Nonchord tones (NCTs)

This topic was already covered—in a way—in Theory I. If you think back to the two-voice unit (the final one in the course), you learned about such "embellishing" or "decorative" tones as the PT, NT, NG, ANT, APP, and ET. In a two-voice context, these tones were identified by the way in which they created a dissonance—often a P4, 2nd, or 7th—against the other voice. We will now call them **nonchord tones** (if you haven't already) because they create dissonance—again often a P4, 2nd, or 7th—against the prevailing **chord**. The name "nonchord tones," then, is very literal: "tones which don't fit into the chord."

Writing them: when writing them, it is critically important to ***take the first step of writing the harmonic progression correctly and smoothly***. Having accomplished this, you may then "activate the texture" by adding nonchord tones.

Analyzing them: there's a paradox here—on the one hand, you must "look through" the nonchord tones to find the underlying consonant harmonic structure, but on the other hand, how do you "look through" them when you're unsure about which notes are the NCTs? What it involves is practice at several things: understanding harmonic logic and syntax, identifying consonance and dissonance, and beginning to develop an awareness of what's likely to happen. It also involves patient experimentation—at times, you simply have to try out different options and decide which is most likely.

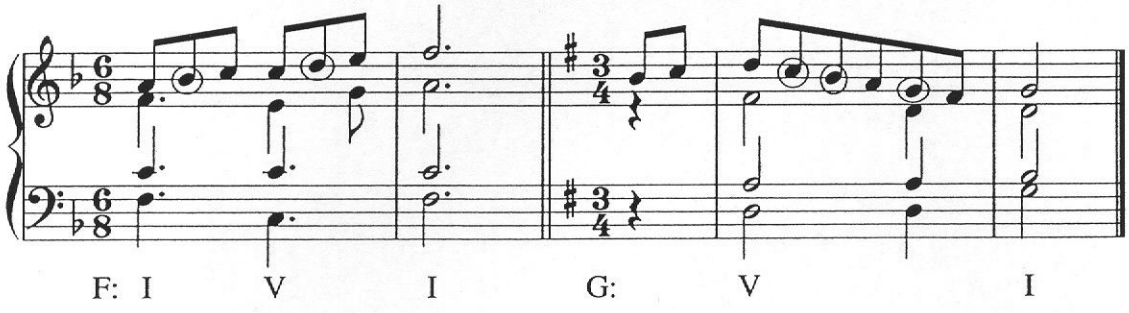
For the sake of discussion, we will divide them into three groups: 1) those involving just steps (with an exception or two); 2) those which move leap/step or step/leap; and 3) suspensions.

Group I: those involving just *steps*, with an exception or two

This group includes **passing tones (PT)**, **neighbor tones (NT)**, **neighbor group (NG**; Turek calls this "changing tones," but we won't), **anticipation (ANT)** and **pedal point (pedal)**.

Passing tones (PT):

Passing tones connect two ***different*** chord tones (consonances) through ascending or descending stepwise motion. In other words, they *fill the gap* between two consonant notes. They may be accented (APT) or unaccented (UPT), though we won't worry too much about this distinction. PTs may be diatonic or chromatic, and they may occur in any voice in the texture. It's possible to have two (or even more) PTs in a row; they would be filling in wider intervals between chord tones.



Neighbor tones (NT):

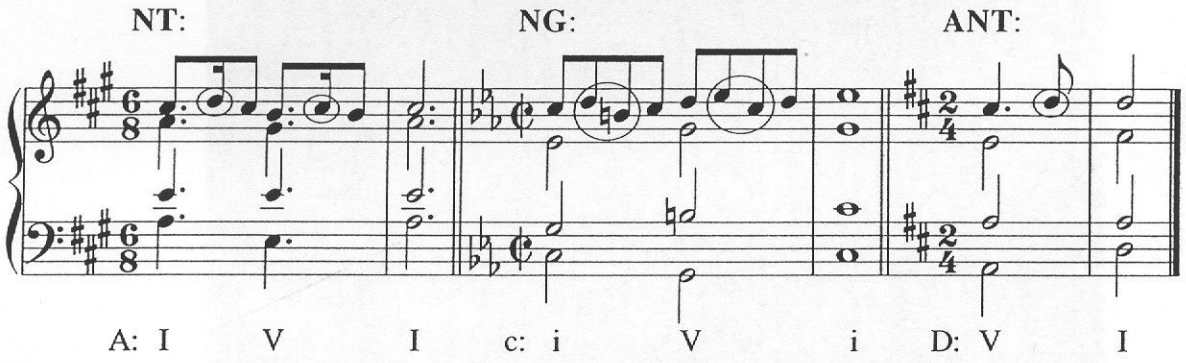
Neighbor tones connect a note and its repetition through a step away then a step back. They may be an upper neighbor tone (UNT) or a lower neighbor tone (LNT), though we won't worry about this distinction. NTs may be accented or unaccented, they may be diatonic or chromatic, and they may occur in any voice in the texture. There can't really be two or more NTs in a row. See the example on the next page.

