



Tonal Müzikteki Pedal Tonunun İşlevleri ve Armoni Derslerindeki Uygulamaları

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Öz

Tarihsel olarak incelendiğinde, çoğunlukla org müziğinde, “uzayan bas ses” olarak görülen pedal tonları, çeşitli akort sistemlerinin düzenlenmesi ve tonal sistemin öne çıkmasıyla, kendilerine ait birer armonik işleve sahip olmuşlardır. Öyle ki bu durum, uzayan bas ses ve tonal armonideki (akora ait olmayan) “yabancı ses” kavramlarının ötesinde, tonal yapıyı ve içeriğindeki bazı kadans oluşumlarını da destekler bir hâl almıştır. Tonal armonide pedal tonu/sesi ya da org pedalı olarak tanımlanan bu oluşum, temel olarak eksen (tonic), çeken (dominant) ve daha az sık görülmele birlikte, alt çeken (subdominant) olmak üzere, uzayan (en az) bir sesi içerir. Bir pedal tonu, kuvvetli bir “armonik çekim alanı” yaratma potansiyeline sahiptir ve kendi armonik işlevine ait olmayan, bir diğer armonik yürüyüşle beraber kullanılabilir. Pedal tonu sayesinde, herhangi bir armonik yürüyüş, her ne kadar tonalite sınırlarını zorlarsa zorlasın (hatta tonaliteden kopma noktasına gelsin), tonal alana doğru çekilebilir. Bu olguya bağlı olarak, pedal tonları (Geç-) Romantik dönem bestecileri tarafından da sıklıkla kullanılmıştır. Tüm bu yapısal özellikleri inceleme altına alan bu makalede, tarihsel bağlamıyla birlikte pedal tonunun işlevsel (fonksiyonel) armonideki içeriği ve eğitsel bir araç olarak, armoni derslerindeki kullanıma hazır uygulamaları ele alınmaktadır.

Anahtar Kelimeler: Pedal tonu, tonal armoni, armoni dersleri, armonik işlev

The Function of Pedal Tone in Tonal Music and its Applications in Harmony Courses

Abstract

From a historical point of view, the pedal tone was frequently referred to be a “sustained bass note” which correlated mostly with the organ music repertoire. As the variety of tuning systems and tonal music widespread, the pedal tone gained other independent meanings within the tonal harmony. Thus, the pedal tone played an important role not merely as a sustained tone or a non-chord tone (NCT), but also as a functional harmonic content, which may also propagate some cadential progressions within the tonality. In tonal harmony, the pedal tone (also called ‘organ point’) has basically three main harmonic functions as tonic (T), dominant (D) and more rarely, as subdominant (S) including at least one suspended tone. A pedal point has potential to have an area of its own with “a strong harmonic pull” which may include another harmonic progression other than its own function. With the use of a pedal tone, any harmonic progression, regardless how further it pushes the limits of tonality (and even when it comes to a point of emancipation from it) may still have potential to be attracted back, towards the tonality. In respect of this phenomenon, the pedal tones are quite frequently used by the (late) Romantic era composers. In this article, this aforementioned functional harmonic content of the pedal tone, its historical context and its applications in harmony courses as a potential pedagogical tool is investigated.

Keywords: Pedal tone, harmony classes, tonal harmony, harmonic function.

INTRODUCTION

From a historical point of view, the pedal tone¹ was frequently referred to be a “sustained bass note” which correlated mostly with the organ music repertoire. As the variety of tuning systems and tonal music widespread, the pedal tone gained other independent meanings within the tonal harmony. Thus, the pedal tone played an important role not merely as a sustained tone or a non-chord tone² (NCT), but also as a functional harmonic content, which also propagates extended cadential progressions and facilitates complex harmonic elaborations while still leaning towards the tonal pull. Related with that, the pedal tone became a favourable tool especially among the (late) Romantic era composers such as Richard Strauss and Gustav Mahler.

Mahler’s 5th Symphony is an architectonic example of such an occurrence with a remarkably expressive content signalling the “fate” motive. (See example.1.) In the recapitulation of the first movement (m.233), the original C-sharp (here, spelled as D-flat) first functions as mediant scale degree of B-flat minor. The harmonic progression at this point is actually vii^{o7}/ V (secondary function) over the dominant pedal of B-flat. By m.239 the D-flat is respelled as C-sharp and the C-sharp tonic is re-established in the upper parts.

The image shows a musical score extract from Mahler's 5th Symphony, 1st Movement. It consists of two systems of staves. The top system is for piano (piano and right hand), and the bottom system is for violin. The piano part features a prominent, sustained bass note (the pedal point) in the left hand, which is highlighted with a blue box. The violin part has a melodic line with various ornaments and dynamics. The score includes markings such as 'dim.', 'trem.', and 'Allmählich sich beruhigend.'.

