島岡理論の英訳(4)

黒住彰博

Translation: The Music Theory of Yuzuru SHIMAOKA

Akihiro KUROZUMI

本稿は『総合和声』「原理篇」の第4章の英訳である。この章では，調関係や転調を「調のゆれ」として捉え直し，従来の転調法だけでなく調関係の諸相を「調のゆれ」という概念で統一的に考察している。

なお英訳文確定に際しては「島岡理論の英訳 (1)」「同 (2)」「同 (3)」と同様，原著者による校閲とカナダ人作曲家 John James Cole による校正がなされた。

Chapter 4 Key Sway

1 Principal Key and Inner Keys

(1) Principal Key and Inner Keys

From the previous historical examination it can be clearly concluded that the modulation was not formed by first establishing a principal key and functional principles and then applying them to other keys. Rather, through the process of the formation of local keys (inner keys) here and there in one tune (in a principal key) the unitary key principle and functional principles common to all of the inner keys were gradually created and established. As it were, "in the beginning was the modulation (an inner key)," and it was not until quite long afterwards that the important "concept of a principal key" as a "key which could include various inner keys within itself" was gradually established.

(2) Chord on Each Tone Degree and Key on Each Tone Degree

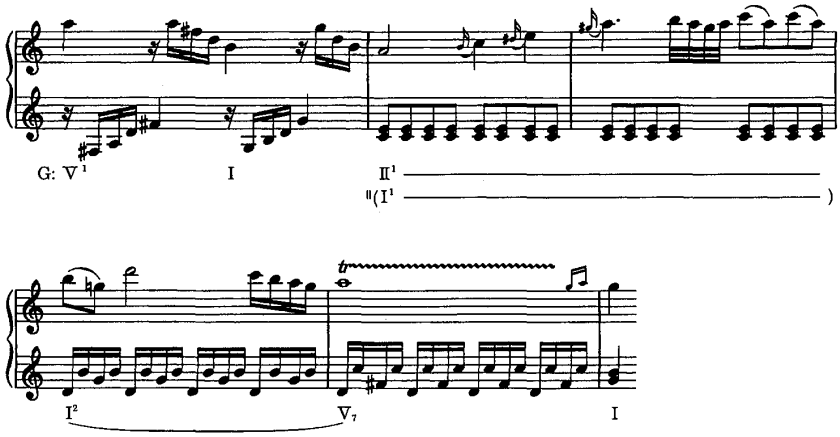
From the above we can further recognize the following:

1) [With the exception of diminished triads] if certain conditions are satisfied, the triad on each tone degree can at any time function as the [temporary] tonic chord. This is called the **tonicization** of the chord on each tone degree.

2) We can see from the above that there is **1 to 1 correspondence** between the **chord and key on the same tone degree**. Akin to an army reservist waiting for potential combat, every triad (major or minor) carries the potential to become an actual key (major or minor) at any time.

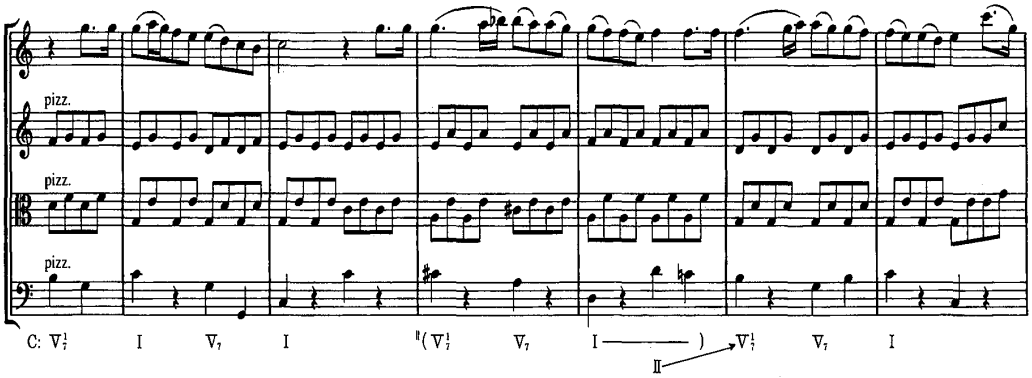
3) By merely sustaining or emphasizing a triad on one of the tone degrees for a long time there occurs a slight tonicization which allows us to perceive a key on this tone degree.

(a) Mozart: Piano Sonata K. 545, I



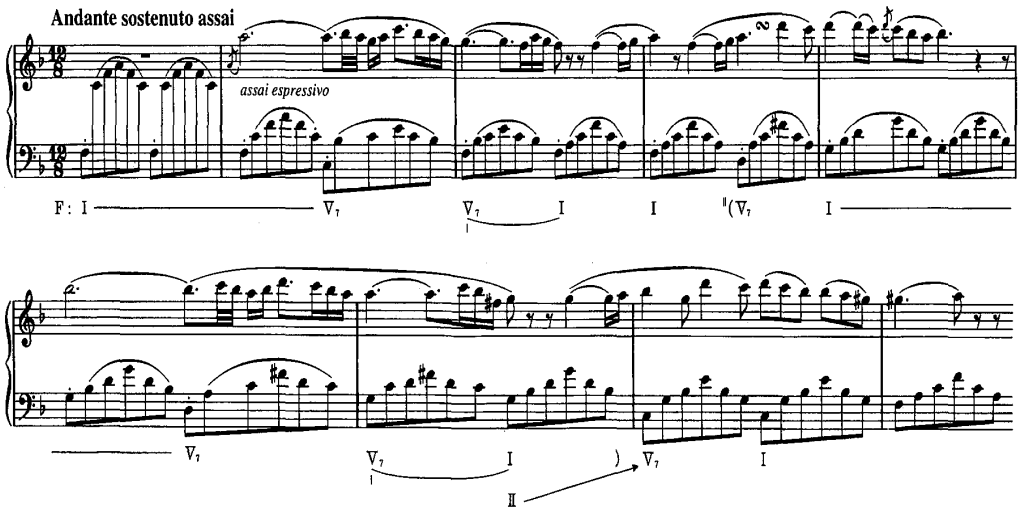
4) If we place a dominant chord (a secondary V) of the key of the tone degree concerned just before the triad on any tone degree, a tonicization occurs very easily, and an inner key appears.

(b) Haydn: String Quartet Op. 3–5, II.



5) The longer the duration of an inner key and the richer the contents become, the more firmly its character as a key is established.

(c) Bellini: 'Casta Diva che inargenti', from "Norma," Act 1.



6) As shown in the examples (a), (b) and (c) above, even during the process of the tonicization of II and its gradual promotion to the II-key, the function (D_2) and character of II do not change but are rather strengthened. The same is true of the chords and the keys on the other tone degrees.

(3) The Degree of (The) Establishment of Inner Key (Modulation and Borrowing)

From the above we can see that the difference between **modulation and borrowing** depends only on the degree of the establishment of the tonicization of each chord on each tone degree: **the degree of the establishment of an inner key** (previous examples (a), (b) and (c)).

A borrowing is, as it were, "a short modulation" and a modulation is "a relatively long borrowing." In both cases each chord on each tone degree remains as such [in a principal key]. But in the case of modulation each chord may be temporarily considered to be "tonic chord of the key on each tone degree." In the case of borrowing, the chord on each tone degree remains only as "the chord on each tone degree of a principal key."

As a result, in modulation "the position and function of a chord on each tone degree" is transferred to the level of key and becomes "the position and function of a key on each tone degree" while in borrowing, the position and function remain on the level of chord.

This condition is shown through the use or non-use of parentheses which indicate an inner key.

(4) "Chord Sway" and "Key Sway"

Naturally the correspondence between a chord on each tone degree and a key on the same tone degree extends to **an aspect of energy**.

That is to say, on the level of the chord, only **a tonic chord (I)** is **a stable chord**.

All the other chords (from II to VII) are **unstable chords.**

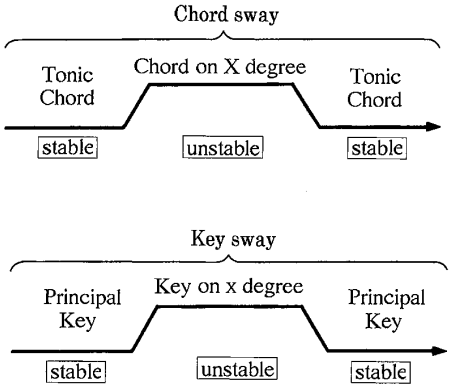
On the level of the key also, only **a principal key (I-key)** is **a stable key**, while all the **other keys** (from II-key to VII-key) are **unstable keys**.