Neighbor groups (NG):

Neighbor groups connect a note and its repetition through ***both a LNT and an UNT***; what happens is there's a step away, a tiny skip (a third) in the opposite direction, then a step back to the original consonant pitch (so remember: *step-skip-step*). NGs may be accented or unaccented, they may be diatonic or chromatic, and they may occur in any voice in the texture. There can't really be two or more NGs in a row. See the example below.

Anticipations (ANT):

An anticipation involves arriving at a note *too soon*; that is, one consonant is moving (usually by step) to another consonant note, but it moves too early. The ANT is thus dissonant with the chord against which it first appears, then when it is rearticulated with the new chord it is consonant. ANTs are often found at cadences in contexts like "ti-do-do" or "re-do-do." Finally, ANTs are virtually always ***unaccented***, they usually occur in the upper voice, and they're usually diatonic. See the example below.



Pedal point (pedal):

A pedal point (sometimes simply called pedal) is a sustained (or rearticulated) pitch against which other melodic/harmonic activity takes place. It is a unique NCT because it is not really so much *decorative* as it is a *structural*, anchoring element within any passage where it occurs. In its simplest form, it is a tone that is sustained—generally in the bass—during a progression of chords. It may or may not be a member of the chords that occur with it. The pedal is most frequently the ***tonic*** or ***dominant*** note in the scale. When there's a pedal in the bass, the inversion of the chord above it is difficult to hear; it's best to assume just root position chords (and Roman numerals) when a bass pedal is present. See the example on the next page.

Group II: those involving leap/step or step/leap

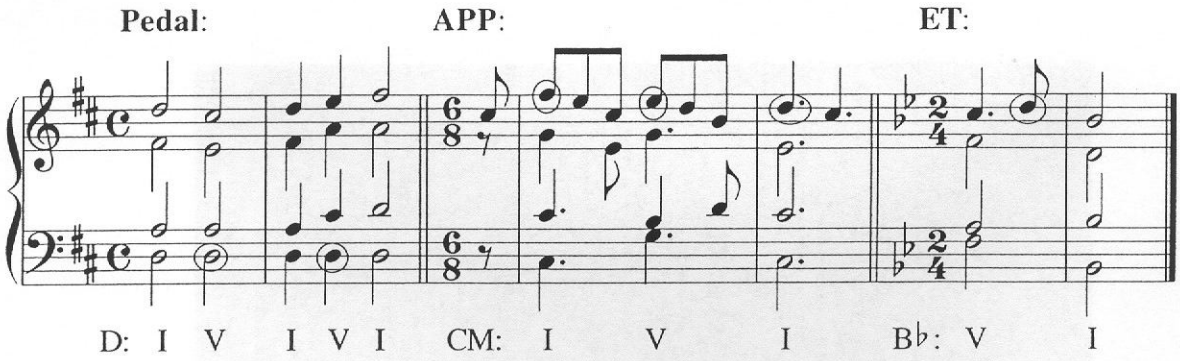
Appoggiaturas (APP):

Appoggiaturas involve a ***leap then a step***, with the step usually in the opposite direction of the leap. This may involve leap up/step down or leap down/step up. APPs are usually ***accented***, they are usually (but not always) in the top voice, and they may be diatonic or chromatic. Once in a while the step may be in the same direction as the leap. Recognize this when *analyzing*, but when *writing*, try to "fill in the leap" with a step in the opposite direction. See the example on the next page.

Escape tones (ET):

Escape tones (sometimes called *echappées*) are in many ways the opposite of APPs; they involve a ***step then a leap***, with the leap usually in the opposite direction of the step. This may involve step up/leap down or step down/leap up. ETs are usually ***unaccented***, they are usually (but not always) in the top voice, and they may be diatonic or chromatic. Once in a while the leap may be in the same

direction as the step. Recognize this when *analyzing*, but when *writing*, try to "leap away" with a leap in the opposite direction of the step. See the example below.



Group III: suspensions (susp)

A suspension is a dissonance which arises when a pitch is sustained or repeated before its stepwise resolution. Put more specifically, a suspension is a sort of melodic delaying action whereby a consonant pitch is sustained through a subsequent rhythmic accent (at which point it becomes a dissonance), followed by a resolution by step to a consonance on a weak beat.