Example 1. An extract from Mahler 5th Symphony – 1st Movement ³

¹ Also called “pedal note”, “pedal point”, “organ point” or “organ tone”.

² Non-chord tones (*abbr.* NCT): Embellishment tones that do not belong to the actual chord degree tones. Suspensions, retardations, appoggiaturas, passing notes *etc.*, are other examples of this category.

³ Singer, O. (1904). Mahler, Symphony No.5, (Piano Reduction), Breitkopf & Härtel, Leipzig.

1. The Educational Objectives

The features of pedal tone open a variety of possibilities for developing analytical and aural skills necessary for the music students. This topic facilitates to harmonize and analyse certain melodies with more variety and freedom. It also helps the music student to understand some formal functions such as codetta or transposition. Thus, investigation of such procedures may be considered as a worthwhile task for the harmony classes.

After teaching harmony classes for eight years, I observed that the study of pedal tones at various levels promotes creativity and attracts attention of many music students. The pedal tones may be used as a teaching tool for the functional hearing besides their common use in the classical music repertoire when they point out a specific function (T- S -D) of a chord degree. In case the pedal tone positioned on the bass part, it may facilitate this supportive tool since it has a potential pull within the gravitational forces of the tonal harmony.

2. The Historical Context of Pedal Tone

According to Mulder, “the origin of the term organ point relates back to *organicus punctus* that frequently appeared in the texts of Franco of Cologne indicating a stationary low-tone with its contrapuntal figures on top called *duplum*” (Mulder, 1957:188). This tone naturally abides to the *finalis* that is the final note of the mode (Altay, 2011:16). In its historical context, the fundamental meaning of the pedal tone as “sustained tone” remained much about the same but gained other meanings as well.

The first example from the early 17th century organ work represents the use of pedal tone solely by means of a sustained bass note. Here, the entire composition includes the suspended bass note on D (that is in tonal terms, the tonic degree or the *finalis* in modal terms), with occasional octave doublings. (See example 2.)

Frescobaldi; *Toccata Sesta per l'organo sopra i Pedali e senza - Libro 2*



Example 2.

The drone-like use of pedal point does not promote complex harmonic elaboration. Such use of “sustained bass note” may suggest a folk music tune, thus much less or no harmonic complexity within its premises.

The second example is an early 18th century work that is written for a well-tempered keyboard instrument introducing the post-cadential function of the pedal tone. Here, as a common closing formula of a baroque era fugue, the bass pedal tone with its octave doubling signals the codetta (closing section) of the entire composition. In this, the pedal tone G prolongs the tonic function (T) of perfect (authentic) cadence. According to Roig-Francoli Miguel “a pedal on tonic usually appears as cadential extension after a perfect authentic cadence, whereas a pedal on dominant often leads to a prominent return of the tonic” (Roig-Francoli Miguel, 2003:302). Such a progression usually occurs toward the end of a composition or after a developmental excursion away from the tonic.

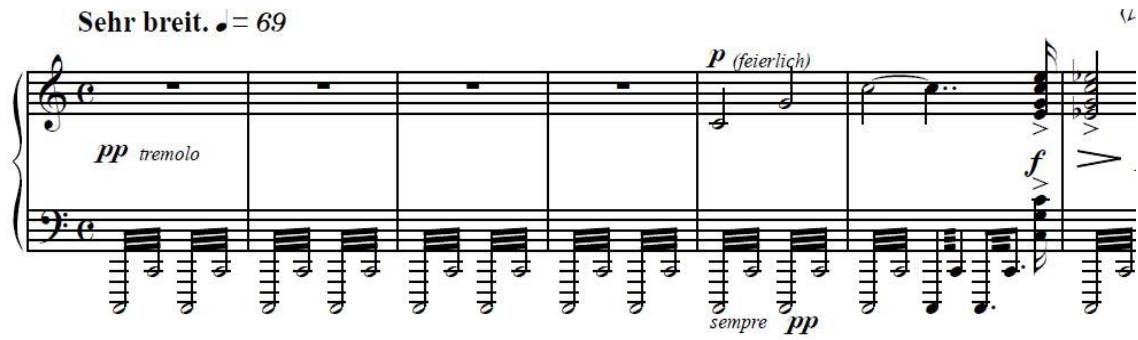
In this example, there is also a tendency towards a plagal cadence (T- S -T). The evidence of such a tendency may be detected in the secondary dominant motions towards the subdominant region ($vii^{\circ} \rightarrow IV$) of G major. As it may be observed in this second example, the functional use of pedal tone may be used to retard or compress the entire movement within this frame. (See example 3.)

