Distinguishing Predominant and Subdominant Behavior in Functional Analysis

David Tomasacci and Benjamin Williams, The Ohio State University

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The *Einstellung* effect refers to a cognitive predisposition to solve a given problem in a specific manner based on previous experience even though there are more appropriate methods for finding a solution. Aside from the power of this effect to inhibit truly novel ideation, the tendency for the human mind to persist in using a previously useful tool beyond its applicability has great pedagogical implications. That is, students will likely attempt to solve each new problem with the toolset provided by their instructors.

Take, as an example, a typical problem for an undergraduate Harmony course: provide a harmonic analysis for the opening to Brahms' "Wie Melodien zieht es mir" in **Example 1**. An undergraduate music theory curriculum would undoubtedly prepare students to give an impeccably correct Roman-numeral analysis as indicated below the example. Less sure is that students would be prepared to provide a suitable harmonic interpretation beyond the mere descriptive utility of Roman-numerals. This is troublesome given that it is only when students move beyond mere description to actual interpretation that they will be able to transfer the knowledge from the conceptual domain of music theory to the practical domain of performance, composition, education and the like.

The increased significance of the subdominant in music of the late nineteenth-century has posed a serious challenge to various approaches of harmonic analysis. In 1983 Deborah Stein noted:

> The continuous insistence on an equivalence of status between the subdominant and dominant reflects the speculative nature of some eighteenth- and nineteenth-century theoretical discourse. In musical practice, meanwhile, the subdominant never functioned in a manner that was correlative to the dominant.… While Schenker's analytical system accurately depicts the limited function of the subdominant in music of the common-practice period, the relevance of his system for illustrating later nineteenth-century music is limited by his own critical biases and by the inherent limitations of his analytical system.

And yet, not only is it a challenge for experts to pick the best tool for a given analytical job, but rather also for the student and, by correlation, the teacher and pedagogue.

Most contemporary undergraduate theory texts discuss the music of the late Romantic, but there is little agreement on how to discuss the subdominant. While Kostka and Payne's *Tonal Harmony* does not directly address the concept of harmonic functions central to this paper, an examination of some of the terminology used throughout the text may serve to elucidate the problem at hand. In this text—as many others—scale degree four is simply called the subdominant scale degree just as the diatonic triad built upon that scale degree is the subdominant triad. Interestingly, in the chapter on "Harmonic Progression," Kostka and Payne derive their model for tonal chord progressions through successive falling fifths, as shown in **Figure 1**. In their discussion of this progression, the authors mention the term 'function' while expounding on the role of IV in harmonic progression. They state:

> The IV is an interesting chord because it has three common functions. In some cases, IV proceeds to a I chord, sometimes called a plagal progression. More frequently, IV is linked with ii; IV can substitute for ii (going directly to V or vii^{o}), or IV can be followed by ii (as in IV – ii – V).

The authors later refer to the subdominant triad in a IV-V progression as having "predominant function." However, a closer read reveals that in Kostka and Payne's construction, ii, and not IV, is the paradigmatic 'predominant' triad. To reiterate the ambiguity: in Kostka and Payne's *Tonal Harmony*, a subdominant scale degree is the root of the subdominant triad, which may substitute for the structural ii in a predominant progression, but if this subdominant triad proceeds to I, it does so in a plagal progression.

In contrast, Clendinning and Marvin's *The Musician's Guide to Theory and Analysis* does present tonal music through a discussion of harmonic functions. The authors briefly contend with the terminological proliferation of subdominant versus predominant labels. They write:

> Predominant harmonies – ii and IV… - are so named because they typically lead to the dominant harmony within the basic phrase. (Some teachers may refer to this functional area as the "dominant preparation area"; others may call it the "subdominant area.")

Clendinning and Marvin opt for the term 'predominant function' when discussing the progression of the ii and IV chords. It is important to note that in this text, each phrase can receive only one iteration of the T-P-D-T model; all other smaller structural levels (that is, nested T-P-D-T's) are prolongational, and function at no hierarchal levels. A progression such as I-IV-I merely prolongs tonic; the IV chord has no harmonic status or function. Additionally, Clendinning and Marvin argue that the plagal cadence itself is not a structural cadence, but rather a 'plagal resolution' or 'plagal expansion' of tonic.