Therefore, on the level of chord,

The movement: stable chord **(I)** ⟷ unstable chords (from **II** to **VII**) forms **chord sways**.

On the level of key,

The movement: stable key (I-key) ⟷ unstable keys (from II-key to VII-key) forms **key sways**.



However, "key sway" is recognized only when an inner key is firmly established to some degree (modulation), but is not recognized when the degree of establishment is low (a borrowing), because "sway" also remains on the level of the chord and is not raised to the level of key in a borrowing.

(5) The Predominance of III-Key in Minor Key

I have mentioned before that a major key and a minor key have the same energetic (swaying) structure through the monistic principle of a single key, differing from each other only in terms of the contrast of modes (brightness and darkness).

There is, however, only one great difference between a major key and a minor key: **the most predominant inner key in a major key** is **V-key** while the most predominant inner key **in a minor key** is **III-key**. What is this difference based on, and to what extent is it a hindrance to the principle of the monistic idea of a single key? These points will be considered in the following explanation.

1) Only **a major** key is **a true harmonic tonality**. A minor key is only a harmonic tonality by analogy through its artificial formation by being modeled on a major key.

2) The artificiality of a minor key is represented by V. That is to say, V which is **originally a minor triad** is changed to **a major triad** in order to form the artificial leading tone motion in the resolution: V → I.

3) Therefore, two **V-keys**: the **V-key** and the **+V-key** are produced in a minor key, but neither of them precisely correspond to the **V-key** in a major key. Namely, we cannot consider the proper **V-key** (minor key) to be produced by "a tonicization of a commonly used V (major triad)." On the contrary, because the major **V-key**, regarded as produced by "a tonicization of a commonly used V" is a major key with the same tonic based on proper chords, it does not fall within the limits of keys in the first near relation to a principal key (keys on proper chords).

4) Due to **the contradiction mentioned above**, in the process of the formation of tonality, neither **V-key** was able to establish a primary inner key position [equal to the major **V-key** in a major key] in a minor key.

5) As an alternative to the **V-key**, the **III-key** appeared. Because the **III**-key is **a relative key**, it can move to and from the principal key **with great ease**. And because it is **a major key** there occurs also **the effect of a positive change** during modulation. In addition, though it cannot correspond precisely to the **V-key** in a major key, as an unstable key it can at least **substitute for the V-key** (namely through "key sway").

6) Of course the **V-key** (or **+V-key**) is also used as an inner key in a minor key. This reveals the intention of composers who invariably respect the analogical property of the major key. Nevertheless, because of the above defect, from the standpoint of frequency, the **V-key** cannot help but yield the leading position to the **III**-key.

2 Mode Interchange and "Expansion of Key Relationship"

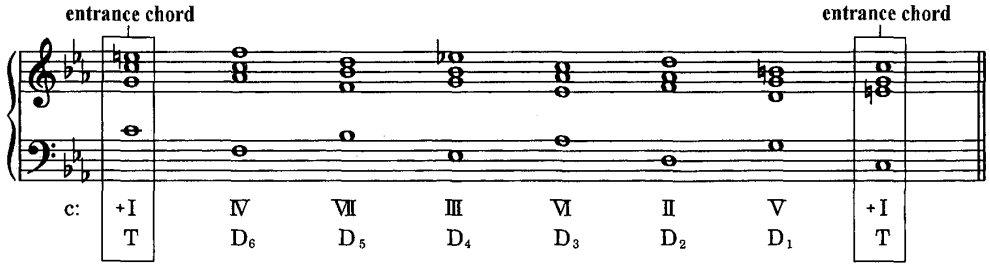
(1) Modulation and Mode Interchange

A modulation is accompanied by a change (sway) of key position, but a mode interchange does not include a change (sway) of key position. A mode interchange is "a change within the same key position (stability)" and is merely a change in color (brightness and darkness).

(2) Principles of Mode Interchange

If a mode interchange is merely "a color change of the same key," it may be thought that it can be done quite easily, but this is not always the case. Due to the principels of mode interchange, mode changes cannot be made arbitrarily. What kinds of principles are these?

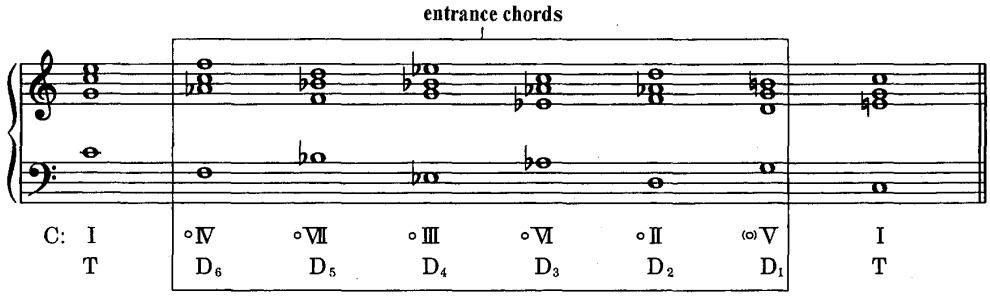
1) **It is always possible to change a stable item (T) of minor harmony to major I (+I).** This has been done often in the history of harmony [in the form of the Picardy close formula] and was effectively employed to increase the degree of consonance and stability of a final chord.



In this way we are led to the next principle.

Principle 1: In **the mode interchange** from **a minor key to a major key (plus mode interchange)** only I may be employed as the entrance chord. We cannot use any other chord. However, it is possible to enter not only from the stable I (T), but also from I^2 (D).

2) If Chords apart from the stable position (T) of a major harmony are exchanged with chords in a minor key (quasi proper chords), the results are relatively the same. Therefore, the chords in the below example can also be used as entrance chords.



Hence, the second principle can be stated as follows:

Principle 2: In a mode interchange of a major key → minor key (minus mode interchange) all chords except I (including I^2) can act as entrance chords [note].

Note: For a shadow effect the movement of I →∘**I** → I is possible.

Naturally the above-mentioned principles 1 and 2 are applied to **a proper chord ⟷ a quasi-proper chord transition.**

Namely the following two principles are applied respectively as the following.

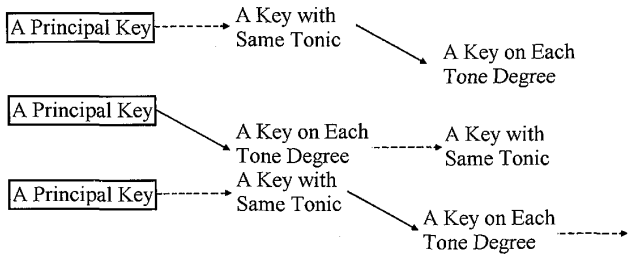
Principle 2: **"a proper chord → a quasi-proper chord (minus mode interchange)"**

Principle 1: **"a quasi-proper chord → a proper chords (plus mode interchange)"**

(3) Expansion of Key Relationship by "Modulation + Mode Interchange"

The key on each tone degree (proper chord key) occurring in a principal key by "the tonicization of the triad on each tone degree of a principal key" (modulation) becomes **a basis of the "key relationship of a principal key."**

Any additional mode interchange does not affect this basic relationship, because a mode interchange is not accompanied with a change (sway) of key position. This is merely a change in tone color of the same key (somberness or brightness).



As shown above, we can add one or two **mode interchanges** before or after **one modulation**. This diagram shows how far **the range of the primary key relationship of a principal key may extend.**

If modulation occurs more than two times, the key relationship to a principal key becomes indirect and cannot be considered to be the primary key relationship.

(4) Complete Possibilities of (Non-modulating or Modulating) Chord Progressions

The complete stability and non directivity of the tonic chord: I becomes the starting point for considering **all the possibilities of (non-modulating or modulating) chord progressions.**

Namely, the **tonic chord: I** can not only move freely to **every proper chord in a principal key** but can also move to **every chord in a key on each tone degree** directly.

$$\mathbf{I \rightarrow N}$$

However, when **a mode interchange** accompanies a modulating motion, **a minus mode interchange is possible**, but **a plus mode interchange** becomes **impossible**. Therefore, **the modulating motion with accompanying plus modal interchange (entrance chord) is excluded from the above expression: I → N.**

The above formula: **I → N** can be transformed as follows and can be applied to **all the keys including a principal key: I and all the tone degrees.**

$$^{(\circ)}\mathbf{X} \rightarrow {}^{(\circ)\mathbf{x}}(\mathbf{N})$$

The formula above shows **all the possibilities of (non-modulating or modulating) chord progressions** [note].

