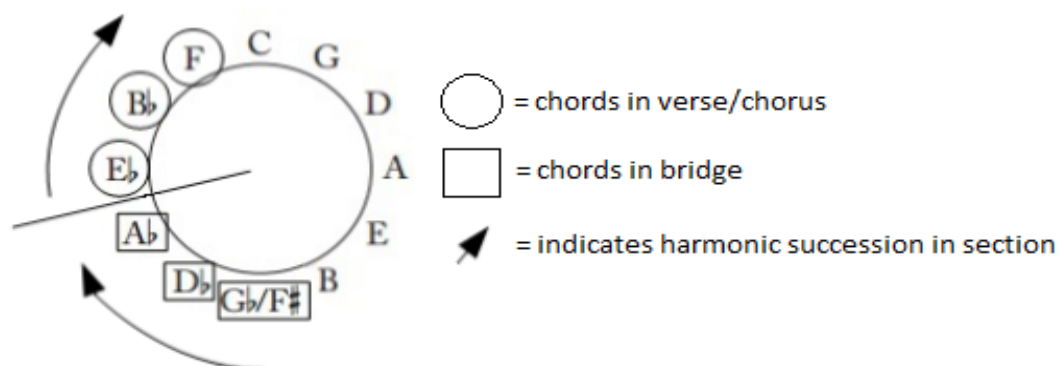


The upstem notes indicate pitches that are sometimes played in place of the downstem notes. This changes the harmonic pattern to one very similar to the verse of “Speed of Sound.” In “Speed of Sound,” the harmonic progression could have been interpreted as either I-v7-v7-IV in A, or V-ii7-ii7-I in D. With the bass line in “Clocks” changing the

inversion of one chord (and sometimes two), it can now be heard as either I-v-v-ii⁶, or I-v-v⁶-ii⁶, both in E_b. I would argue, however, that the last chord should not be heard as a first inversion F minor chord, but as an F minor chord juxtaposed over an A_b major chord. The same holds true for the first inversion B_b minor chord that occasionally precedes: a B_b minor chord superimposed on a D_b major chord. Because both sets of chords (fm/A_b; bbm/D_b) are relative minor/major pairs, it may seem unnecessary to make this distinction. However, this bass line and the introductory piano riff may be perceived as independent parts. The bass line functions independently from the piano, implying I-v-v-IV or I-v-bVII-IV in E_b major, depending on which variation occurs. This occurs simultaneously with the piano part, which outlines I-v-v-ii in E_b major.

To further illustrate the relationship between the melodic-harmonic disconnect and the sectional centricity of “Clocks,” this diagram maps the roots of every chord in the song, rather than the pitch-class content:

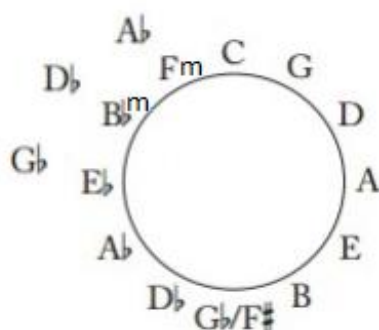
3.11 Chord roots in “Clocks.”



As seen in the diagram, both sections are characterized by plagal movement: the verse/chorus begins on Eb major and moves to Bb minor and F minor; the bridge begins on GbM7 and moves to Db major and Ab major. The two pitch-class centers at work throughout the verse/chorus and bridge sections of the song are divided by the solid black line. Not only is the movement between *chords* in each section plagal, but in the verse/chorus sections, the simultaneity of the altered bass line and main piano riff create two simultaneous structurally significant plagal cadences between iterations of the hypermetrical unit. The last chord of the progression is either an Ab major or F minor chord, both of which move back plagally to Eb major at the beginning of the hypermeasure. The Ab major and F minor chords are used interchangeably and are both functioning structurally as dominant.

If these two sets of chords overlapped, the result would look very familiar (see Ex. 3.3).

3.12 Harmonic content by chord root, overlap, in “Clocks.”



Here, both sets of chords are juxtaposed. The melody and harmony not only shift between the inner and outer sets of chords throughout the song, sometimes operating within Ab,

and sometimes within Eb, but also operate in both pitch centers simultaneously. The Gb major and Eb major chords are never implied at the same time because of their chromatic relationship, but the diatonic relationship between the other two sets of chords (Db major and Bb minor; Ab major and F minor) eases motion between either harmony. (See discussion after Ex. 3.10.)

In “Clocks” the melodic-harmonic disconnect begins from the outset of the melody, and continues throughout the verse-chorus sections. This is because the melody is perceived to be in Ab while the harmony is still heard in Eb. Once the harmonic pattern is established by the piano, the tonal ambiguity is heightened by subtle alterations in the bass line. The result is centric ambiguity, where multiple pitch centers are present simultaneously. The altered bass line in the chorus also helps to establish the structural significance of IV in the hypermetrical unit. The bridge also establishes IV as structurally significant. The bridge, which is in Db major, ends with a vamp on Gb major (IV) before returning to Eb major (I).

Chapter 4: “Warning Sign” from *A Rush of Blood to the Head*

“Warning Sign” is the eighth track from Coldplay’s album *A Rush of Blood to the Head*. Among the songs chosen for analysis, “Warning Sign” has the most unusual structure: the longest section of the song occurs only once, at the very end. In addition, the chorus is only heard twice.

4.1 Form of “Warning Sign.”

0:00-0:41	Introduction , 12mm. (4mm., gtr. vamp on Eb plus 8mm., $4a + 4a$)
0:41-1:08	Verse 1 , 8mm., $4a + 4a$
1:09-1:39	Verse 2 , 8mm., $4a + 4a$ plus 1m. vamp on F
1:40-2:07	Chorus , 8mm., $4b + 4b$
2:07-2:20	Introduction , 4mm., $4a$
2:21-2:48	Verse 3 , 8mm., $4a + 4a$
2:48-3:18	Verse 4 , 8mm., $4a + 4a$ plus 1m. vamp on F
3:19-3:46	Chorus , 8mm., $4b + 4b$
3:46-4:03	Bridge , 4mm., $4c$ plus 1m. vamp on F/A
4:03-4:30	Coda Introduction , 8mm., $4d + 4d$
4:30-5:31	Coda , 16mm., $4d + 4d + 4d + 3d$ plus 1m. fermata on gm.

$a = ||: Ab-Eb | Bb-F :||$

$b = || Eb | g | Bb | F/A ||$

$c = || \text{Ab} | \text{g} | \text{Bb} | \text{F/A} ||$

$d = || \text{Bb} | \text{f/Ab} | \text{Ab} | \text{Ebmaj7/G} ||$

The cycle of chords heard in the introduction and verses could suggest four possible key areas: Ab, Eb, Bb, and F.²⁶ The Ab and Bb chords could be heard as either I or IV, and the Eb and F chords could be heard as either I or V.

4.2 Possible chordal analysis of opening progression in “Warning Sign.”

Ab: | I-V | II-VI |

Bb: | bVII-IV | I-V |

Eb: | IV-I | V-II |

F: | bIII-bVII | IV-I |

What makes this progression exceptionally ambiguous is the relationship between successive chords: each chord in the cycle is an ascending perfect fifth away from the preceding chord. However, it is important to note that the bass movement between each chord alters the way it is perceived.

4.3 Root movement in opening progression in “Warning Sign.”

Ab ↑5 Eb ↓4 Bb ↑5 F ↓6

²⁶ The chords that actually sound are slightly sharper than Eb, and flatter than E. This is mostly likely due to the finished recording being sped up post production.

This suggests that Ab and Bb chords are structurally more important, as these are the bottom notes of the P5s. It could sound as if the bass is simply outlining 1 and 5 of Ab and Bb.

