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Review of The Musical Language of Rock by David Temperley

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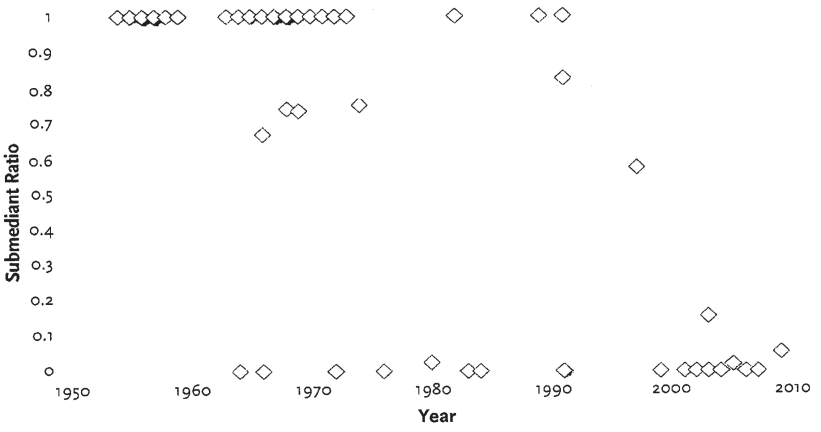
The Musical Language of Rock

by David Temperley
New York: Oxford University Press, 2018. 292 pages + xv.

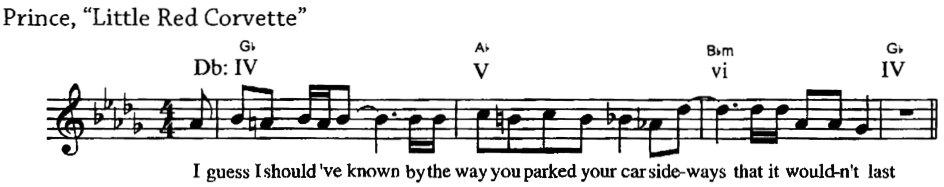
Reviewed by CHRISTINE BOONE

In *The Musical Language of Rock* (Oxford University Press, 2018), David Temperley bites off a lot, and manages to chew most of it. This book is well-organized, has a wealth of musical examples, and lets musical content guide analysis. Temperley states in the preface that he hopes to appeal to "an audience beyond professional music theorists" (xi), and maintains that any reader with some experience reading musical notation and basic music theoretical concepts could understand the book. While this may be technically true, I cannot imagine that it would keep the interest of anyone other than a music theorist or theorist-in-training. There are certainly exceptions, but I think it is fair to say that examples like Temperley's Example 11.3 (reproduced here as Example 1), which plots the ratio of natural scale degree six to flat scale degree six for songs in the minor mode by year, would be of interest to only the most dedicated musical amateur. However, I think the book is of interest to, and will be used widely by, those of us who teach graduate and upper-level undergraduate courses on the analysis of popular music.



Example 1.
The submediant ration in minor melodies in the *Rolling Stone* corpus.
(Reproduced by permission of Oxford University Press, from Temperley 2018, 252).

The book is divided into eleven chapters, including an introduction, six chapters each on a broad range of musical facets (scales and key, harmony, rhythm and meter, melody, timbre and instrumentation, and form), one unusual chapter on emotion and tension, two chapters intended to guide the reader toward doing her own analyses on rock music, and a final chapter that attempts to place this music in a broader historical and stylistic context. Each chapter is divided into subsections, which will make note-taking and extracting key points easier for students. The text is also filled with examples. Some are statistical, like the one shown above, but many are musical examples designed to illustrate a specific point about a song's construction. See, for instance, Example 2, showing raised scale degree 5 and raised scale degree six in Prince's "Little Red Corvette." Temperley uses both Roman numerals and lead sheet chord labels for all harmonies, ensuring that musicians from a variety of backgrounds can read them, but also perhaps making it easier to perform these examples in the classroom. The companion website features all of the musical examples in audio format, performed by the original artists. Even today, when you can easily find all of these tracks on YouTube or other streaming services, it is nice to have them collated in a single location, and cued up to the timing of each example. In addition to references, Temperley also helpfully provides an index of subjects and authors, as well as an index of musical artists and songs.



Example 2.
Raised $\hat{5}$ and raised $\hat{6}$ in "Little Red Corvette."
(Reproduced by permission of Oxford University Press, from Temperley 2018, 26).