Ralph Turek's *Elements of Music* is typical in its explanation of the primary importance of the tonic triad in tonal music in conjunction with the triads found a fifth above and below, the dominant and subdominant, respectively. More significant to the matter of harmonic terminology is that Turek differentiates exclusively between subdominant as the fourth scale-degree or triad and predominant as a harmonic function. While Turek admits some direct subdominant-to-tonic motion, he explains that "[the subdominant] more often functions as a **predominant**—a chord that leads directly to the dominant—and is therefore grouped functionally with the supertonic."

Finally, Steven Laitz's *The Complete Musician* provides a framework for tonal harmonic paradigms called 'phrase models.' **Figure 2** illustrates that for Laitz a phrase may minimally comprise TDT. However, composers may also employ predominants or nested phrase models at multiple levels. Notably, Laitz is very specific with the use of the subdominant triad. He writes:

> We have learned that the subdominant harmony can function in two very different ways. In its root position or first inversion…, it occurs as a strong harmonic function: the predominant. In its first inversion, it regularly occurs as a weak contrapuntal chord that expands either I or V.… We now see how IV in root position may be used to expand tonic.… We label the IV an embellishing chord.

The non-status of IV in the harmonic paradigm is similarly transferred to the plagal cadence, which he describes as "peripheral to the harmonic motion," "almost as if it were tacked on to the end of the piece." When Laitz does consider late-nineteenth-century music he insists that IV or II incorporated at a final cadence is a mere dominant substitute, a phenomenon he refers to as the "plagal relation."

Virtually every contemporary music theory text in print today has been significantly influenced by the history of harmonic theories traceable to Hugo Riemann and his successors. Riemann posited the idea that harmonic function involves the grouping of harmonies that share scale degrees. That is, all harmonies may be associated with one or more of the primary triads—tonic, subdominant or dominant—that form together into the prototypical progression TSDT. We can also attribute to Riemann the notions that these functional pillars of harmony maintain authority over a given segment–or window–of music and that particular functions can be transferred to different local scale-degrees. These latter two concepts together form the basis of nested harmonic functions. However, it is only through the work of subsequent theorists that these concepts were more fully explored and codified. For example, **Figure 3** shows Joel Lester's categorization of the tonic, subdominant, and dominant functions, in which diatonic triads are organized by ascending thirds in order to emphasize common-tone relationships.

Eytan Agmon examines harmonic function through the lens of prototype theory. In his theory, the subdominant, tonic, and dominant triads are taken as the prototypes for the harmonic functions of the same name. The remaining triads are grouped according to the number of common tones shared with each of these prototypes, as shown in **Table 1**. The triadic constituents of each harmonic function includes the function's prototype, and all maximally and intermediately similar triads, excluding the prototypes of the remaining functions. **Figure 4** shows Agmon's functional categories. Notable in this construction is that the VII chord is a possible subdominant harmony.

Daniel Harrison took a closer look at the harmonic function of specific scale-degrees. **Table 2** illuminates the fact that the unique chord-member for each of the primary triads is the third, what Harrison calls an 'agent.' The identification of harmonic function with the agent is so strong that Harrison's 'base,' or root, will only be interpreted as such in conjunction with its agent. Harrison argued that it is only through the displacement of agents by step that harmonic progression occurs. Kevin Swinden took this one step further to identify characterizing bass-lines. He noted that harmonic progressions can be identified by the presence of bases or agents in the bass, even if the remaining constituents of the harmony may otherwise be associated with another functional category. For example, a vii^{o7} chord in second inversion will feature scale-

degree four in the bass and can thereby function as predominant to a dominant sonority built on the fifth scale-degree.

Returning to Reimann's notion of local functional transfer, we may examine Gregory Proctor's voice-leading paradigms in **Figure 5**. With respect to Rameau's conception of function as related to local behavior rather than harmonic constituencies, Proctor described paradigmatic dominant motion as lower-neighbor motion to a lower-status element. Conversely, subdominant motion is idealized as upper-neighbor motion to a lower-status element. Consequently, harmonies can be grouped by similar behavior rather than shared pitches or scale-degrees. Most so-called predominants, for example, will behave on a local level like a dominant of the dominant, that is lower-neighbor/lower-status. As such, predominant behavior is distinctively different from subdominant behavior making a term such as 'dominant preparation,' as suggested by Allen Forte, useful for describing such a harmonic event.

