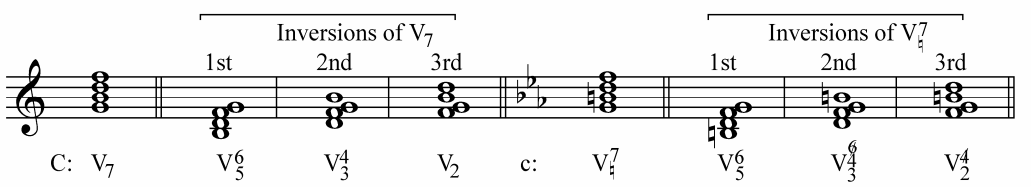
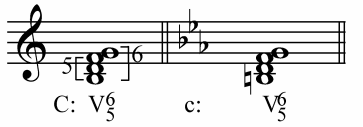
Identification

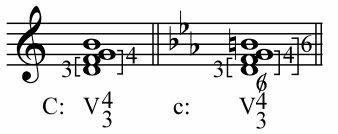
V_7 has 3 inversions: in the 1st inversion, the 3rd is in bass; in the 2nd, the 5th; in the 3rd, the 7th.



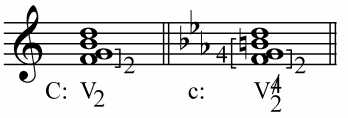
In the 1st inversion, $V^6{}_5$, the figures represent the intervals of the root (6) and 7th (5) above bass.



In the 2nd inversion, $V^4{}_3$, the figures represent the intervals of the root (4) and 7th (3) above bass. The figure 6 with a slash is used in a minor mode to indicate the alteration of the leading tone. A slash through a figure means that the note is to be raised a half step.



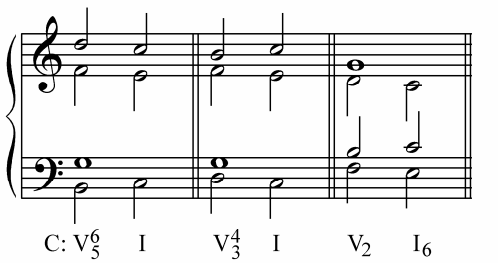
In the 3rd inversion, V_2, the figure represents the interval of the root (2) above bass. The figure 4 with a slash is used in a minor mode to indicate the alteration of the leading tone.



Resolutions of the Inversions

The inversions of V_7 are usually used in a *complete form* and resolve to I in the way similar to the resolution of the root position V_7, with only *one* difference:

1) the 7th and 5th move by step down;
2) the 3rd moves by step up;
3) the root *remains stationary*.



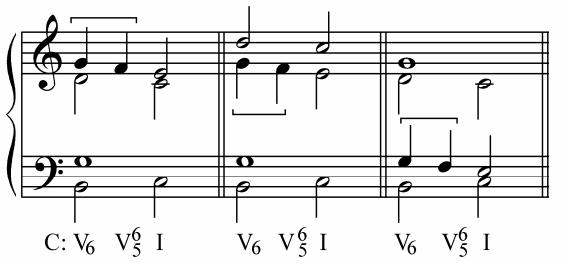
As seen from the examples, $V^6{}_5$ and $V^4{}_3$ normally resolve to I; V_2 resolves to I_6.

Preparation and Use

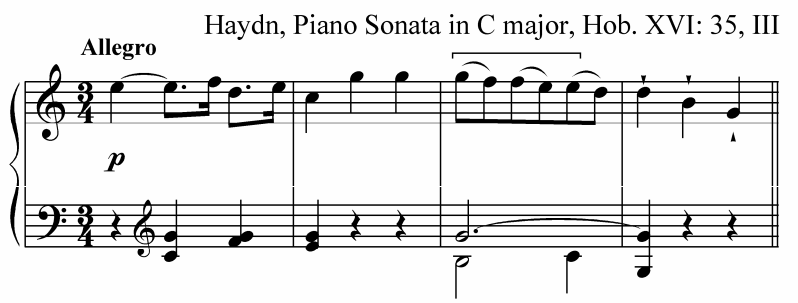
The inversions of V_7 are used in the same way as V_7 in root position; the 7th may be approached smoothly (passing, prepared) or with a leap.

