## A Pop-Rock Theory for the Future: A Response to Christopher Doll and Joseph Swain

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In the last issue of this journal, Christopher Doll and Joseph Swain tackle a question facing many instructors of music theory today: how (or whether) to incorporate pop-rock music into an undergraduate tonal harmony course sequence, which has traditionally been taught primarily (if not exclusively) via examples from the common-practice period of Western art music (hereafter, 'classical music') (Doll 2013, Swain 2013). Discussion of this topic is not new (as the citations in Doll's opening paragraphs show), but a standard solution has yet to prevail within the theory community. Perhaps the most central problem - as both Doll and Swain acknowledge - is that pop-rock and classical music appear to have fairly different harmonic languages.<sup>1</sup> Each broad style can be said to have its own set of typical chord progressions, chordal inversions, and harmonic entities.<sup>2</sup>

Because of these differences, an argument can be made that each style should be discussed completely on its own terms and taught in its own dedicated course. This is the basic stance that Swain takes in his response to Doll. To support his view, Swain makes the analogy between learning a musical style and learning a language. A course designed to teach Standard American English, for instance, must identify its conventions of grammar and vocabulary, particularly as these conventions are distinct from those of other English dialects. In the same way that French is not 'Spanish with a twist', as Swain implies, the harmonic syntax of pop-rock music cannot be considered to be some version of that found in classical music (or vice versa).

There are a few practical concerns, however, that complicate this analogy (and likewise complicate its implementation across theory curricula). For instance, language course titles are explicit as to what language is being studied: one studies French in a French course. In contrast, the titles of music theory courses are often much less clear as to what specific style is covered. In the American system, core undergraduate theory courses typically have stylistically-generic titles, such as 'Harmony I' or 'Music Theory II'. Instructors may (and often do) state in their syllabi that the goal of these classes is to study the style (broadly-speaking) of the common-practice period. But if that were indeed the goal of core undergraduate music theory coursework, then the question of how (and whether) to incorporate pop-rock would seem moot. If at all, pop-rock examples would be used only as supplements, mostly to show how common-practice-period traits can be found elsewhere. It would also seem advisable to change course titles to more appropriately reflect the true course content. ('Music Theory I' might be re-titled 'Elements of the Classical Style'.) Otherwise, the current system would be like a bait-and-switch, as if someone were to sign up for an introductory course in linguistics but end up receiving instruction in seventeenth-century Italian.

To date, the titles of core theory offerings remain stylistically-generic. One factor may be the logistical hassle of retitling an entire set of course offerings. But the more likely reason is that core undergraduate theory classes teach more than just the style of the common-practice period. Unlike a foreign language course, where we can assume a student already has fluency and some formal training with the mechanics of at least one language, music theory courses cannot assume that a student has fluency with the mechanics of any musical style. Most incoming undergraduates are unable to improvise ('speak') or compose ('write') music

- For example, de Clercq and Temperley (2011) show that root motion in pop-rock music is distributed more symmetrically across a line of fifths, in contrast to the asymmetrical distribution of root motion found in common-practice-era music.
- 2 The Neapolitan sixth chord, for instance, is essentially foreign to pop-rock music.

whatsoever; many can barely read more than a single clef. A large portion of the work done in a theory curriculum, therefore, is introducing students to the basic conceptual elements of music theory (e.g., seventh chords, applied chords, mixture, modulation). All of these concepts could be introduced in a more robust version of a fundamentals course. (There is nothing complex about the notion of an applied chord once one knows how to spell a chord in a key.) But without a musical context, these conceptual elements are too abstract. So we embed the teaching of these conceptual elements within the teaching of musical style(s). Herein lies the crux of the debate: to what extent is a musical style serving to elucidate the conceptual elements of music theory, and to what extent are the conceptual elements of music theory serving to elucidate a musical style? In current music theory curricula, these issues are all jumbled together, which causes tangible frustration and confusion for many music students.