It is worth mentioning Walter Everett's paper, "Making Sense of Rock's Tonal Systems," wherein he discusses sequences of descending fourths or fifths and, specifically, the double-plagal cadence (bVII-VI-I). Everett argues that such sequences do not necessarily suggest a key area because of their indefinite nature: the cycle of descending fourths could conceivably carry on until the beginning note is once again reached all without implying one tonal center over another. Everett states, "one must not be too quick to ascribe chromatic events to modal function, particularly where bVII is involved... bVII-IV-I is variously referred to as an Aeolian, Dorian, or Mixolydian pattern. But such a modal basis cannot be any more necessary for this relationship than it would be for fifths circling in the opposite direction"²⁷ Indeed, looking at Ex. 4.2, we can see there are two possible interpretations that include the double-plagal cadence. But the fact that these possible tonal centers present a possible modal interpretation does not necessarily mean they are more likely to be the tonal centers of the section.

While each of the options in Ex. 4.2 is theoretically possible, there are some clues that point to Eb as the tonal center for the introduction and verses. First, the opening guitar chord vamps on Eb for four measures before the rest of the band comes in. Secondly, the syncopation with which the pattern is played also tends to favor the second chord of each measure as the arrival.

²⁷ Walter Everett, "Making Sense of Rock's Tonal Systems," *Music Theory Online* 10/4 (2004): 5.

4.4 Harmonic rhythm in opening progression of “Warning Sign.”

The image shows a musical staff with a treble clef and a key signature of one flat (Bb). The staff contains four measures of music. Above the staff, the chords for each measure are indicated: A♭, E♭, B♭, F, A♭, E♭, B♭, F. The notation shows a rhythmic pattern of quarter notes and half notes, with a fermata over the final note of each measure.

Third, a string part played during the introduction helps establish Eb as the beginning of the pattern:

4.5 String part in introduction of “Warning Sign.”

The image shows a musical staff with a treble clef and a key signature of one flat (Bb). The staff contains a string part consisting of a series of eighth notes and quarter notes, with a fermata at the end.

Lastly, Stephenson mentions in his section on secondary dominants (and as mentioned in the chapter on “Speed of Sound”) that while V/V is probably the most common secondary dominant, it is rarely followed by a V chord. In fact, the most common chord to follow the V/V (II) is the IV chord.²⁸ In Ex 4.2, the only interpretation that reflects this is the analysis in Eb major, with the move from secondary dominant to subdominant occurring between the last chord of the cycle and the first.

Just as there are many possible ways to interpret the tonal center of the verse harmonic progression, there are also different ways to interpret the melody of the verse. In light of the underlying chords, Eb would seem the logical place to start. First, the

²⁸ Ken Stephenson, *What to Listen for in Rock* (New Haven: Yale University Press, 2002), 114.

melody begins by emphasizing 5 in Eb, and ends each verse 3-2-1, outlining a structural perfect fifth.

4.6 Vocal melody in verse of “Warning Sign.”



However, this interpretation leads to the conclusion that the verse melody is in the Lydian mode, which, as Nicole Biamonte notes, “is rare in rock practice – as it has always been in art music – and is usually expressed as an inflection of the supertonic, rather than as a diatonic modality.”²⁹ The supertonic harmony, the F major chord (heard in the second half of the second measure above) in this case, is indeed sounding when the Lydian-defining A natural occurs in the melody. While the possibility that the verse chord progression includes the F major triad because the melody is in Eb Lydian could be true, it seems far more likely that the chord progression was composed first, and the melody was made to fit the chords. The chord progression is tonally ambiguous because of the plagal relationship between successive chords in the cycle (see. Ex. 4.2). As such, the tonal center of the progression must be defined by using other means, namely melodic pitch content, rhythmic accentuation, bass motion, and supporting melodic/counter-melodic lines. Yet, as mentioned above, this does not provide a definitive answer in

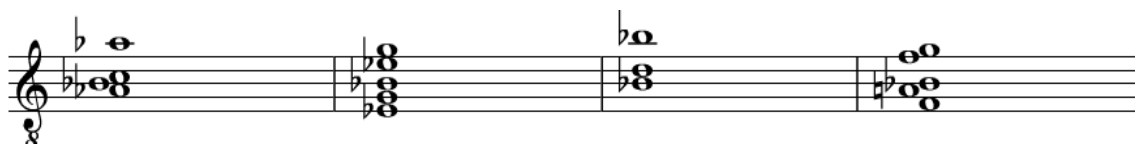
²⁹ Nicole Biamonte, “Triadic Modal and Pentatonic Patterns in Rock Music,” *Music Theory Spectrum* 32/2 (2010): 98.

regard to a tonal center because the melodic and harmonic parts were likely adjusted to fit the pre-existing, tonally-ambiguous chord progression.

The melody in the verse asserts Bb as an important note and the pitch-class content of the melody (Eb-F-G-A-Bb-C) includes all but one pitch associated with Bb major. In the fourth verse the melody is embellished slightly, this time emphasizing 3-2-1-6 in Bb. While the melody in previous verses ends on an Eb, in the fourth verse the last pitch is a Bb following a 3-2-1 descent an octave lower.

The prominence of the Bb in the melody could also be explained by the chord shapes used in the guitar part. Below are the exact voicings for each chord in the verse.

4.7 Guitar voicings in verse of “Warning Sign.” (A capo is used on the third fret.)

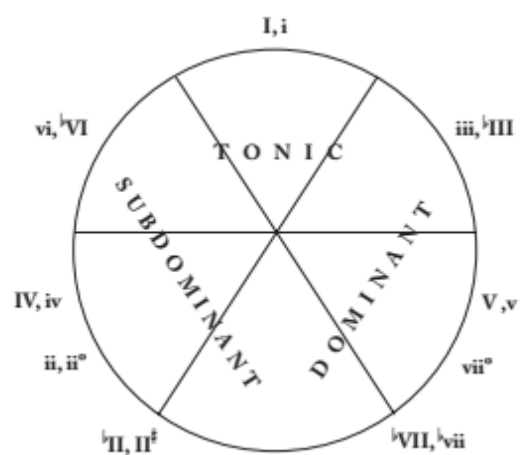


Because of the way the chords are voiced, the Bb is a constant throughout. This assertion gives Bb a stable position throughout the verse, and could explain why the vocal melody gravitates toward Bb.

While the bass rhythm is important in establishing a strong tonal center of Eb in the verse, it also paradoxically contributes to establishing Bb as well. Even though all of the chords occur in a sequence of descending fourths, this is not the motion heard when considering the bass line. The only literal descending-fourth motion that occurs is

between the Eb and Bb major chords. Below is Nicole Biamonte's chart which maps the harmonic function of modal triads.

4.8 Harmonic function of modal triads.³⁰



Revising the original possible chord chart (Ex. 4.2) to include the dual harmonic nature of some chords results in the chart below, which shows the possible harmonic functions ascribed to each possible chord interpretation.

³⁰ Ibid., 96.

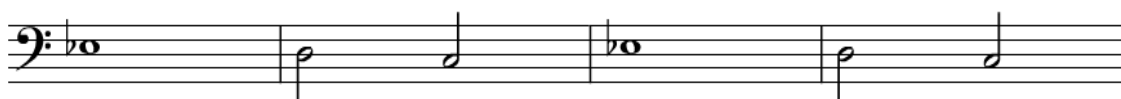
4.9 Harmonic function of possible key areas in “Warning Sign.”