The *passing* 7th is usual for $V^6{}_5$ and V_2.

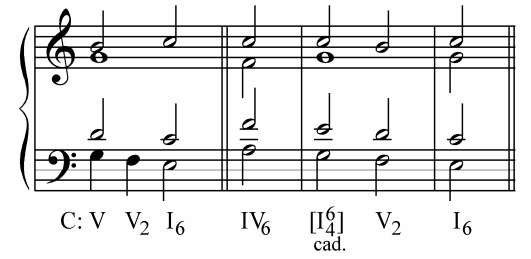
In such case, $V^6{}_5$ is used after V_6 in which the root is doubled (the passing 7th is in upper voices, more often in soprano).



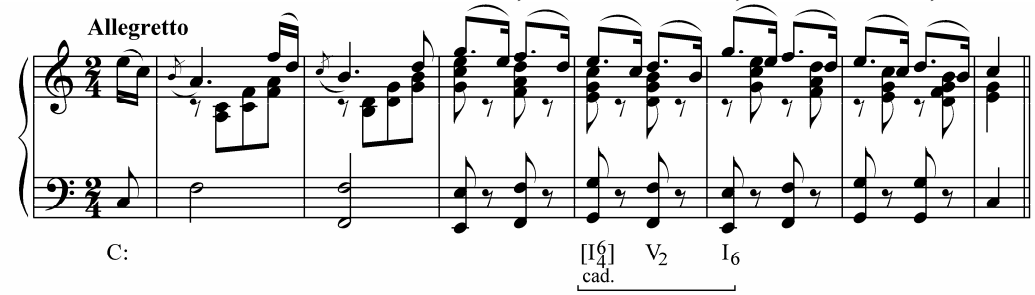
Haydn, Piano Sonata in C major, Hob. XVI: 35, III



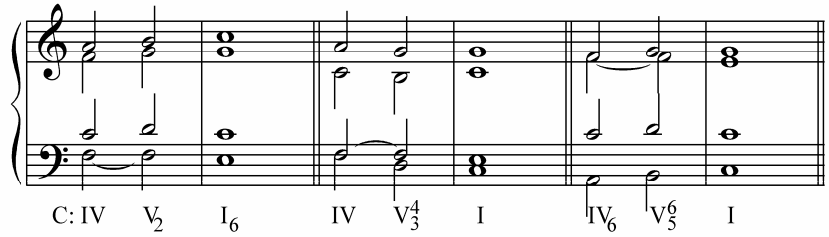
V_2 is often used after V or cadential (rarely after passing) $I^6{}_4$ (passing 7th in bass).



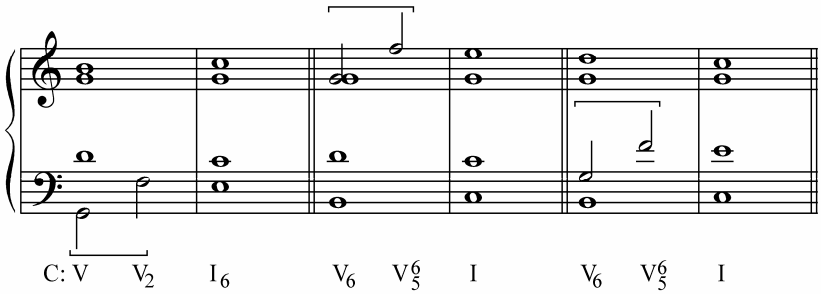
Mozart, Ariette "Oiseaux, si tous les ans", K. 307



The 7th is *prepared* if there is the harmonic connection of IV with any inversion of V_7.



