

Dmitri Tymoczko
Princeton University
dmitri@princeton.edu
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ROMAN NUMERAL ANALYSIS PROJECT GUIDELINES *Draft 3*

I. Philosophy

1. Interpretation. Roman numeral analysis is an interpretive art, so you should feel free to interpret. We're not trying to imitate computers; the point of this project is that we are human musicians trying to describe the musical meaning of pieces. So, for example, it is reasonable to interpret the opening eight notes of Beethoven's Fifth Symphony as articulating a *i-V* progression. If you are unsure how to interpret a passage, there is a mechanism for incorporating alternate readings.

Remember that most passages are fairly straightforward. The hope is that the size of our dataset (which I anticipate will contain at least 10,000 chord progressions) will minimize the significance of the occasional difficult or ambiguous passage.

2. How many Roman numerals? In general, you should try to assign a Roman numeral to everything that looks like superficially a chord. We're going to provide an alternating series of C and G7 chords with Roman numerals (“*V7 I V7 I V7 I ...*”) rather than considering this to be a single “prolonged” I chord. The philosophy here is that of traditional harmonic theory, which is relatively liberal in identifying chords.

At the same time, don't go crazy. If the right hand plays E-F-G-F-E in eighth notes, while the left hand plays C-D-E-D-C, this is almost certainly a single C major chord. Again, use reasonable musical judgment.

3. Ambiguous cases. In ambiguous cases, you should favor analyses that correspond to traditional harmonic theory. (This is not circular: standard harmonic theory asserts that the majority of tonal chord progressions *can* be understood as conforming to a small number of rules; it does not assert that all passages are unambiguous, or that composers were particularly bothered by ambiguities.) So, in the following passage, it is reasonable to read the incomplete chord on the second beat as a *vii^{o6}* chord rather than a *ii* chord, since the complete-chord progression *I-vii^{o6}-I⁶* is significantly more common than *I-ii-I⁶*.

The image shows a musical score with three measures. The first measure contains a C major chord (I). The second measure contains a G7 chord (vii^{o6}). The third measure contains a C major chord with a lowered sixth degree (I⁶). The notes are: Measure 1: C4, E4, G4; Measure 2: G4, B4, D5, F5; Measure 3: C4, E4, G4, Bb4.

The idea here is that it is reasonable to use our sense of what happens in the non-ambiguous cases to guide our interpretation of the ambiguous ones.

The alternative reading, in which the second chord is a passing motion is also fine.

(There is no label for passing chords; we simply don't assign them a Roman numeral.) Much depends on context: if harmonies are changing every beat, the vii^{o6} reading is probably preferable; if they're changing every bar, the passing-tone reading is probably better.

4. *Example: 5-6 motions.* A 5-6 motion over a major third can be read in two ways, as a change of chord or as a nonharmonic tone. In keeping with the previous section, we should favor the interpretation that is consistent with standard harmonic theory. Thus, I interpret the following two passages differently, even though they are very similar.

The image shows two musical passages in a grand staff (treble and bass clefs). The first passage consists of two measures. The first measure has a bass line with a half note G2 and a treble line with a half note B3. The second measure has a bass line with a half note B2 and a treble line with a half note D4. The second passage also consists of two measures. The first measure has a bass line with a half note G2 and a treble line with a half note B3. The second measure has a bass line with a half note B2 and a treble line with a half note D4. Below the first passage are the Roman numerals ii vii^{o6} I. Below the second passage are the Roman numerals IV I.

Again, the justification here is that ii-I is in general uncommon, while IV-I is quite common. In other words, second progression would be more likely than the first to occur without the melodic eighth-note.

5. *Key changes.* For applied chords, use slashes, as in V/V. Try to reserve key changes (“C:”) for passages that change keys for longer periods of time. However, sometimes keys will change relatively quickly, as in development-section sequences. Here, a fast series of key changes is unavoidable.