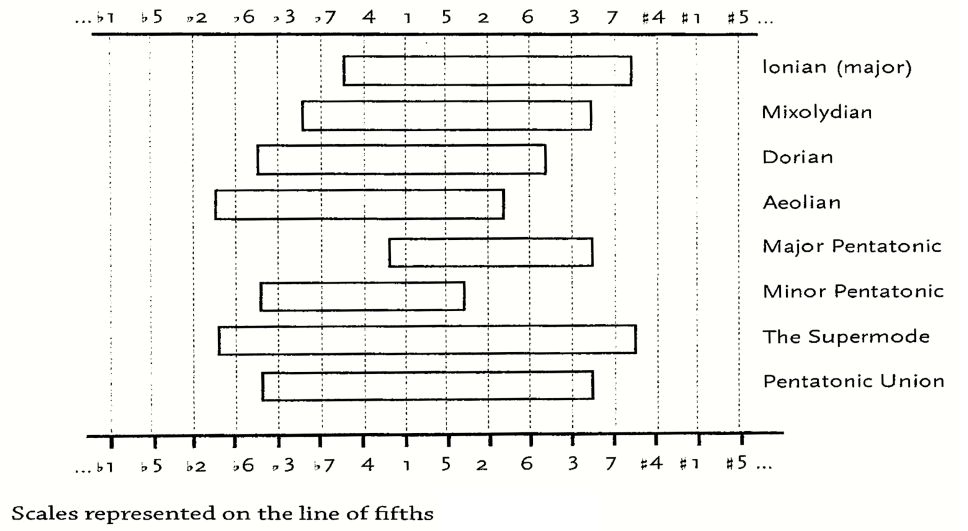
Questions at the end of each chapter, including the introduction, are intended for either classroom discussion or homework. Within each chapter, they go from more specific and factual to more open-ended and analytical. For example, the first question at the end of Chapter 3 asks the reader to analyze harmonic progressions and identify linear patterns, while the last question asks them to comment on the concept of dominant function with the absence of a leading tone. When I use this book with a seminar class, I can already tell that these questions are going to come in quite handy. They are the kind of questions that we, as instructors, could come up with on our own, but will doubtless prove to be a time-saving device.

Temperley explains his methodology in Chapter 1 ("Introduction"). His goal in *The Musical Language of Rock* is to focus on the "purely musical" dimensions of rock music, although he acknowledges that rock songs have both lyrics and a socio-historical context. I would argue that none of these aspects are quite so easily separable, but he doubles down on his commitment to the purely musical: "I believe that, ultimately, the explanation for the enjoyment of rock lies largely in its purely musical aspects. It is here, I submit, that we will find answers to the really big questions: why some songs are pleasing and effective while others are not, and why the rock style 'works' as a whole and is capable of yielding so much pleasure and satisfaction" (11-12). This separation of music and context is what allows Temperley to pack so much material into a single book, but in my opinion, considering only "purely musical" factors can never create a complete analysis. (To be fair, his sample analyses at the end of the book do include these extramusical facets.) Temperley uses both traditional methods of music theory, in addition to statistical analysis gathered from a corpus study that he undertook with Trevor de Clercq in 2011. The corpus includes the top twenty songs from each decade of *Rolling Stone*'s "500 Greatest Songs of All Time" ("all time" meaning 1954-1999, in this case). To Temperley's credit, he is well aware of the limitations of the methodology and of the collection of songs included in the corpus study. Also in this introduction, he defines what he means by "rock": songs with a relatively common musical language, from the second half of the twentieth century. Refreshingly, he addresses the potential controversies around using concepts borrowed from common-practice music, divorcing music from its socio-historical context, and some potentially subjective moments in analysis in a straightforward manner, making it clear that his analyses are focused on description, not prescription, and on appreciating the special moments of rock music in the context of stylistic norms.

Chapters 2–8: Musical Characteristics of Rock

Chapter 2, "Scales and Key," is perhaps the most useful and novel contribution in the entire book. Temperley begins with a brief survey of the existing literature on scale collections in rock (e.g., Biamonte 2010, Moore 1992 and 2001, and Everett 2010), and then presents his own theory, which is summarized in a diagram that he calls the "line of fifths," shown in Example 3. The line of fifths is essentially a line of scale degrees that ascend by fifth from left to right—an unrolled circle of fifths, but with scale degrees instead of keys. He presents the circle in a linear fashion, likely because we are used to seeing scales in this way. The circle of fifths implies that