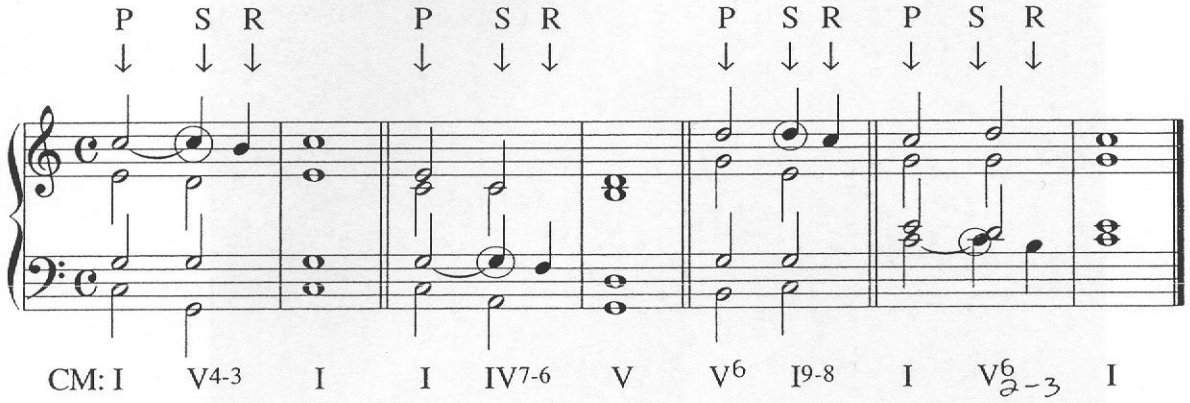
There are three parts to any suspension: 1) the ***preparation***, which is the initial (consonant) appearance of the pitch; 2) the ***suspension***, which is the place where the prepared pitch is sustained or repeated over some new chord and thus becomes a dissonance; and 3) the ***resolution***, where the suspended, dissonant note moves by step to a consonant chord tone.

About accentuation: the preparation is usually on a weak beat, or at least weaker than the suspension itself. The suspension is usually ***accented***. The resolution typically is on a weak beat.

The most typical suspensions are **4-3**, **7-6**, and **9-8**. These number pairs refer to the intervallic distance between the upper, suspended voice and the bass voice at the points of dissonance and resolution. (Remember, *bass* and *root* can be different things). It's also possible to encounter 6-5 suspensions, but these are much less common, since both the 6th and 5th are consonant.

One type of suspension occurs ***in the bass voice***—the **2-3** suspension. The numbers here indicate the intervals formed by the bass voice and the voice against which it is initially dissonant. In fact, the intervals are usually a 9th and 10th, but the figure 2-3 is used by convention.

The examples below—all in the key of C Major—show a 4-3 susp in the soprano, a 7-6 susp in the tenor, a 9-8 susp in the soprano, and a 2-3 susp in the bass. Note that the 9-8 is a rearticulated suspension, and that the suspensions may be shown in the Roman numeral analysis. In all cases, P stands for preparation, S means suspension, and R refers to resolution.



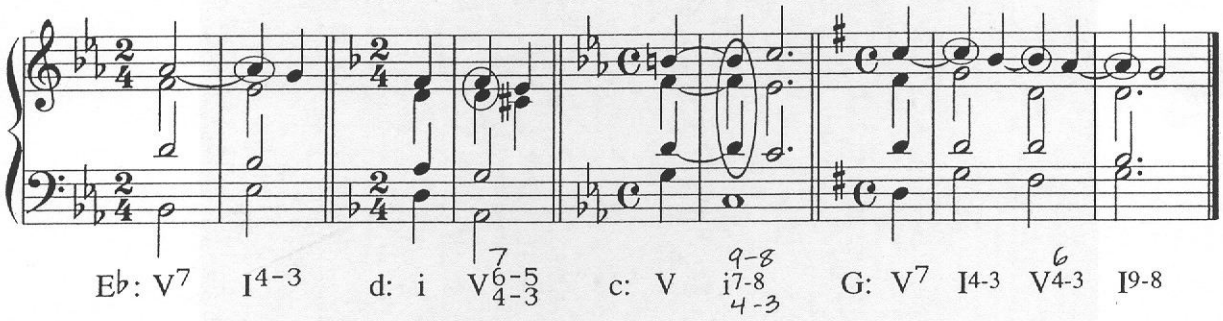
The examples shown below include some more subtle points about suspensions.

The first example is a simple 4-3 suspension in the soprano. Despite the fact that we have not covered the V^7 chord yet, it is important for you to know that the 4-3 is sometimes included in the resolution of the dominant seventh chord.

The second example shows a ***double suspension***: there are two suspensions going on simultaneously (here, a 6-5 in the soprano and a 4-3 in the alto).

The third example is a triple suspension, one of which is something new: a 7-8 retardation in the soprano. A ***retardation*** is simply a suspension which resolves up by step. The most common ones are the 7-8 and the 9-10. Don't confuse the retardation with the 2-3 (bass) suspension.

The fourth example features a ***chain of suspensions***. While suspensions occur most frequently at cadences, they are possible anywhere within the phrase. A chain of suspensions is one way in which this may occur.



A few final pointers:

When realizing a figured bass, the suspensions will be obvious (look for *horizontal* numbers such as 4-3, 7-6, or 9-8).

The 4-3 and 9-8 suspensions usually occur with root position triads; the 7-6 and 2-3 with first inversion triads.

Suspensions may sometimes have *ornamental resolutions* which make the suspensions a bit more difficult to decipher.

The ***resolution*** of the suspension may *occasionally* occur simultaneously with a new chord (this is sometimes called a "change of bass" with the resolution). The resolution will still be a consonance.

