## **Analysis of opus 110**

#### A) General overview of the entire movement

In figure 1 the main structure of the first movement is shown in a schematic overview. The opening of the exposition is confusing: introduction or main theme? The development section is surprisingly short and is based solely on sequences of the main theme. Techniques we would normally associate with development sections are continued in the recapitulation. The latter is thereby significantly longer then the exposition. Clear cadences are avoided most of the time.

EXPOSITIE (39)	DW (16)	REPRISE (49)	CODA (12)
33,6%	13,8%	42,2%	10,4%

figure 1: formal overview opus 110, 1e movement.

In the table below you can find some examples of length ratios in different Beethoven sonatas. We can see that the length of the development section in opus 110 is rather short, compared to other sonatas. This is most likely the reason why Beethoven continues developing in the recapitulation and does a few surprising things there, for example some unexpected modulations.

1 <sup>st</sup> movement from:	Exposition	Development	Percentage DV vs. EX
op.110	1-39 (39)	40-55 (16)	41%
op.106	1-123 (123)	120-226 (107)	87%
op.31, nr.2	1-92 (92)	89-142 (54)	59%
op.2, nr.1	1-49 (49)	50 - 100 (51)	104%

figure 2: length ratios in Beethoven piano sonatas.

One of the other striking features about this first movement is the motivic focus on the hexachord and the intervals of the third an fourth that divide the hexachord. The tone and tonality of D flat seems to play a significant role in the movement. The first theme in the opening measures is shaped around the d flat (see example 5 on p.17). The harmony of the subdominant (d flat) is also important in the phrase starting in m.9 (we have a secondary dominant before the D flat major chord here). In the development section it is the D flat that brings us back to A flat major (see m.54 in example 22 on p.27). In the recapitulation there is a modulation to D flat major within the main theme group, a drastic intervention. In m.67 the tone d flat is enharmonically altered into a c sharp, ensuring the modulation from D flat major to E major. Below in figure 3 we can see the modulation plan of the first movement. The exposition is as expected, although in measure 19 we have a short passage in A flat major before arriving in the subordinate key, E flat major. The transition therefore remains in the

key of A flat major, only using some secondary dominants for the dominant, E flat. The development is constructed upon a short sequence of falling thirds and as mentioned above is surprisingly short and limited in its material. However it is the recapitulation that is by far the most surprising due to its modulations, even within the main theme group. The modulations to D flat major en then E major (or F flat major, the lowered six of A flat major) $^{20}$  are surprising in this formal section.

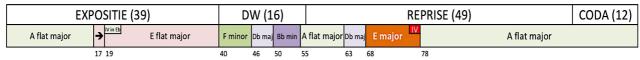


figure 3: modulation plan first movement.

In the following chapters I will proceed by discussing the exposition, development and recapitulation in more detail and reconstruct a few passages into a more traditional version.

#### B) The exposition: mm. 1-39

# General overview of the exposition

- Main theme group: 1 12 (1)
  - m.1-4: theme 1A, antecedent of a period or introduction? It ends with an IAC (c in measure 5) or with a half cadence on the first beat of m.4 which is then prolonged, the consequent is missing but will appear in the recapitulation, as modulating consequent.
  - o 5-8: theme 1B, presentation of satz
  - o 9 -12 (1): continuation of the satz, ending with a PAC
- Transition: 12 20 (1)
  - o 12-16 (1): Fenaroli progression<sup>21</sup>: I V4/3 I6 V 6/5 I
  - o 16-20 (1): modulation to E flat major
- Subordinate theme: 20 34 (1)
  - o Theme 2a: 20 27 (1)
    - 20 23 (2): presentation satz
    - 23 (3) 27 (1): continuation satz, fragmentation and development, no strong cadence at the end
  - o Theme 2b: 27 34 (1): evaded cadence in m. 31 (see m.34)
- Closing group 34 38 (no strong cadence here)
- (Re)transition: 38-39

<sup>&</sup>lt;sup>20</sup> In his last piano sonata Schubert modulates within the main theme group to the flat six: form B flat major to G flat major.

<sup>&</sup>lt;sup>21</sup> Gjerdingen, pp. 225-240.