	Ab	Eb	Bb	F
Ab:	I	V	II	VI
	T	D	D/S	T/S
Bb:	bVII	IV	I	V
	D/S	S	T	D
Eb:	IV	I	V	II
	S	T	D	D/S
F:	bIII	bVII	IV	I
	T/D	D/S	S	T

Because of the strong plagal motion from Ab to Eb at the outset of the song (and the initial Eb Major chord), it would make sense to interpret that as a subdominant-to-tonic relationship. What then becomes unclear is how the next sequence of chords (Eb-Bb-F) are related to one another. I would argue that it is not only possible, but plausible that the Bb and F, because of the strong ascending P5 in the bass, are heard in a tonic-to-dominant relationship. This perception likely occurs retroactively: one hears the Bb major chord as a tonic only after hearing the F major chord a P5 above. In this case, the F major chord could actually be heard as a dominant seventh chord (the only one in the song) because of the Eb in the upper string part (Ex. 4.5). These factors alter the perception of the verse chord progression significantly, with the first half sounding very much like IV-I in Eb, and the second half sounding like I-V⁽⁷⁾ in Bb.

As with “Speed of Sound” and “Clocks,” there is an important inner voice (played by a cello) in the verse of “Warning Sign” that affects the perception of the tonal center.

4.10 Inner voice in verse of “Warning Sign.”



This descending line could be heard as 8-7-6 in Eb major, but I believe the more likely interpretation is 4-3-2 in Bb major. More specifically, this shift occurs midway through the progression, and what begins in Eb ends in Bb. This is because of the strong tonic-dominant motion created by the ascending perfect fifth Bb to F in the bass. Keeping this in mind, the completion of the descending 4-3-2 line in the cello part is found at the beginning of the verse in the melody.

4.11 Perceived harmonic shift in inner voice in “Warning Sign.”

A musical staff in bass clef with a key signature of two flats (Bb and Eb). The staff contains four measures of music. The notes are: Eb (half note), Bb (quarter note), Eb (half note), and Bb (quarter note). Above the staff, the notes are labeled with their corresponding chord symbols: Ab, Eb, Bb, F, Ab, Eb, Bb, F. Below the staff, the harmonic analysis is provided for two different interpretations: Eb major and Bb major. The Eb major interpretation shows chords 8 and 6, with a 7 above the second measure. The Bb major interpretation shows chords 3 and 2, with a 7 above the second measure.

David Temperley calls the pitch organization for verses that exemplify a melodic-harmonic disconnect *stratified*,³¹ and it is typical in rock songs for the choruses to exhibit a *unified* pitch organization.³² This pattern is precisely what occurs in “Warning Sign.”

³¹ Temperley, David. “The Melodic-Harmonic ‘Divorce’ in Rock.” *Popular Music* 26/2 (2007): 326.

³² *Ibid.*, 331.

4.12 Vocal melody in chorus of “Warning Sign.”

While the verse has a disconnected or stratified pitch organization between the melody and harmony, the chorus is unified, with melody and harmony both gravitating to Bb. The vocal line clearly arpeggiates a Bb major triad twice, even though, the pitch Bb never aligns with a Bb major chord in the harmony. The harmonic pattern for the chorus is:

4.13 Chorus harmonic pattern in “Warning Sign.”

Eb gm Bb F/A
Bb: ||: IV | vi | I | V6 :||

With verses harmonically centered in Eb, and choruses in Bb, the pivot between the two is the F major chord that links them. The F major vamp at the end of the verse could serve to stop the perpetual motion of the harmonic pattern, while also signaling a tonal shift.

4.14 Pivot between verse/chorus in “Warning Sign.”

Eb: ||: IV-I | V-II :|| II | II6 ||: IV-I | V-II :||
Bb: | V ||: IV | vi | I | V6 :||

As with the verse, it is important to note the motion of the bass part. After the F major vamp at the end of the verse, the bass moves down by step to Eb. This strong stepwise motion down occurs underneath two major chords a step apart, F major and Eb major. Given the prominence of this motion in blues progressions,³³ it is not difficult to perceive this as V-IV in Bb. The next note the bass plays is important. Instead of moving up a major third to G, it moves down a minor sixth to G, before moving up to Bb and then down to A. This movement down by minor sixth, in addition to the strong stepwise motion down at the beginning of the chorus, helps to shift perception away from hearing the chorus as simply outlining an Eb major triad (Eb major, G minor, Bb major) and having a tonal center of Eb. It is also worth noting that the bass parts outlines a tritone between A and Eb at the return of the hypermetrical unit, which also seems to indicate that the tonal center of the chorus has shifted away from Eb major to Bb major.

The strongest resolution of the F major chord occurs on the downbeat of the coda. Here, the F major chord (in first inversion) that ends the chorus leads directly to the Bb major chord that begins the coda. This is the only time in the song where the pitch Bb is heard in the melody and a Bb major chord is heard in the harmony, making this arrival especially strong. However, the coda is not in Bb major but in Bb Mixolydian.

4.15 Coda harmonic pattern in “Warning Sign.”

Bb fm/Ab Ab Ebmaj7/G
 Bb: ||: I | v6 | bVII | IV6/5 :||

³³ Stephenson, *What to Listen for in Rock*, 103.

The last chord offers no clarification and is perhaps the most surprising part of the whole song. Instead of fading out or ending on the last chord of the cycle (usually a IV chord³⁴), the last chord we hear is a G minor chord rather than the Ebmaj7/G we hear throughout the coda. Even more surprising is the way the melody ends:

4.17 Ending of “Warning Sign.”



The G minor chord functions like a deceptive cadence in that it is not expected. However, there is no return to Bb major at the end. Instead, we are left hanging with an unresolved dissonance between the A in the voice and the G minor chord in the piano. This does not necessarily mean that the dissonance should be interpreted as unstable. Temperley writes,

“I do not entirely agree that unresolved non-chord tones should be heard as unstable dissonances, either. Rather, I would argue, the listener senses in such situations that the adherence of the melody to the harmony has temporarily been suspended (and it may partly be the unresolved non-chord-tones that indicate this). Once this is established, we grant a certain freedom to the melody *within that context*, so that non-chord-tones may be left hanging without a strong sense of tension or incompleteness.”³⁵

³⁴ More on this in subsequent chapters.

³⁵ Temperley, “Melodic-Harmonic ‘Divorce,’” 327-28.

“Warning Sign” creates tonal ambiguity in the verses by the nature of the chord progression used. The cycle of major chords a fourth apart gives no clear indication of a tonal center in and of itself. Melodic-harmonic disconnect is present in the verses, where the melody emphasizes Bb over an underlying harmony that is (potentially) in Eb major. This is in contrast to the unification of the chorus, where the melody and harmony are both operating in Bb major. In the coda, however, this unification gives way to a tonally ambiguous melody over a Bb major harmony. Again, IV is structurally prominent at the end of the hypermetrical unit. However, the inversion of this chord creates a localized ambiguity: it could be perceived as either Eb^{maj7} with a G in the bass, or a G minor chord with an added sixth. This ambiguity is compounded with the sudden ending on a G minor chord, and the dissonant An in the melody.

Chapter 5: “We Never Change” from *Parachutes*

“We Never Change” is the ninth track on Coldplay’s first album, *Parachutes*. The form is outlined below:

5.1 form of “We Never Change.”