6. *Sequences.* When analyzing sequences, try to parse the notes in a way that makes it clear that this is a sequence – don't call something a passing tone in one iteration of the sequence, that you treat as harmonic in another iteration. You may not always be able to follow this, but it is a good rule of thumb. Ideally, we should be able to see from the sequence of roman numerals that we have a sequence. Applied chords are OK: a computer will easily recognize I-IV-vii^o-V/vi-vi-ii-V as a descending-fifths sequence.

7. *The data.* I think we should eventually publish the data as a 20-author paper, for example in *Music Theory Online*. I propose that we limit the use of the data for, say, 2 years. During that time, those who contributed to the project can use it in their published work, but others can't. (Others can perhaps consult the data informally, at the discretion of contributors.)

I'm very flexible about this—if you prefer, we can make the data public immediately.

8. *Questions.* I'm going to create an email list for all of us doing analyses. If you encounter a problem, feel free to email either me (dmitri@princeton.edu) or the entire list. You can also use the sample analysis that I've provided, if you're confused about formatting and so forth.

II. Technical details

1. *File type.* You should produce a single text or word file (no formatting) containing the entire sonata analysis. Use the enclosed sample as a guideline.

2. *Headers.* Begin with the following lines:

Composer: Mozart
Piece: K[insert Koechel number]
Analyst: [your name]
Proofreader: [your name, if you are a proofreader]

Before each movement identify it as follows:

Movement: 1
Time Signature: 4/4 (or 3/4 or 6/8 or what have you)

Within each movement it would be nice to identify the relevant formal sections using the prefix "Form:" For example,

Form: Exposition
Form: Second Theme
Form: Development
Form: Recapitulation

Form: Rondo A
Form: Rondo B

Form: Variation 1 (etc.)

Place these formal comments immediately BEFORE the beginning of the relevant section. For sonata forms, label Exposition, Second Theme, Development, Recapitulation, and Second Theme of the recapitulation. For compound ternary, just enter the major formal divisions. For sonata Rondo, use both Sonata labels and Rondo labels.

2. *General syntax.* Each line of analysis should look something like this

m1 b2 IV6

This says: measure 1, beat 2 is a IV⁶ chord. If no beat is specified, the assumption is beat 1: m1 IV6 is the same as m1 b1 IV6

For multiple chords in a measure do this:

m14 IV6 b2 V b4 V2

This says there's a IV⁶ chord on beat 1 of measure 14, a V chord on beat 2, and a V² on beat 4.

3. *Measure numbers.* Number each movement separately. Begin numbering with the first full measure. (If necessary, the anacrusis can be numbered 0.) For multiple endings number bars as 216a, 217a, 218a (first ending) and 216b, 217b, 218b (second ending).

4. *Beats.* Use 1.5 for the second eighth note of beat 1. The numbers 1.33 and 1.66 will refer to the second and third triplets of beat 1. Music in 6/8 has two beats per measure.

For chord changes between ternary beats, use two decimal points. E.g. 1.66.5 is a chord change halfway through the second eighth of the first beat of a 6/8 measure.

5. *Chords.* Use slashes to separate subscripts and superscripts: I⁶/₄. Chords are assumed to stay in force until the next one comes along, so there is no need to write:

m1 I
m2 I
m3 V

Instead, just write:

m1 I
m3 V

Keys: indicate key changes as follows:

m112 IV6 b4 C: V

Here the key changes to C major on beat 4 of measure 112. Pivot chords can be notated as follows:

m112 IV6 b4 vi C: ii

This says that the chord on beat 4 of measure 112 is simultaneously vi in the old key and ii in the key of C major.

There is no need to change keys in the case of modal inflections of a single chord. The following is perfectly fine:

m112 IV6 b3 iv6

Notations like bVI are also OK.

6. *Pedal points.* If possible, notate pedal points using ordinary Roman numerals: I IV⁶/₄ I or V I⁶/₄ V. However, you can also write:

Pedal: G m14 b3 m19 b1

Indicating that there is a G pedal beginning in measure 14 beat 3 and lasting until measure 19 beat 1.