sharps and flats are enharmonic, as we see at the bottom when C-sharp and D-flat major are shown in the same location; the line of fifths does not do this—$\sharp\hat{5}$ is not the same as $\flat\hat{6}$. All of the pitch collections that Temperley (and others) find in rock music can be laid out on this diagram in a compact manner; i.e., there are no gaps between fifth-related pitches in these scalar collections. As the book progresses, Temperley references this line and comments on certain pitch collections being more toward the sharp side or the flat side of the line. Interestingly, he reports that based on data from the *Rolling Stone* corpus, there does not tend to be a clear-cut division between songs in major and songs in minor; rather, there is more of a continuum between these two poles. There is a lot of detail in this chapter, and some of the statistical examples are difficult to interpret, but the overall conclusion seems to be that "scale structures in rock are highly complex [compared to those in classical music] and cannot be reduced to two or even a few simple categories" (33). Certainly, the line of fifths does a great job of combining scales used in rock music into a single, unified theory.



Example 3.
Scales represented on Temperley's "line of fifths."
(Reproduced by permission of Oxford University Press from Temperley 2018, 23).

Chapter 3, "Harmony," begins by consulting the *Rolling Stone* corpus to reveal that rock music is constructed mainly with triads, major being more common than minor; and that augmented and diminished triads are rare. Additionally, most chords are in root position, seventh chords sometimes occur and are usually dominant in

quality, and there are sometimes open fifths ("power chords"). Temperley arranges the triads found in the corpus on a frequency table (44). The table might be difficult for students to read, as it uses proportions, but it reveals that I, IV, and V are the most commonly-used chords in rock music. He then uses the line of fifths again, to show us that not only are I, IV, and V adjacent on it, but if we expand our view and look at the twelve most commonly-used harmonies in rock music and the pitches they are constructed from, they too are adjacent on the line of fifths. Temperley calls this collection of chords the "supermode." Regarding harmonic progression, he again turns to statistical analysis and maps how often each chord goes to each of the other chords in the corpus. The result is a complicated, but very revealing, table (47). The table shows that harmonic motion in rock is quite different from that in classical music, demonstrating symmetrical, rather than progressive, movement between chords (for example, in rock music V moves to IV just as often as IV moves to V). The chapter also offers detailed information about common harmonic schemata, linear motions that result in harmonies, and cadences.

Chapter 4, "Rhythm and Meter," uses Lerdahl and Jackendoff's metrical hierarchy grids[1] to illustrate meter and hypermeter in rock. Using this analytical model reveals that rock music does not behave like the common practice music the model was designed for: Temperley's overall conclusion is that metrical ambiguity is fairly rare in rock. He devotes the majority of the chapter to syncopation and cross-rhythm, the most common of which is the "anticipatory syncopation." This is shown clearly with corpus data, where he plots phenomenal accents that occur on each eighth note of a 4/4 meter. He theorizes that, unlike with classical music, listeners do not hear these anticipatory syncopations as destabilizing the underlying meter. Two sections from Michael Jackson's "Billie Jean" are transcribed in his Example 4.6, along with recomposed "de-syncopated" versions (74). Temperley provides the recomposed examples to suggest that perhaps listeners are "unconsciously inferring something like" this, where the stressed syllables come directly on the strong beats, rather than immediately before them (75). I am wary of recomposed examples, and I cannot say that I agree with Temperley here, although I do agree with the first part of his sentence: "I would suggest that we hear the metrically weak stressed syllables in 'Billie Jean' as 'belonging' on the following strong beats—perhaps unconsciously inferring something like the 'de-syncopated' rhythm shown on the second staff; in this way, the syncopated events are understood as being quite compatible with the underlying meter" (75). We somehow understand that the stressed syllables "belong" on the following strong

1 Lerdahl and Jackendoff (1983, 12–25).

beats, but I am not sure that we (even unconsciously) infer the recomposed, squarer version of the rhythm.

Chapter 5, "Melody," uses Lerdahl and Jackendoff's hierarchical grouping,[2] but initially only on a small scale, as large-scale grouping falls under form. As in the classical music that the theory was designed to treat, melodic groups do not necessarily correspond neatly with hypermetrical groups. Temperley makes a useful distinction between beginning- and end-accented motives, and identifies common melodic/rhyme structures in rock. He succinctly explains the concept of the melodic-harmonic divorce[3] and gives several examples before delving into mediant mixture. $\hat{3}$ and $\flat\hat{3}$ are often used in the same song—either both in the melody, or in the melody and harmony at the same time. The most interesting example is a cross-relation in "Birthday" by the Beatles: $\hat{3}$ and $\flat\hat{3}$ are heard in different voices, and Temperley analyzes this as the simultaneous use of two different pentatonic scales. This chapter seems slightly less well-organized than the previous ones, and seems to devote a lot of space to concepts that do not apply to a large group of songs, or revealed that there was not a consistent melodic pattern in rock. For instance, after spending a significant amount of time talking about "blue notes" and searching for them, it is revealed that true blue notes in rock are, in fact, fairly rare.