The 7th may be approached with a *leap* if V is used. A leap in bass when connecting V–V_2 or a leap in upper voices (often in soprano) when connecting V_6–$V^6{}_5$ are all not rare.

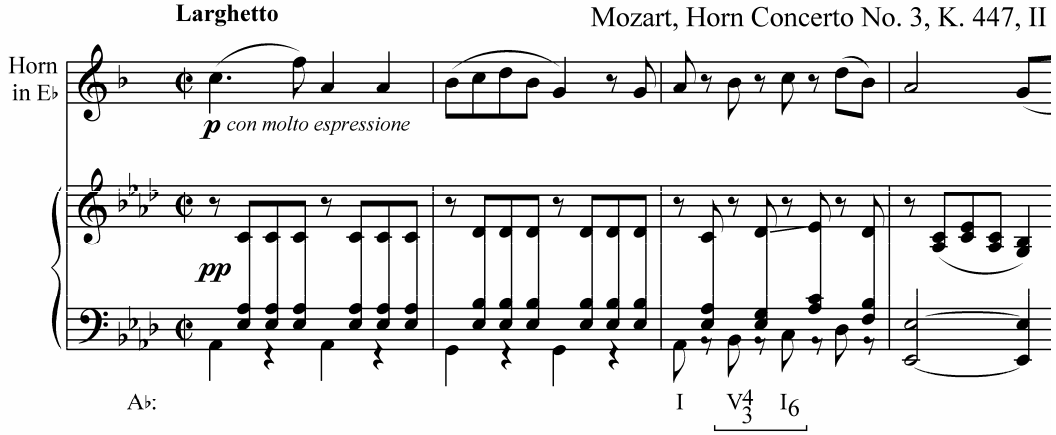


The use of the inversions of V_7 significantly increases the possibilities of the melodic behavior of each voice (especially the bass line). Thus, it is recommended to use the inversions of V_7 as much as possible while saving V_7 in its root position mostly for cadences.

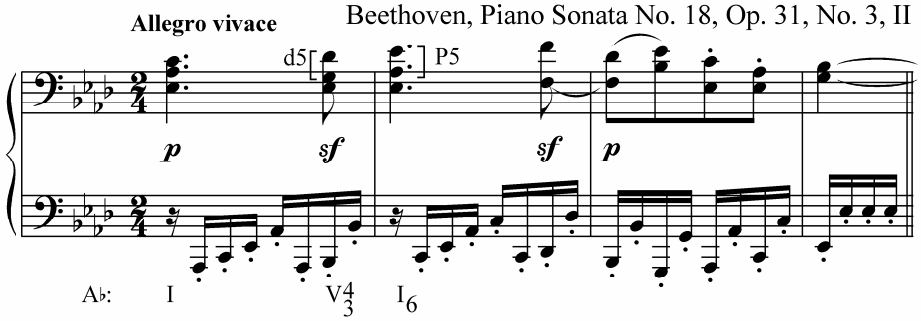
Passing V^4_3

V^4_3 is often used as a *passing chord* (instead of V^6_4) between I and I_6 (or vice versa).

In order to avoid doubling of the 3rd in I_6 in I–V^4_3–I_6 progression, the *7th moves up* parallel to bass. Such progression with the unresolved 7th became acceptable due to its characteristic motion of parallel 3rd's (or 10th's) between bass and an upper voice (often soprano).

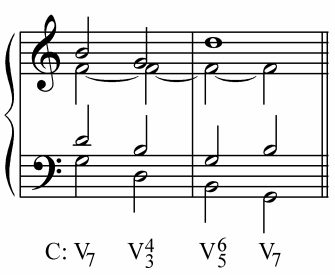


In open spacing, a diminished 5th would move to a perfect 5th (or vice versa). These 5th's are *not* considered to be parallel and are *allowed*.