Gabriel Miller's 2008 dissertation deals with many aspects of functional theory in order to clarify the term 'function' itself, establishing clear contexts and senses in which we use the term. In Miller's theory, Proctor's voice-leading paradigms become 'behavior' and Agmon's maximal and intermediate similarity, which only apply to diatonic triads, is extended to include chromatically inflected harmonies under the purview of 'kinship.' Furthermore, chords can simply be described according to their 'identity,' using the Roman-numeral system, and functional categories or harmonic windows are analyzed as 'provinces' when interpreting their position within the prototypical T-S-D-T harmonic progression. **Figure 6** shows a passage analyzed with Miller's clarified functional terms of identity, behavior, and province. Notably, Miller's theory provides a useful clarification when discussing the tonic six-four chord of measure three: it has tonic identity, subdominant behavior (in its resolution to V) and functions within the dominant province. However, Miller only ever discusses 'subdominant' functions, and does not differentiate 'predominants,' such that 'subdominant' by necessity takes on distinctively different meanings for 'behavior' and 'province.'

Thus far, we have examined a wide variety of terms and analytical approaches describing what are essentially two distinct phenomena. The non-tonic class of harmonies preceding the dominant is variously referred to as subdominant, predominant or dominant-preparation.

Alternatively, the non-dominant class of harmonies moving directly to tonic has been called subdominant or plagal or ignored entirely as a harmonic event. 'Plagal' labels such as 'plagal progression' or 'plagal resolution' are laden with modal implications, but the 'predominant' label is useful for indicating the prototypical sequence of such a harmony preceding the dominant, and the 'subdominant' label is useful in describing the relationship a harmony exhibits with respect to its progression to tonic. We therefore propose that teachers and students in undergraduate Harmony courses distinguish between 'predominant' and 'subdominant' behavior in functional analysis with these two clear and precise labels.

In practice, we are suggesting that the mostly familiar list of chords found in **Figure 7** may serve as a partial list of sonorities that may be found in either a subdominant or predominant context. Such a list can be made by enumerating chords that share diatonic or chromatic versions of common tones with IV, reflecting Miller's concept of 'kinship.' We focus on scale degrees four and six, Harrison's 'base' and 'agent,' respectively given the identifying nature of these chord members. It should also be remembered that certain chords that are normatively associated with dominant function may behave as subdominant or predominant by the appearance of scale degree four or six in the bass progressing to scale degree one or five, respectively. **Table 3** shows a more flexible itemization of possible harmonic paradigms that expands on the list of common-practice progressions to also include progressions in which subdominant moves directly to tonic. Notice that multiple levels of nesting are possible in any harmonic window, providing students with suitably flexible models with which to approach music of the Romantic era. Furthermore, the appearance of the proposed models may ultimately serve as an important stylistic differentiation between the classical and Romantic styles.

Let us now look at some examples from the literature. **Example 2** shows the approach to the structural cadence of the famous Prelude in C Major from Bach's Well-Tempered Clavier. Notice that a vii^{o7} chord appears immediately prior to the arrival of the dominant. Its appearance in third inversion places scale-degree six in the bass, ensuring that we hear it as predominant. A similar phenomenon is presented in an unambiguous TPDT phrase-model in Sarasate's *Zigeunerweisen*, in **Example 3**. Here again is a vii^{o7} chord as predominant.

An example of subdominant harmonic behavior can be found in an excerpt from Schumann's *Kriesleriana,* no. 5. Here in **Example 4**, not only do we see root motion from scale degree four to one indicating subdominant, we have yet another example of vii^{o7} in a non-dominant context.

Later post-romantic styles and genres may further illustrate the increased prominence of the subdominant function during the nineteenth century. Specifically, **Figure 8** shows the prototypical 12-bar blues progression as an example of the TDST phrase model. In yet another late-romantic style, both the subdominant and predominant function can be seen in the tag ending of **Example 5** from the Barbershop song "You Tell Me Your Dream."**[Please note the following typos in this example: the antepenultimate measure should be analyzed as V^7/V on beat one, still within P function; D arrives on beat 2]**. The traditional Barbershop style makes free use of the so-called 'legal' sonorities Mm^7, dm^7, dd^7 and mm^7. These chord qualities can harmonize any diatonic or chromatic scale degree, and appear in any convenient enharmonic spelling. In this example, a TPDST phrase model includes a weak arrival on dominant on beat two of measure 38, leading to the arrival of subdominant in the penultimate measure. Bass motion from scale-degree four to one clearly indicates the structural subdominant motion.