0:00 – 0:21	Introduction , 8mm., $4a + 4a$
0:21 – 0:42	Verse 1 , 8mm., $4a + 4a$
0:43 – 1:05	Pre-chorus , 10mm., $5b + 5b$
1:06 – 1:26	Chorus , 8mm., $4c + 4c$
1:26 – 1:38	Retransition , 5mm., $5b$
1:38 – 1:59	Verse 2 , 8mm., $4a + 4a$
2:00 – 2:23	Pre-chorus , 10mm., $5b + 5b$
2:23 – 2:44	Chorus , 8mm., $4c + 4c$
2:44 – 3:07	Retransition Extension , 10mm., $5b + 5b$
3:08 – 3:28	Bridge , 8mm., $4d + 4d$
3:28 – 3:49	Final Chorus ³⁶ , 8mm. $4 + 4$
3:49 – 4:09	Coda , 6mm., $2 + 2 + 2$

$a = ||: f\#\text{add}11 | \quad | E6 | \quad :||$

$b = ||: b\text{add}9 | f\#\text{add}11 | \quad | E6 | \quad :||$

³⁶ This chorus is different than previous choruses. The lyrics remain the same, but the melody and harmony are different.

$$c = ||: A^{\text{add}9} | \quad | c\#7 | \quad :||$$

$$d = ||: b^{\text{add}9} | \quad | E6 | \quad :||$$

$$\text{final chorus} = ||: b^{\text{add}9} | f\#\text{add}11 | E6 | \quad :||$$

$$\text{coda} = || b^{\text{add}9} f\# | E6 b^{\text{add}9} | \quad f\# | DM7 b^*\text{add}9 | \quad f\# | E6 b^{\text{add}9} ||$$

The acoustic guitar that plays throughout “We Never Change” does not use standard guitar tuning (from low to high): E-A-D-G-B-E. Instead, the highest string is tuned to C#, resulting in E-A-D-G-B-C#. This tuning, in addition to the chord positions, results in the multiple extended chords outlined above. As Stephenson notes, chords with added notes usually function as secondary to triads. However, in certain instances, chords with added notes take a primary function, occurring more frequently than triads and functioning as tonic harmonies.³⁷ When necessary, these extended chords will be indicated as such, but will elsewhere be referred to by only their chord root and quality.

“We Never Change” begins with the aforementioned acoustic guitar strumming an alternating $f\#\text{add}11$ and E6. It is difficult to discern which of these chords is the tonic; the introduction could be heard in two possible ways:

5.2 Possible interpretations of “We Never Change” introduction.

$$\begin{array}{l} f\#: ||: i^{\text{add}11} | \quad | bVII6 | \quad :|| \\ E: ||: ii^{\text{add}11} | \quad | I6 \quad | \quad :|| \end{array}$$

³⁷ Stephenson, *What to Listen for in Rock*, 82.

The open tuning and chord position allow the B and C# strings to ring for the opening sequence, and indeed for the entire song. In the sixth measure, a hammer-on³⁸ from the low E string to the F# helps to temporarily create a sense that E is the tonic, emphasizing arrival on E by stepwise motion down.

Once the verse melody begins, this ambiguity is heightened in two ways. First, the melody always serves as a pickup into the chord change where the motion then ceases and does not help make a case for either chord being the tonal center. Second, the pentatonic pitch collection of the melody in the verse can be interpreted in several ways.

5.3 Verse melody in “We Never Change.”³⁹



It is worth noting that the two pitches the melody emphasizes the most are B and C#, the same pitches heard in the open guitar strings. This assertion of B and C# is critical for the harmonic development of the entire song.

³⁸ This is equivalent to a slur. It is achieved by sounding a string and then fretting another note without re-striking the string. It requires considerably more force, hence the term “hammer-on.”

³⁹ Two eights equal quarter-eighth triplet throughout “We Never Change.”

The pentatonic nature of the melody in the verse makes it difficult to find a tonal center and encourages tonal ambiguity. The most likely interpretation of the pitch content is either A major pentatonic or F# minor pentatonic. Given the harmonies at this point in the song, F# minor seems a stronger candidate for tonal center of the verse.

The pre-chorus confirms F# as a tonal center. The melody in the pre-chorus is very similar to the verse, with a couple of important differences.

5.4 Pre-chorus melody in “We Never Change.”

The image shows three staves of musical notation for the pre-chorus melody. The first staff begins with a treble clef, a key signature of one sharp (F#), and a 3/4 time signature. The melody starts with a quarter note F#, followed by a dotted quarter note B, and an eighth note A. The second staff continues with a quarter note G, a quarter note F#, and a quarter note E. The third staff shows a quarter note D, a quarter note C#, and a quarter note B. The notation includes various rhythmic values and accidentals, and the time signature changes to 6/4 in the second staff.

In the verse, the melodic motion always stops on a B or C#, the fifth of the respective chords heard underneath. In the pre-chorus, the melodic motion stops on either F#, B, or E. The F# is always approached by a descending F# minor arpeggio, and always occurs during an F# minor chord in the guitar part. The B occurs during the E major chord, but is approached by an ascending F# minor arpeggio. The outlining of an F# minor triad that leads to an F# in the melody and an F# minor chord in the accompaniment help to define F# as the tonal area of the pre-chorus. In addition, the B minor to F# minor plagal motion in the pre-chorus further adds to the perception that F# is now the tonal center.

5.8 Retransition melody in “We Never Change.”



It is worth mentioning that both melodic cadences end on the roots of their respective chords (F# and E), providing a brief moment of melodic-harmonic unity.

While there is melodic-harmonic disconnect in the chorus, versus tonal ambiguity in the verses, there is some symmetry between the two. The only two chords present in the verse are F# minor and E major. In the chorus, the only two chords present are A major and C# minor. Both of these are relative minor/major tonal areas when compared to their corollaries in the verse.

5.9 Verse/chorus chord comparison in “We Never Change.”

verse: ||: f# | | E | :||
 chorus: ||: A | | c# | :||

As mentioned above, the E major chord at the end of the pre-chorus functions as dominant to the A major chord that begins the chorus. The melody then continues to operate in this tonal area, while the harmony seems to shift either to E major or C# minor. In the bridge, however, there is unity between the harmony and the melody. The repeating B minor-E major chords in the bridge sound clearly like ii-V in A major. In addition, there is a piano part that, despite the changing harmony, consistently plays an A throughout the entire bridge, helping to solidify A as tonal center.

5.10 Bridge melody in “We Never Change.”



The melody builds twice, each time ending on G# as the accompaniment is playing an E major chord. This is the climax of the song, both in terms of melodic range (the B is the highest note in the melody) and melodic activity (the most unbroken connection of notes up to this point in the song). All signs indicate that a resolution of this tension is imminent, but instead, the tension dissolves as the melody retreats down by step to F# for the final chorus.

5.11 Final chorus in “We Never Change.”



The final chorus is an important point in the song because it marks a departure from previous patterns. The lyrical content is the same as earlier choruses, but there are several important differences:

- three chords are heard in the final chorus instead of the two in previous choruses (bm, f#m, E)
- the melody does not begin the same way, though it does end the same way
- the high point of the melody is now F# instead of A

The chords in the final chorus are the same sequence of chords from the pre-chorus and retransition. However, this time, the B minor chord gets a full measure instead of half a measure, signifying the heightened status of this chord. Another important difference is present in the third and seventh measures of the final chorus: in prior choruses this melodic motive occurs as the accompaniment changes to C# minor. This time, the accompaniment changes to an E major chord. This hybrid of the pre-chorus harmony and chorus melody resolves the tension present in the same location of previous choruses.

The tonal center of the final chorus is most likely F# minor given the harmonic progression is the same as the pre-chorus. The presence of a descending piano line also strengthens the arrival of the F# minor chord with strong 3-2-1 motion.

The coda brings a renewed sense of ambiguity and melodic-harmonic disconnect. The melody emphasizes F# minor, both with pitch content and rhythmic or metric stress.