# The exposition in detail

The main theme group has an interesting structure. What seems clear is the presentation of two themes, based on a similar harmonic progression, but these phrases (m. 1-4 m.5-11) are not so common in their structure. Beethoven starts with an antecedent of, what seems to be, a period. However at the second beat of measure 4 he adds the seventh to the dominant chord and emphasizes it by a fermata, thereby obscuring the half cadence or romanticizing it, and transforming the character of opening measures from a thematic statement to an introductory passage. In measure 5 he then starts a new melodic component as we can see in example 5 below. I will refer to this theme as theme 1B.



example 5: opus 110, first movement, mm.1-5.22

Since theme 1A (mm.1-4) returns in the recapitulation (m. 56) and receives a modulating consequent, extending the main four measures in this beginning into a complete period is possible. Below in example 6 this is realized.





example 6: main theme of opus 110 as a period.

In the consequent of the example above I have obtained Beethoven's change in left hand figuration from measure 5 and onwards. To bring a bit more variety in the consequent's

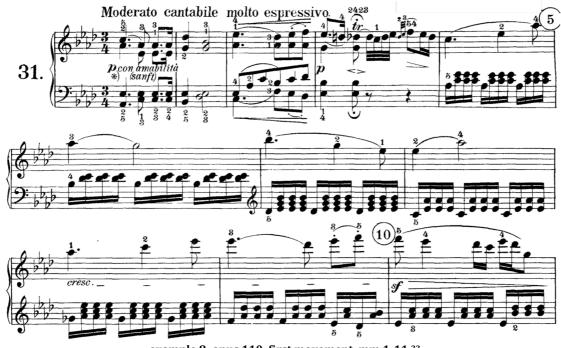
<sup>&</sup>lt;sup>22</sup> Score fragment taken from the edition by Heinrich Schenker. See the literature list at the end of the research for more information on the edition.

melody we can also use Beethoven's version of the melody in his main sketches in m.8. To this alternative ending we can attach Beethoven's original measure 5, see example 7 below. By doing so we ceate a period followed by a satz as a main theme group.



example 7: reconstruction of the main theme group.

In example 7 the melody in m.11 is adapted. By doing so the phrase looses its character and becomes a textbook satz-like melodic gesture with a repetition of the basic idea. Its harmony prolongs the tonic. In m.13 of example 7, the continuation, we then get a development of the motive from m. 9 and 11. This is followed by a cadential progression in m. 15 to conclude the theme. What seems to be one of Beethoven's main objectives in this exposition and what is one of its striking features, the unbroken line of the melodic progression, is destroyed in this reconstruction. By writing a full phrase in the beginning, in this case a period, the IAC in mm. 8-9 breaks this melodic line and creates to clear a comma. In Beethoven's version there is a continuous flow in the melodic line as can be seen in example 8 below.



example 8: opus 110, first movement, mm.1-11.23

The harmonic progression in these phrases is very similar as can be seen in example 9 below.



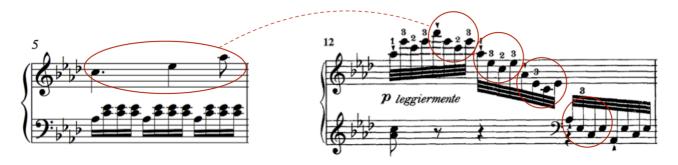
example 9: harmonic reduction mm.1-11.

A similar progression starts the transition, although the texture is now very different. The figurations from m.12 and onwards encompass a large part of the keyboard and are linked in two ways to the previous bars:

• the harmony is very much alike:

<sup>&</sup>lt;sup>23</sup> Unless it is indicated from here onwards all examples are from the first movement of opus 110.

- mm.1-2 and mm. 5-6 feature  $^{24}$  I V4/3 V2 I6 (a Meyer-like harmonic progression)  $^{25}$
- mm.12 -15: I V4/3 I6 V 6/5 I (a Fenaroli progression)
- The melodic contours of m.5 are repeated in the figurations in m.12, see example 10 below.



example 10: motivic connection between m.5 and m.12.