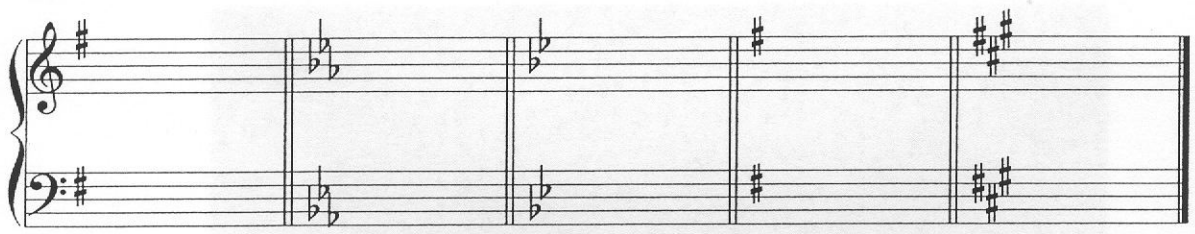
When analyzing: in a "circle and identify the nonchord tones" situation, circle the suspended note and give the suspension a complete label such as 4-3 susp, 9-8 susp, or 7-6 susp. In addition, it's possible to include the suspension numbers with your Roman numeral analysis, such as V^{4-3}.

Here are the steps when writing: 1) be absolutely certain that you have written the harmonic progression perfectly; 2) find a place(s)—especially near cadences—where a voice resolves down by step; 3) tie the prepared note over or rearticulate it; then 4) resolve the suspension that you've written down by step. Note that this involves rewriting and changing the rhythm—be sure that your rhythmic alignment is impeccable. Another point: with the exception of the 9-8 susp, ***the resolution note should not be doubled***.

See also pp. 156-159 and 216-218 in the Turek text for more details about suspensions and retardations.

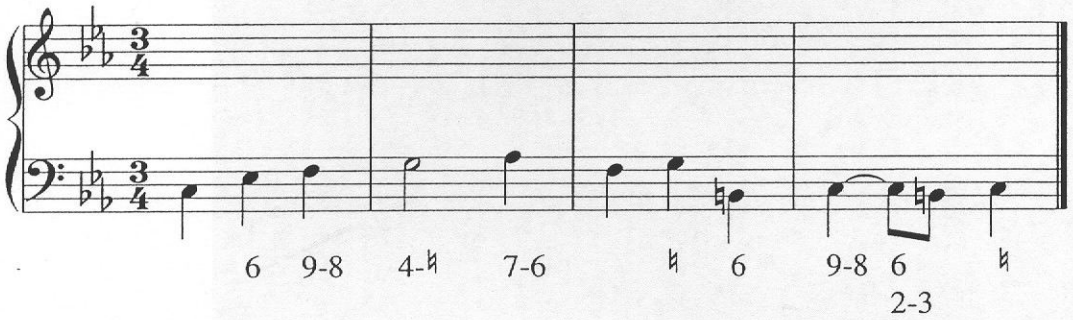
Writing suspensions:

1. ***First***, write the progression(s)—make sure that your chord construction and voice leading is absolutely *flawless*.
2. ***After*** you've written the underlying progression, ***then*** elaborate it as requested.

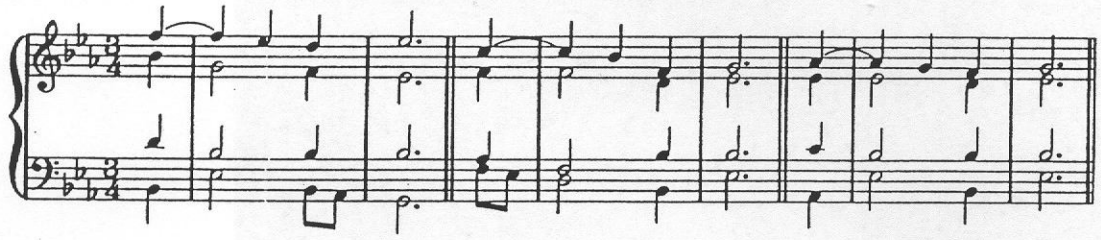


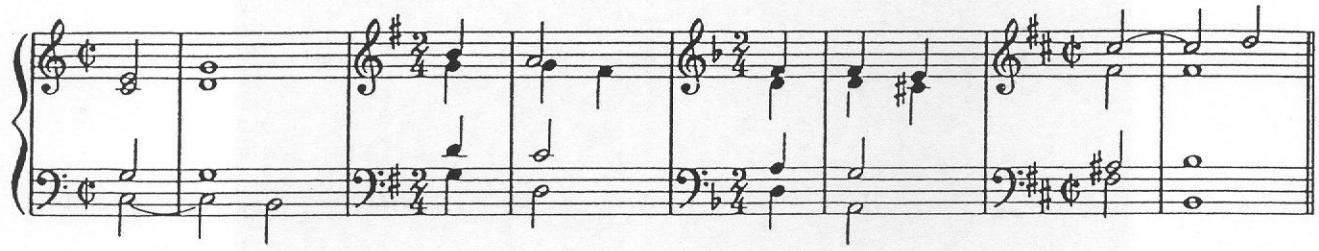
G: I V4-3 c: iv V4-♮ B♭: IV V9-8 e: i iv7-6 A: IV I6 2-3