5.12 Melody in coda of “We Never Change.”



However, the guitar chords accompanying the vocal line in the coda shift tonally to B. This is not immediately apparent because the chords used are the same as in the pre-chorus and final chorus and would likely be perceived, at least initially, as still functioning in F#. Once the melody ends the first phrase in measure two of the coda, however, B has become the new tonal center of the harmony. This is accomplished by the rhythmic accentuation on the hypermetrical downbeat and on the fourth beat of the hypermeasure. Thus, B minor begins and ends the four-bar hypermeasure in the coda. This repetition of B minor between the last beat and first beat of the new hypermeasure creates a strong sense that B is the tonal center of the harmony.

5.13 Harmonic modulation in coda of “We Never Change.”

bm f#m E bm f#m DM7 bm f#m E bm
 f#: || iv i | bVII iv |
 b: | IV i | i v | III i* | i v | IV i ||

The starred note and chord that occur at the end of measure four are difficult to analyze. In the formal chart (see Ex. 5.1, starred chord) I have analyzed this chord as b^{add9}

(see Ex. 5.12), indicating that the pitch sung at that moment is D natural. In fact, the actual pitch is closer to D#. It follows that the quality of the chord underneath is difficult to discern. My best guess is that the chord quality is consistent with the rest of the coda, and what happens in the vocal line was perhaps a cracked note. The other alternative is that this chord is B^{add9}, with a D# in the melody being intentional. If this is indeed what is played (again, it is very difficult to hear) then perhaps the D# in the melody and harmony of the coda was foreshadowed in the accompaniment of the chorus (Ex. 5.7).

While B was never a tonal center in any other section of “We Never Change,” it does have structural significance in unifying the various tonal areas at work throughout the song.

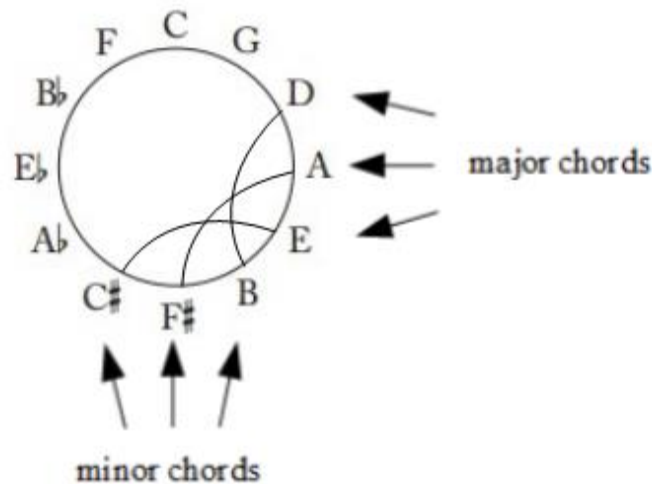
5.14 Possible tonal areas in “We Never Change.”

Section	Tonal Areas	Harmonic Function of B chord	Roman Numeral
Introduction	F#/E	n/a	n/a
Verse	F#	S	iv
Pre-chorus	F#/A	S/S	iv/ii
Chorus	A/E/C#	S/D/S-D	ii/v/bVII
Retransition	F#/A	S/S	iv/ii
Bridge	A	S	ii
Final Chorus	F#	S	iv
Coda	F#/B	S/T	iv/i

There is overwhelming support for viewing B, specifically B minor, as fulfilling primarily a subdominant role in the harmonic function of the song. B acts a link between

all of the harmonies present in the entirety of the song, and with the exception of the first and second chorus, always signals a tonal shift when it occurs. This is another instance where the subdominant acts structurally as dominant, this time *across* sections, not just within them.

5.15 B minor as link between possible tonal areas in “We Never Change.”



In both charts above, B is shown as a link to all of the tonal centers throughout the song. In the coda, B becomes the newest and final tonal center (as indicated by the harmony). The D major chord in the coda (the only one in the entire song) is the relative major of B minor, just as the other tonal centers are relative to one another. It is also worth mentioning that in the coda, the harmonic rhythm increases fourfold: instead of one chord every two measures, there are now two chords per measure, with B minor articulating the beginning and end of each hypermeasure.

There are several factors that hint at the evolution of B into a tonal area. First, given the guitar tuning, B is a part of every chord in the song. Second, in the pre-chorus,

the B minor chord is given half a measure (three beats) while every other chord remains the same duration. In the bridge and final chorus, its duration is increased to match the length of the other chords. Lastly, considering the registral extremes of the song, the lowest note sung is C#, while the highest note sung is a B in the bridge.

The tonal ambiguity in “We Never Change” is present at the beginning of the song. This is reflected in the pentatonic pitch content of the melody, which could be interpreted in a number of different ways. It is not until the pre-chorus that F# minor is established as tonal center by the introduction of the iv chord (B minor). While the chorus could initially be analyzed in the relative major (A major), the introduction of the C# minor chord and electric guitar part undermine this interpretation. Instead, the vocal line operates in A major while the guitar operates in E major. This is a reversal of what occurs in “Warning Sign”: in the chorus of “We Never Change” the pitch content is stratified, made manifest by the melodic-harmonic disconnect, while in the verse/pre-chorus sections the pitch content is unified. Once B minor is established as the tonal center in the coda the subdominant is once again structurally significant in the hypermetrical unit, immediately preceding the tonic at the beginning and end of the coda. Indeed the last cadence is a plagal cadence, IV-i in B minor.

Chapter 6: “Shiver” from Parachutes

“Shiver” is the second track on Coldplay’s first album *Parachutes*. It was the first single released in the U.K. and the second single (after “Yellow”) in the U.S. The form is outlined below:

6.1 Form of “Shiver.”

0:00-0:15	Introduction , 4mm., 2 + 2
0:15-0:40	Chorus , 8mm., 2 + 2 + 2 + 2 (no voice)
0:40-1:05	Verse 1 , 8mm., 4 + 4
1:06-1:29	Pre-chorus 1 , 8mm., 4 + 4
1:29-1:51	Pre-chorus 2 , 7mm., 4 + 3
1:51-2:16	Chorus , 8mm., 2 + 2 + 2 + 2
2:16-2:41	Verse 2 , 8mm., 4 + 4
2:41-3:05	Pre-chorus 1 , 8mm., 4 + 4
3:05-3:26	Pre-chorus 2 , 7mm., 4 + 3
3:26-3:51	Chorus , 8mm., 2 + 2 + 2 + 2
3:51-4:21	Bridge , 10mm., 3 + 7
4:21-4:46	Final Chorus , 8mm., 2 + 2 + 2 + 2
4:47-5:04	Outro , 4mm., vamp on E ^{add9}

intro = ||: EM7 | EM7/F# :||

chorus = ||: B f#m7 | A g#m :|| B f#m7 | A g#m | A | g#m |

verse = ||: E | | BM7 | | :||

pre-chorus = || c#m | | F#7 | | c#m | | B | B7 ||

pre-chorus ext. = || g#m7 B^{aug}/A# | g#m/B B^{aug}/A# | g#m7 B^{aug}/A# | B A^{#11}/C# |
| g#m7/B B^{aug}/A# | E#^{o7}/G# | EM7/G# ||

bridge = || EM7 | | | B A | EM7 | B A | EM7 | B A | EM7 | | ||

The introduction of “Shiver” is harmonically similar to the beginning of “We Never Change.” In “Shiver,” the initiating harmony is an EM7 chord, embellished with an ascending guitar line (C#-D#-E), which immediately creates a sense of forward motion. On the third and fourth hypermetrical beats in the second and fourth measures of the introduction, there is, in addition to the EM7 chord, an F# added in the bass. As in “We Never Change,” without any other harmonic clues, this is perceived as a ii-I motion.

6.2 Introductory chord progression in “Shiver.”

EM7 | EM7/F#
E: || I^{maj7} | ii¹³ :||

However, once the chorus begins, it becomes evident that what was initially interpreted as I in E major has become IV in B major.