The transition brings us towards D flat major and Beethoven will start the subordinate theme surprisingly on this chord. It soon appears to be the IVth degree of E flat major, the key we expect as the subordinate key area. Beethoven then displays a deciemensatz which covers a descending third twice: C - Bb - Ab and then Bb - Ab - G. This basic idea (mm. 20-21) is then repeated, slightly varied in mm. 23-24. The continuation then starts in m.24 (with upbeat), but the concluding cadence is obscured although we do reach the tonic in root position in m.28.

In m.28 Beethoven embroiders on the appoggiaturas of mm. 22-23 in the LH of m.28. In the RH he then uses the same ambitus as the opening measures of the melody, a sixth, to create a melody in the RH. I would propose calling this theme 2B, although its function is ambiguous. Firstly we could state that this is the expanded cadential section of the continuation of the satz. There is a quest for closure or rest that is clearly not found. In mm.32-33 an external extension is added since the first attempt for closure in mm.31-32 did not succeed. And secondly there is a real sense of closure about this phrase from m.28 onwards. We can't state that this could be the beginning of the closing section, because there is no cadence in mm.27-28. But the repeated descending sixth (here it is again) in the bass is on a quest for rest, closure. The right hand objects by its raising sixth. Maybe Beethoven's motivic interest in the sixth in this first movement explains the striking repeated g's in the bass line of mm. 28-29. He

<sup>&</sup>lt;sup>24</sup> There is a minor difference: in mm. 1-2 there is a I6 after the initial I.

<sup>&</sup>lt;sup>25</sup> In the upper voice it's not a Meyer as defined by Gjerdingen (pp.111-128), but the harmonic progressions I – V – V – I, with different inversions of the dominant chord are present.

alters the pattern on the last  $8^{th}$  note of m.28 and instead of writing Ab-G, now he writes two G's. He then repeats this procedure in m.29 as can be seen in example 11 below.



example 11: opus110, mm.28-31 (1).

In the ossia of the harmonic reduction in example 12 we can see the different version, which Beethoven could have used easily.



example 12: reduction of mm. 28-31(1).

In m.34 we do get an authentic cadence, although it's imperfect. It marks the beginning of the closing section. It's a very short closing section, with a brief cadential theme, marked dolce which exemplifies the indication of the beginning 'con amabilità', with amiability (see m.3 of example 13).



example 13: opus 110, mm. 33 - 39.

Beethoven avoids writing a PAC, which probably would alter the melodic continuity. It does make a big difference for this continuity when we do play an authentic cadence in mm. 34-35 (see example 14) Playing a PAC really breaks the melodic line and detaches the cadential or closing theme from the previous bars.



example 14: mm. 33-37, reconstruction of the cadences.

#### C) Development: mm.40 - 55

#### General overview of the development

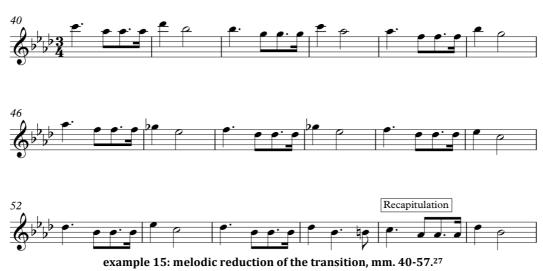
- 40-43: main theme on the dominant of f-minor, starting at the fifth of the scale instead of the third => melodic sequence of the first two measures
- 44-47: main theme in f-minor, two measures followed by a sequence => modulation to
  D-flat major
- 48-51, a sequence of mm.44-47 : main theme in D-flat major => modulation to b-flat minor
- 52-55, a sequence of mm. 44-47: main theme in b-flat minor => no modulation to G-flat major, returning to A-flat major at the very last moment to start the recapitulation.

## The development in detail

The development section of this sonata is astounding in it's simplicity. It consist of four phrases each containing four measures. Each phrase is structured as:

- 2 + 2:
  - o the initial two measure are a exact repeat of the theme

Charles Rosen describes the section as disconcerting and claims he knows of no other development section after the 1770's based on a single idea and sequence.<sup>26</sup> Rosen gives the following reduction of the melodic content of this development:



If we reduce example 15 further down to its essentials melodic contours, we can see that its melodic contours fill an octave from c" to c", the latter being the first note of the main theme in the recapitulation.