It may be more pedagogically beneficial to make this delineation more explicit. So while I agree with Swain that each musical style deserves its own dedicated course(s), I would not expect students to take such courses without these students first being firmly grounded in the conceptual language of music theory. To do so would necessitate some reorganization of a modern theory curriculum. For instance, students might spend their first year of undergraduate theory coursework (or perhaps one intense semester) just becoming proficient in the technical aspects and terminology of music theory (e.g., how to spell a German augmented sixth chord in E minor). Real music would have to be used, of course, or else topics would risk becoming overly dry. But the music of any style or era would suffice, as long as it reflected the theoretical concepts under study in a typical manner. In this scenario, style-based activities (e.g., part-writing) and their concomitant rules (e.g., the prohibition against parallel fifths) would be absent, since the goal of this preliminary coursework would be to introduce a system flexible enough to discuss, critique, and analyze a broad spectrum of musics. Only after the language of music theory were mastered would a student go on to study the characteristics of specific styles. Second-year students might take a class covering the late Baroque and early Classical era (for which four-part chorale

harmonization exercises would be appropriate); or students might take a class on Jazz music from Swing to Bebop. Similar to music history classes, these courses would focus on a particular era but from the perspective of music theory. Model composition and analysis would be central activities, with the overarching goal of identifying and internalizing the normative traits of a style in terms of harmony, counterpoint, texture, rhythm, etc.

Note that a curriculum along these lines holds one central and significant assumption: that the terminology and language of music theory can be abstracted (at least somewhat) from any one particular style. Yet one might argue that this is not the case. For example, consider the concept of the dominant seventh chord. We could define a root-position dominant seventh chord as four different pitch-classes generated by a particular sequence of stacked intervals (e.g., major third, minor third, minor third). Doing so, the concept seems primitive, even a-stylistic. But by labeling this sonority as a 'dominant' seventh, we have made - for better or for worse - a stylistically-based assessment. The 'dominant' label shows preference for our hearing of this chord as an unstable sonority that desires to move back to tonic, as it typically does in music of the common-practice period. In contrast, the G7 chord of a twelve-bar blues in G has a distinctly stable quality, with no palpable desire to move anywhere. This 'dominant' seventh chord is, in fact, the tonic of the chord progression. Music theorists easily navigate this apparent contradiction by distinguishing between the pitch-class content of the chord and its function. Ideally, we might imagine a system of labels that would facilitate these sorts of distinctions more easily, allowing us to talk about harmonic sonorities in a consistent way across a variety of styles.

It is in the spirit of such an ideal system that Doll chooses to redefine the term 'chord' so as to allow for greater analytic flexibility with regard to different musical styles. In the conceptual framework that Doll introduces, every sonority is considered to be a genuine chord (or 'CHORD'). Doll then offers five distinct categories (temporal location, color, Roman numeral, function, and hierarchical position) that may be used to classify these CHORDS. Equipped with this system, an analyst can classify harmonic sonorities in ways that may otherwise seem incompatible. For instance, we can say that a cadential six-four chord is spelled like a tonic chord (and thus warrants the Roman numeral I), but its function is as a dominant. According to Doll (2013: 92-94), the central motivating factor for this system – in which every sonority is considered a chord – was the desire to integrate the emic approach of pop-rock musicians (who are generally less restrictive as to what sonorities constitute a chord) with the etic approach of classical tonal theorists (who are generally more restrictive).

This generalization - that academic theorists have a higher threshold for what qualifies as a chord than do pop-rock musicians - is one with which most theorists probably agree. The problem, however, is that this comparison downplays the history of chordal identity. In particular, the emic approach to the concept of a 'chord' among pop-rock musicians strongly mirrors that of working musicians during the common-practice era. The best evidence in this regard is figured bass notation, which was the harmonic shorthand prevalent throughout the late 1600s and 1700s. For instance, C. P. E. Bach - in the second part of his famous treatise on keyboard playing - has a chapter on the 'Secundquintenaccord', which we might translate as the 'chord of the second and fifth' (Chapter 10; 1797: 89). As is clear through the examples that C. P. E. Bach provides (reproduced in Example 1), this 'chord' is actually the notation for what a modern theorist would more simply identify as a bass suspension. Admittedly,