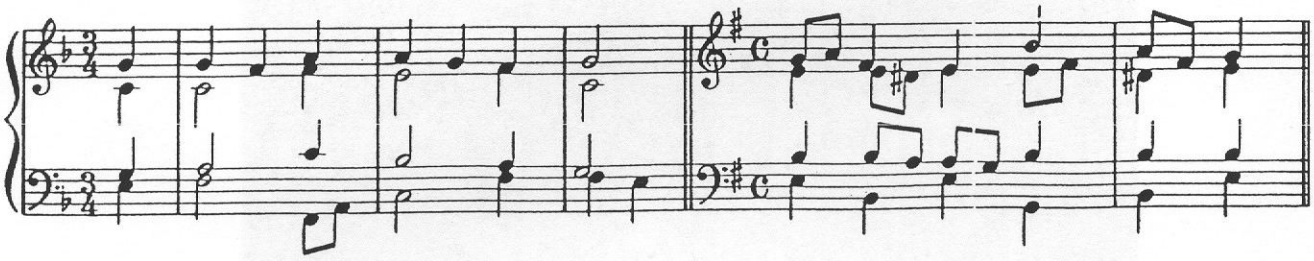
Figured bass interpretation: *horizontal pairs imply suspensions*. If writing for SATB, ***write the progression first, then add the suspensions***.



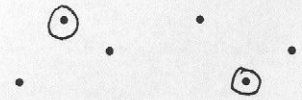
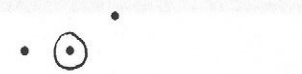
Analysis: key, RNs, ID nonchord tones







Nonchord tone overview page

Type	Approached by	Left by	Shapes (circled note is the NCT)	Direction and other characteristics	Rhythmic placement
Passing tone	step	step		same direction; connects two chord tones. Multiple passing tones fill in wider intervals between chord tones.	unaccented or accented
Neighbor tone	step	step		Direction changes; returns to same chord tone	unaccented or accented
Neighbor group	step	step		Pattern is step-skip-step; a figure formed with both upper and lower neighbors of a chord tone	unaccented or accented
Appoggiatura	skip	step		Direction may or may not change	usually accented
Escape tone	step	skip		Direction may or may not change	usually unaccented
Anticipation	step (sometimes skip)	rearticulation		Approached from either direction; often near a cadence	unaccented
Suspension	tie or rearticulation	step ↓		Preparation on weak metric location; suspension on strong; resolution ↓ on weak	susp is accented
Retardation	tie or rearticulation	step ↑		Same as suspension but with upward resolution	ret is accented
Pedal point	-----	-----		May be sustained or rearticulated; often in bass but may be in any voice; often either $\hat{1}$ or $\hat{5}$	-----

The V^7 chord

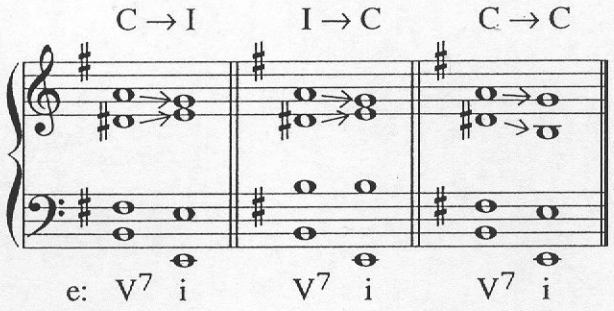
Introductory data:

The symbol "V^7" shows that this is a dominant-functioning chord, but it's not just a triad. Remember that triads are stacked thirds--root, third, fifth. If one stacks on yet another third, this note is a seventh above the chord root. The quality of the V^7 is a "**major minor seventh chord**": **major** refers to the type of triad, while **minor** refers to a minor seventh above the chord root. This chord is often called the **dominant seventh** chord. The jazz/pop symbol is simply the chord root and then a superscript 7: for example, C^7 or $E\flat^7$. The V^7 chord is important because of its strong "pull" toward the chord of resolution. This "pull" is created by the tendency tones $\hat{7}$ (which "wants" to resolve up to $\hat{1}$--ti up to do) and $\hat{4}$ (which "wants" to resolve down to $\hat{3}$--fa down to mi or me). **Note**: just as you use the **leading tone** when writing V in a minor key, so should you use it when writing V^7: there should be an accidental.

The root position V^7:

There are **three** different ways to resolve a **root position** V^7 to a **root position** I (or i):

1. A **complete** V^7 (all four chord members present) to an **incomplete** I (this incomplete I typically has a tripled root, one third, and **no** fifth).
2. An **incomplete** V^7 (doubled root; no fifth) to a **complete** I (whose root is doubled).
3. A **complete** V^7 to a **complete** I. This last one **ONLY** can happen if the third of the chord (the leading tone--scale degree $\hat{7}$) is in an inner voice--the alto or tenor.