<sup>&</sup>lt;sup>26</sup> Rosen (1997), p. 489.

<sup>&</sup>lt;sup>27</sup> Rosen (1997), p.489.



example 16: melodic contours of the transition, mm. 40-57.

As we can see in example 15 the melody features many sequences and repetitions. But when we look closer we can see that the sequence in this development section is not as simple as it looks at first sight. The melodic sequences do not always match the model of the harmonic sequences and next to that the harmony fortifies certain tones of the melody in a different way.

Let's start by analysing the melodic line and leave harmony out of consideration for now. The first six measures of example 17 below show a melodic sequence in descending seconds:



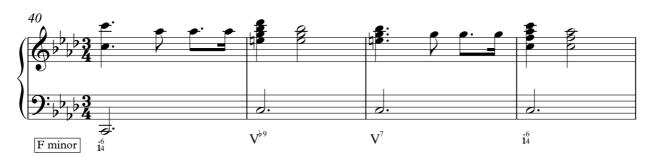
example 17: melodic reduction mm.40-42.

This sequence could be continued and harmonized in the following way:



example 18: reconstruction of sequence from m.40 onwards.

In the case of example 18 the sequence starts in A flat major, whereas Beethoven opens his development section harmonizing the melody on a dominant bass line in f-minor as can be seen in the example below:



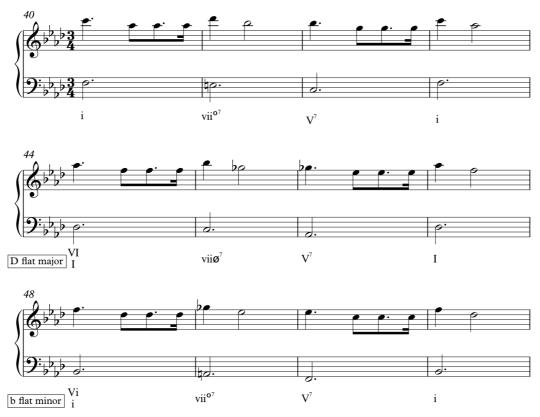
example 19: reduction of mm.40-43.

He then uses the left hand texture from measure five and onwards in these first four measures of the development (example 20 below):



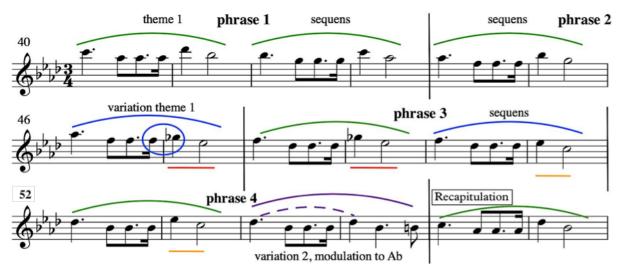
example 20: opus 110, first movement, mm.39-45.

We can try to start the same type of melodic and harmonic sequence as seen in example 18 on p.25 in f minor but now try and start with the tonic of f minor. This harmonization works quite differently from the one in example 18. In measure 41, 46 and 49 of example 21 we will have to use the chord of the seventh degree to harmonize the melody. The harmonization creates parallel fifths in mm.42-43, 46-47 and 50-51. This might be one of the reasons why Beethoven avoided these harmonies.



example 21: reconstruction of sequence mm. 40-51.

The reconstructed sequences in the examples above were all simple continuations of the sequence Beethoven hinted on in the melody in mm.40-45, but in mm.46 (see example 22) he lets the melody take a turn.



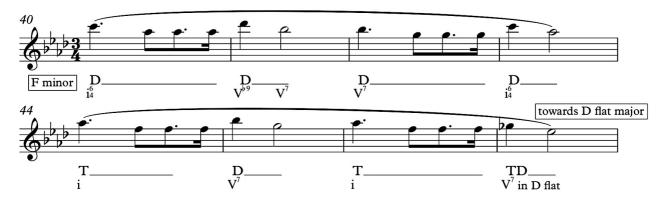
example 22: melodic reduction of the on development section with annotations.