classical-era musicians conceptualized the triad as the central member of the category 'chord'; we may infer this from other treatises of the era as well as by the fact that triadic structures require no figures above the bass.3 But poprock musicians also appear to conceptualize the triad as the central member of the category 'chord', as shown by the fact that the most basic chord symbol in pop notation (an upper-case note name, e.g., 'G') represents a triad. In his article, Doll provides an excerpt from a Don McLean song (as Example 1, reproduced here as Example 2) that employs Dsus4 and Dsus2 symbols, which Doll says is indicative that poprock musicians are 'formally and/or informally trained to think in terms of individual sonorities, even in cases where the motion is clearly melodic - not harmonic - in nature' (2013: 93). But the same could be said of classical-era musicians and figured bass notation. How does notating a bass suspension as five-two followed by six-three encourage a common-practice-era musician to not think in terms of individual sonorities, despite the fact that the bass motion is clearly melodic?

As opposed to the vernacular tradition of figured bass, academic study of classical music exists – at least in part – to teach that certain harmonic sonorities should be given greater analytical weight than others. To put this another way: the academic understanding of 'chord' is already an abstraction from one vernacular understanding. So there is no inherent need

## Example 1

A 'chord of the second and fifth' from C. P. E. Bach (1797: 89).



*Example 2* Don McLean, 'American Pie', from intro.



to reconcile this academic understanding with another (i.e., the vernacular understanding of pop-rock musicians). For instance, it seems quite reasonable to say – from an academic standpoint – that the Don McLean example is simply an elaboration of a D chord (and since the song is in G major, simply an elaboration of V). In fact, this hearing is corroborated by most online transcriptions of the song.<sup>4</sup>

This act of discriminating between 'what is' and 'what is not' a chord is an intrinsic feature of harmonic analysis. So while valiant, Doll's effort to reinvent this process via his CHORD concept cannot avoid some basic underlying issues. Doll states, for example, that his system allows 'every sonority to be considered a genuine chord', but this criterion only shifts the question from what constitutes a 'chord' to what constitutes a 'sonority' (2013: 95). Certainly, Doll cannot mean that every musical moment constitutes a sonority (and thus constitutes a unique chord). This approach might be feasible for a classical work, as in his analysis of 'Aus meinen Thränen spriessen'; but it would be extremely unwieldy in a pop-rock song, where there is typically no official notated score.5 (Would every passing millisecond of music be a genuine chord?) Some initial aural analysis is required to parse the sonic landscape into harmonic units, and this parsing process relies on some knowledge of what constitutes a harmonic unit, sonority, or chord - whatever one wants to term it. In short, we must accept some threshold for chord identification.

In fact, Doll does appear to set a specific threshold for chord identification, since one of the five categories by which he categorizes CHORDS is 'Roman numeral'. A CHORD, therefore, is a simultaneity that has a root and exists within some tonal context. But although this new definition of 'chord' is more inclusive than the traditional definition, the same types of problems remain for the analyst. Instead of determining when chords are changing, the analyst must now determine when roots are changing. From one perspective, Doll presents root identification as a mechanical process, auto-generated by

the pitch-class content. For instance, Doll states we should categorize cadential six-four chords automatically with Roman numeral I. But the mechanical aspect of this process breaks down quickly given non-triadic structures. The Dsus2 chord in the Don McLean excerpt consists of the pitch-classes D, E, and A, for example. What makes 'D' necessarily the root of this set of pitch-classes? One might just as easily categorize these pitches as Asus4 (with a bass suspension that does not resolve). The label of 'Dsus2' - a harmonic analysis by an unnamed transcriptionist - is based on some knowledge about typical harmonic progressions in the style (e.g., the analysis 'D - Asus4 - D' is not preferred). So harmonic knowledge factors into the identification of roots, just as it did in the identification of chords under a traditional analytical system.