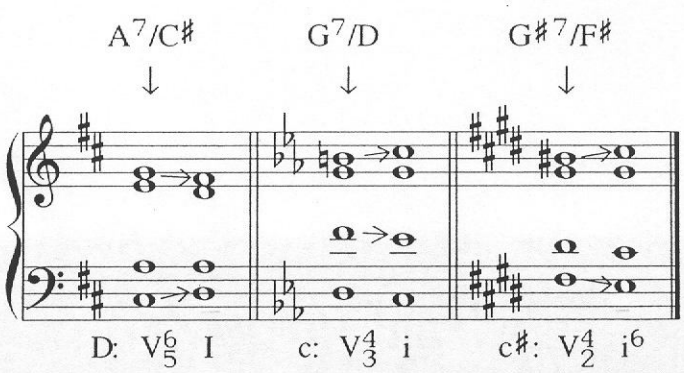


Note that for all three resolutions, the **seventh of the chord** ($\hat{4}$) **always** resolves **down**. For the first two, the **third of the chord** ($\hat{7}$) resolves **up**, as one would expect. **Only** in the case of **complete to complete** does the third resolve down, and that's **only** when the third of the chord ($\hat{7}$) is in an **inner voice**--the alto or tenor. Remember in general: ti → do fa → mi.

The V^7 chord in inversion:

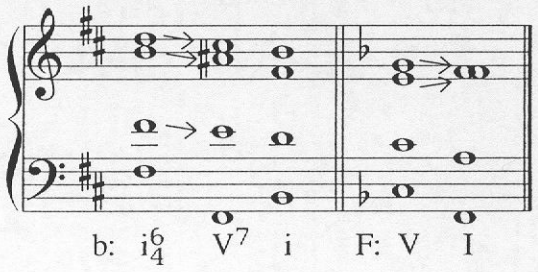
Now that you're completely confused, something easier: in writing and resolving any **inversions** of V^7, both the inverted V^7 and the chord of resolution should be complete, and the seventh of the chord ($\hat{4}$) resolves down, while the third of the chord ($\hat{7}$) resolves up (again, ti → do fa → mi). The first inversion dominant seventh (V^6_5) almost **always** resolves to I; second inversion (V^4_3) to I **or** to I^6; third inversion (V^4_2 or V^2) to I^6. See the examples on the next page.

Remember: the **seventh of the chord** ($\hat{4}$) always resolves **down** (see two exceptions below); the **third of the chord** ($\hat{7}$) always resolves **up** (just one exception shown above).



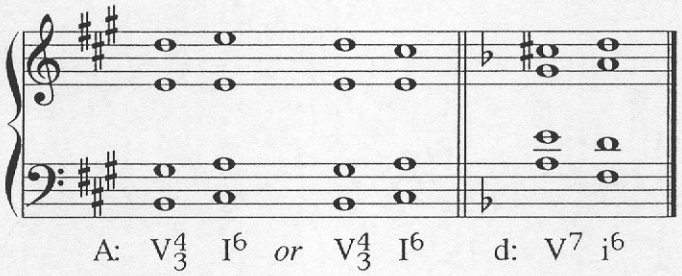
Three additional points:

1. Notice that the **jazz/pop symbols** are shown for the inverted V^7 chords in the example above. The slash is used just as it was with triads--the pitch after the slash is the bass note.
2. When writing $I^6_4 \rightarrow V^7$ (as if you're creating a cadence, to be followed by I), be **certain** that the upper voices **move down by step** between the I^6_4 and the V^7.
3. When writing "plain old V" and resolving it to I, and the soprano moves $\hat{2} \rightarrow \hat{1}$, use an incomplete I chord (tripled root). This happens a **lot** at perfect authentic cadences.



Two exceptions to all of the above principles:

1. When writing $V^4_3 \rightarrow I^6$, **either** let the seventh of the V^7 chord move **up** (thus creating the "correct" doubling in the I^6 chord), **or** simply double the **third** of the I^6 chord.
2. When writing $V^7 \rightarrow I^6$, use the same principles--seventh of the V^7 resolves up **or** double the third of the I^6 chord.



Half cadences generally are on V, not V^7 (because the "momentum" of V^7 is just too great).

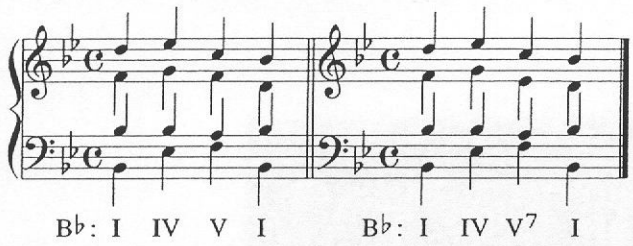
About figured bass symbols--as was the case with triads, the symbols used for the V^7 chord and its inversions are "shorthand" for more complete symbols:

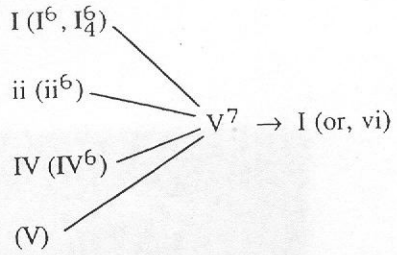
$$V^7 = V\,{}^{7}_{5}{}_{3} \qquad V^6_5 = V\,{}^{6}_{5}{}_{3} \qquad V^4_3 = V\,{}^{6}_{4}{}_{3} \qquad V^4_2 = V^2 = V\,{}^{6}_{4}{}_{2}$$

Remember that when in minor, there will be a raised note (the leading tone). Be on the lookout for this alteration in the figures.