J.S. Bach; *Das Wohltemperierte Klavier I*, BWV 860, *Fugue in G Major*

Pedal tone

Example 3.

The following example (see example 3.) of the *fin de siècle* period portrays a different perspective on the use of pedal point. The opening scene of this symphonic poem signals the sudden shifts between the major and minor modes on C.



Example 4. Richard Strauss; *Also Sprach Zarathustra* (piano reduction of the introduction)

3. The Theories on Pedal Tone

The tonal harmony, the pedal tones correspond to three main functions as tonic (T), dominant (D) and less commonly subdominant (S), including at least one prolonged note (Louis, 1914:193). In order to apply pedal tones within these functions, a root tone must be stationary. On top of this root tone, the fifth of the chord (of the root position) may be added.

According to Schoenberg "the use of these pedal tones are divided into two main categories as single sustained voice that facilitates one of these functions instead of using the entire chord and a repeated passage through the dominant" (Schoenberg, 1922:205). He also adduces that the sustained tone is called pedal tone only when it is positioned in the bass part. Otherwise, it is only called a "sustained note". Schoenberg does not only explain the functional behaviour of pedal tone but also how they should be treated on the metrical surface. He suggests that the entry of the sustained tone should take place on the strong beat and departed on the weak one. Schonberg also adds his commentary against "the use of drone-like pedal point (unless it is a quasi-quotation of folk music) since it is artistically superficial and causes lazy harmonic thinking" (Schoenberg, 1922:209).

Laitz on the other hand, sets a more superficial approach to the pedal tone by suggesting that it is a sustained pitch or harmony, sitting motionless during multiple harmonic changes (Laitz, 2003). Thus he does not discuss any matter related with its functional use on the contrary he suggests that the pedal creates merely "a particular effect, such as the sound of a bagpipe" (Laitz, 2003:188).

According to Mulder (Mulder, 1957: 189-190), the pedal tone is to be categorized under three titles according to their placements. These categories are derived from the French theory under as *pédale inférieure* (lower pedal) [see examples. 5.1.a., 5.1. b., 5.1.c., 5.1.d], *pédale supérieure* (higher pedal) [see examples 5.2.a., 5.2.b., 5.2.c.] and *pédale intérieure* (interior pedal) [see example. 5.4.]. Besides these placements, it is possible to create multiple placements of the pedals (see example 5.). According to such categorization, the most common type of the pedal tone is *pédale inférieure*.

a) One-part Dominant Pedal Point

c:

b) One-part Tonic Pedal Point

c:

Examples 5.1.a. and 5.1.b. "*Pédale inférieure*"

c) Two-part Tonic Pedal Point (Root-tone and its 5th)

F:

d) Two-part Dominant Pedal (Root-tone and its 5th)

c:

Examples 5.1.c. and 5.1.d. "*Pédale inférieure*"

As it may be observed from the examples above, many harmonic elaborations (including complex progressions) are possible on the lower-pedal category.

Working on *pédale supérieure* is also possible with simple harmonization but also with more complex harmonization principles as we encounter in the romantic era with further enhancement of chromaticism by interspersing non-chord tones (NCT) or by simply using secondary functions.

a) One-part Dominant Pedal

C:

b) One-part Tonic Pedal

C:

Examples 5.2.a. and 5.2.b. "Pédale supérieure"

Example 5.2.c. "Pédale supérieure" from Richard Strauss's *Elektra*

A simultaneous use of bass and soprano pedal tone (two-part compound) is also possible. (See example 5.3.)

Two-part Compound (Bass and Soprano) Dominant Pedal

a:

Example 5.3.

The music literature examples of such combinations are mostly to be found among the late Romantic era composers such as Mahler. His first symphony opens up with this pedal in bass and soprano parts which lasts for thirty bars. Eventually, this whole introduction on the note A, gains the function of dominant for the allegro entry in D major.

The following pedal type is more rare but possible especially in chorale settings.

One-part Dominant Pedal

Example 6. “Pédale intérieure”

Kotska and Payne identify the pedal point as “a compositional device that begins as a chord tone and becomes a non-chord tone as the harmonies around it change, and finally concludes itself as a chord tone”. Therefore, the pedal tones cannot be treated as an ornamental non-chord tone since it also has a tonal strength (Kotska and Payne, 2008a:202). In addition to that, Kotska and Payne comment on the cadential four-six chord as the pedal point (Kotska and Payne, 2008a). Louis supports that argument by indicating that the “pedal tone ends with a chord that it remains as a component of the chord itself” (Louis, 1914:38).

Pedal tones may form a figure, which reiterates a musical phrase called *ostinato*⁴. *Ostinato* mostly position in the bass line and when appears as a sequential figure, it may create a tumultuous expression as it is shown in example 7.