In this light, we should reconsider the example of the cadential six-four chord. If root identification is not a mechanical process, it seems pace Doll - that we should be able to categorize a cadential six-four chord as having a root of scale-degree 5 with two non-harmonic tones. For Doll, the reason a theorist would categorize a cadential six-four chord as a dominant is hierarchical: on the surface level, there exists a tonic chord in second inversion followed by a dominant chord in root position; whereas at a higher structural level, there exists only a single dominant chord. But hierarchy is not necessarily the only reason for this choice. Another reason could be alignment with standard harmonic syntax. Consider the harmonic progression shown in Example 3, an excerpt from the second movement of Mozart's Bassoon Concerto K.191. It seems odd to say that the applied dominant in m. 45 (V/V) resolves to a tonic, even at the surface level. Instead, it is more grammatically consistent to view this applied dominant as resolving to a dominant (which includes some non-harmonic tones). In other words, there is no valid level in the chord hierarchy at which the V/V chord resolves to a tonic. Why? Because to be a valid level, a sequence of chords should be congruent with

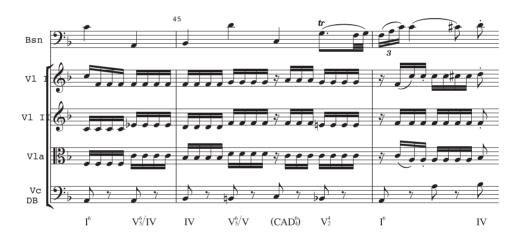
- 4 This is the case given a Google search of 'don mclean american pie chords' (accessed August 6, 2013). For example, http://tabs.ultimate-guitar.com/d/don\_mclean/american\_pie\_ver2\_crd.htm, http://www.azchords.com/m/ mcleandon-tabs-5354/americanpie-tabs-149066.html, http://www.guitaretab.com/d/don-mclean/290284.html, http://www.e-chords.com/chords/don-mclean/american-pie.
- 5 For pop-rock music, the *Urtext* can be said to be the audio recording itself.

our expectations of typical chord sequences in the style, unless there is strong evidence to the contrary. We expect V/V to go to V, and that expectation (or knowledge of the style) becomes part of our hearing and thus our analysis. For common-practice music, we have very explicit expectations about chord sequences, as determined by chord functions: dominants (viio and V) go to tonics (I and vi), pre-dominants (ii and IV) go to dominants, and tonics can go anywhere.6 This syntax is tidily codified under the rubric of the 'phrase model'.7 Undeniably, there is an element of circular reasoning with this type of analysis, in that an analysis based on typical harmonic patterns tends to simply reinforce those patterns.8 But our experience with common-practice music is extensive and has undergone centuries of refinement, a back and forth between theory and analysis.

extent).9 Certainly any unified theory of harmonic progression, comparable to the phrase model in classical music, has yet to gain wide acceptance. As a result, 'function' (one of Doll's five categories for chord identification) remains a problematic notion for pop-rock music, since tonal functions are strongly tied to the phrase model and classical syntax. For instance, should we expect V chords (as 'dominants') to move to tonics in pop-rock music? Statistically speaking, this seems to be the most common situation; but a V chord moving to IV is also relatively common (de Clercq and Temperley 2011: 61). In fact, V-IV motion is strongly expected in a 12-bar blues cadence. Like Walter Everett, we could analyze the IV in a blues cadence as a 'passing subdominant' (2004: §18). But at some point, the V-IV-I blues cadence becomes a model in its own right. For example,

## Example 3

W. A. Mozart, Bassoon Concerto K. 191, II, mm. 44-46.



In contrast, our expectations about chord sequences in pop-rock music are not clear. Theorists have attempted to propose harmonic syntaxes for pop-rock music, but these syntaxes conflict with one another (at least to some Doll analyzes the progression bVI-IV-I, found at the end of the Rolling Stones song 'Hide Your Love' (1973), as a variation on the 12-bar blues cadence (2013: 101). Instead of analyzing the bVI chord as a substitute for the V chord (i.e., as