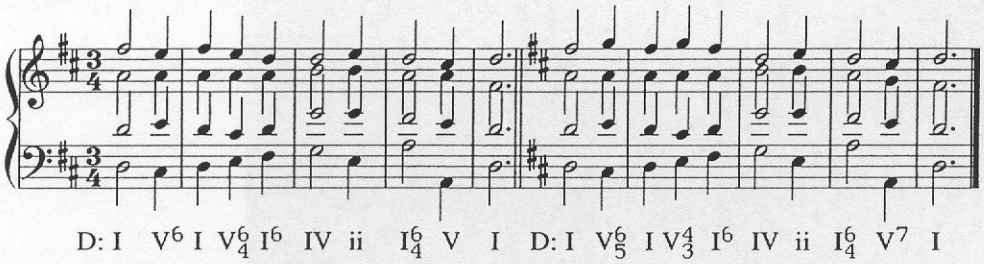
Theory II: the V^7 chord ("dominant 7th"; "major-minor 7th"; "Mm7") —— day 1 handout

Compare V to V^7 here: which "aches to resolve" more?





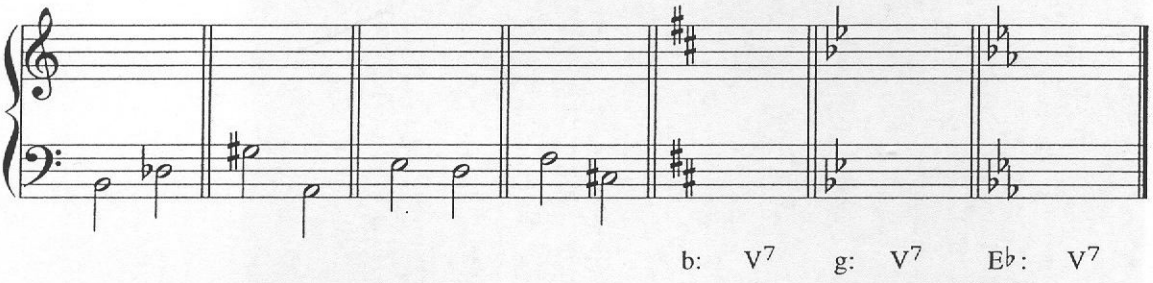
Compare dominant triads with (substituted) dominant 7th chords: same basic function; different chord color.



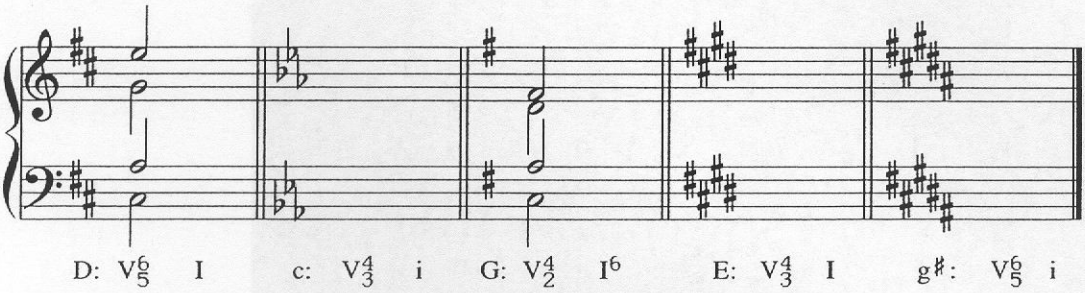
Major-minor seventh: "major" refers to the basic triad (major in quality); "minor" refers to the 7th (a m7 above the root).

1) Writing (spelling) Mm7 chords: given note is the . . .
root third fifth seventh

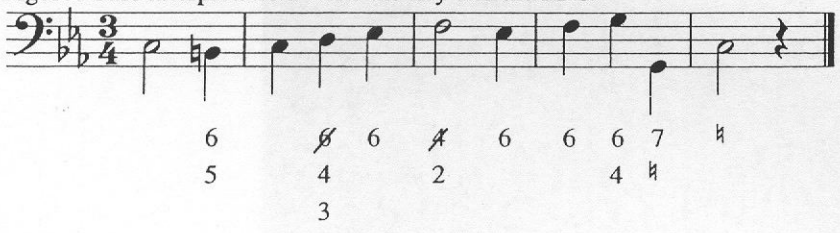
2) Writing the dominant 7th chord ***in a key*** (sol, ti, re, fa)
(remember: **leading tone**—ti, not te—when in minor)
root position jazz/pop: root^7 (examples: D^7, $E♭^7$, $F♯^7$, etc.)