Note: The formula above does not include the occurrence of **new possibilities through reinterpretation (simple reinterpretation, enharmonic reinterpretation and incidental reinterpretation)** of modulations and chord progressions.

However, the possibilities of chord progressions and range of key relationships can be limitlessly extended by reinterpretation.

3 Further Expansion of Key Relationship

(1) Further Expansion of Key Relationship

Almost all key relationships were exhausted in the music of the classic and Romantic schools. As shown in the previous table, we can recognize the appearance of all the keys with the omission of the tritone-key.

However, due to the **various possible reinterpretations of chords which developed** from the late Romantic school to modern times, a **new manner of grasping chord relationships and key relationships** became **possible.**

I would like to touch on the main reinterpretations here.

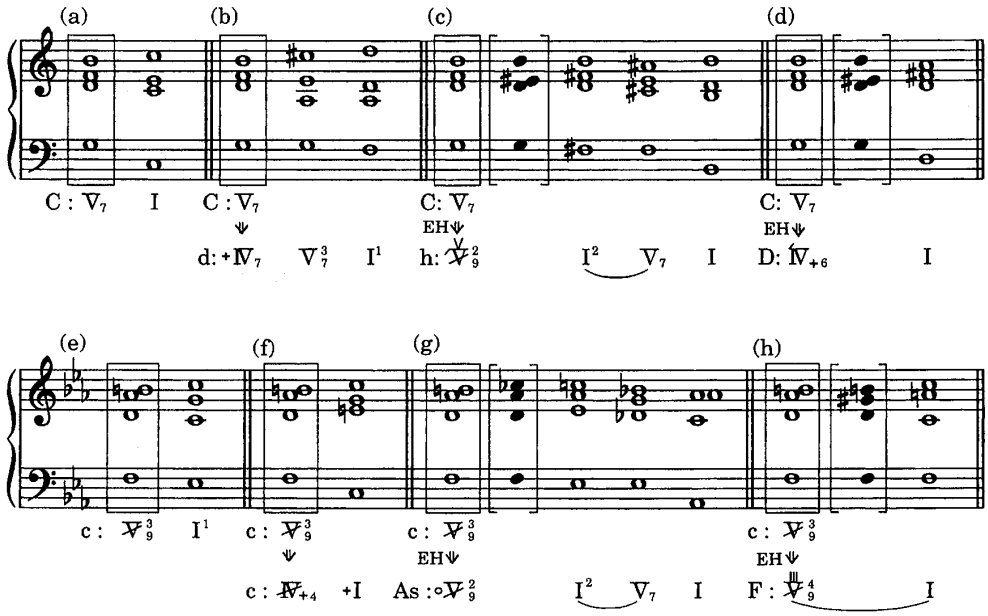
(2) Reinterpretation Summary

The term **reinterpretation** [of chord X] is used to refer to the conversion of the **functional and tonal** significance of one chord [X].

Through reinterpretation, a chord may change the direction of its progression as well as the key to which it belongs, so that new harmonic possibilities can be achieved.

This **widening of the possibility of reinterpretation** is connected to the **further expansion of key relationships.**

Let us observe the following examples.



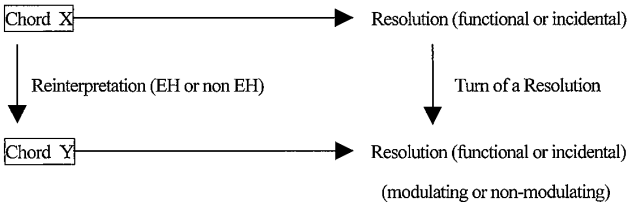
The above examples from (a) to (d) show how one dominant 7th chord (C: $\mathbf{V_7}$ (a)) proceeds to different succeeding chords ((b) to (d)) through various reinterpretations.

In a similar manner the examples from (e) to (h) above show the possibilities of the various reinterpretations and modulations of one diminished seventh chord (c: V^3_9, example (e) above).

The reinterpretation can be **an enharmonic reinterpretation**: ((c), (d), (g) and (h)) as well as **a simple reinterpretation** of a chord of the same type ((b) and (f)).

In example (h), the chord (F: V^4_9) led by an enharmonic reinterpretation is an appoggiatura chord and resolves **(incidental resolution)** to the original chord (F: **I**). The term **incidental reinterpretation** is used to refer to the way a chord is reinterpreted as an incidental chord. Example (f) is the only case here in which modulations are not produced by reinterpretation. In all the other instances modulations occur.

The following diagram summarizes the various reinterpretations described above.



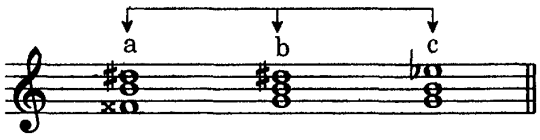
(3) New Possibility of an Enharmonic Reinterpretation

I have already treated the commonly used enharmonic reinterpretation (diminished 7th ⟷ diminished 7th and dominant 7th ⟷ augmented 5–6) of the classic and Romantic school.

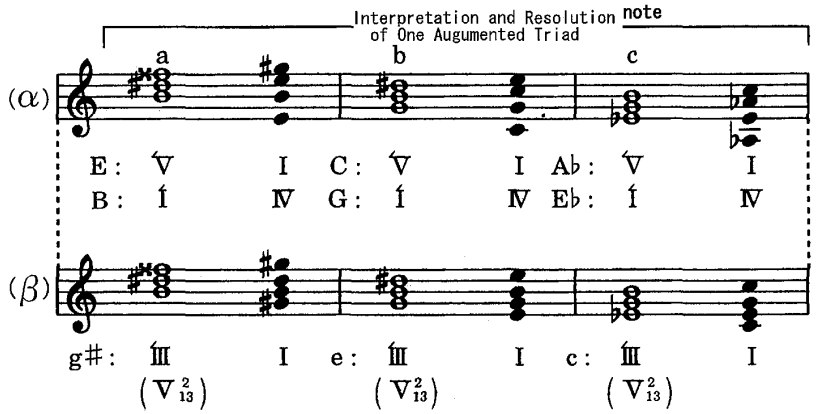
I will now describe the following main possibilities (augmented triad ⟷ augmented triad and augmented 3–4 ⟷ augmented 3–4) which were newly developed from the late Romantic school to modern times.

1) Augmented Triad ⟷ Augmented Triad

One augmented triad has 3 possible enharmonic interpretations (example below from a to c).