- 6 Huron 2006 presents statistical evidence in this regard, and he frames this statistical backdrop as our 'schematic expectation' of the style.
- 7 The phrase model, as tonic-predominant-dominant-(tonic), forms the backbone of tonal analytical systems, as in Laitz 2011.
- 8 The tension between theory and analysis is somewhat similar to the tension between the suggestive and the descriptive in theory-building, as discussed in Temperley 2001.
- 9 For instance, Stephenson (2002) classifies the normative root motions in rock music as opposite those in classical music, whereas Everett (2004) analyzes rock music along Schenkerian lines. Moore (2001) offers another view of rock by categorizing it as a modal system.

'dominant' function), Doll labels the VI a 'presubdominant'. In doing so, Doll recognizes the subdominant chord as a bona fide conveyer of cadential quality, distinct from its subordinate role to the dominant.<sup>10</sup> Doll's analysis derives, therefore, not from the classical phrase model but rather from the 12-bar blues model itself.

To summarize, harmonic function is a way to describe our general hearing of and expectations for chord successions, both of which are strongly grounded in a particular musical context. The problem for harmonic analysis of pop-rock music is that we do not as of yet have a general theory of harmonic expectation. We can identify a variety of common harmonic patterns, such as the 12-bars blues, the 'sensitive female chord progression' (vi-IV-I-V), the 'double-plagal cadence' (I-VII-IV), the doowop progression (I-vi-IV-V), or the chromatic lament bass. 11 But a collection of harmonic patterns does not a theory of harmonic functions make. Perhaps we will never have a general theory of harmonic function for pop-rock music akin to the phrase model for classical music. That's OK. We can still analyze harmony in pop-rock music, only it will be against a backdrop of model harmonic progressions (as Doll does in his 12-bar blues example). In this scenario for pop-rock analysis, harmonic function - if we were to use that term at all - would be something much more contextually determined than currently exists for classical music.12 An extant challenge for theorists is thus to identify more of these typical chord progressions in pop-rock. With more harmonic models, perhaps we might one day develop more general categories à la harmonic functions.

Until then, we as theorists will have difficulty talking about pop-rock harmony in hierarchical terms (assuming, of course, that we are not willing to simply plop the classical phrase model onto pop-rock songs). We can separate Roman numerals from harmonic function, allowing any chord to have any function (e.g., a ii chord can have dominant function).<sup>13</sup> We can also invent new functions, like 'pre-subdominant'. But in using traditional function labels, we run the risk of viewing pop-rock music through a classical lens. While this may sometimes be valid, other times it probably is not. So while Doll's chordal identification system is powerful and flexible, it relies on concepts specifically, those of function and hierarchical position - that have yet to be fully worked out in the context of pop-rock music. That is not Doll's fault. Rather, his system looks toward a future where these issues are resolved. I myself look forward to this future very much, whenever it may arrive. But for the time being, function and hierarchy in pop-rock music are topics best handled with caution.

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- 10 Although the 'plagal cadence' is a term found in many theory textbooks, many (if not most) tonal theorists deny that a IV-I progression creates a true sense of cadential closure (see Caplin 2004).
- 11 The term 'sensitive female chord progression' was coined by Marc Hirsch (http://sixfouronefive.blogspot. com); the 'double-plagal cadence' is a term coined by Everett (2004: §11).
- 12 Doll (2007) presents an analytical system for categorizing new and different functions in rock music, but the great flexibility of this system arguably comes at the cost of an explicit methodology for implementing it.
- 13 Harrison (1994) suggests a system like this for chromatic art music of the nineteenth century, in which chordal scale degrees (rather than roots) play the central role in conveying chord function. His approach seems more appropriate for music of the late 1800s, though, since Romantic-era music more obviously descends from the clear tonal functions of the Classical era than does pop-rock music.

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