We will end with Vaughan-Williams' "Dream-land" with its rich harmonic progressions, typical of the late-Romantic. **Example 6** shows the final structural cadence with its extended subdominant harmonic function ultimately leading to tonic. Without being able to distinguish predominant and subdominant behavior in functional analysis, students would be left fumbling, trying to fit a subdominant function into a predominant paradigm. With such a distinction, however, students can be sufficiently prepared to approach music of the late romantic in a way that will enrich their understanding of such music, and inform their appreciation and performance alike.

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Ex. 1. Brahms, "Wie Melodien zieht es mir," op. 105, no. 1, mm. 1–5.

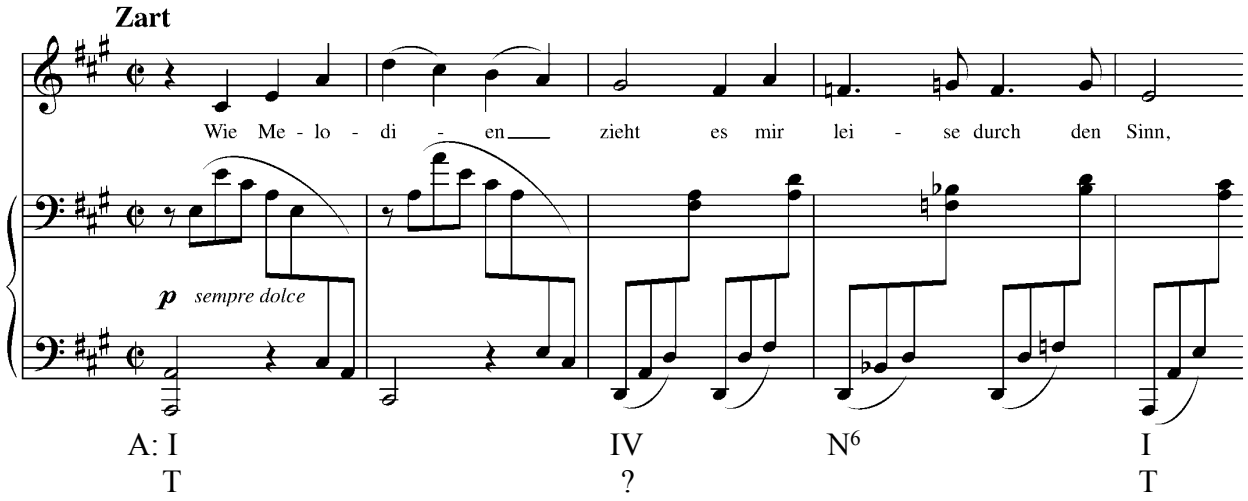


Fig. 1. Kostka and Payne's prototype for harmonic progression in tonal music.

iii → vi → IV / ii → vii° / V → I

Fig. 2. Laitz' functional paradigms for tonal music.

T - D - T

T - P - D - T

T - P - D - T
T _____ P - D - T

Fig. 3. Lester's harmonic groupings by common-tone.

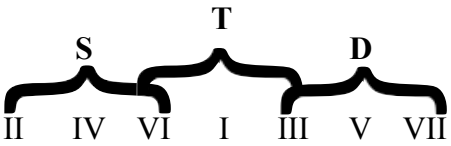


Table. 1. Agmon's degrees of triadic similarity and prototypicality index.

	S	T	D	Prototypicality Index
Prototype	IV	I	V	
Maximally Similar	II, VI	III, VI	III, VI	2
Intermediately Similar	VII, I	V, IV	I, II	1
Minimally Similar	V, III	VII, II	VI, IV	0

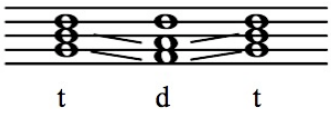
Fig. 4. Agmon's functional categories.

S {VII, II, IV, VI}
T {VI, I, III}
D {III, V, VII, II}

Table. 2. Harrison's functional description of scale degrees

Associates	1	5	2
Agents	6	3	7
Bases	4	1	5
	Subdominant	**Tonic**	**Dominant**

Fig. 5. Proctor's functional voice-leading paradigms.



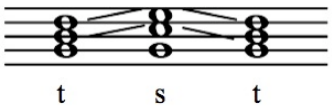


Fig. 6. Miller's *Identify*, *Behavior* and *Province*.