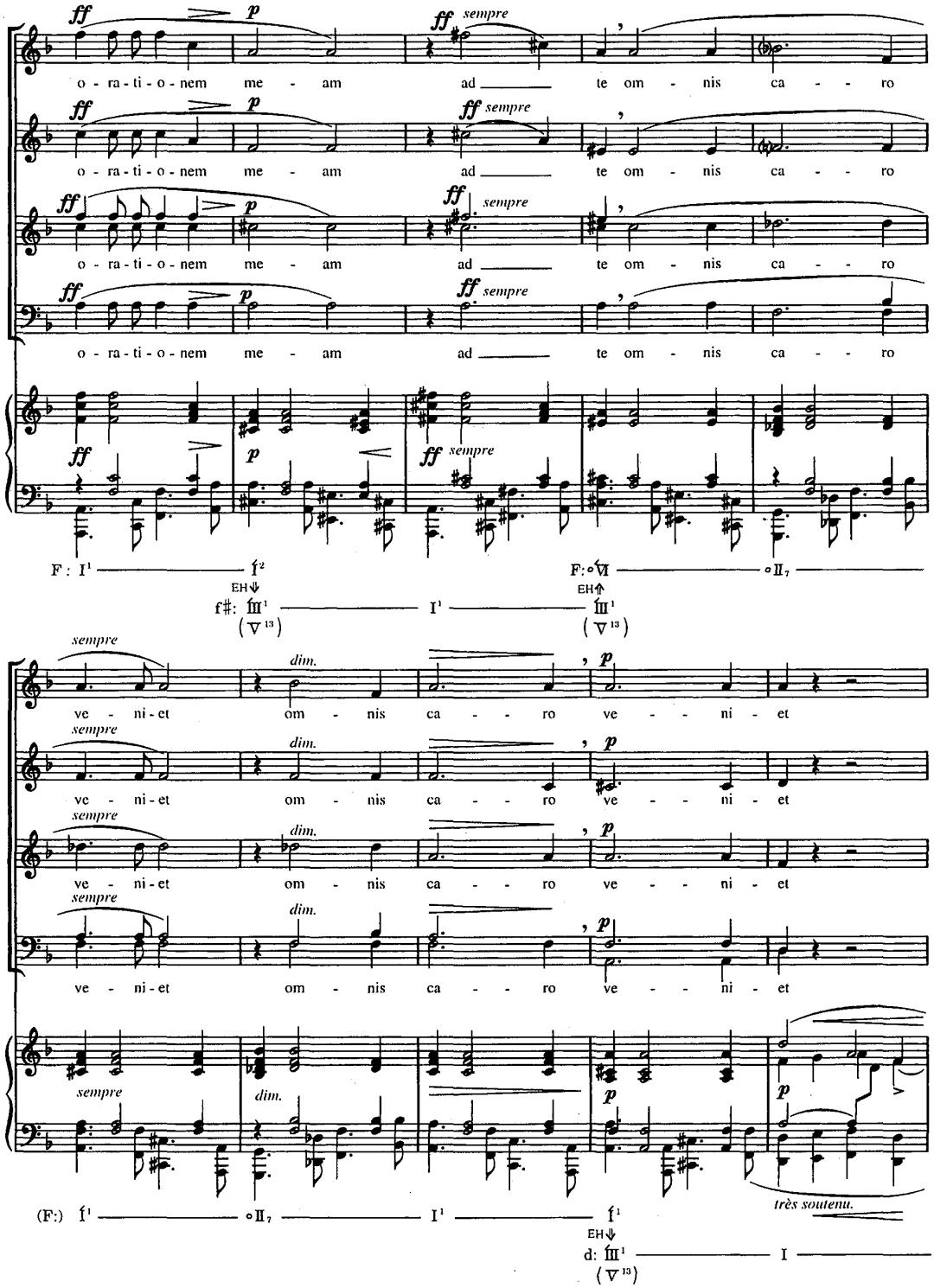
Depending on the various interpretations many different functional and tonal interpretations and resolutions become possible (examples below (α) and (β)).



Note: The low tone positions of these augmented triads may be arbitrarily fixed.

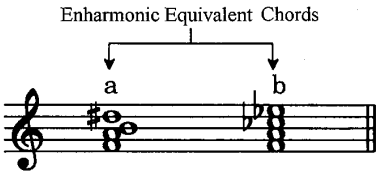
I will next show an example.

(1) Fauré: "Réquiem," I, 'Kyrie'

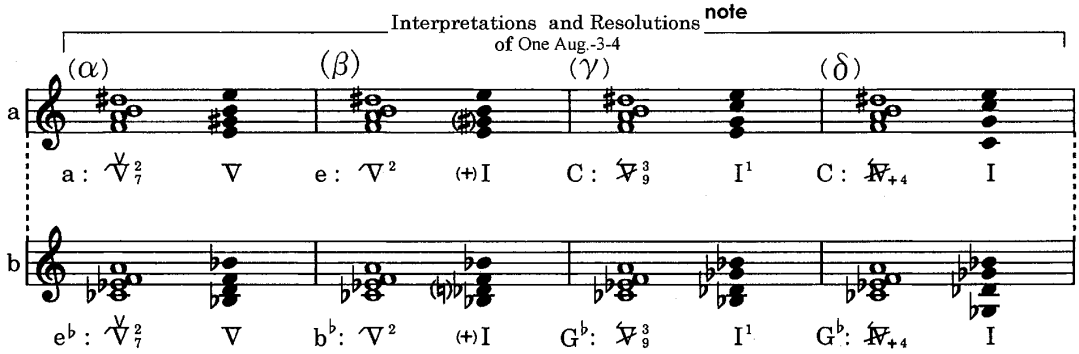


2) **Augmented 3–4 ⟷ Augmented 3–4**

An augmented 3–4 chord (downward altered form of dominant 7th chord) [note] and an augmented 3–4 in the interval of the tritone (an augmented 4th or a diminished 5th) are enharmonic equivalent chords (a and b in the example below).



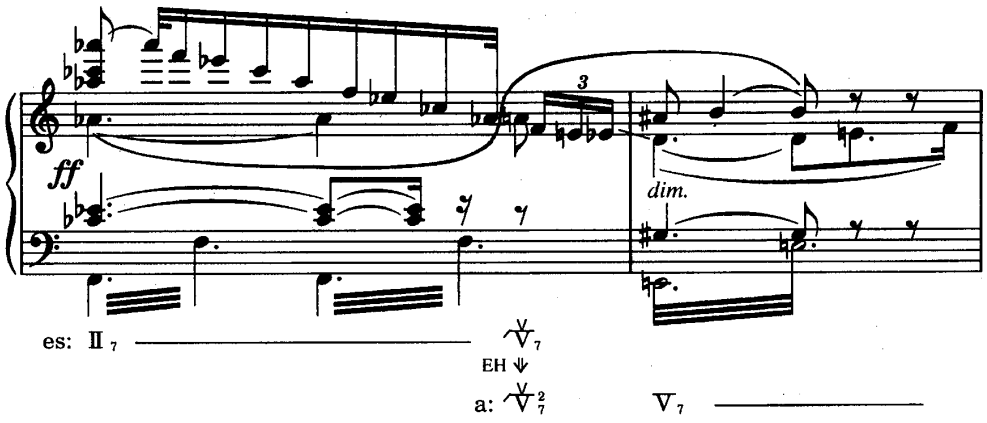
Various functional and tonal interpretations and resolutions become possible, as they are grasped in different ways (examples below (α)–(δ)).



Note: In the examples above, other low tone positions for these chords except (δ) are possible.

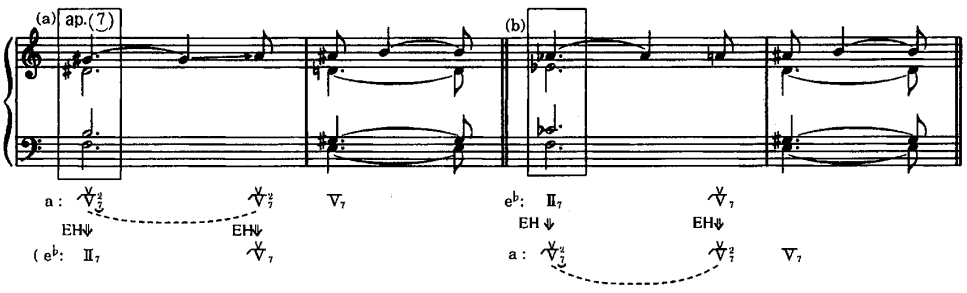
I will next illustrate this with some musical examples.

(2) Wagner: "Tristan und Isolde," Prelude note on next page.



Footnote (to the previous page): We can extract and reduce the harmony of example (2) above as follows in the example (b) below.

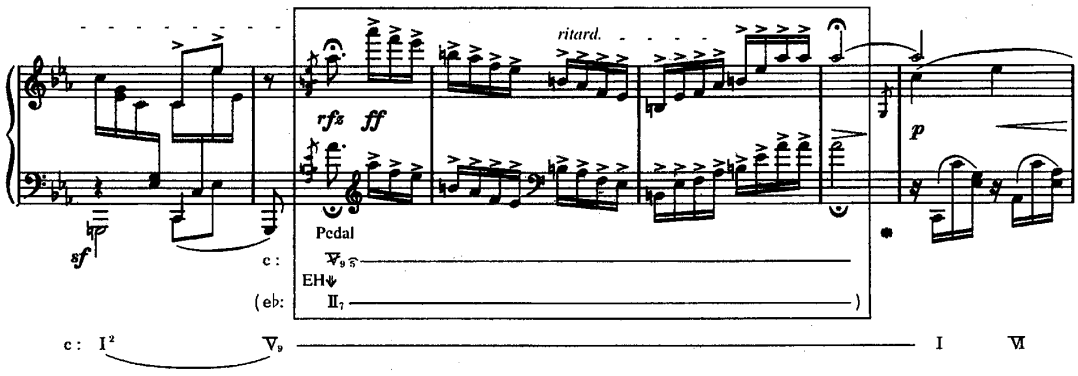
If we compare it with the part of the appearance of the "Tristan chord" (example (a) below) in the beginning of the music, we can see that in terms of sound (leading 7th chord) they both agree.