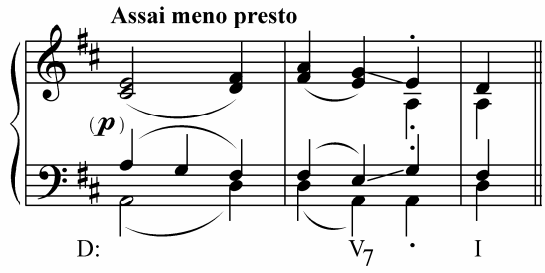
Interchange of the Chords

Like any triad, V_7 and its inversions can be interchanged. It is always better to keep the 7th in the same voice. It is not allowed to move the 7th by step up.



In rare cases it is possible to *exchange* the 7th with the 5th.

Beethoven, Symphony No. 7, Op. 92, III

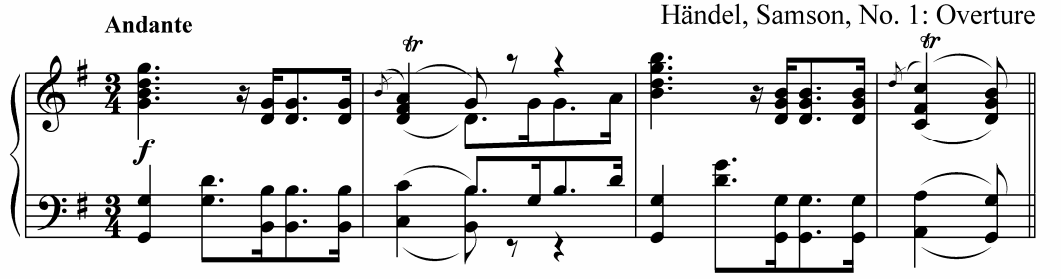


Exercises

1. Analyze the following music.

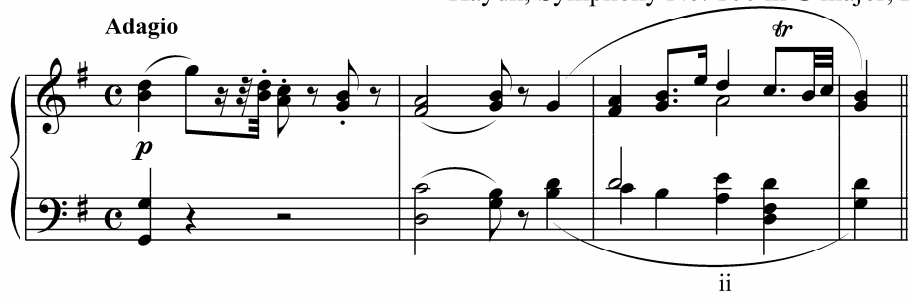
a)