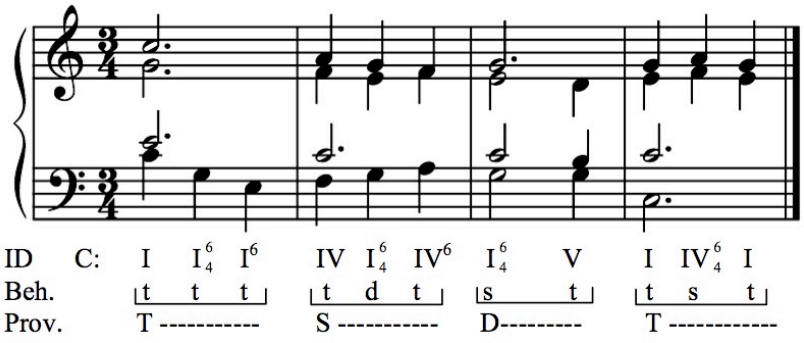


Fig. 7. Possible S and P chords.

ii, ii^o, ii^7, $ii^{ø7}$, iv, iv^7, IV, IV^7, vi, VI, ♭VI, vii^{o7}, $vii^{ø7}$

V/V, V/V^7, vii^{o7}/V, $vii^{ø7}$/V

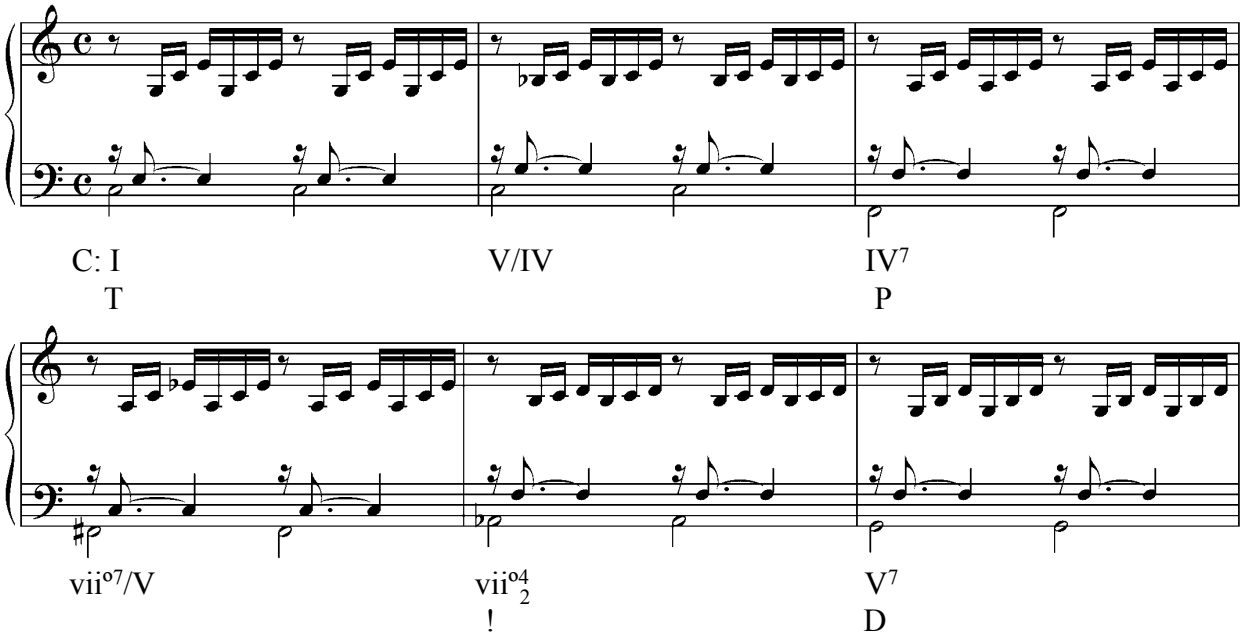
N^6, Gr^{+6}, Fr^{+6}, It^{+6}, ct^{o7}, ct^{+6}

Table. 3. Paradigmatic functional progressions.