Namely, from the beginning Wagner takes the enharmonic relation of both examples into consideration to conceive his "Tristan chord." In this case the first form (the box in example (a) above) is **the non-chord figure (a: $\overset{\vee}{V}{}^{2}_{7}$) incorporating an appoggiatura (7)** and cannot be considered a chord figure in the narrow sense (on a fixed position). Hence, we can understand that **an enharmonic reinterpretation** is **possible not only between** chords [figures] but also between **non-chord figures** (a: $\overset{\vee}{V}{}^{2}_{7} \overset{EH}{=}$ e♭ : **II**$_7$). Namely, the potential relation of reinterpretation in the beginning of the "Prelude" becomes clearly evident at the end of the intermediate part, and the return from e♭ : (tritone-key) to a: (principal key) is achieved by the reinterpretation in reverse (the recovery of the previous interpretation) (example above (b)).

A precedent for this kind of **potential reinterpretation of a non-chord figure** is seen also in the example below.

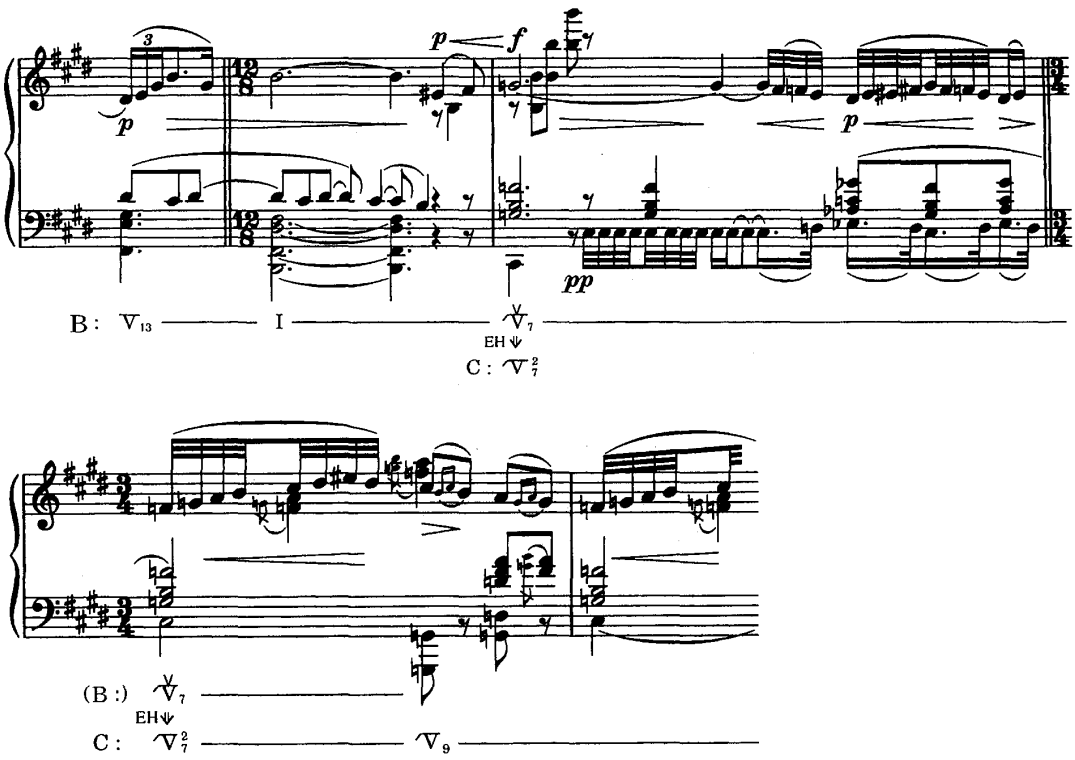
Schumann: Fantasie, the 1st movement.



The chord in the box of the example above is **a non-chordal incidental figure (c: $\overset{\vee}{V}{}^{9}_{\widehat{5}}$) which includes a full length shifted position (5) without resolution**, but it agrees **enharmonically with e♭ : II**$_7$. [In terms of sound] and due to the descending scattered form associated with it, this is in essence precisely the "Tristan chord."

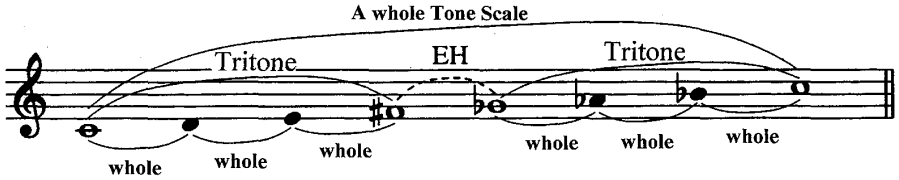
In addition, the sensuality of **the sound of the leading 7th chord** along with the numerous possibilities of various reinterpretations in which double meanings and unexpectedness are hidden are **among the trademarks of the harmony of late Romantic school**. These functions described above have been incorporated into the harmony of modern times.

(3) Debussy: "Prélude à 'l'aprés-midi d'un faune'"

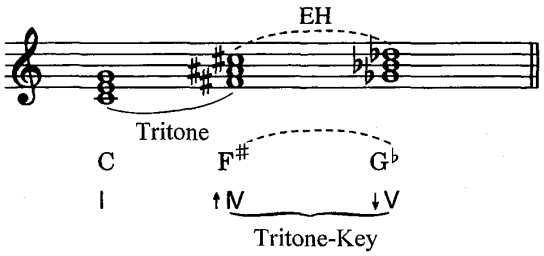


(4) Tritone-Key

A tritone is defined as: "an interval comprised of three whole tones" and is termed either an augmented 4th or a diminished 5th. A tritone halves an octave in two parts of equal distance.



A key in which the tonic is in the relation of a tritone with the tonic of a principal key is called a tritone-key and is described as ↑**Ⅳ** or ↓**Ⅴ**.



The tritone-key did not have a precise position in the classical key system, so it was rarely taken advantage of.

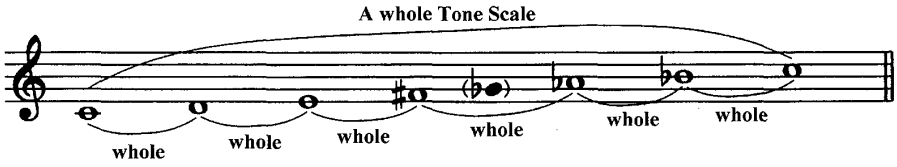
On the other hand, since modern times it has gradually come to be used frequently together with new possibilities of enharmonic reinterpretation and chord constitution. In particular, it has become remarkably easy to **modulate to a tritone-key by the enharmonic reinterpretations of an augmented 3–4.**

In the previous example (2), the direct return from the tritone-key: e♭ [of the principal key] to the principal key: a is done using this technique.

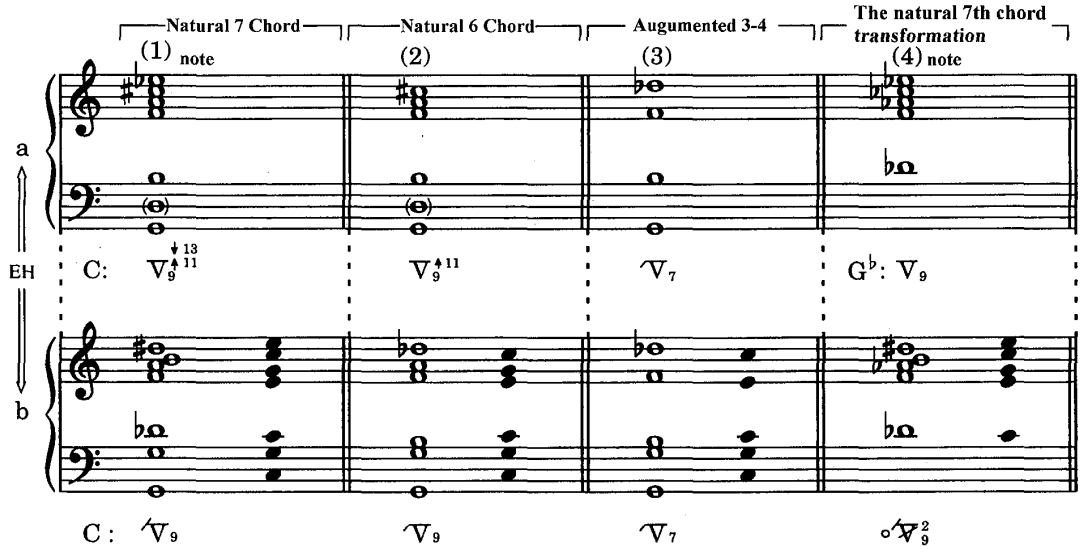
In the previous example (3), one augmented 3–4 (with the root C#) progresses to another augmented 3–4 (with the root G) which is in a tritone relation by the same technique (but this is not in a tritone key relationship). In this case a shift is accomplished by sounding only the single note G (the root) instead of C# in low tone.