In m. 46 Beethoven alters the theme and in doing so creates the opportunity to modulate from F minor towards D flat major. The same adaption is made in m.50 in order to modulate to B flat minor. Thus we see a sequence of descending thirds. In m.54 Beethoven does not repeat the melodic gesture from mm. 46 and 50. He avoids the c flat on the first beat of m.54. By doing so he prevents a modulation to G flat major. This would lead him too far away from the main key area A flat major. Instead of the c flat he repeats the d flat in m.55 bringing him back to A-flat major. In example 25 on p.29, is a reduction<sup>28</sup> of the development section.

We can see in the reduction how the harmonies do not follow a completely regular pattern and how melody and harmony do not always make the sequence exactly together. First of all mm. 40-43 are harmonized with a dominant pedal in F minor and the mm. 44-47 with a pendulum between dominant and tonic, see example 23 below.

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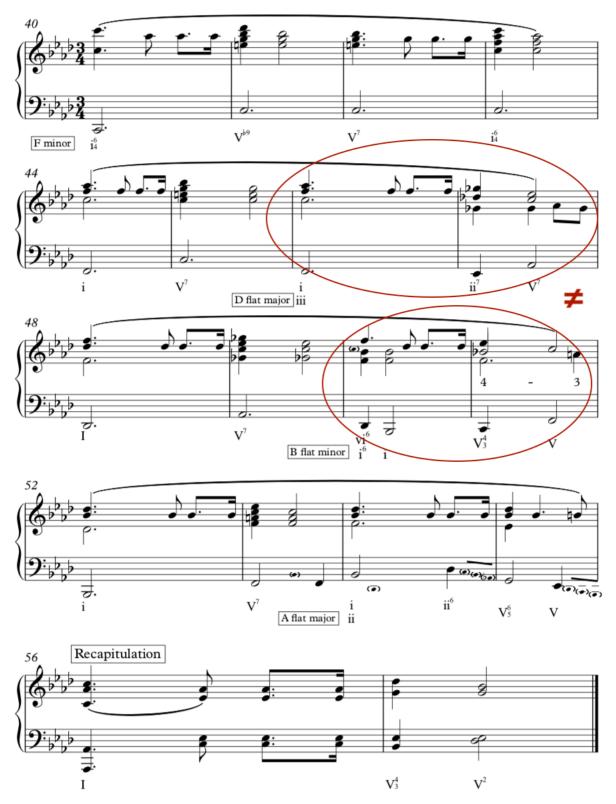
<sup>&</sup>lt;sup>28</sup> The right hand is slightly adapted but the left hand is stripped from his figurations and reduced to essential bass tones.



example 23: mm. 40 - 47 development, melody and harmonic functions.

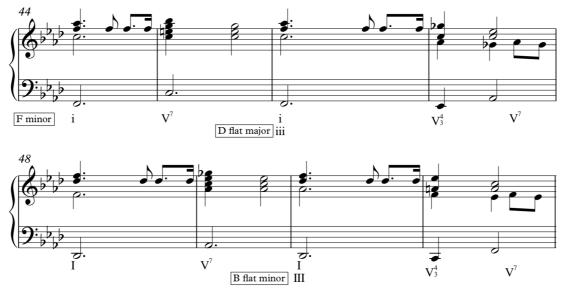
Measure 44 and onwards differ quite a bit from measure 40 and onwards. The melody and harmony have a different shape. Measures 44-47 will be the model for the melodic sequence in the next 8 measures.<sup>29</sup> Harmonically there will be some minor differences. In mm. 50-51 the melody of mm. 46-47 is played a minor third lower. The harmony contains some variation in these measures (see example 24).

<sup>&</sup>lt;sup>29</sup> The only exception is m.55. Here Beethoven writes a d flat instead of c-flat to ensure the modulation to A flat major instead of G flat major.



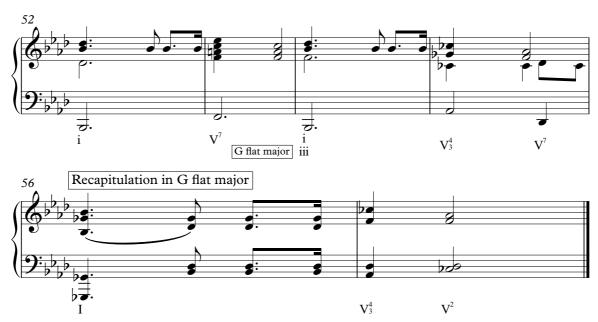
example 24: reduction (left hand) of the development.