6.3 Chorus chord progression in “Shiver.”

B f#m7 | A g#m :|| B f#m7 | A g#m | A | g#m ||
B: ||: I v7 | bVII vi :|| I v7 | bVII vi | bVII | vi ||

B major is also supported in the lead guitar part during this, and subsequent choruses.

6.4 Lead guitar part in chorus of “Shiver.”



At the end of each two-bar hypermetrical unit, the guitar part ends by moving up a minor third from G# to B. While the guitar part in the chorus can be understood to support a reading of the chorus in B major, it is simultaneously creating a foundation for the tonal ambiguity present throughout.

The harmonic progression of the chorus is similar to the verse progressions of “Speed of Sound” and “Clocks.” In “Speed of Sound,” the opening progression could be interpreted as either I-v7-v7-IV in A major, or V-ii7-ii7-I in D major. In “Clocks,” the chord progression is sometimes interpreted as I-v-v-ii and sometimes as I-v-bVII-IV, depending on the bass line. The chorus progression in “Shiver” also moves from v-bVII in the middle, but deviates from these other patterns on the last chord of the progression, where G# minor (vi) momentarily replaces E major (IV). Keep in mind that the G# minor triad is contained within the EM7 chord, which is prevalent throughout the rest of the song. The substitution of G# minor for EM7 at this crucial moment in the hypermeasure

anticipates the prominent role it will play later in the song. This is also echoed in the lead guitar part shown above (Ex. 6.4). At the end of each hypermeasure the guitar shifts from G# to B, except the last time, when the guitar ends on B over a G# minor chord, approached from above.

When the vocal line begins in the verse, E once again sounds like the tonal center. The melody sits very squarely in E major, emphasizing 3 in the first half and 5 in the second half. This note is embellished by lower and upper neighbors within the E major pentatonic scale.

6.5 Vocal line in verse of “Shiver.”

The image displays three staves of musical notation for a vocal line. The first staff shows a melodic line starting with a quarter rest, followed by eighth notes G#4, A4, B4, and A4, then a quarter note G#4, and a half note G#4. The second staff begins with a quarter rest, followed by eighth notes G#4, A4, B4, and A4, then a quarter note G#4, and a half note G#4. The third staff starts with a quarter note G#4, followed by eighth notes A4, B4, and A4, then a quarter note G#4, and a half note G#4. The notation includes various rhythmic values and accidentals (sharps) to indicate the specific notes and their durations.

Because of the tonal ambiguity, either E or B could be perceived as tonic. Therefore, other factors must be considered to determine which one functions as tonic. In this case, the presence of an A# in the BM7 chord indicates a tonic of B rather than E. (If E were the tonic, the B chord, acting as the dominant, would more likely contain an A natural.) This shift between E major and B major in the verse affects the melody during the second

half of the verse. Five measures in, the melodic emphasis shifts to B, with upper and lower embellishments within the pentatonic collection. Indeed, during the second verse, the apparent reaction of the melody to the tonic shift is more clearly stated, with the presence of an A# in the melody over the E major chord. The compound melody stating 6-7-8 (G#-A#-B) in B major could be a reflection of the minor third ascent in the opening guitar line (C#-D#-E).

6.6 Second half of second verse in “Shiver.”

The image shows two staves of musical notation in treble clef. The key signature has one sharp (F#). The first staff begins with a whole rest, followed by a quarter rest, then a quarter note G# (with a sharp sign), an eighth note A# (with a sharp sign), and an eighth note B (with a sharp sign). A slur covers the A# and B notes, with an 'E' chord symbol above it. This is followed by a quarter note G# (with a sharp sign), an eighth note A# (with a sharp sign), and an eighth note B (with a sharp sign). A slur covers the A# and B notes. The second staff begins with a quarter note G# (with a sharp sign), an eighth note A# (with a sharp sign), and an eighth note B (with a sharp sign). A slur covers the A# and B notes. This is followed by a quarter note G# (with a sharp sign), an eighth note A# (with a sharp sign), and an eighth note B (with a sharp sign). A slur covers the A# and B notes. The next measure contains a quarter note G# (with a sharp sign), an eighth note A# (with a sharp sign), and an eighth note B (with a sharp sign). A slur covers the A# and B notes. The final measure contains a quarter note G# (with a sharp sign), an eighth note A# (with a sharp sign), and an eighth note B (with a sharp sign). A slur covers the A# and B notes. A 'Bmaj7' chord symbol is placed above the first measure of the second staff.

The movement to B as tonic in the verses is solidified in pre-chorus 1. The alternation between c# minor and F#7 clearly functions as ii-V⁷ in B major. The melody also functions in B major, hovering around B and G# and emphasizing A# during the F#7 chord. The lead guitar part echoes this reading in B major with a descending series E-D#-C#, finally arriving on B in the seventh measure.

6.7 Pre-chorus 1 of “Shiver.”

The image displays three staves of musical notation for the pre-chorus of the song "Shiver." The notation is written in treble clef with a key signature of one sharp (F#). The first staff shows a vocal line with a melodic line that starts on a whole note G#4, followed by quarter notes A4, B4, and A4, then a half note G#4, and continues with eighth and quarter notes. The second staff shows a guitar line with a rhythmic pattern of eighth notes, including a triplet of eighth notes. The third staff shows a guitar line with a melodic line that starts on a whole note G#4, followed by quarter notes A4, B4, and A4, then a half note G#4, and continues with eighth and quarter notes, ending with a whole note G#4.

It is worth noting that there is a strong tendency in the vocal line to slide down to the G# from the B. It is as if the G# has a strong gravitational pull that competes with the B for importance. This will become more evident in pre-chorus 2.

Pre-chorus 1 concludes with a B major chord, announced by arpeggiation in the lead guitar part. It arrives earlier than expected: each phrase up until this point (with the exception of the introduction) has lasted eight measures. The arrival of the B major chord in pre-chorus 1 occurs on the seventh measure (two measures earlier than expected) at the end of the hypermetrical unit, instead of initiating the next hypermeasure. The early arrival could explain the lack of melodic activity and the continuation of the guitar arpeggiation, which ends on an A natural, effectively making the B major chord a B7, and anticipating a return to E. With this in mind, the entire pre-chorus could be analyzed in the following way.

6.8 Possible analysis of pre-chorus 1.

$c\#m$ $F\#7$ $c\#m$ B $B7$
 B: || ii | | V7 | | ii | | I | V7/IV ||

Instead of leading to an E chord, the B7 chord moves to a G# minor chord in pre-chorus

2. The melody resolves the A natural (the seventh in the B7) down to a G#, as expected.

This substitutionary relationship between E major and G# minor in pre-chorus 2 was

foreshadowed in the chorus (see Ex. 6.3).

Pre-chorus 2 in “Shiver” is strikingly chromatic compared to the rest of the song.

This is the result of the bass line and the lead guitar part. The guitar arpeggiates the

chords outlined below.

6.9 Chord progression in pre-chorus 2 of “Shiver.”

The musical notation consists of two systems, each with a guitar staff (treble clef) and a bass staff (bass clef). The key signature is two sharps (F# and C#).

System 1 (3 measures):

- Measure 1: Guitar arpeggiates $c\#m$ (notes: $c\#, e, g, a$); Bass line: $c\#$ (quarter), e (quarter), $c\#$ (quarter).
- Measure 2: Guitar arpeggiates $F\#7$ (notes: $f\#, a, c\#, e, g$); Bass line: $f\#$ (quarter), a (quarter), $c\#$ (quarter).
- Measure 3: Guitar arpeggiates $c\#m$ (notes: $c\#, e, g, a$); Bass line: $c\#$ (quarter), e (quarter), $c\#$ (quarter).