Resolving ***inverted*** dominant 7ths to the tonic triad—easier to do than root position! (For jazz/pop: simply add **/ bass note**).
In inversion, (almost) **ALWAYS** this: **ti up to do; fa down to mi** (me if in minor); **re down to do; sol remains sol.**
Practice and learn the resolution tendencies by **SINGING**: **a**. ti - do **b**. fa - mi (or, me) **c**. re - do **d**. sol - sol



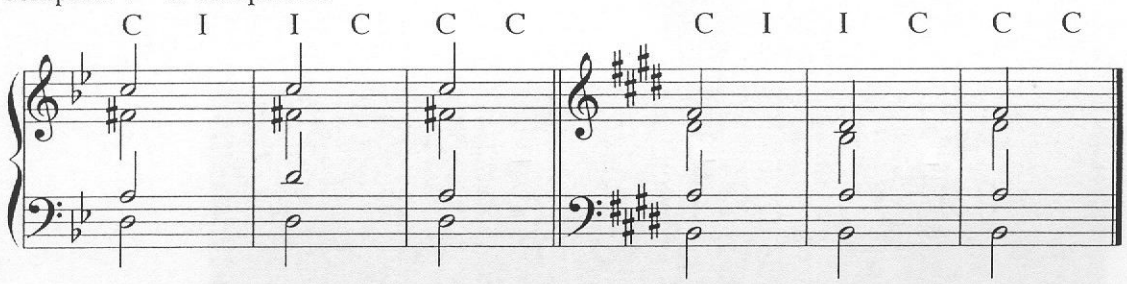
Figured bass interpretation: write the key and the RNs.



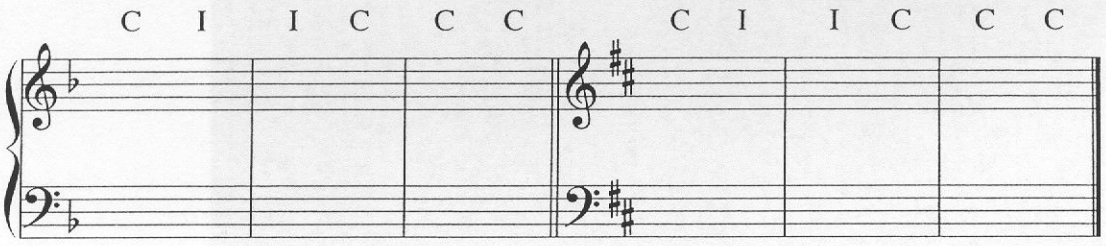
when in major:				when in minor:			
7	6	(6)	(6)	7	6	4/3	(6)
(5)	5	4	4	(5)	5	4	4/2
(3)	(3)	3	2	2	(3)	3	2

V^7 chord: day 2 handout

Resolving a **root position V^7 to I**: three options—complete V^7 to incomplete I, incomplete V^7 to complete I, and complete V^7 to complete I.

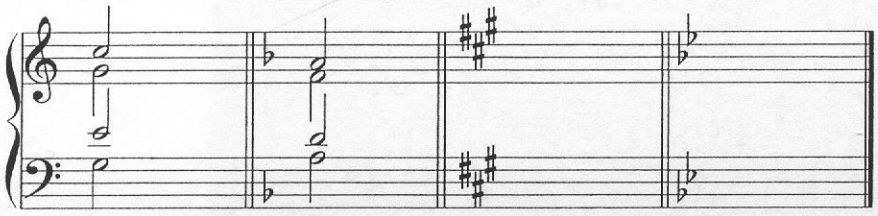


g: V^7 i V^7 i V^7 i E: V^7 I V^7 I V^7 I



F: V^7 I V^7 I V^7 I b: V^7 i V^7 i V^7 i

Connecting I^6_4 to V^7: each of the upper voices moves *down by step*.

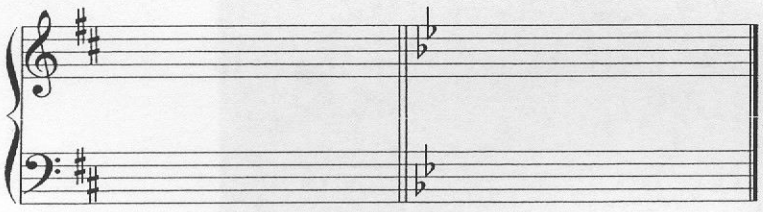


C: I^6_4 V^7 d: i^6_4 V^7 f♯: i^6_4 V^7 B♭: I^6_4 V^7

Connecting IV to V^7: use *contrary motion*.

G: IV V^7 b♭: iv V^7 c: iv V^7 A: IV V^7

Tying it all together: writing the mini-progression IV I^6_4 V^7 I. An extra treat: add the jazz/pop symbols.



D: IV I^6_4 V^7 I g: iv i^6_4 V^7 i