(5) The Whole-Tone Scale

A scale in which one octave is divided equally into 6 whole tones is called **a whole-tone scale.**



However, a whole-tone scale in pure form cannot be formed in the harmonic key system [based on the 7 tone scale and chords constituted in thirds]. Thus, this scale always appears tied to the augmented 3–4 and harmonic overtone chords of high order.

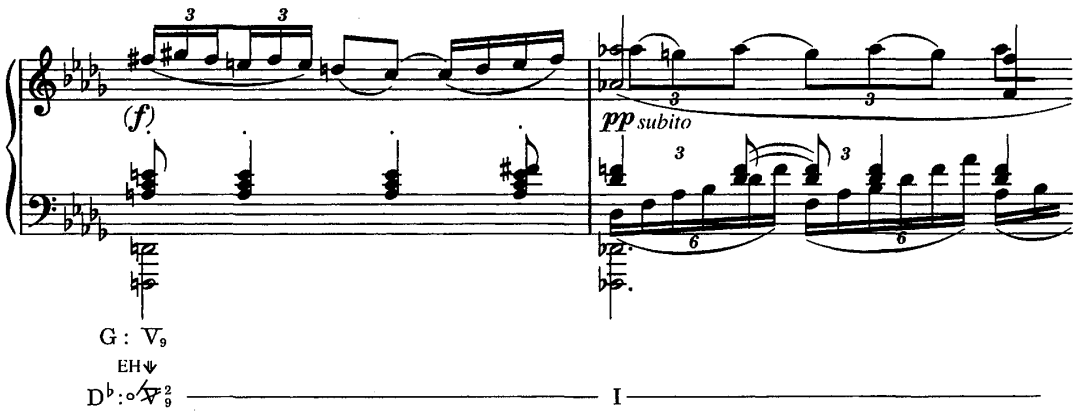


Note: The 13th of natural 7 chord is a tone between a major 6th and a minor 6th. Therefore, it can be written in two ways in a temperament system.

In the previous example (3) a whole-tone scale is heard being tied to two augmented 3–4 chords in an enharmonic equivalence.

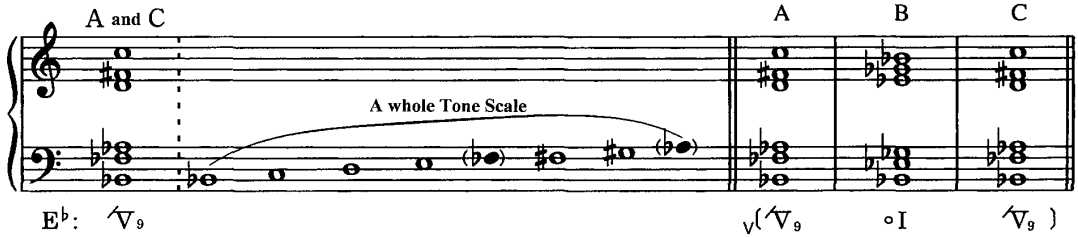
In the example below (4) G: V_9 appears in the form of an enharmonic reinterpretation to D♭: $\circ V_9^2$ (cf. a and b of (4) in the previous table). A whole-tone scale is heard in the sound of this chord.

(4) Debussy: "Prélude à 'l'aprés-midi d'un faune'"



In "Préludes, 1er livre," No. 2 'Voiles' of Debussy, apart from a short intermediate part (from measure 42 to 47) all the tones of a whole-tone scale which are used throughout the whole prelude are written above the sustained low tone: B. Due to the effect of this low tone they are understood as constituent tones of an E♭ : V9 of which the root is B. This **V9** resolves temporarily to e ♭ : **I** (on v) in an intermediate part and returns to E♭ : V9 in part 3 again before terminating. Therefore, the harmony of the this entire work is nothing but the extended **v** [V9→ ○I→ V9] as follows.

Harmonic Diagram of Debussy: "Préludes, 1er livre," No. 2, 'Voiles.'



(6) Half-Slid Key and Half-Slid Chord [footnote]

I refer to the **half-slid key** as the key relationship, which (together with the tri-tone key) is seen [not in the classic school] but only after modern times.

In key relationships of the classic and Romantic schools a semitone relationship is always expressed as a minor second, not an augmented 1st. For example, the keys which are in a semitone relation with C-major are D♭-major (♭♯) and B-major (♯vii). Although these two keys can be written C# or C♭, these are merely enharmonic rewritings of an original key.

However, since modern times certain keys have come to be raised or lowered by a semitone (augmented 1st). I call this **the half-slid key (upward-half-slid key** or **downward-half-slid key)** [of key: X] and describe it in the following way: ↑**I-key** or ↓**I-key** (or: ↑**x-key** or ↓**x-key**) [note].

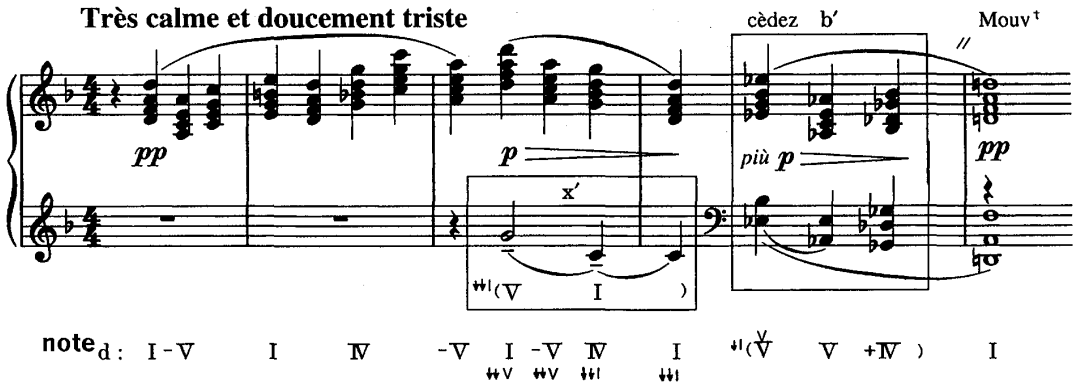
Note: In this sense, a tritone-key is also grasped as "a half-slid key" (↑**IV-key** or ↓**V-key**).

Next I will quote two corresponding parts from "Préludes: 2me livre," No. 11, 'Canope' of Debussy (examples (a) and (b) below). Various "key slides" are included in this work. I have included my own music example (example

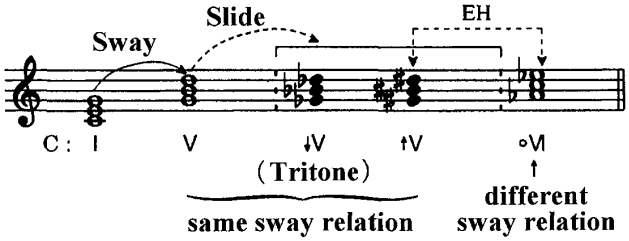
(c)) in which I remove this "slide" in order to unify the work in one key (D-minor). I will now compare these three examples to each other.