System 2 (4 measures):

- Measure 1: Guitar arpeggiates $c\#m$ (notes: $c\#, e, g, a$); Bass line: $c\#$ (quarter), e (quarter), $c\#$ (quarter).
- Measure 2: Guitar arpeggiates B (notes: $b, d\#, f\#, a$); Bass line: b (quarter), $d\#$ (quarter), $f\#$ (quarter).
- Measure 3: Guitar arpeggiates $B7$ (notes: $b, d\#, f\#, a, c\#$); Bass line: b (quarter), $d\#$ (quarter), $f\#$ (quarter).
- Measure 4: Guitar arpeggiates $G\#m$ (notes: $g\#, b, d\#, e$); Bass line: $g\#$ (quarter), b (quarter), $d\#$ (quarter).

Stephenson claims that chromatic chords (B^{aug}; A^{#11}; E^{#o7} in pre-chorus 2) are rare in rock music: “the augmented triad is even rarer than the diminished [triad] and occurs almost always as a linear embellishment linking an opening tonic chord with the next chord.”⁴¹ In this instance, the B augmented chord serves as a link between the two G# minor chords that represent the tonic harmony of pre-chorus 2. The melody in pre-chorus 2 affirms this interpretation.

6.10 Melody in pre-chorus 2 of “Shiver.”



The end goal of pre-chorus 2 is an EM7 chord. It would seem pre-chorus 2, instead of erasing the expectation created at the end of pre-chorus 1 (B7), instead prolongs the V7/IV and delays the arrival of the anticipated E major chord.

⁴¹ Stephenson, *What to Listen for in Rock*, 87.

6.11 Prolongation in pre-chorus 1/pre-chorus 2 in “Shiver.”

E: | V7 *prolongation* I7 ||

B: || ii | V7 | ii | I | V7/IV | IV7 ||

g#: | i7 III+ | i6 III+ | III bII#11 | i6 III+ | #vi07 | (3)VI7 ||

The chorus is unified between the melody and the harmony, both asserting B as the tonal center. The harmony and accompaniment remain unchanged from the earlier chorus, but this time the vocal melody is added.

6.12 Chorus melody in “Shiver.”

Several factors indicate B as tonal center in the melody. The assertion of the pitch B throughout and the presence of a structural P4 between the B and F#. Lastly, the octave leaps and boundary tones also indicate B. This does change slightly in the last two measures of the chorus. Here, the melody gravitates once again to G# by outlining a G#

minor triad. This is in contrast to the first instrumental chorus, where the lead guitar part continued on in B (see Ex. 6.4). Notably, the lead guitar part is still present in this and subsequent choruses. It is only in the last two measures of the chorus, then, that there is ambiguity between melody and counter-melody.

The bridge begins the same way as the introduction, and because of this, E becomes the tonal center almost instantly. The ascending guitar line and repetition of EM7 for three measures (the longest period a single harmony has been heard without interruption) makes this clear.

6.13 Melody in bridge of “Shiver.”



Once the melody begins, it becomes unclear if E is in fact the tonal center of the bridge. While containing the strong 4-3 motion in E major at the end of the phrase, the rest of the melody is reminiscent of the end of the chorus. Indeed, the lyrics of the last two measures of the chorus are repeated in the bridge. This would indicate that while it initially seems as though the bridge is in E, the melody might actually be in B or G#. The bass motion beginning in the third measure of the bridge helps to continue this ambiguity.

6.14 Bass line in bridge of “Shiver.”



The C# that leads to the B major chord could sound like 2-1 in B major, as well as 6-5 in E major. This could change the harmonic interpretation of the bridge from I-V-IV in E major to IV-I-bVII in B major. This change in perception could also be due to the descending relationship of the harmonies (double plagal cadence), and because the B major chord begins the progression, marking the beginning of the hypermeasure.

During the last chorus of the song, the vocal line shadows the lead guitar.

6.15 Melody in final chorus of “Shiver.”

The image shows three staves of music in treble clef. The first staff has four measures: G4 (quarter), A4 (quarter), B4 (quarter), C#5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter). The second staff has four measures: G4 (quarter), A4 (quarter), B4 (quarter), C#5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter). The third staff has four measures: G4 (quarter), A4 (quarter), B4 (quarter), C#5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter). There are various slurs and ties throughout the piece.

The pitch content and melodic contour remain the same as in the introductory chorus, but as with previous choruses, the melody ends by outlining a G# minor triad.

The outro begins in a similar fashion to the verse. However, this time the harmony remains in E, and the melody can be interpreted in either E or G#.

6.16 Outro of “Shiver.”



As mentioned earlier, the substitution of G# for E happens in several places throughout “Shiver.” In this final section both tonalities overlap: E is emphasized in the harmony, and G# in the melody.⁴² The song’s last cadence, which ends on an E^{add9}, does not have the finality of an authentic cadence. Yet it also does not end deceptively. In his article, “The Cadential IV in Rock,” Temperley discusses types of *sectional* plagal cadences, that is, plagal cadences that occur at the end of a verse-chorus unit.⁴³ A subset of these sectional cadences are *plagal stop cadences* (e.g., “Barracuda” by Heart, near the end of the chorus). Temperley’s criteria for a plagal stop cadence include:

⁴² The starred note, while sounding closer to an A#, might actually be a B, in keeping with the pattern set up in the previous three measures (and throughout the song). Either way, it still helps to establish G# as tonal center.

⁴³ Temperley, “The Cadential IV,” 2.

In the instruments,

- a harmonic arrival on IV on a downbeat, followed by rests or a break in the accompaniment texture (the *stop*);
- a move to I on a subsequent downbeat, coinciding with the beginning of the next verse-chorus unit;

In the vocals, a melodic line that continues through the stop with the phrase finishing on or near the move to I.⁴⁴

Because of the difficulty in ascertaining a tonal center throughout “Shiver,” finding situations that meet all of the criteria is problematic. There are, however, three moments in “Shiver” that contain the *essence* of the plagal stop cadence: both occurrences of the end of pre-chorus 2 and at the end of the bridge leading into the final chorus. In these instances, there is plagal motion (always E-B) with the arrival of the next harmony on the next hyper-downbeat. While not stopping fully, there is a reduction in the texture of the accompaniment in pre-chorus 2 and a change in the texture at the end of the bridge.

Nowhere is there a stronger case for the subdominant functioning structurally as dominant than in these instances.

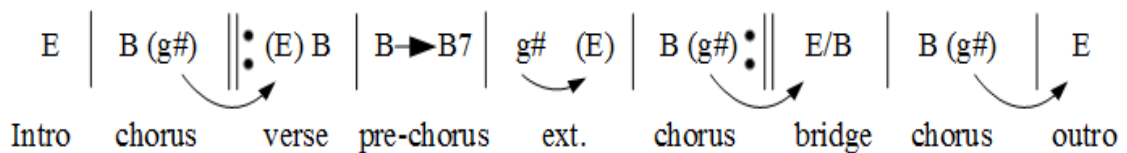
Temperley does not address songs that end on IV (or what is perceived to be IV) without resolution. This is exactly what happens in “Shiver”: the final cadence and the harmony are unresolved. Temperley does discuss what he calls the *grand plagal cadence*: “a harmonic gesture that occurs only once in a song, near the end, and has a cadential impact; in most cases (though not all), the pre-tonic harmony is accompanied by a

⁴⁴ Ibid., 6.

fermata.”⁴⁵ Temperley notes that in almost every case, IV is the pre-tonic harmony. It is also important to note that does not conclude the song but occurs *near* the end. It seems, then, that what happens in “Shiver” is an *interrupted* grand plagal cadence. However, this implies that there is something missing after the final cadence is reached. Perhaps a more accurate term would be *unresolved cadence*, as there is no indication that more material is forthcoming.