Chapter 6, "Timbre and Instrumentation," paints with very broad strokes. Temperley acknowledges at the beginning of the chapter that timbre can be difficult to discuss, and that instrumentation is a quite complicated topic, but then proceeds to give a lot of information very quickly, and without a lot of detail: a basic introduction to acoustics and overtones, a comparison of isolated snare drum sounds described with different adjectives, and a quick touch on the ecological theory of perception.[4] Regarding instrumentation, Temperley goes through the most typical rock instruments (guitar, voice, drums, bass, and keyboard) and briefly describes the most common ways that they are employed in rock songs; for example, the bass line (usually played by a bass guitar) typically plays the roots of chords, and many rhythmic patterns can be used, either supporting or complementing other rhythmic patterns in the texture. The most useful information in this chapter is perhaps the introduction to drum notation (123–25). While this is something that percussionists are already familiar with, other students will find it a helpful primer. One of the questions at the end of

2 Ibid., 36–40.

3 Moore (1995).

4 See, for example, Gibson (1966) and Clarke (2005).

the chapter instructs students to "do a timbral analysis" of a song of their choosing; it is not clear what exactly this would look like, however. The main takeaway regarding timbre is that because of electronics and studio wizardry, rock music offers almost unlimited timbral possibilities.

Chapter 7, "Emotion and Tension," is the strangest and shortest chapter in the book. In the introduction, Temperley makes a specific point to say that this book is concerned with the "purely musical," which he can account for as measurable data. This does not seem to allow room for emotional content. The inclusion of this chapter, given this declaration, is surprising. He uses the "circumplex model" of affect, a two-dimensional map that comes from the field of psychology,[5] to map the energy and valence (positivity/negativity) of songs on two axes. Locating songs on this conceptual map, however, especially with regard to emotional valence, seems to me an incredibly subjective task that would be difficult to theorize in this way. Temperley's hypothesis is that songs whose pitch collections are farther toward the flat side of the line of fifths are more negative in valence, while those that lean toward the sharp side are more positive. His first example compares "She Loves You" by the Beatles to "Satisfaction" by the Rolling Stones. He claims that the purely musical content (not including lyrics) of "She Loves You" is "thoroughly positive, while 'Satisfaction' projects a darker feeling" (139); this is allegedly because of their location on the line of fifths. But it is not clear to me that "She Loves You" *is* more musically positive than "Satisfaction." Positive valence is not a measurable quality in the same way that pitch content is. It seems that emotion in music proves to be so important that it is impossible to ignore, even by someone beholden to quantization. I will say that Temperley does a good job describing the facets that can lead to the perception of higher and lower energy in a song; for instance, he finds that virtually the only difference between "hard rock" and "soft rock" is energy level. That is, even with the same instrumentation as a soft rock song, hard rock "tends to be louder, higher in [vocal] melodic register. . . faster in tempo, and brighter in timbre," all characteristics that contribute to a rise in energy level, and therefore, a different genre of rock (141).

Chapter 8, "Form," returns to the purely musical. Temperley offers a historical look at form in rock, discusses melodic structure and form of songs that use the 12-bar blues pattern, and then examines the musical features (based on de Clercq 2012) that allow listeners to distinguish between formal sections of rock songs. Temperley notes that after a few seconds of listening to an unfamiliar rock song, we can usually tell whether we are listening to a verse or a chorus; this chapter does an excellent job

5 See Russell (1980).

of distilling exactly what musical cues provide this information. He notes that there are exceptions, especially songs that have ambiguous choruses. I have a single bone to pick, and that is with his analysis of Green Day's "Longview," where he reads the chorus of the song as a pre-chorus (169). Temperley is trying to show that calling a section a prechorus requires a certain degree of "completeness" closing off the section immediately before it. He convinces me that a section I might have called a prechorus in Madonna's "Like a Virgin" is, in fact, an extension of the verse that precedes it. The verse in "Longview" is, indeed, more complete, but the separate section that follows it ("Bite my lips and lose my eyes/take me away to paradise") has all the characteristics of a chorus. Despite that misreading, this chapter does a particularly good job of synthesizing the work of other theorists around form in popular music, which makes it a potentially efficient resource for busy seminar students.