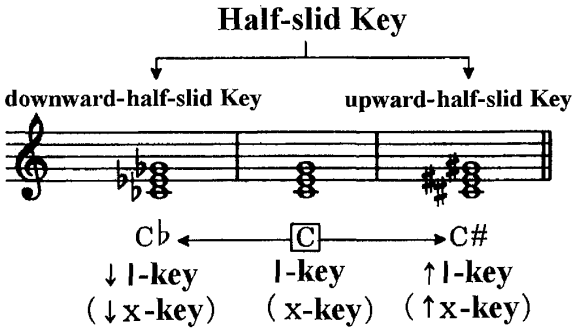
(5) Debussy: "Préludes 2me livre," No. 11, 'Canope'

(a)

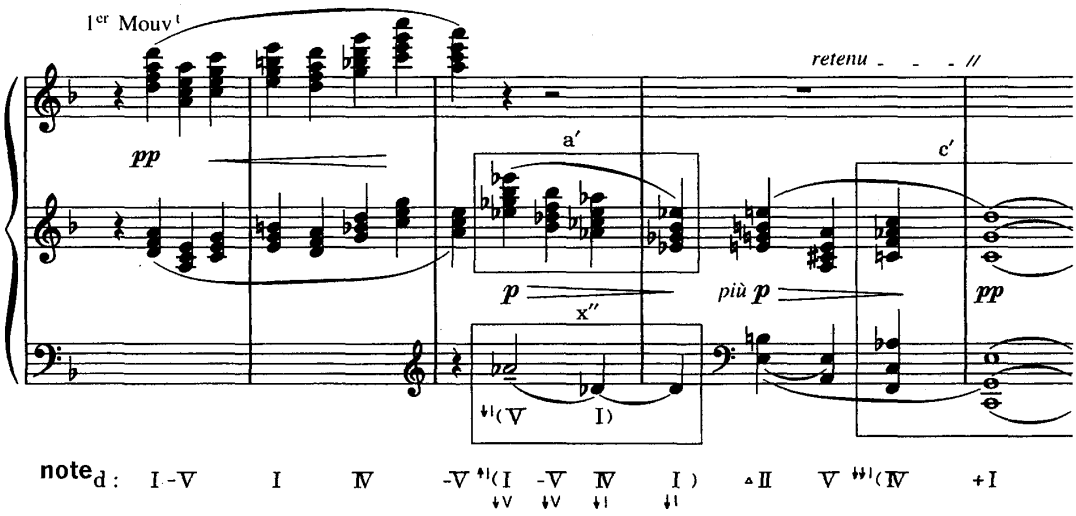


Footnote (to the previous page): What is the relation between the "key slide" (half-slid key) taken up in this section and "key sway" (an inner key = key on each tone degree) which is the main subject of this chapter? Speaking definitively, the former does not change the key relationship caused by the latter. For example, both **I** → **↓v** and **I** → **↑v** express the same key relationship as **I** → **v** (key sway). In this case **↓v** or **↑v** is, as it were, the out of focus **v-key**. Therefore, both **I** and **↓I** or **↑I** refer to the same key [out of focus]. In this sense, "key slide" can be considered to be "a jutting out factor" outside of the function of "key sway." But, apart from a tritone-key (**↓v** and **↑IV**), a half-slid key is in an enharmonic relation with some swayed keys. For example, **↑V**$\overset{EH}{=}$**∘IV**, etc. Therefore, with the exception of certain cases in which the surrounding context clearly designates a "slide relation," it is correct to grasp this as [an enharmonic rewriting of] a normal "sway relation."

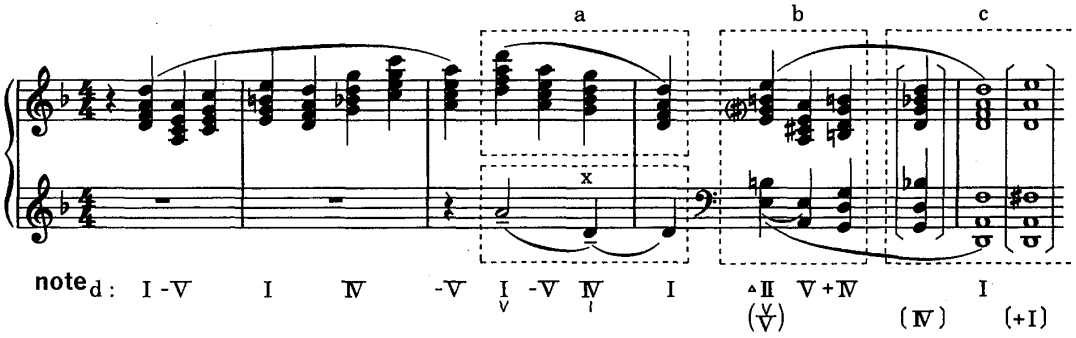




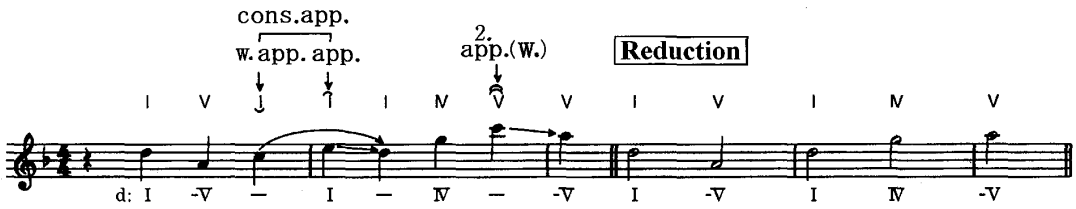
(b)



(c) The Harmonic Structure without "slides"



Note (to the previous example): The chordal and melodic analysis of the beginning of this work (1–3) is as follows:



We can consider the right hand part of this work to be an example of parallel chord writing (a consecutive use of a proper triad in <fund.>). But many parallel chords since modern times also have a harmonic (functional) significance [like this example].

If we surmise where "a key slide" occurs in the examples (a) and (b) above while collating with the assumed original harmony (c), we see that it occurs in each box (a′, b′, c′, x′ and x″).

Namely,

b′ in (a) is a downward-half-slid key (d♭)

a′ in (b) is an upward-half-slid key (d# $\overset{EH}{=}$ e♭) and c′ is a double downward-half-slid key (D♭ ♭ $\overset{EH}{=}$ C).

On the other hand, an original slide occurs in the left hand in x′ and x″. That is to say,

x′ in (a) is a double downward-half-slid key (D♭ ♭ $\overset{EH}{=}$ C)

x″ in (b) is a downward-half-slid key (d♭).

In this way, in x′ and x″ an original slide is produced only in the left hand, so the key in the right hand is different from that in the left hand and a temporary bitonality (d: and C: in (a), d#: and d ♭ in (b)) occurs [note].

Note: Although the harmonic and tonal constitution of this complete work along with the symbolic meaning of a half-slid key are interesting themes, I do not take them up here.

A half-slid key by necessity produces **a half-slid chord**. Naturally, between chords in the boxes (a′, b′ and c′) in the examples above along with the chords before and after them, the relation of half-slide **(a half-slid motion)** is produced.

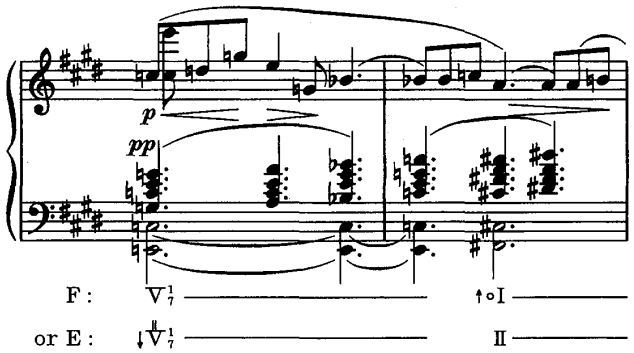
Namely, the half-slid chord relationships occur as follows.

in (a) d: I → ↓ $\overset{\vee}{\mathrm{V}}$ (d♭ : $\overset{\vee}{\mathrm{V}}$) and d♭ : +**IV** → ↑ **I** (d: **I**)

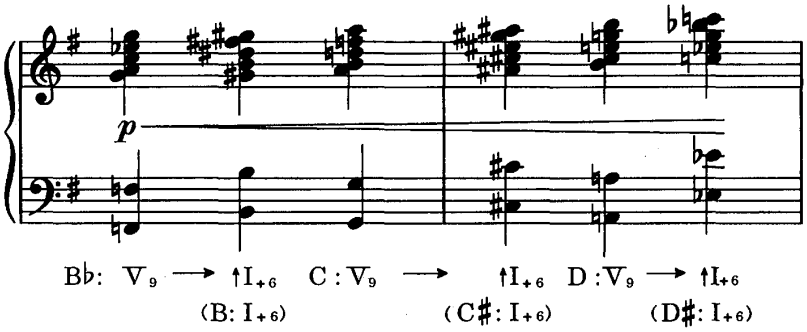
in (b) d: –**V** → ↑ **I** (d#: **I**) and d#: **I** → ↓ △**II** (d: △**II**), d: **V** → ↓ ↓ **IV** (c: **IV**).