6. *Symbols.* Use the following abbreviations:

b = flat
= sharp
bb = double-flat
= double sharp

I+ = augmented I chord
I = major I chord
i = minor I chord
io = diminished I triad [o not zero]
i/o = half-diminished i chord.

I = I5/3 (root position triad)
I6 = I6/3 (first inversion triad)
I6/4 = second inversion triad, **including cadential 6/4**

V7 = root position seventh chord
V6/5 = first inversion seventh chord
V4/3 = second inversion seventh chord
V2 = third inversion seventh chord

V9 = root position dominant ninth chord
V13 = root position dominant thirteenth chord (should be unnecessary)

|| = phrase boundary

(This symbol is not necessary; but it can be used to indicate an unusual progression that occurs across phrase breaks, e.g. m33 V || m34 IV, indicating a V-IV progression that occurs because the music stops on V and resumes on a IV chord.)

NB. These numbers refer to diatonic intervals: I7 is a major seventh chord. For altered sevenths see “altered tones,” below.

C: = key of C major
c: = key of C minor
Bb: = key of Bb major
bb: = key of Bb minor
F#: = key of F# major
f#: = key of F# minor
etc.

V6/5/V = applied dominant, V6/5 of V
V6/5/ = applied dominant of *the next chord in the piece*:
(useful for m15 V7/ b2 V7/ b3 V7/ b4 V7 for E7 A7 D7 G7 in C major)
ii/V = applied predominant chord (*use only for nondiatonic chords!*)

Ger6/5 = German augmented sixth in standard position
It6 = Italian augmented sixth in standard position
Fr4/3 = French augmented sixth in standard position
N6 = Neapolitan chord in first inversion
(notate other inversions of these chords as you'd expect: N or Ger7)

Altered tones:

V4/3[b5]/V = an applied V4/3 chord, with a lowered fifth in the bass.

Example: Db-F-G-B in F major. [Yes, this is a Fr4/3]

i6/5[#7] = a tonic minor chord with the third in the bass and a major seventh.

Example: Eb-G-B-C in C minor.

note the potentially confusing combination of figured-bass and root-functional symbols: in V4/3[b5] the 4/3 refer to intervals above the bass, while b5 refers to an interval above the root!!!

7. *Common-tone diminished-seventh chords.* Spell them out literally. Use #io2 for C-D#-F#-A resolving to C-E-G-G in C major.

8. *Variant readings.* If you are unsure of a passage, feel free to include a variant analysis. This should be labeled as follows:

m1 viio6
m1var1 ii

This says that the chord in movement 1 is either a viio6 or a ii chord, and you're not certain which. Note that there is no space between the measure number and the "var." For multiple variants of the same passage use var1, var2, etc.

In general, you should feel free to make a musical decision. If you think it should be a vii^{o6} chord, go with that. You're under no obligation to record each and every alternate reading; the "variant" notation is only for cases in which you are genuinely uncertain or unhappy.

8. *Repeats.* Rather than retyping your analyses of repeated measures, you can use the following notation:

m3-4 = m1-2

This says that measure 3 is the same as measure 1 and measure 4 is the same as measure 3. Note: imagine that this notation simply instructs the computer to "copy" the Roman numerals from the earlier measures to the later ones, without any changes. In particular, you can "copy" Roman numerals from one key to another—as you will often want to do in the recapitulation. As long as both passages use the same Roman numerals, you can write m125-150 = m1-25. (See the third movement of the sample analysis, m. 104 if you're confused.) **NB:** don't attempt to "copy" Roman numerals from one key to another if the earlier music includes key changes, as

these will *not* be updated. “C:” in the earlier music will remain “C:” in the later music!

9. *Notes.* If you find something interesting in the music, feel free to include a “Note:” field. Example:

Note: an unusual down-a-third, up-a-step sequence

Note: same pitch-classes as mm. 1-5, only now understood in a new key.