In example 25 I give a reconstruction of the harmony, making it more similar and therefore less interesting.



example 25: reduction of development section.

If Beethoven had not introduced the d flat in m.55 of the example above he would have modulated to G flat major as can be seen in the example below:



example 26: reconstruction of modulation to G flat, mm.52-57.

The last level in which Beethoven created variety in this sequence is the figuration of the left hand. He never repeats the same figure twice in a row, but there are sufficient connections to create unity. Next to the shape of the figurations he also plays with registers. In m.44 the tenor starts and is answered by the bass in m.45. They continue their dialogue until the recapitulation starts. The bass seems more upset then the tenor. Usually it's the other way around...One of the reasons is probably that the bass is arguing on dominant harmonies

versus the tonic harmonies of the tenor. In example 27 the connections are marked in the score.



example 27: opus 110, mm. 43-55, motivic connections LH figuration.  $^{\!30}$ 

So what if we flatten out all these irregularities? What is the sounding result of this? In example 28 the figurations of the left hand are sequenced in a more literal way. The reconstruction shows how ingenious Beethoven's original is. All his slight adaptations are crucial in order to keep the attention of the listener and bring this 'simple' development to a higher level.

 $<sup>^{30}</sup>$  X,y en z are the labels for the different shapes of the scale-like figurations of the left hand. T en B stand for tenor and bass.



 $example\ 28: reconstruction\ of\ sequences\ in\ the\ development,\ with\ left\ hand\ figuration\ altered.$ 

This development section is then a wonderful example of Beethoven's attention to motivic and harmonic detail and his ability to make very subtle variations in a seemingly simple and straightforward context. This is not a simple development section, but it is one full of details and small variations that somehow have to be transferred and made clear to an audience. The first step is to be aware of these details as a performer.

# D) Recapitulation: 56-116

### General Overview of the recapitulation

- Main theme group: 56 63 (1)
  - o m. 56 60 (1): theme 1A, antecedent of a period
  - o m. 60 63 (1): modulating consequent to D flat major (texture exchange between RH & LH), ends with an IAC in D-flat
  - o m. 63 66 (2): theme 1B, presentation of satz
  - o m. 66 70 (1): different from the exposition, internal extension of the previous phrase that modulates to E-major, no cadence at the end.
- Transition: 70 76 (1)
  - o 70 74 (1): Fenaroli in E-major
  - o 74 76 (1): remains in E-major. The E augmented chord becomes the dominant in A major (IV in E major)
- Subordinate theme: 76 93 (1)
  - o Theme 2a: 76 87 (1)
    - 76 78: presentation satz on IV of E major
    - 79 82 (2): repeat of presentation now on IV in D flat major
    - 83 (3) 87 (1): continuation of satz, fragmentation and development
  - o Theme 2b: 87 93 (1): evaded cadence in m. 91 (see m.93)
- Closing group: 93 105 (1): extend version of the closing group of the exposition
  - o 93 96: as in exposition, now in A flat major
  - 96 100 (1): continuing the previous right hand figuration, now with leaps of major sixth Eb''' C'''': but now both E flat and C are appoggiaturas. Harmonic pendulum from (V4/3) to V in A flat major.
  - o 100 (2): return to the opening (see m.1 and onwards) four part texture, central interval is fourth (f-eb- d- c), ends with PAC in A flat
- Coda: 105 115
  - o 105 110: figuration of the transition
  - 111 115: texture of closing group, starts on D-flat (refers to the starting chord of the subordinate theme).

### The recapitulation in detail

The recapitulation features some unexpected elements: the construction of the themes and the keys. In the recapitulation Beethoven seems to continue developing and this may explain the briefness of the development section. Beethoven starts the recapitulation with the main theme (in m. 56) but now with a very different texture. He combines the figuration of the transition (m.11), here given to the left hand, with the main theme in the right hand. Now we do have a consequent, but it modulates to d-flat major. M.63 resembles the same point in the exposition, m.5, the only difference being the key: d flat major. In m.66 Beethoven makes another change compared to the exposition, by means of enharmonically altering the flat 6 (f flat = e) he modulates to E major. The first phrase receives a proper (modulating) consequent and the second phrase modulates to E major.