⁴ *Obstinate* (It.).

The image displays two systems of musical notation for Chopin's Etude, Op. 10, nr. 4. The first system shows the right and left hands with various musical notations including slurs, accents, and a box labeled 'ostinato sequence' pointing to a specific passage in the right hand. The second system continues the piece, featuring a forte dynamic marking (*f*) and a 'Ped.' marking in the left hand, indicating a pedal point. The notation includes fingerings and articulation marks throughout both systems.

Example 7. Chopin; *Etude*, Op. 10, nr. 4

4. Suggestions on the Study of Harmony with Pedal Tone

As it was discussed during the previous sections, the pedal tone has two main harmonic features in tonal music. The first one its sui generis non-chord tone feature and the other is its functional feature governing two main degrees in their root positions either as tonic or dominant. The subdominant use may be rare but still possible. The reason of having pedal point between these polarities is due to its strong tonal effect for creating tension and release, thus pulling the harmony back to its root (tonic) from a point of tension (dominant). This second feature correlates to main goal of the harmony courses: perception and comprehension of the basics of functional harmony. This actually forms the first fundamental stage of a harmony course that aims to help student to encompass that goal-oriented motion of the tonal music. With the use of pedal tone, the students may solve some issues by:

- 1) Audibly grasping the fundamental tones (either as tonic or dominant) thus, to know what the key is at all levels of harmonic progressions.
- 2) Keeping common tone stationary (especially when the pedal tone is in the inner part) thus, to avoid cumbersome skips, which may result with some mistakes.

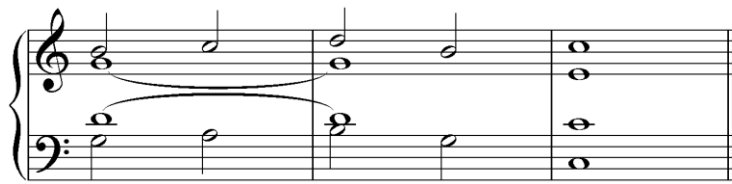
At this first stage, the most important purpose should be the establishment of the dominant function. In exercises the dominant function should appear several times in various forms (whether as inversions or in root position or, as other degrees (vii, iii etc.). Here, the preliminary focus should not be the rhythmical variety but the right metrical placement of the pedal tone whereas its entry and departure must be correctly distributed.

These exercises should not be long at this first stage, but long enough to create simple harmonic progressions – that is to say few bars only, sufficient to be gradually pulled towards the tonic at the end. (See example 8.)



Example 8. A simple harmonic progression on the pedal point.

At the second stage the pedal tone on the tonic may be elaborated (with its inversions) and simple progressions of subdominant harmonies (II – IV – VI) may be worked with it. In addition to that, simple passing chord progressions should be practiced. (See example 9.) Both of these stages must pertain to tonal diatonicism only.



Example 9

At the third and final stage, the mode changes (switches between major and minor modes by means of borrowed chords⁵) and other altered chords (e.g. the Neapolitan chord, augmented 6th chords, raised and lowered fifths) and following, the secondary functions (e.g. $V^7 \rightarrow V$) should be added one by one. In this way, the chromaticism can be processed elaborately (see the previous examples 4 and 5). In addition to aural and simple harmonization exercises, a soprano melody should be provided for harmonization with pedal tones including an extended perfect authentic cadence.

As a further enhancement of pedal tones the following exercise types may be considered. The first type of exercise (see example 10.) based on the upper pedal, with a designated bass line, allowing student to exercises with the inner parts (ten.-alt.).

⁵ Borrowed chords: "Moll-Dur" and "Dur-Moll akkorde" (Ger.).

The image shows two systems of piano accompaniment. The first system consists of two staves (treble and bass clef) with a key signature of three flats and a 3/4 time signature. The second system is similar but ends with a double bar line. The music features a mix of eighth and quarter notes, with some notes beamed together.

Example 10.

The second type of exercise should focus on a well-structured voice leading, based on a figured bass. (See example 10.)

The image shows two systems of a figured bass exercise. Each system consists of a bass clef staff with a key signature of one sharp (F#) and a common time signature. Below each staff is a line of figured bass notation. The first system has three measures, and the second system has three measures. The figures are as follows:

System 1:

8	7	-	8		7	8		6	-	7	-
5	4	-	5	6	5	6	5	5	4	6	5
3	2	-	3	4	♯	4	3	2	-	4	-

System 2:

		8	7		7	9	7
		5	-		4	5	6
4	3	♯	-	3	2	3	4
						5	7
						3	-
							6
							5
							3

Example 10. An extract of figured bass exercise

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