Händel, Samson, No. 1: Overture

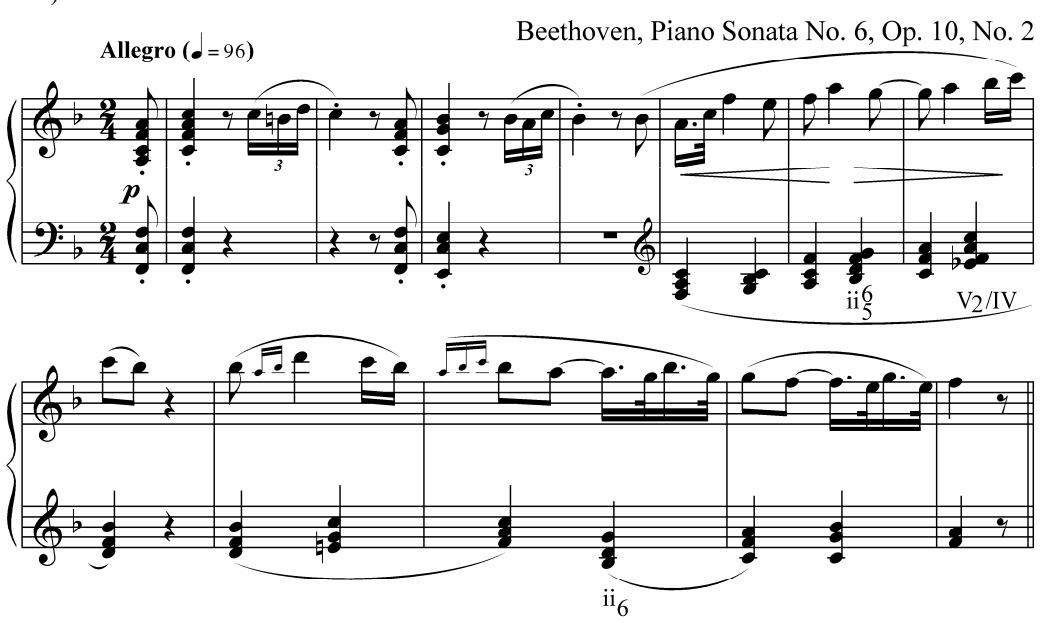


b)

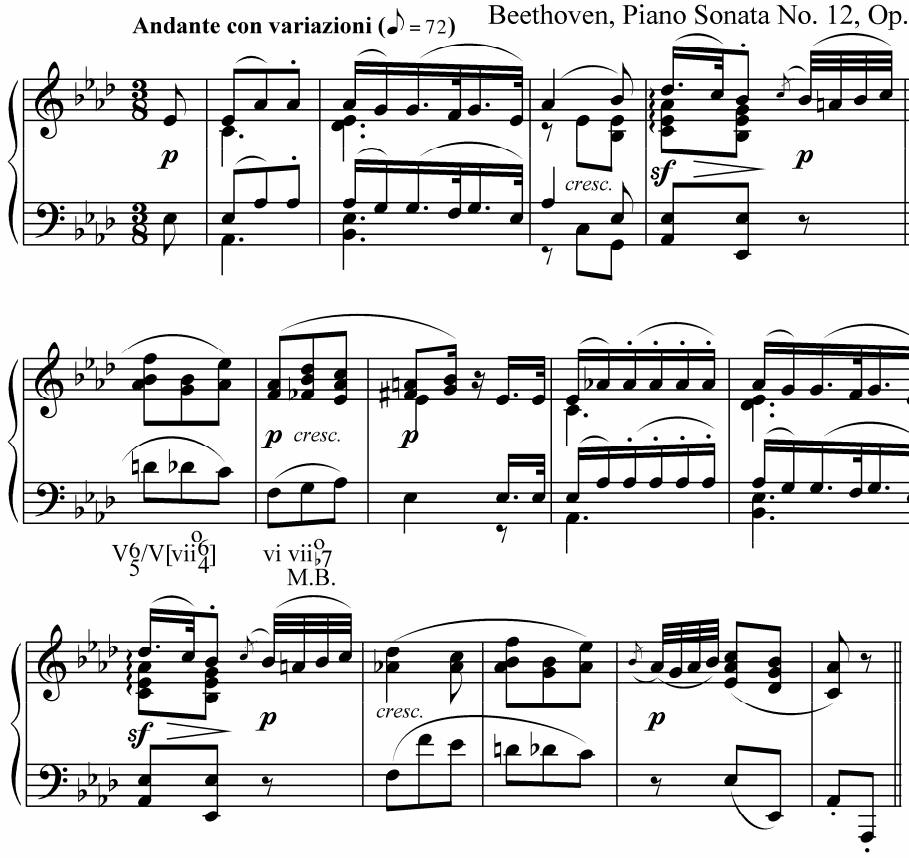
Haydn, Symphony No. 100 in G major, I



c)