Taking a larger-scale view of “Shiver,” the entire piece operates in three tonal areas, sometimes simultaneously: B, G#, and E. The relationship between these areas is explored in Ex. 6.17.

6.17 Tonal relationships in “Shiver.”



The tonal areas at work throughout the song follow a pattern that moves from B to E, through G#, and this pattern is reflected in the melodic structure through the use of three-

⁴⁵ Ibid., 9.

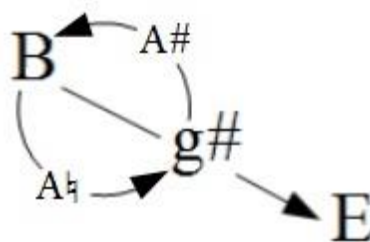
note motives spanning a minor third (and one major third), with the note in between sometimes filled in.

6.18 Examples of three-note motives in “Shiver.”

Description	Motives	Example
Opening guitar line	C#-D#-E	
Chorus guitar line	C#-E; G#-B; D#-B	Ex. 6.4
Vocal line in verse 1	F#-D#	Ex. 6.5
Vocal line in pre-chorus 1	A#-B-C#	Ex. 6.7
Vocal line in verse 2	G#-A#-B	Ex. 6.6
Bass line in pre-chorus 2	G#-A#-B	Ex. 6.9
Vocal line in bridge	B-An-G#	Ex. 6.13
Vocal line in final chorus	D#-C#-B	Ex. 6.15

Ex. 6.18 shows the most prominent instances of the three-note motive, but it is not difficult to find this idea at work in other locations throughout the song. These motives are important because they help connect the large-scale tonal areas and facilitate movement between them. It is also worth noting that the pitch content of the above table contains all of the pitches in both B major and E major: E-F#-G#-An-A#-B-C#-D#.

6.19 Tonal ambiguity between B and E in “Shiver.”



Because both pitches (A# and An) are present throughout the song, the ambiguity between the two prevailing tonal centers is heightened. G# thus plays an important large-scale role by either initiating the change in harmony (G#-A#-B), or serving as the goal of the change (B-An-G#).

In “Shiver” the melodic-harmonic disconnect present in the other songs is less apparent, while tonal ambiguity is perhaps more present. This is due in part to the relative major/minor relationship between B major and G# minor, and because of the prominence of the structural IV chord (E major). The chorus chord progression perfectly encapsulates the relationship between these tonal areas and how it creates tonal ambiguity. The movement between the first three chords sets up an expectation that is frustrated by the last chord: I-v-bVII-vi. If the pattern had continued, IV would have been the last chord, something discussed above (see Ex. 6.4). Instead, the relative minor is presented as the last chord in the hypermetrical unit. This chord acts throughout the song as a transition between I and IV, and also shares two common tones with both. As a result, tonal ambiguity is fostered when moving between sections and tonal centers.

Chapter 7: Conclusion

I have chosen to analyze these five songs to showcase prominent examples of tonal ambiguity and melodic-harmonic disconnect. In both “Shiver” and “We Never Change,” all of the elements of the disconnect are present but have not yet taken root. These two songs from Coldplay’s first album, *Parachutes*, are dominated by tonal ambiguity (the tonal center is difficult to ascertain due to the assertion of multiple tonal centers) and not full-blown melodic-harmonic disconnect (i.e., melody and harmony operating in different tonal areas simultaneously). This could be because the melodic lines and harmonic progressions share relative major/minor pitch space (e.g., B major/G# minor). The result is confusion when identifying tonal areas, but because the pitch content is the same, the melody often “leans” toward one pitch center or the other.

It is not until the second album, *A Rush of Blood to the Head*, that the elements of melodic-harmonic disconnect begin to appear in earnest. This disconnect is a result of the fifth relationship between the melody and harmony, i.e., the melody often operates in a tonal area a fifth away from the harmony. The pitch content of the melody and harmony are different (usually by one pitch) as a result.

By Coldplay’s third album, *X&Y*, the melodic-harmonic disconnect is prevalent and the tonal ambiguity, while still present, moves to the background. In “Speed of Sound,” there is little or no harmonic movement between the second and third hypermeasures. The lack of harmonic motion coupled with the placement of the chord on the downbeat of the third hypermeasure creates an expectation which is never realized.

This can generate a sense that the static chord changes its function, which in turn can alter how tonal centers are perceived.

Four of the five songs analyzed use minor v chords, which can help set up the melodic-harmonic disconnect. The minor v is always preceded by a chord that is a P4 above, or P5 below, making it difficult to determine which chord is the tonal center; indeed, both often operate simultaneously. In “Clocks” and “Warning Sign,” the altered pitch in the harmony (b7) acts simultaneously as 4 in the melody. The exception is “Warning Sign,” which, while exhibiting melodic-harmonic disconnect during the verse, does so by other means, namely through use of the major II. This introduces #4 in the harmony, which becomes 7 in the melody.

Also prevalent throughout these five songs is the use of IV in structurally important moments. In common-practice period tonal music the V-I relationship is of utmost importance. A common feature of rock music in general, and these songs in particular, is the use of IV where V is expected in common-practice era pieces: IV becomes the new V. In these songs, the subdominant often ends hypermetrical units, and in the case of “Shiver,” the whole song ends on IV without resolution.

There are other similarities between these three albums, namely, two strains of chord progressions. Interestingly, the verse chord progression of “Warning Sign” can be seen as a combination of both of these strains. The progression is: Ab-Eb-Bb-F; S-T-D-D/S. The first half of the progression contains harmonic functions from the second strain, while the latter half contains functions from the first.

7.1 Chord progression strains

Song	Chord Progression	Section of song	Harmonic function
“Shiver”	B-f#-A-g# I-v-bVII-vi	Chorus	T-D-S/D-T/S
“We Never Change”	b-f#-E-b i-v-IV-i	Coda	T-D-S-T
“Clocks”	Eb-bb-bb-f I-v-v-ii	Verse/ chorus	T-D-D-S
“Warning Sign”	----	----	----
“Speed of Sound”	A-e-e-D I-v-v-IV	Verse	T-D-D-S

Song	Chord Progression	Section of song	Harmonic function
“Shiver”	----	----	----
“We Never Change”	-b-f#-E iv-I-bVII	Pre-chorus/ final chorus	--S-T-S/D
“Clocks”	Gb-Gb-Db-Ab IV-IV-I-V	Bridge	S-S-T-D
“Warning Sign”	Eb-g-Bb-F IV-vi-I-V	Chorus	S-T/S-T-D
“Speed of Sound”	G-b-D-G IV-vi-I-IV	Chorus	S-T/S-T-S

What this chart shows is similarly functioning chord progressions throughout across sections in the five songs. There are distinct key areas at work in the different sections of the songs, and sometimes two key centers are emphasized at the same time (melodic-harmonic disconnect). Also, all of the songs have moments when the stratified pitch content becomes unified and both melody and harmony work together within one

tonal area. The move from stratification to unification is a strong characteristic of Coldplay's music, not just in these examples. It is my hope that this paper will serve as a foundation for further exploration into the characteristics of tonal ambiguity and melodic-harmonic disconnect, which make the contrast between stratified and unified sections all the more striking and memorable.

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Discography

1. Berryman, Guy, Jon Buckland, Will Champion, and Chris Martin. *Parachutes*. Coldplay. ©2000 by Parlophone. Parlophone 0 6700 30162 2 3. Compact disc.
2. Berryman, Guy, Jon Buckland, Will Champion, and Chris Martin. *A Rush of Blood to the Head*. Coldplay. ©2002 by Capitol Records. CDP 7243 5 40504 2 8. Compact disc.
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