In m.59 the thrill of m.4 is slightly different and the whole descending gesture here reminds us at the way to the left hands moves in m.27. In m.69 a cadence is lacking whereas in m. 11 in the exposition Beethoven wrote a PAC. This is yet another intervention that enhances the continuity in the melodic line.

In the recapitulation Beethoven writes the transition needed in order to start the subordinate theme on the IVth degree of the subordinate key. In the exposition Beethoven modulates from A-flat major to the IVth degree in E-flat major, the A-flat major triad. In the recapitulation he therefore would need, if he would follow the traditional modulation scheme, a transition that modulates from A-flat major to the IVth degree of A-flat major: D-flat major. In line with the idea of using elements from a development section in this recapitulation Beethoven does not follow the traditional key scheme of a recapitulation. Already within the first theme there is a modulation to D-flat major in m. 63. This modulation would enable Beethoven to actually copy the transition of the exposition. That is if he would stay in D flat major from m.66 and onwards. He then could have used the same transition and arrive in m. 76 for the subordinate theme on the IVth degree of A flat major: d-flat major. In example 29 there is a reconstruction of the passage.

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<sup>&</sup>lt;sup>31</sup> The f flat is not notated here. Beethoven writes e in m. 66. But the modulation does function as a flat 6 and this was not uncommon as a modulation at the time. But to modulate in this way in the main theme group of a recapitulation is very novel for the time.



example 29: reconstruction of the transition section in the recapitulation.

The transition Beethoven wrote in his recapitulation can also be used to stay in A flat major. The following reconstruction shows this:

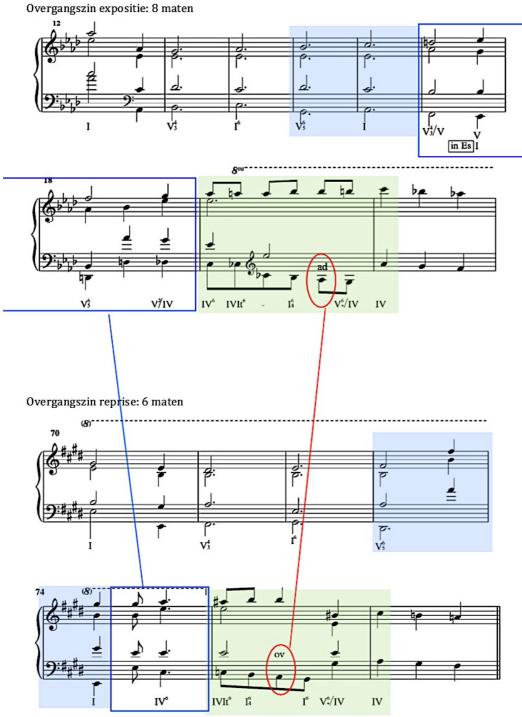




example 30: reconstruction in A flat major, mm. 56-76.

It seems that Beethoven added the three consequent measures after the antecedent of the first theme (mm.60-62) to avoid that D-flat major of m. 63 arrives to suddenly. With the added antecedent we have seven measures in A flat major instead of four. The main theme now has an interesting structure of 7 + 7. In the exposition its structure was 4 + 7.

In m. 67 an unexpected modulation to E-major occurs. In order to avoid a transition phrase modulating towards the IVth degree of B (E major chord), Beethoven now alters the transition phrase from the exposition slightly leading him towards the subordinate theme, starting on the IVth degree of E major instead of B major. In other words this transition phrase is perfectly suited to move from A\_flat major to D-flat major (the latter then appearing to be the IVth degree of A-flat major)! One can wonder whether Beethoven first wrote the transition of the recapitulation and afterwards thought about some exiting tonalities to use? In example 31 both transitions are compared:



example 31: transitions compared.

At the end of the transition in m.75 we see a similar gesture as in m. 29 (the repeated g's in the bass): the c sharp of the RH and the a of the LH are reached prematurely on the last eight note of m. 75. And instead of opening up to a new tonality in m.76, the music sounds as if it gets stuck (as in m.29).