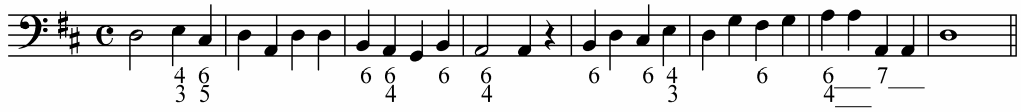


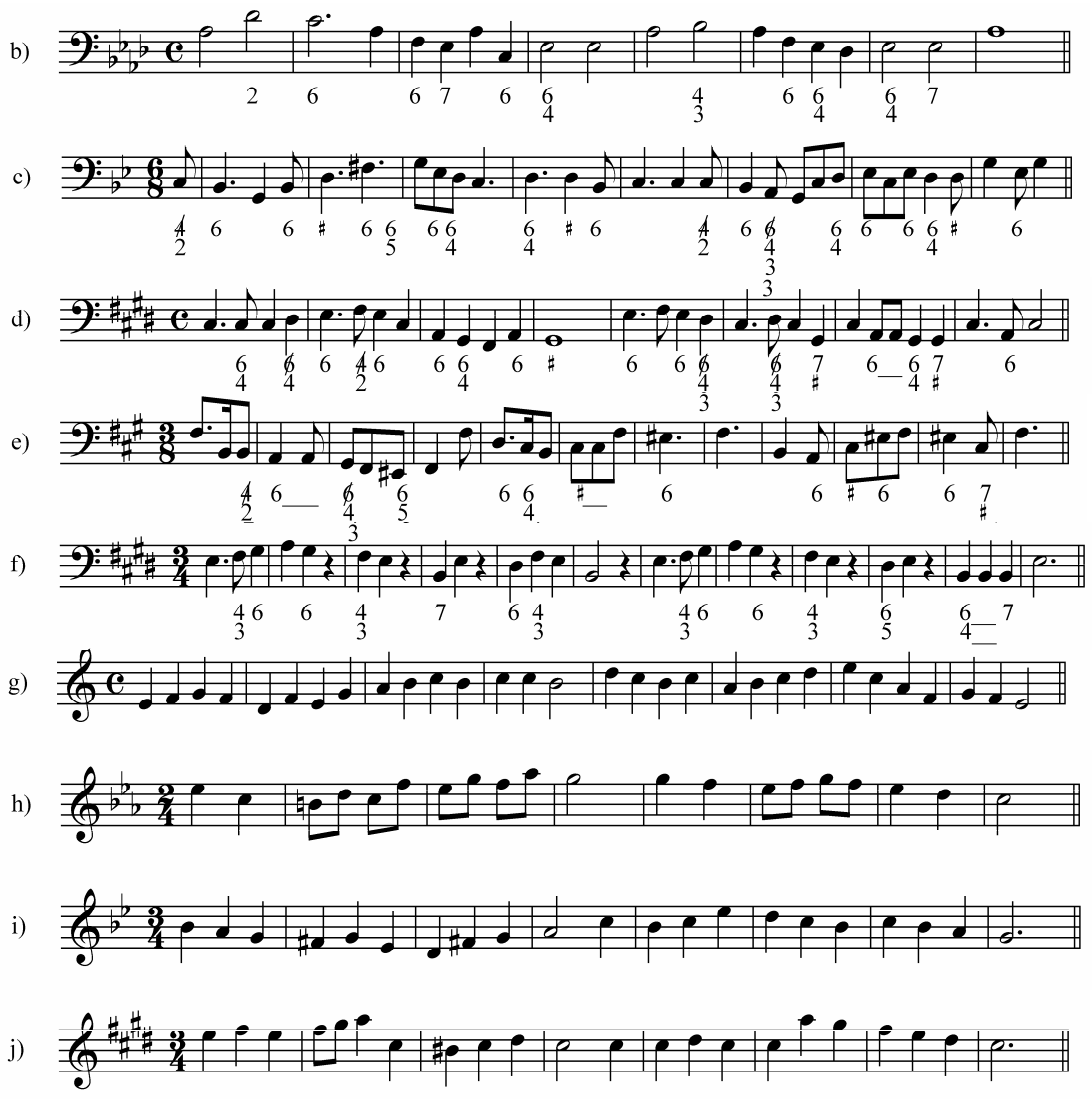
d)