I will next show examples of half-slid chords in a simpler form.

(6) Debussy: "Prélude à l'aprés-midi d'un faune'"



(7) Ravel: "Valse nobles et sentimentales," I



In example (7) above, a half-slide relation (a half-slid D-motion) is seen in each repetitive passage (D → T) of the D-2nd-ascending type sequence. The ascending semitone motion of the outermost upper voice is characteristic of this type of half-slide relation sequence.

(7) Bitonality

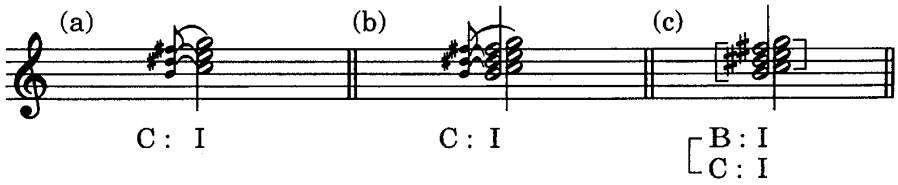
Bitonality (or **polytonality**) is a term signifying the simultaneous use of [more than] 2 keys.

In this case, 2 keys are not completely on equal terms with one key (an original key) often subordinating the other

(an incidental key).

1) **An Appogiatura Chord Key**

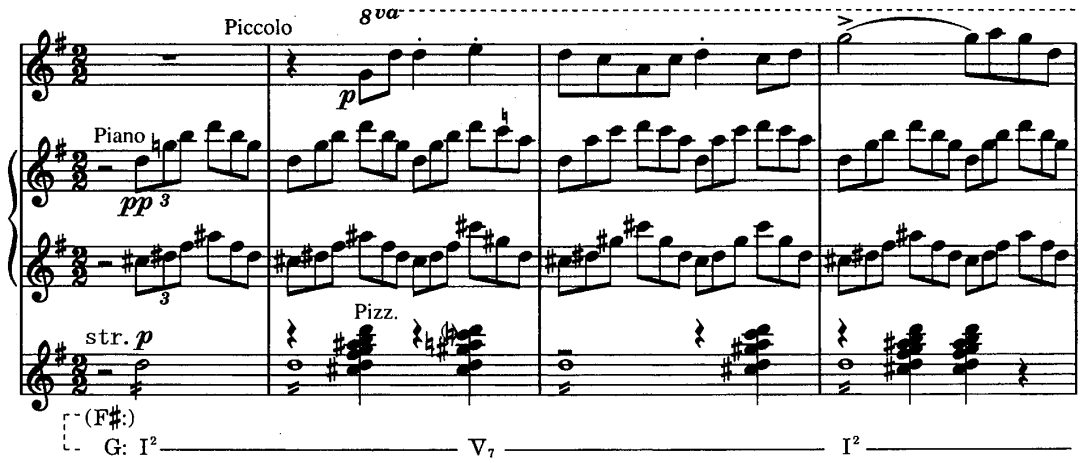
If an appoggiatura chord (example below (a)) in the form of short appoggiatura sounds with an original chord simultaneously, a compound chord in a semitone relationship [note] occurs (example below (b)). If **each** chord is **separately tonicized, the impression of a bitonality** occurs (example below (c)). In this case, **the key of the original chord** is **an original key** (C: in example below) and **the key of the appoggiatura chord** is **an incidental key** (B: in example below).



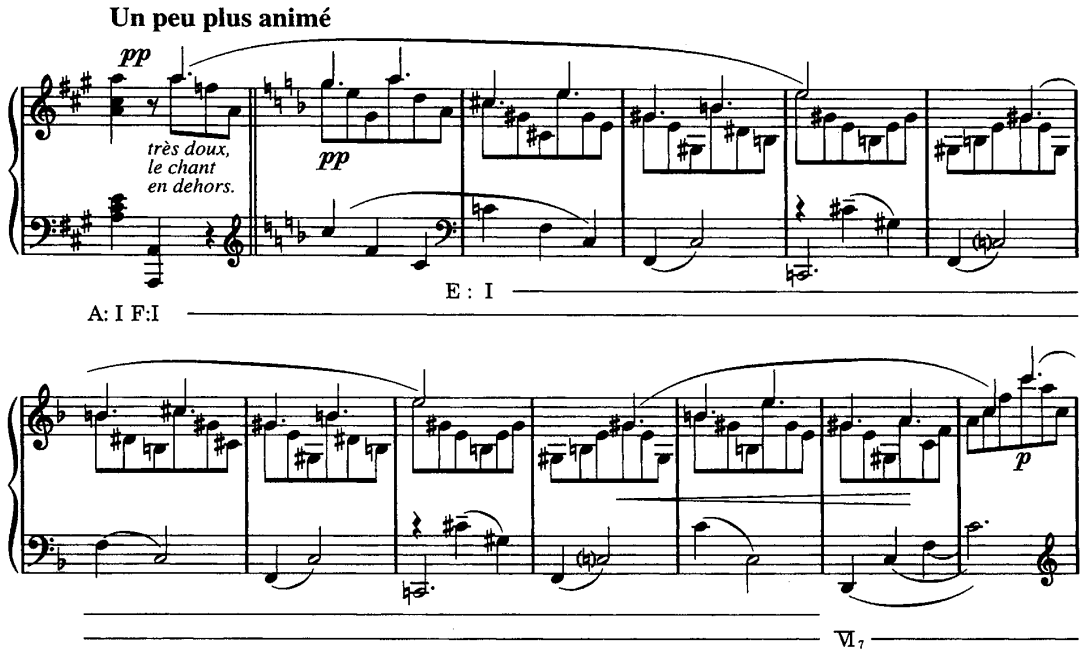
Note: Appoggiaturas occur on adjacent tone degrees. Therefore the semitone relationship in this case is a minor 2nd, not an augmented 1st (half-slide relation).

I will next show some examples.

(8) Ravel: Concerto pour piano et orchestre, 1st movement.



(9) Ravel: "Valse nobles et sentimentales" VI.



In example (8) above a clear appoggiatura chord key (F#:) does not occur because an F# chord: remains on the level of a simultaneous appoggiatura chord.

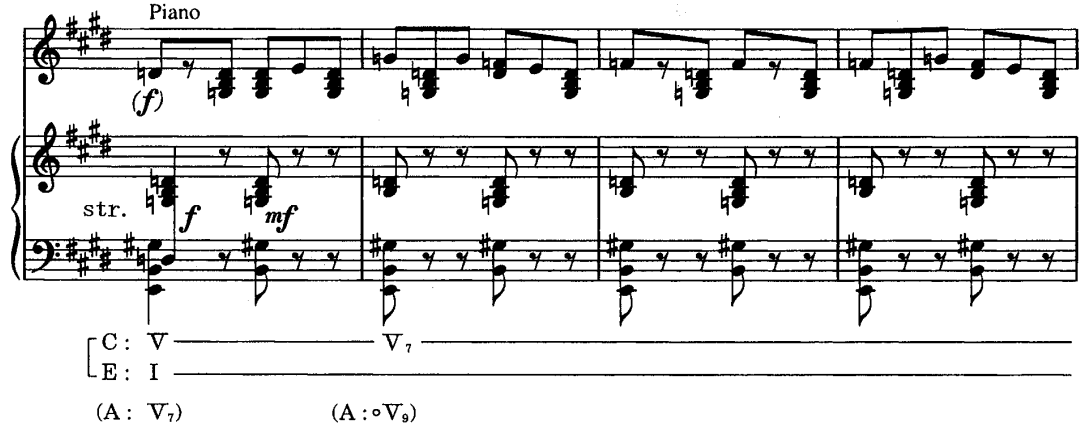
On the contrary, in example (9) above an appoggiatura chord (E:) in the right hand produces the effect of bitonality because it is tonicized for a considerably long time. In addition, on close examination we can see that E: **I** in the right hand returns to an appoggiatura chord (resolving to F: $\frac{I}{VI}$) again at the point where the left hand moves to F: **VI**$_7$ (the 2nd measure from the last).

2) **Upper Added Chord Key**

Some upper added tones including altered tones occasionally cluster around (an upper added chord) and sometimes incidentally form chords of another key. When each key is treated separately as an independent form, the effect of bitonality occurs. In this case **the key of an upper added chord** is **an incidental key** and **the key of a fundamental tone (the root)** is **an original key.**

I will show some examples next.

(10) Ravel: Piano Concerto pour la main gauche.



(11) ibid.