Chapters 9–10: Analysis of Rock

Chapter 9, "Strategies" gives examples of certain structural patterns in rock music that involve multiple musical factors. For example, nearly every rock song begins with two iterations of a "verse chorus unit," but what happens after those iterations can be different. Temperley also uses this chapter to discuss patterns of tension and shape over the course of entire songs. "Tensional curves" show changes of tension and density in a song, and there are a few types of curves common to rock. He finds that energy often increases throughout songs, which intersects nicely with Brad Osborn's terminally-climactic form (Osborn 2013). Scalar and tonal shifts (modulation) are also discussed in this chapter. Temperley returns to the idea of pitch collection reflecting emotional valence here, but it is more convincing in this context than it was in Chapter 7. Shifts toward a "sharper" pitch collection "tend to have more positive implications" (208). I find this claim to hold more water here for two reasons: first, listeners are comparing two sets of pitch collections in the same song, and listening to the progression from one to the other; and second, Temperley talks about lyrics for the first time in this chapter, using them to reinforce analytical conclusions about emotional valence. For example, in Bon Jovi's "Livin' on a Prayer," "the E Aeolian verse details the struggles of blue-collar life. . . while the G Ionian chorus reflects hope for a better future."

In Chapter 10, "Analyses," Temperley analyzes six songs, in an attempt to synthesize information from earlier chapters to show what is normative and what is unusual in each song. Each analysis does this effectively, and he allows the songs themselves to shape the analysis. Rather than trying to fit them into preconceived

molds, he takes each song as it is, explains its salient features, and admits when he is not sure what to make of something (like the lyrics of "Philadelphia Freedom" by Elton John). The questions at the end of the chapter present six more songs for analysis, guiding students toward particular musical features to focus on.

Chapter 11 and Final Thoughts

Temperley begins Chapter 11, "Rock in Broader Context," by comparing the musical features of rock music to those of its immediate predecessors (common practice, Tin Pan Alley, the blues, classic jazz, and gospel). It is revealed that rock music was not a result of a single one of these styles evolving, but rather, shares certain features with each of these other genres. He then discusses historical changes in rock, including two major slowings of tempo, increased complexity of harmony, a change from swung to straight eighth notes, a move from $\hat{6}$ to $\flat\hat{6}$ in minor melodies, and an explosion of styles of rock in the 1960s. A few genres within rock are also categorized by their different features, but Temperley is sure to point out the musical characteristics that pervade all of these subcategories, making them all fit under the umbrella of "rock." He also mentions other popular genres that are not considered rock, the most interesting of which is country music, which has always existed alongside (and sometimes overlapping with) rock. Temperley observes that most of the defining musical features of country music are similar to those of rock: "So why do I not consider country part of rock music? My answer is simple and unsatisfying: because nobody else does" (256). He is correct: genre is largely based on social use, not musical content. He then quickly discusses changes that have occurred in rock music since the year 2000 (where the *Rolling Stone* corpus data ends) using a much smaller set of songs. There are some differences (e.g., the fadeout has become less popular), but for the most part, post-2000 rock seems to be quite similar to that of earlier decades.

Temperley concludes by saying that rock has been such a lasting and popular genre because its musical features lend themselves to great expressivity. "[M]uch of the greatness in individual rock songs," he says, "lies not in the revolutionary smashing of rules or pushing of frontiers, but in the subtle, incremental, skillful manipulation of conventions" (264).

This is a valuable book for use in a graduate or upper-level undergraduate seminar on rock or other popular musics. It does a thorough job of compiling and summarizing the existing literature on popular and rock music, laying out the standard musical features of the genre, and although it overuses analytical concepts in earlier chapters to

make rhetorical points, Temperley uses the later chapters to demonstrate his sensitive musical ear, and that good musical analysis is not a one-size-fits-all procedure. Notably, this book could also be useful in the undergraduate core curriculum. An instructor could include examples from Chapter 2 (Scale and Key), for instance while covering the diatonic modes. She could use some of the questions at the end of the chapter as fodder for in-class discussion and activities, or even as homework assignments. I can easily imagine my classroom of undergraduate ear training students doing an aural analysis of "Evil Ways" by Santana, and trying to determine its tonic and mode. Chapters 3 (Harmony), 4 (Rhythm and Meter), 5 (Melody), and 8 (Form) could all work well as supplemental resources for the undergraduate core music theory and aural skills classes.

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