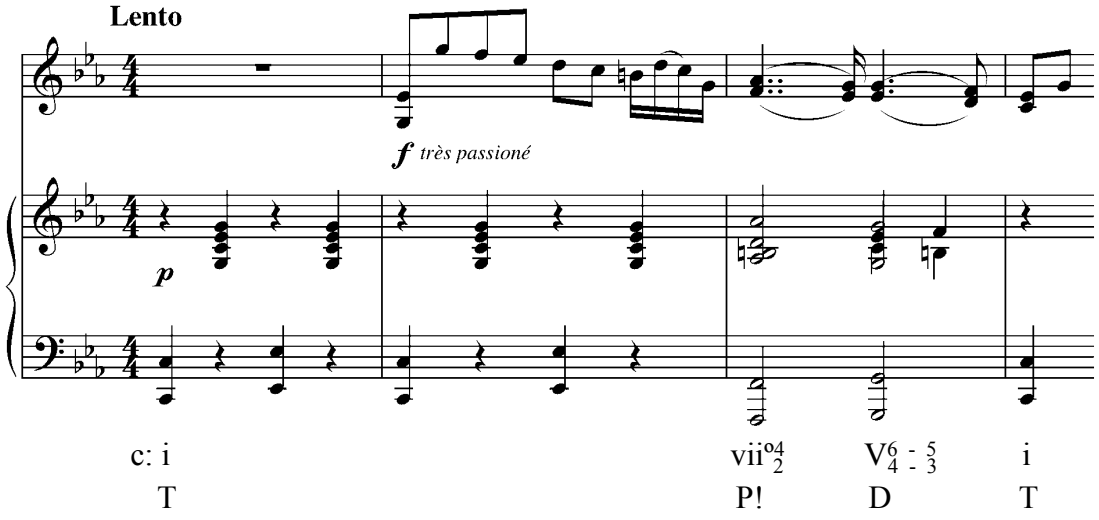
S Paradigms	Common Practice
T - S - T	T - D - T
T - D - S - T	T - P - D - T
T - P - D - S - T	T - P - D - T* T _____ P - D - T

* It is possible to nest any of the above paradigms within a single functional window.

Ex. 2. Bach, Prelude No. 1 in C major, *Das Wohltemperirte Clavier*, BWV 846, mm. 19–24.



Ex. 3. Sarasate, *Zigeunerweisen*, op. 20, mm. 12–15.



Ex. 4. Schumann, *Kriesleriana*, op. 16, no. 5, mm. 51–53.

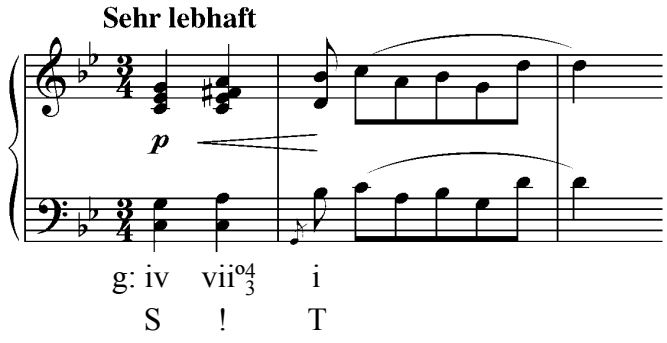
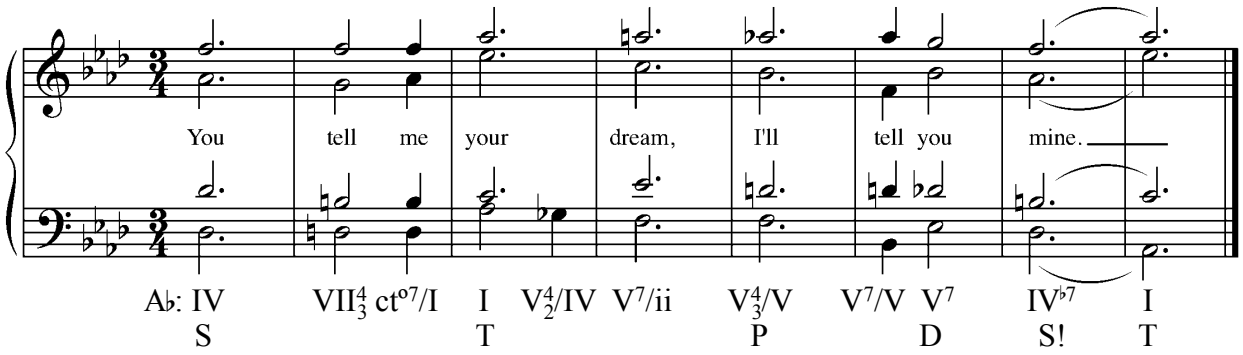


