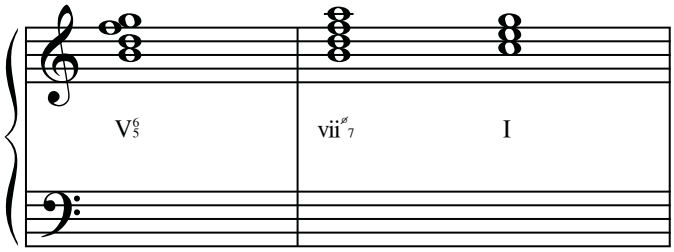
# vii$^{\varnothing}_{7}$ and vii$^{\circ}_{7}$

The leading-tone seventh chord is best understood as a less-stable version of the inversions of V7 -- less stable because the root of V7, scale-degree 5, has been replaced with scale-degree six, so that now the chord consists of the four notes in the scale that do not belong to the tonic triad. As a result, vii$^{\varnothing}_{7}$ and vii$^{\circ}_{7}$ can be thought of as made up of neighbor tones to I.



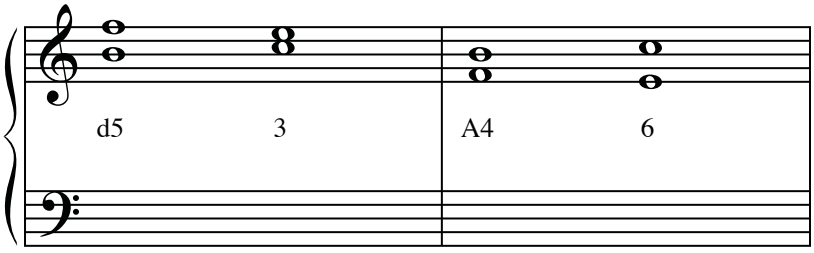

vii$^{\varnothing}_{7}$ and vii$^{\circ}_{7}$ usually function as linear dominants, similar in function and outer-voice patterns to inversions of V7, but with less stability because of the greater dissonance. With one exception, these chords lead only to I or I6.

Mechanics:

vii$^{\varnothing}_{7}$ and vii$^{\circ}_{7}$ present several challenges to voice-leading, primarily because of the tritones: in major, the leading-tone seventh chord is half diminished, and it has one tritone, between the root and the fifth; in minor, the leading-tone seventh chord is fully diminished, and it has two tritones, between root and fifth and between third and seventh.

The treatment of these tritones in understood in relation to the normal resolution of any tritone, and this is most easily understood by thinking of the tritone between the leading tone and scale-degree four. The normal resolution of the tritone occurs when the tendency tones each resolve normally, the leading tone to the tonic and scale-degree four to scale-degree three. This means that the diminished fifth contracts inward to a third, while the augmented fourth expands outward to a sixth.

This is the normal resolution of any tritone: d5->3, A4->6



The voice-leading rules for vii$^{ø7}$ and vii$^{°7}$ are as follows:

The leading tone always resolves.

The seventh always resolves down by step.

Tritones may always resolve normally.

Never leap out of a tritone.

For the A4, the irregular resolution of A4-P4 is always allowed.

For the d5, the irregular resolution of d5-P5 (sometimes known as unequal fifths) is as usual forbidden, with one exception: d5-P5 between root and fifth is permitted if the bass moves from scale-degree two to scale-degree three.

Two quick notes in relation to this:
This parallels the very similar exceptions for vii°6 and V4/3;
P5-d5 in approaching vii$^{ø7}$ or vii$^{°7}$ is always permitted.