2. Realize the following figured basses and harmonize the melodies.

a)



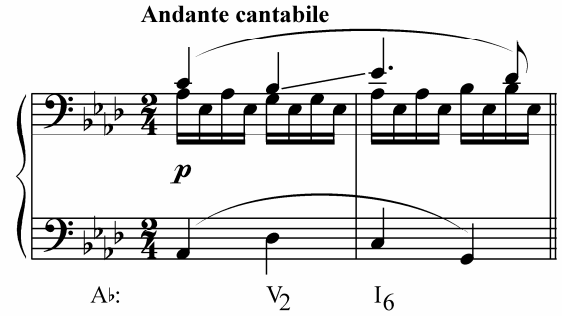

b)
c)
d)
e)
f)
g)
h)
i)
j)

There are some exceptional ways to resolve V_7 and its inversions to I which are somewhat different from the mentioned ones in the previous topics.

Leaps in V_2–I_6 Resolution

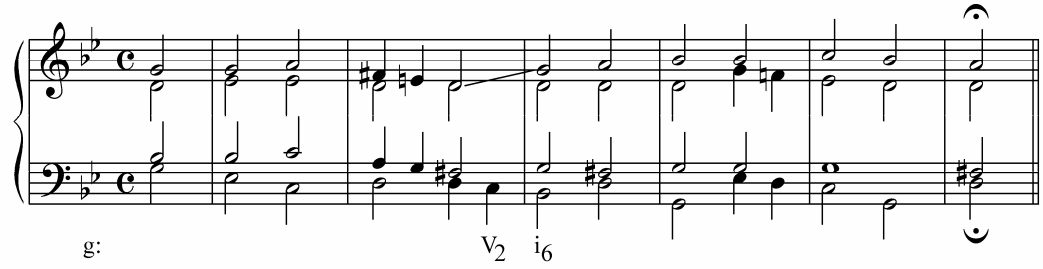
It is sometimes possible to find resolutions of V_2 to I_6 in which the 5th of V_2 would *leap* to the 5th of I_6 (instead of the normal stepwise resolution of the note). Such upward leap of a perfect 4th can be often found in soprano.

Beethoven, Piano Sonata No. 8, Op. 13, No. 2, II



Sometimes, V_2–I_6 chord progression may also use the leap of the root to the root.

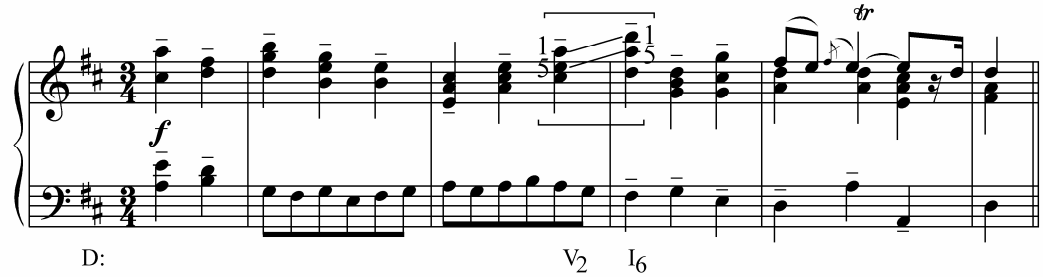
Crüger, Herzliebster Jesu, was hast du verbrochen



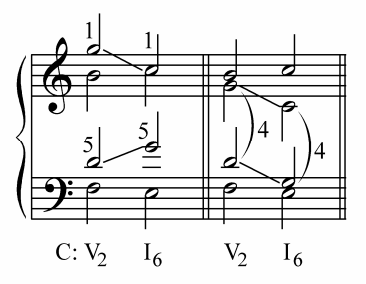
Double Leaps in V_2–I_6 Resolution

It is also possible to find leaps of both the *root* and *5th* at the same time in the two upper voices. In such case the root would be placed above the 5th, otherwise parallel 5th's would occur.