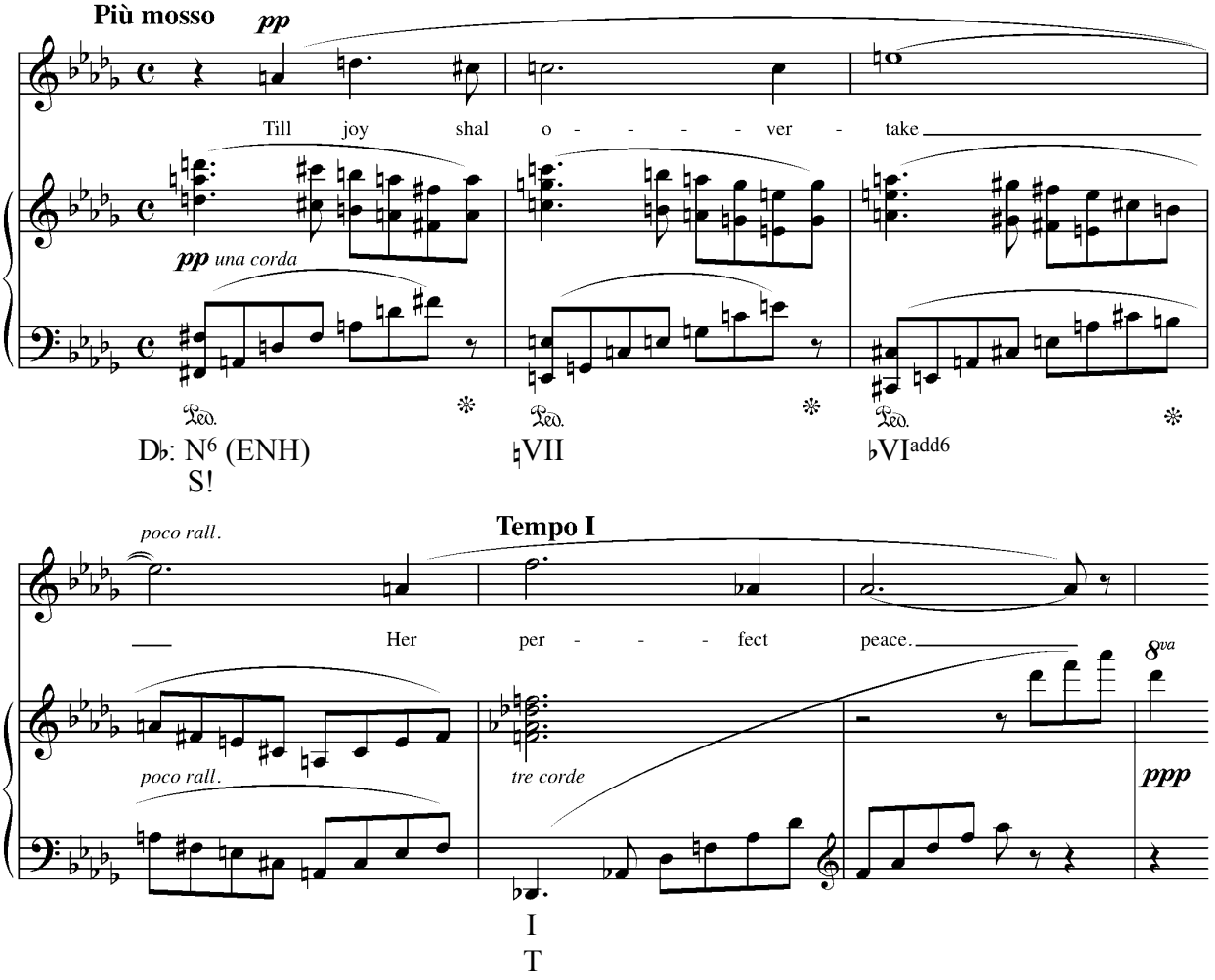
Fig. 8. 12-bar blues harmonic progression: TDST paradigm.

I - IV - I - I - IV - IV - I - I - V - IV - I
T S T S T D S T
T _____ D S T

Ex. 5. Arr. Phil Embury, "You Tell Me Your Dream," mm. 33–40.



Ex. 6. Vaughan-Williams, "Dream-land," mm. 52–58.



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