Because these rules are so restricted, there is a special allowance for vii$^{ø7}$ and vii$^{°7}$ :

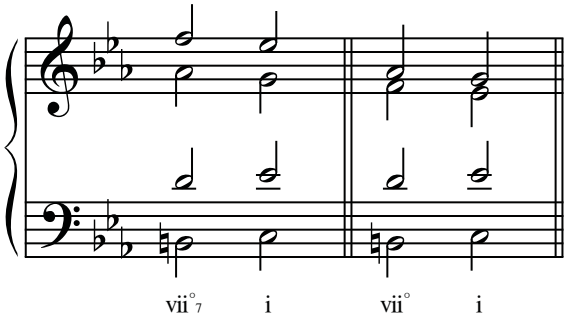
Following vii$^{ø7}$ or vii$^{°7}$ and their inversions, it is permissible to double the third in I or I6 (or i or i6 in minor).

<u>Idiomatic uses of vii$^{ø7}$ or vii$^{°7}$ (paralleling treatment of inversions of V7)</u>:

<u>vii$^{°7}$:</u>

As with V6/5, motion from 4 to 3 is idiomatic;

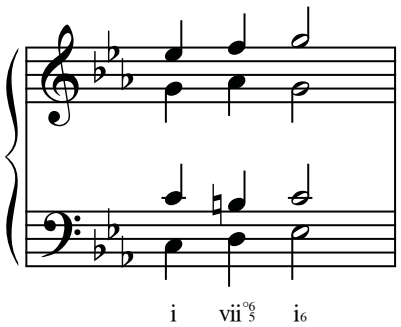
6 to 5 is an additional possibility.




<u>vii$^{°6}_{5}$:</u>

As with V4/3, parallel tenths are most idiomatic for vii$^{°6}_{5}$,and as with V4/3, the upward stepwise motion in the bass makes the d5-P5 acceptable.

Note that unlike V4/3, descending parallel tenths are excluded by the d5-P5 between the bass and the resolving seventh. (Aldwell and Schachter discuss a solution to this problem.)

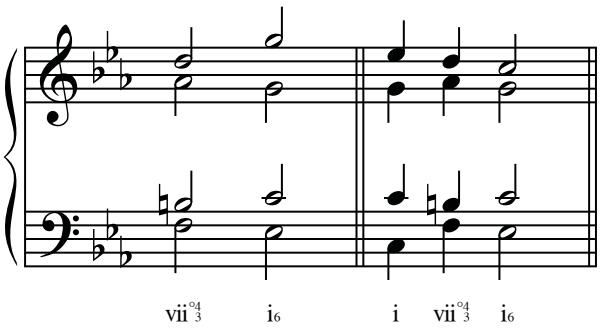


vii°4/3:

As with V4/2, fourth leaps are idiomatic, but now only the one from scale-degree two to scale-degree five, as vii7 lacks a scale-degree five from which to leap, excluding the leap from five to one.

Note the exception here to the rule of not leaping out of a tritone.

A voice exchange is also a good option.

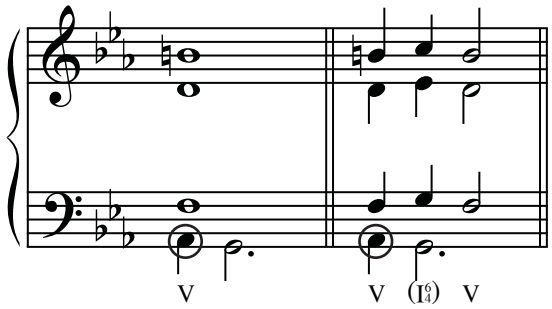



vii°4/2:

vii°4/2 is the only inversion of vii°7 that does not parallel an inversion of V7; this is because it has scale-degree six in the bass.

vii°4/2 generally moves to root-position V7; better understood, it *is* root-position V7, with a non-harmonic tone in the bass.

Sometimes vii°4/2 moves to what appears to be a cadential six-four; but because it was really already a V chord, this is better understood as a neighboring six-four. The imitation of a real vii°7 to I motion is almost like a pun, lacking functional harmonic meaning.




vii°7 in major:

Although vii⌀7 is diatonic in the major mode, the lowered scale-degree six is often borrowed from the minor mode, resulting in a fully-diminished leading tone triad. In contrast, vii⌀7 is never used in the minor mode.