Händel, Samson, HWV 57, No. 23, Fix'd in his Everlasting Seat

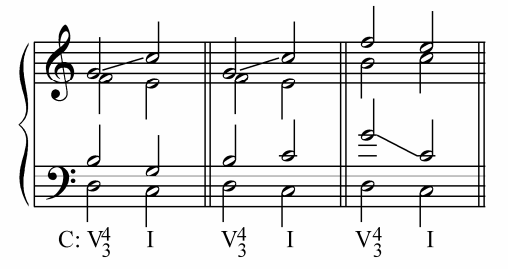


In some rare cases, the leaps may be by *contrary* motion of the upper and middle voices or by *downward* motion of *parallel fourths* in the inner voices.



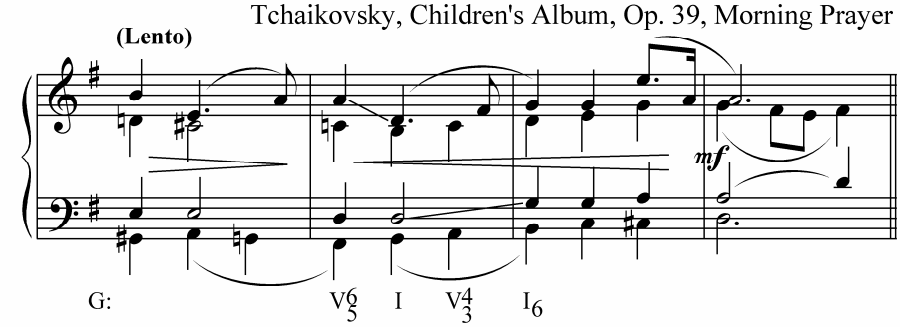
Leaps in V^4_3–I and V^6_5–I Resolutions

V^4_3 may also resolve to the *complete* or *incomplete* I with the leap from the root of V^4_3 to the root of I (the voice leading in this case is similar to the resolution of the root position V_7 to I).



Sometimes one can find leaps in V^6_5–I chord progression as well.

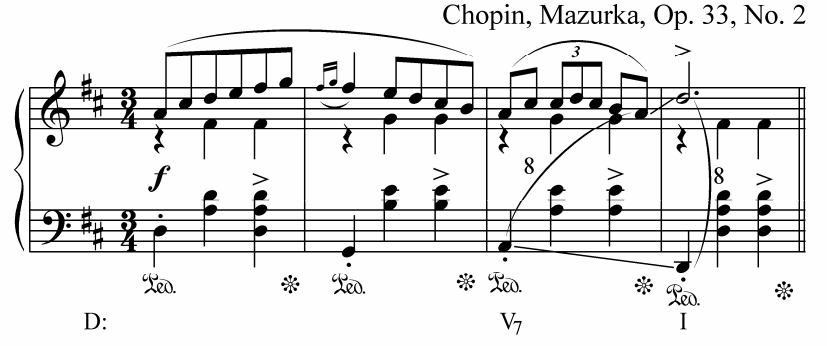
Tchaikovsky, Children's Album, Op. 39, Morning Prayer



Contrary and Parallel Octaves in Cadences

In order to have a perfect cadence at the end of a unit (phrase, period), an *incomplete* (sometimes complete) V_7 may resolve to I with *contrary* and sometimes even *parallel octaves* in the outer voices. Such parallel or contrary octaves are accepted and *not* considered to be wrong.

Chopin, Mazurka, Op. 33, No. 2



Exercises

Harmonize the following sopranos and realize the figured basses using leaps when resolving V_7 in root position and its inversions where appropriate.